

Please refer to the comments from the El Paso County Office of the County Attorney and the Colorado Division of Water Resources regarding receipt of findings.

Please include the court decree. A water finding cannot be made without decree.

PRELIMINARY WATER RESOURCES REPORT

**For
McLean
Minor Subdivision**

March 12, 2024

Prepared By:



13511 Northgate Estates Dr., Ste. 250, Colorado Springs, Colorado 80921

Executive Summary:

Preliminary Water Resources Report – McLean Minor Subdivision

W. James Tilton and Chris D. Cummins of Monson, Cummins, Shohet & Farr, LLC, on behalf of the Applicant, Susan McLean, (“Owner”), provide the following Water Resources/Wastewater Disposal Report in support of the McLean Minor Subdivision. The attorneys at Monson, Cummins, Shohet & Farr, LLC (“MCSF”) have extensive experience in water related matters, with Mr. Cummins having practiced water law almost exclusively for nearly 21 years. MCSF has substantial experience with Denver Basin groundwater resources, augmentation plans, designated basin replacement plans, subdivision proceedings, and rural water usage. Given his experience Mr. Cummins should be considered a “qualified professional” as concerns water resources, as discussed at Section 8.4.7(B)(1)(c) of the El Paso County Land Development Code. This Report, overseen by Mr. Cummins and prepared in conjunction with other professionals, is intended to demonstrate to the El Paso County Planning Commission and the BoCC, the sufficiency in terms of quantity and dependability, of the water rights and resources to be utilized in the proposed McLean Minor Subdivision (the “Subdivision”), in El Paso County, Colorado.

The Property consists of approximately 38.68 acres located at the current street addresses of 2415 Hodgen Road, Colorado Springs, CO 80921, in the N½ NE¼ of Section 28, Township 11 South, Range 66 West of the 6th P.M; El Paso County Parcel No. 6128100014. Each of the two (2) lots in the Subdivision is to be provided water and sewer/septic services through an on-site individual well and Individual Septic Disposal Systems (“ISDS”). The proposed minor subdivision has one existing residential lot containing approximately 20.25 acres, and Lot 2 will utilize a well that is to be drilled on the remainder of the land which is currently unimproved, and will be approximately 1.75 acres in size.

The water resources report states 1.75. Please clarify.

It is expected that the existing well will remain exempt and continue to pump the permitted one (1) annual acre-foot of water. Lot 2 in the Minor Subdivision will require an average of 0.74 annual acre-feet of water supply, for a total of **1.74 annual acre-feet** being withdrawn from the not-nontributary Dawson aquifer annually, to be provided through two individual wells to the not-nontributary Dawson aquifer, consistent with the **[TBD date of approval]**, 2024 decree issued in Water Court, Division 2, Case No. 23CW3041. Additional groundwater has been adjudicated and may be utilized by wells on up to two additional lots pursuant to the decree, following subsequent lot subdivision. Such water supply demand is similar to other rural residential homes’ historical demand. The Decree in Case No. 23CW3041 provides for a 300-year water supply for each lot within the Subdivision, with each lot utilizing an ISDS of a non-evaporative nature.

The water resources to be utilized on the residential lots in the Subdivision are typical of rural residential development in this area of El Paso County, Colorado. The decree issued by Water Court, Water Division 2 in Case No. 23CW3041 demonstrates a sufficient quantity and reliability of water to support compliance with El Paso County’s

300-year water supply rules for subdivisions of this nature.

I. INTRODUCTION

The purpose of this report is to provide a preliminary outline of the water resources and associated wastewater requirements necessary for approval of the McLean Minor Subdivision, as proposed.

1.1 New Development Description: The Subdivision consists of 38.68 acres located at the current addresses of 2415 Hodgen Road, Colorado Springs, CO 80921. The Property will be subdivided into two lots. **Exhibit A**, attached hereto, is the plan for the Subdivision as proposed, prepared by APEX Land Surveying and Mapping, LLC. This analysis accounts for water reserved for an existing, exempt well, and the 300-year supply necessary for an augmented well.

Please clarify one residence is permitted per lot.

WATER NEEDS

Please provide an explanation of how these calculations were made.

