

Kim

CDOT comments were provided to us. They are generally acknowledgment comments not requiring any change in analysis. Access permits will be appropriately processed with CDOT.

CDOT to review TIS- Additional comments may be provided

Thank you for your review and comment provided to the UDON traffic study. Please see individual responses throughout this document.

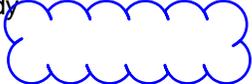
Title page has been provided with certifications.

Please add Title page, with certifications

te
LLC
5801 N. Union Boulevard
Suite 100
Colorado Springs, CO 80918

PCD File #'s have been provided for development areas on both the north and south sides of SH-94.

Re: UDON Rezone Traffic Study
El Paso County, Colorado



PCD File # CS243

Dear Mr. Ferrante:

This traffic study has been prepared for a proposed UDON Rezoning project to be located at 12150 State Highway 94-(SH-94) on the north side of SH-94 and 12265 SH-94 on the south side of SH-94 in El Paso County, Colorado. The existing property contains one residence at 12150 SH-94 and one residence at 12265 SH-94. Of note, the northern portion of this project at 12150 SH-94 is proposed to rezone the existing 15.74-acre property from Residential Rural (RR5) to Commercial Service (CS). For purposes of this study, it was assumed that the area on the south side of SH-94 would be developed first as phase one with 860 spaces for vehicle, boat, and RV storage. The north side of the development was studied with two alternatives for the full buildout scenario; the proposed use which includes 1,000 storage units and the highest use which includes a 16 fueling position gas station and approximately 150,000 square feet of retail.

A vicinity map illustrating the location of the property is attached as **Figure 1**. The surrounding area primarily consists of rural residences, vacant and agricultural land, industrial uses, and Aztec Family Raceway. There are auto salvage yards located to the east of the site.

This traffic study identifies the amount of traffic associated with this proposed project and the expected trip distribution and traffic assignment along with an operational analysis for the project access intersection along State Highway 94 (SH-94). The project access to the site is proposed to be located approximately 200 feet west of the existing west access at the 12265 SH-94 site. The existing east access will be closed with development of the project. It is expected that project construction of the development area south of SH-94 will be completed within the next two years; therefore, analysis was performed for the 2026 Phase 1 horizon. The project is expected to follow phase 1 by a couple years and was evaluated for the 2028 horizon in 2028. Lastly, a 2045 long-term twenty-year horizon was also evaluated.

Roadway classification has been provided.

Please list road class

EXISTING ROADWAY NETWORK AND TRAFFIC COUNTS

Regional development projects for the boulevard with a speed limit of 60 miles per hour. Both Table 4: 2045 Roadway Improvement Projects and the State Transportation Corridor Plan (MTCP) and the State Highway 94 will be widened from two lanes to four lanes within the project limits.

There are not any known development traffic studies in the surrounding area for the last five years. The traffic study was obtained for CD202 but it was the previous version of UDON which is being updated with this application.

is provided by SH-94. Direct access to the roadway along the south side of SH-94 for the Phase 1 north side of SH-94 to align with the Phase 1 access east-west with one through lane in each direction and 60 miles per hour westbound. SH-94 provides project limits. Both Table 4: 2045 Roadway Improvement Projects and the State Transportation Corridor Plan (MTCP) and the State Highway 94 will be widened from two lanes to four lanes within the project limits.

List other traffic studies by the consultant in the area of study within the past five years, in addition to any reports identified by County staff or that the applicant is aware of. State whether the current study is consistent with those studies and explain any discrepancies.

TIS PCD File CS202

Existing daily and peak hour bi-directional count data was obtained from CDOT traffic information along SH-94 to the east of Space Village Avenue, which is in nearby vicinity of the existing UDON Rezoning property project access. These counts were collected on Thursday, July 11, 2019 and were conducted in one-hour intervals for 24 hours. These counts were adjusted by the annual growth rate (described in the next section) to calculate existing 2024 volumes. Of note, more recent count data along SH-94 reports less traffic volumes compared to the 2019 traffic counts; therefore, the 2019 count data grown to 2024 was utilized to provide a conservative analysis. The daily counts from the Colorado Department of Transportation (CDOT) Online Transportation Information System (OTIS) were used as a basis for providing a directional split of project traffic. Existing lane configuration, and the existing peak hour counts are shown in attached **Figure 2**, with count information attached as well.