2.1 Analysis of Water Demands: It is expected that the two residential lots in the Subdivision will utilize two individual wells (one well per lot) drilled to the Dawson aquifer for domestic-type uses, including in-house, landscape/irrigation of lawn and gardens, watering of domestic animals and stock, and fire protection. An existing well with Permit No. 223432 will provide water supply to one of the lots. This is an exempt well pursuant to C.R.S. § 37-92-602(3)(b)(IV) and will remain exempt. It is anticipated that the **residences on Lot 2** will utilize a minimum of 0.26 acre-feet and up to 0.74 acre-feet annually for in-house residential purposes, irrigation of lawn and garden, and watering of livestock consistent with the decree in Case No. 23CW3041 and the El Paso County Land Development Code Section 8.4.7. The existing well, permitted under Permit No. 223432, is constructed to and will produce from the not-nontributary Dawson aquifer at a flow rate of 10 to 15 gallons per minute, based upon past production.

There are no other wells currently constructed on the property. Based on past experience with the numerous Dawson aquifer wells serving rural residential properties throughout El Paso County, this rate of production should be more than sufficient to meet demand for in-house use.

III. PROPOSED WATER RIGHTS AND FACILITIES

3.1 Water Rights: An Augmentation Plan utilizing the underlying Dawson aquifer was approved by Water Court, Water Division 2 on April ____, 2024. A copy of the recorded decree is attached hereto as **Exhibit B (PENDING)**, which includes the following specific quantities of water supplies that will meet both legal and physical needs on a 300-year basis:

AQUIFER	Saturated Thickness (ft)	Total Water Adjudicated (Acre Feet)	Annual Average Withdrawal – 100 Years (Acre Feet)	Annual Average Withdrawal – 300 Years (Acre Feet)
Dawson (NNT)	385	2,680	26.8	8.93
Denver (NNT – 4%)	550	3,620	36.2	12.06
Arapahoe (NNT– 4%)	235	1,550	15.5	5.16

Laramie Fox Hills (NT)	190	1,100	11.0	3.66
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All depletions are augmented in time, place and amount through septic return flows during pumping and through dedication of nontributary groundwater in the Laramie-fox Hills aquifer for depletions occurring after pumping ceases. These projected amounts do not include the Dawson aquifer groundwater reserved for Owner’s existing exempt well.

3.2 Source of Supply: Rural residential water supply demand will be met using an existing not-nontributary Dawson aquifer formation well, and one additional not-nontributary well to be constructed to the Dawson aquifer, in accordance with the plan for augmentation decreed in Case No. 23CW3041. Consistent with El Paso County Land Development Code Section 8.4.7(B)(3)(c)(v), a minor subdivision utilizing individual wells need not make a further showing as to source of supply.

3.3 Pumping Rates for Service: The Dawson aquifer in the location of the Subdivision is generally known to produce approximately 10-15 gallons per minute, more than sufficient for single family residential and accessory uses.

IV. WASTEWATER AND WASTEWATER TREATMENT – While soils, geology and geotechnical analysis will be provided by other of Owners’ consultants, the Owners provide a summary of ISDS to be utilized herein, as relates to water usage and resulting return flows which support the approved Augmentation Plan.

4.1 Septic/Wastewater Loads: Septic projections are based on similar Denver Basin residential uses on rural residential lots. Average daily wastewater loads are expected to be approximately 160 gallons per day per single-family residence assuming residential in-house use at the conservative 0.20 acre-feet per year rate for augmentation supplies described in the approved Augmentation Plan. Maximum daily wastewater loads are expected to be roughly 210 gallons per day per single-family residence based on the El Paso County Land Development Code residential demand standard of 0.26 acre-feet per year.

4.2 On-Site Wastewater Treatment Systems: The two residential lots within the Subdivision will be served by individual on-site wastewater treatment systems. The on-site wastewater treatment systems have and will be installed according to El Paso County Guidelines and properly maintained to prevent contamination of surface and subsurface water resources.

Respectfully submitted this 12th day of March, 2024.

MONSON, CUMMINS, SHOHET & FARR, LLC

1/s/ W. James Tilton

W. James Tilton
Chris D. Cummins

Exhibits:

A – Plat of the Property

B – Decree (Pending)

LOT EXHIBIT

BEING A PART OF THE NORTHEAST QUARTER OF SECTION 28,
TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN,
CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO.

LEGAL DESCRIPTION

That portion of the Northeast quarter of Section 28, Township 11 South, Range 66 West of the 6th Principal Meridian, El Paso County, Colorado, described as follows: Beginning at the Northeast corner of said Section 28; thence Westerly on the Northernly line thereof 1909.71 feet to the Northeast corner of a tract of land described in Book 1121 at Page 163 in the records of El Paso County, Colorado; thence angle 90°31'09" Northernly along the Easterly line of said recorded tract 911.96 feet to a point; thence angle 89°36'03" Easterly, parallel with the Northernly line of said Section 28, 1911.62 feet to intersect a point on the Easterly line of said Section; thence angle 90°31'09" Northernly on said Easterly line 911.97 feet to the point of beginning; Together with a 30 foot right-of-way for access and utility purposes lying Easterly and Southerly and adjoining the Easterly and Southerly lines of said recorded tract, recorded in Book 1121 at Page 163 of said County records, El Paso County, Colorado. Except that portion conveyed by Special Warranty Deed recorded December 17, 2004 at Reception No. 204206079.

County of El Paso, State of Colorado.

(Per Warranty deed by reception No. 212093277 per Commonwealth Land Title Insurance Company title report No. 596-HS0825084-416)

PARCEL DETAILS

Address: 2415 Hodgen Road, Colorado Springs, Colorado, 80921-1601

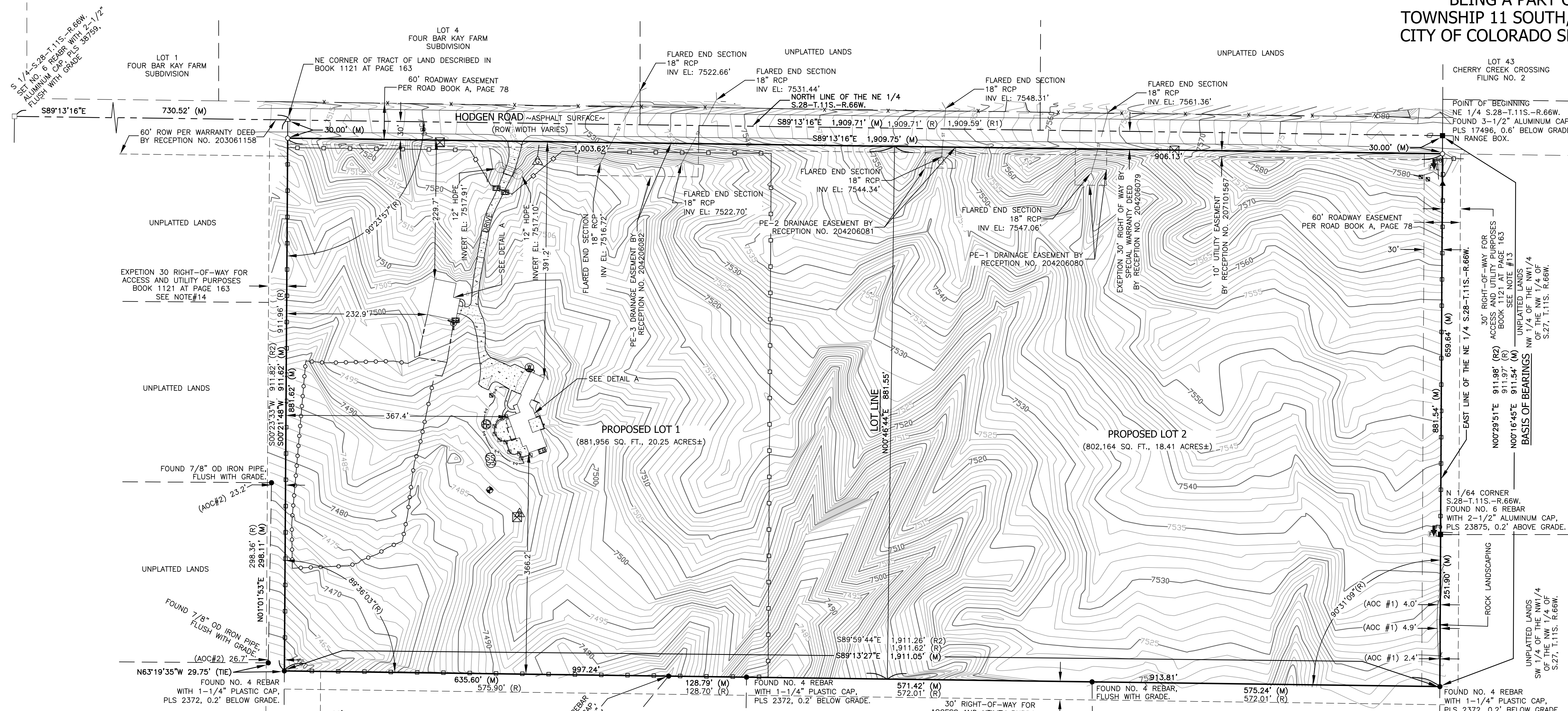
El Paso County Schedule No.: 6128100014

AREAS OF CONCERN

(AOC#1): Portion of rock landscaping encroaches westerly onto subject parcel, as graphically depicted on this Improvement Survey Plat, causing an area of concern.
(AOC#2): Portion of westerly adjacent monuments falls westerly of subject parcel boundary, as graphically depicted on this Improvement Survey Plat, and falling short of projected graphically depicted location of said 30 foot right-of-way for access and utility purposes lying Easterly and Southerly and adjoining the Easterly and Southerly lines of said recorded tract, recorded in Book 1121 at Page 163, causing an area of concern.

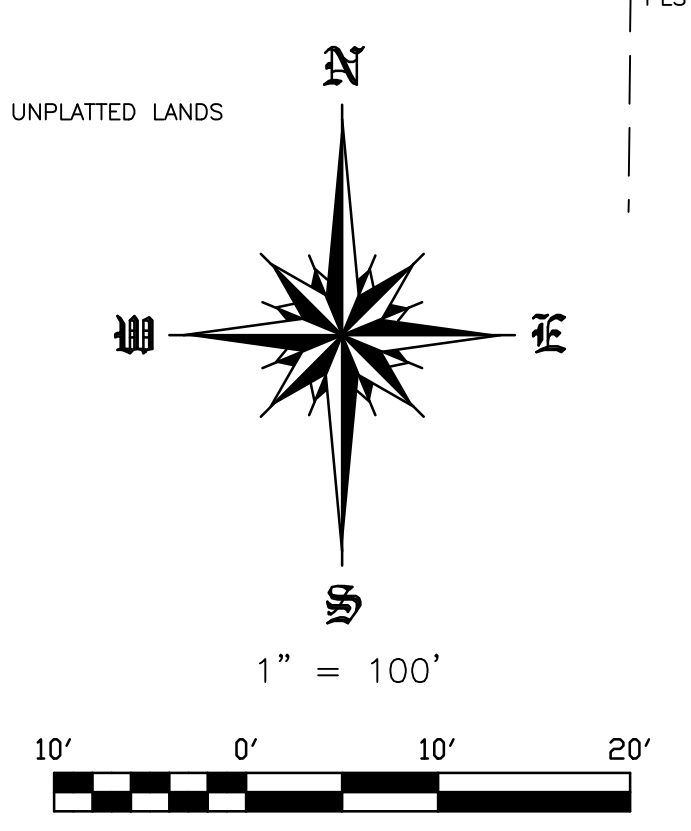
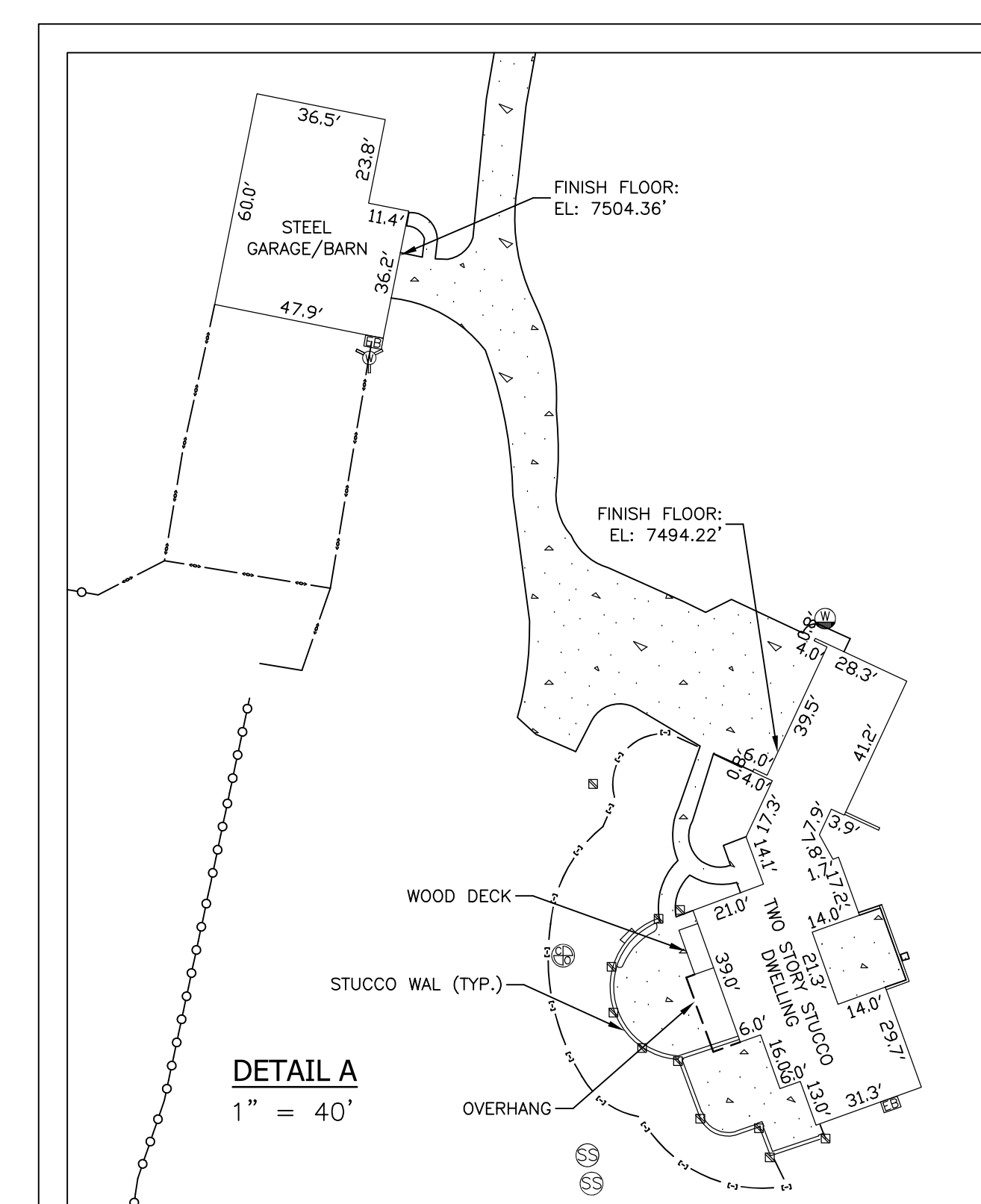
SURVEYOR'S NOTES

- NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.
- Any person who knowingly removes, alters or defaces any public land survey monument or land boundary monument or accessory commits a class 2 misdemeanor pursuant to the Colorado Revised Statute 18-4-508.
- The lineal units used in this drawing are U.S. Survey Feet.
- The fieldwork for this survey was completed on January 2, 2024.
- The overall subject parcel contains a calculated area of 1,684,120 square feet (38.66 acres) of land, more or less.
- This survey does not constitute a title search by Apex Land Surveying and Mapping, LLC, to determine ownership or easements of record. For information regarding easements, rights-of-way and title of record, Apex Land Surveying and Mapping, LLC, relied upon Title Report No. 596-HS0825084-416, with an effective date of October 13, 2023 at 08:00 AM as provided by Commonwealth Land Title Insurance Company.
- Bearings are based on a portion of the East line of the Northeast quarter of Section 28, T11S, R66W of the 6th Principal Meridian, monumented on the South end with a found No. 4 rebar with a 1-1/4" plastic cap, PLS 2372, 0.2' below grade, and on the North end with a found 3-1/2" aluminum cap, PLS 17496, 0.6' below grade in range box, and is assumed to bear N.00°16'45"E., a measured distance of 911.54' feet.
- Any underground or above ground utilities shown hereon have been located from field survey information. Apex Land Surveying and Mapping, LLC, does not guarantee said underground utilities to be shown in their exact location and that said underground utilities are shown in their entirety. Apex Land Surveying and Mapping, LLC, did not physically enter any manholes or inlets to verify size and material. Where additional or more detailed information is required, the client is advised that excavation may be necessary.
- Site Benchmark: Set 60 D Nail (Elevation = 7,486.72' (NAVD88)).
- The purpose of this survey is to identify Boundary lines and existing improvement for possible future minor subdivision.
- Due to snow cover the accuracy of driveways, walks and potential structures buried by snow can not be entirely relied upon.
- Reception No. 200121614 calls for Grant of Right Of Way being an easement of ten 10 feet either side of power line and guy wires on NE 1/4 Section 28, County of El Paso, State of Colorado, which lot is on Hodgen Road. Surveyor did not observe any Guy wires or above ground power lines on subject parcel. Surveyor observed power poles and above ground lines East of Subject parcel traveling North/South in direction, and did not observe any on subject parcel.
- Legal description for subject parcel calls for 30 foot right-of-way for access and utility purposes lying Easterly and Southerly and adjoining the Easterly and Southerly lines of said recorded tract, recorded in Book 1121 at Page 163. This is graphically depicted on this Land Survey plat per a previous Monumented and Survey Plat by Vernon P. Taylor, PLS 25966, deposited on the 18th day of October, 2001 under Deposit No. 201900415, Page No. 61280 as shown on this Land Survey Plat. Due to the ambiguity of the legal description and monumented evidence found (AOC#2) for the 30 foot right-of-way for access and utility purposes lying Easterly and Southerly and adjoining the Easterly and Southerly lines of said recorded tract, recorded in Book 1121 at Page 163, and based on monumented evidence found, surveyor interprets it to be Westerly of Westerly boundary line as graphically depicted on this plat. (See Note #14).
- Surveyor has discovered monumented evidence Westerly of subject parcel that surveyor graphically depicts the intended location of said 30 foot right-of-way for access and utility purposes lying Easterly and Southerly and adjoining the Easterly and Southerly lines of said recorded tract, recorded in Book 1121 at Page 163. See (AOC#2) note.