UNSPECIFIED DEVELOPMENT TRAFFIC GROWTH

Based on information provided on the website for the Colorado Department of Transportation, the 20-year growth factor along SH-94 adjacent to the study area is 1.21 which equates to an annual growth rate of approximately one (1) percent per year. Traffic information from the CDOT Online Transportation Information System (OTIS) is attached. Based on this, a one (1) percent annual growth rate was used to calculate future background traffic volumes at the study area access intersection. This annual growth rate was used to estimate 2026 Phase 1, 2028 Buildout, and long term 2045 background traffic volumes at the key intersection.

TRIP GENERATION

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the Trip Generation Manual¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rates for Mini-Warehouse (ITE Code 151) for phase 1 and the proposed buildout, and Shopping Center (ITE Code 820) and Convenience Store/Gas Station (ITE Code 945) for the north development area under the highest use buildout scenario.

Since the highest use buildout scenario is a commercial development, pass-by trips are expected. These pass-by trips are vehicles already on the street network that will be attracted to the project site in route to a final destination.

The UDON Rezoning Phase 1 is expected to generate approximately 156 daily weekday driveway trips, with 10 of these trips occurring during the morning peak hour and 14 trips occurring during the afternoon peak hour. The proposed buildout is expected to generate 336 daily weekday driveway trips, with 23 of these trips occurring during the morning peak hour and 32 trips occurring during the afternoon peak hour.

The UDON Rezoning Highest Use Buildout scenario is expected to generate approximately 9,666 daily weekday driveway trips to the north driveway, with 559 of these trips occurring during the morning peak hour and 874 trips occurring during the afternoon peak hour. Accounting for pass-by, expected net new (non pass-by) trips to the surrounding street network results in approximately 4,970 weekday daily trips, of which 193 trips and 454 trips are anticipated during the weekday morning and afternoon peak hours, respectively. **Table 1** summarizes the estimated trip generation for the UDON Rezoning project. The trip generation worksheets are attached.

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

Table 1 – UDON Rezoning Project Weekday Traffic Generation

Land Use and Size	Daily Vehicle Trips	Weekday Vehicle Trips					
		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Phase 1 – South Development							
Mini-Warehouse (ITE 151) – 860 Units	156	5	5	10	7	7	14
Buildout – Proposed Use (North and South Development)							
Mini-Warehouse (ITE 151) – 1,860 Units	336	12	11	23	16	16	32
Buildout – Highest Use (North Development)							
Shopping Center (ITE 820) – 150,000 Square Feet	5,552	78	48	126	245	265	510
Convenience Store/Gas Station (ITE 945) – 16 Fueling Positions	4,114	216	217	433	182	182	364
Total Project Trips – Highest Use	9,666	294	265	559	427	447	874
Total Project Trips after Pass-By – Highest Use	4,970	107	86	193	220	234	454

DISTRIBUTION, ASSIGNMENT, AND TOTAL TRAFFIC

Distribution of site traffic was based on the area street system characteristics, existing traffic patterns and volumes, and the proposed access system for the project. As mentioned previously, the traffic volumes from CDOT OTIS were used as a basis for providing a directional split of project traffic. The distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. Project traffic originating from either direction can access the site. As identified from the counts from CDOT OTIS, approximately 63 percent of the UDON Rezone trips arrive from and depart to the west and 37 percent of trips arrive and depart from the east. **Figure 3** illustrates the expected non pass-by trip distribution for Phase 1 (South Development), **Figure 4** shows the expected non pass-by trip distribution for the proposed buildout (North and South Development), and **Figure 5** illustrates the expected non pass-by trip distribution for the highest use buildout (North Development).

Since the highest use buildout scenario is a commercial development, a certain amount of traffic attracted to the site will already be passing by the site. This pass-by distribution is a means to quantify the amount of traffic arriving to the site from a given direction and then leaving the site in the same original direction of travel, continuing the driver's trip. The expected weekday morning and afternoon peak hour pass-by trip distributions were calculated based on existing traffic volumes along SH-94 in the site vicinity. Directional differences in the morning and afternoon peak hours were accounted for in the pass-by distributions as shown in **Figures 6** and **7**, respectively.