LEGEND

- PLSS MONUMENT FOUND AS NOTED
- MONUMENT FOUND AS NOTED
- ▲ USGS BENCHMARK NO. J295 RESET:
- ▲ FOUND 1/2" ALUMINUM ROD, 1.0' BELOW GRADE. EL: 7579.28' (MEASURED)
- ▲ SET MAG NAIL WITH 1-1/2" ALUMINUM WASHER, PLS 38759, FLUSH WITH GRADE
- SET NO. 5 REBAR WITH 1-1/4" PLASTIC CAP, PLS 38759, FLUSH WITH GRADE.
- PLSS MONUMENT SET AS NOTED
- ◆ SITE BENCHMARK-SEE SURVEYOR'S NOTE #9
- (R) RECORD VALUE
- (M) MEASURED VALUE
- (AOC#) AREA OF CONCERN
- BREAK SYMBOL
- STUCCO PILLAR
- FENCE POST
- ⊠ ELECTRIC TRANSFORMER
- ⊠ ELECTRIC BOX
- ⊠ ELECTRIC METER
- ⊠ GAS METER
- ⊠ UNDERGROUND FIBER OPTIC SIGN
- ⊠ FIBER OPTIC VAULT
- ⊠ WELL HEAD
- ⊠ YARD HYDRANT
- ⊠ SEPTIC SEWER MANHOLE
- ⊠ SEPTIC SEWER CLEANOUT
- ⊠ STORM CULVERT FLARED INLET
- ⊠ STORM CULVERT INLET 12" HDPE PIPE
- ⊠ UNDERGROUND 18" RCP STORM DRAIN LINE
- CONCRETE SURFACE
- STRAP/ROPE FENCE REMNANT
- WIRE STRAND FENCE
- WROUGHT IRON FENCE



DATE: February 7, 2024 REVISIONS			
No.	Remarks	Date	By

APEX Land Surveying and Mapping LLC.

5855 Lehman Drive, Suite 102
Colorado Springs, CO 80918
Phone: 719-318-0377
E-mail: info@apexsurveyor.com
Website: www.apexsurveyor.com

LAND SURVEYING AND MAPPING LLC

PROJECT No.: 23077 SHEET 1 OF 1

Field: TJM/DDR/ZDR Drawn: DDR Checked: DDR/TJM