Project traffic assignment was obtained by applying the project trip distribution to the estimated project traffic generation of the development scenarios shown in the trip generation table. The non pass-by traffic assignment is shown in **Figure 8** for Phase 1 (South Development), **Figure 9** for the proposed buildout (North and South Development), and **Figure 10** for the highest use buildout (North Development). The pass-by traffic assignment is shown in **Figure 11** for the highest use buildout scenario (North Development).

Site traffic volumes were added to the 2026, 2028, and 2045 background volumes to represent estimated Phase 1, build-out year, and long-term traffic conditions. These total traffic volumes are shown for 2026 Phase 1 in **Figure 12**, 2028 Proposed Buildout in **Figure 13**, 2028 Highest Use

94. By 2045, the MTCP states that the secondary regional trail is proposed along SH-94 within the project limits.

CONCLUSIONS AND RECOMMENDATIONS

In summary, this traffic study provides project traffic generation estimates to identify potential project traffic related impacts on the local street system with the proposed UDON Rezoning project for the proposed buildout and highest use scenarios. Kimley-Horn believes the proposed UDON Rezoning project will be successfully incorporated into the existing and future roadway network.

Based on the results of this study and the proposed use scenario, it is recommended that the access intersection along SH-94 be stop controlled with a R1-1 "STOP" sign installed on the northbound and southbound exiting approaches. Of note, this access will initially be a T-intersection with only the south area developing in Phase 1. The recommended intersection lane configurations and control for the project development are illustrated in **Figure 17** for the 2026 horizon and **Figure 18** for the 2028 horizon.

If the alternative highest use scenario develops, it is recommended that the access intersection along SH-94 be signalized with 700-foot plus 300-foot taper eastbound left turn lane, a 150-foot westbound left turn lane, a 400-foot plus 300-foot taper westbound right turn lane, a 870-foot with 300-foot taper westbound acceleration lane from the southbound right turn, and a left turn lane on the northbound and southbound approaches exiting the site. The recommended intersection lane configurations and control for the project development under the highest use scenario are illustrated in **Figure 19** for the 2028.

By 2045, it is anticipated that SH-94 will be reconstructed with two through lanes in each direction. The recommended 2045 intersection lane configurations and control for the project development are illustrated in **Figure 20** for the proposed buildout and **Figure 21** for the highest use scenario. If you have any questions or require anything further, please feel free to call me at (720) 943-9962.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Jeffrey R. Planck, P.E.
Project Traffic Engineer



State what the current applicable Transportation Impact Fees will be for the proposed development

Road impact fees have been provided to the revised traffic study.

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Jeffrey R. Planck, P.E., PE #53006

April 18, 2024
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Owner sign & date

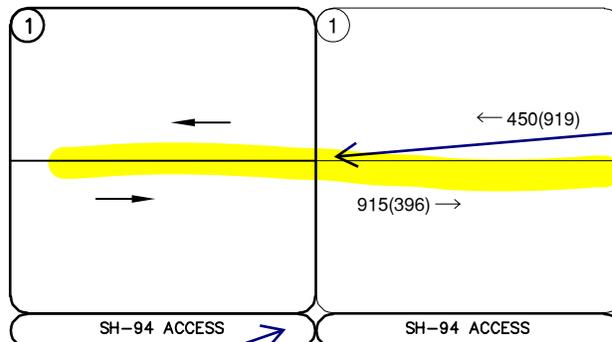
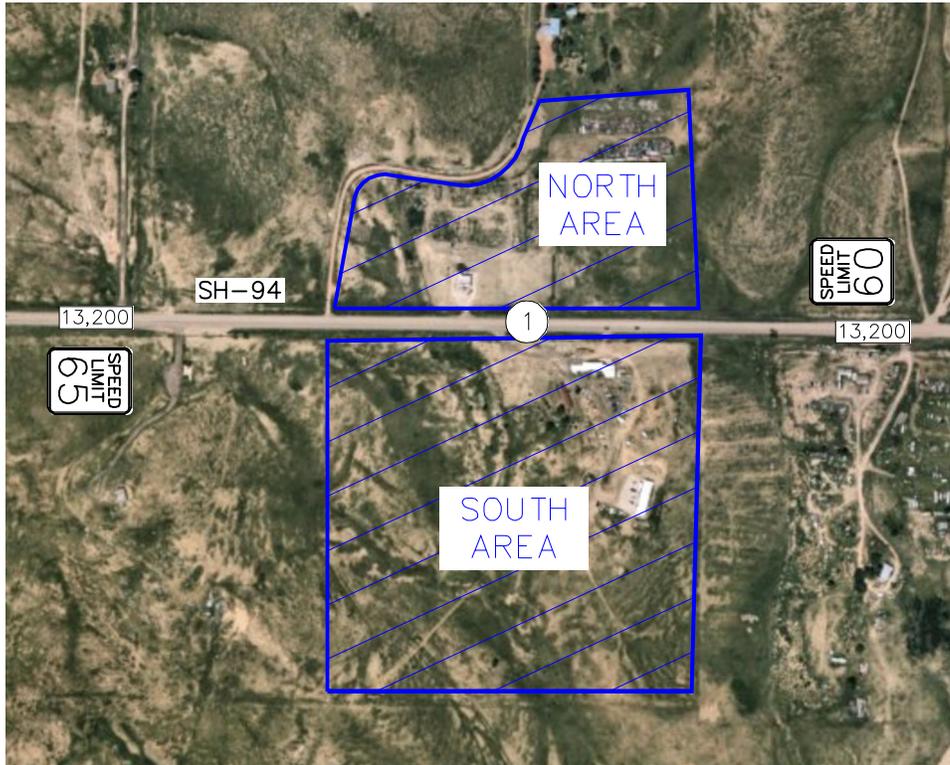
Mr. Louis Ferrante
UDON Holdings, LLC
5801 N. Union Boulevard
Suite 100
Colorado Springs, CO 80918

This has been moved to the cover page and signatures have been provided

Date

Add discussion and address how the proposed development meets the 2012 HWY94 Access Management Plan for the HWY94 section from Colorado Springs City limit to Curtis Rd which calls for reducing the need for signalized intersections

The Hwy 94 Access Management Plan has been referenced in the updated study.



Adjusted from Counts on
 Thurs, July 11, 2019
 7:00 to 8:00AM

Please verify the the location of HWY94 on all trip distribution maps. HWY94 should be between the north and south development areas but all the maps show HWY94 at the bottom. Same comment for pages 22-31. Please label HWY94 and add north arrow as needed on all pages

The annotation bubbles are not identifying where the roadway is located but simply labeling intersection and/or access names. The north legend arrow was previously located on the top left of each figure.

FIGURE 2
 UDON REZONE
 EL PASO COUNTY, COLORADO
 2024 EXISTING LANE CONFIGURATIONS
 AND TRAFFIC VOLUMES

LEGEND

- (X) Study Area Key Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume
- Roadway Speed Limit

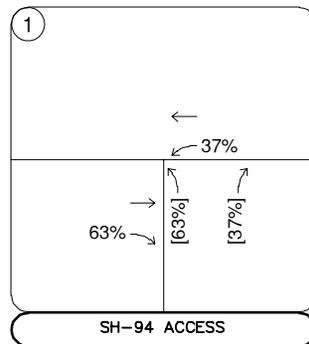
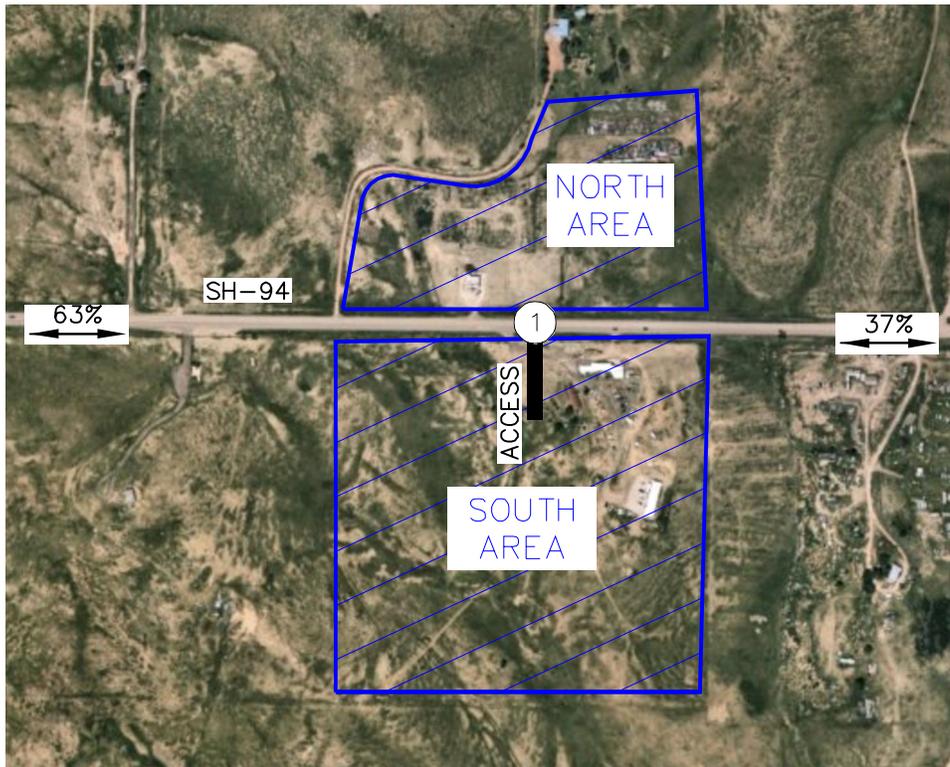
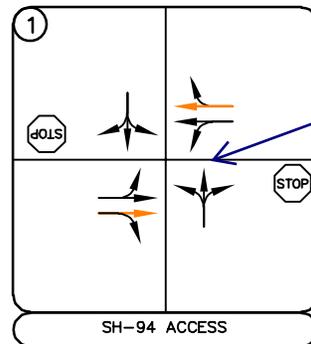
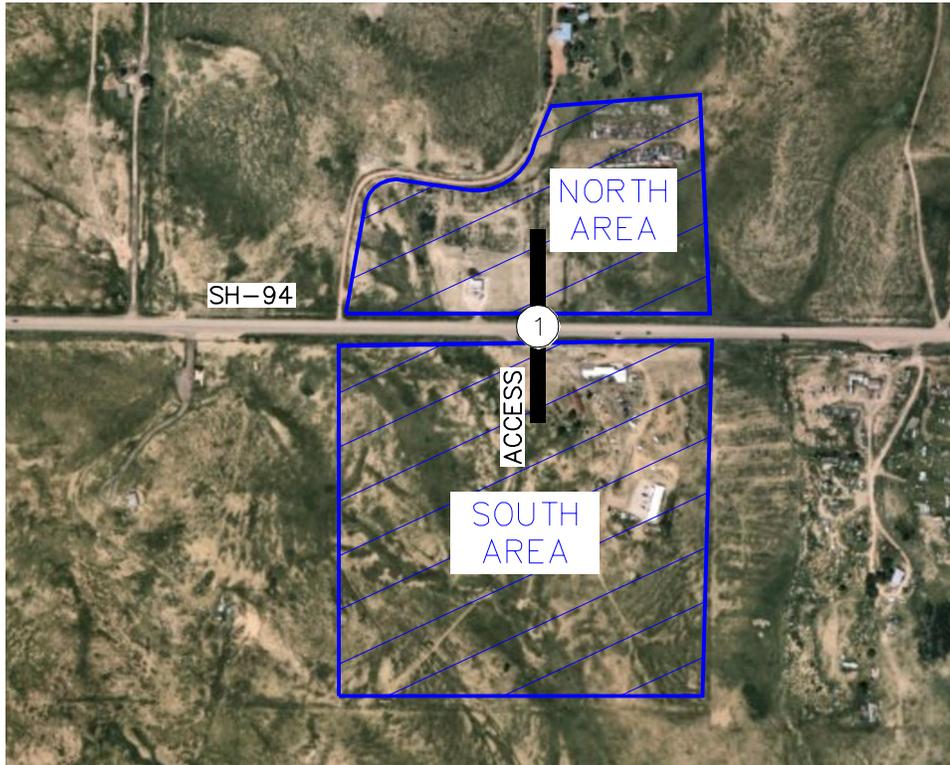


FIGURE 3
 UDON REZONE
 EL PASO COUNTY, COLORADO
 NON PASS-BY PROJECT TRIP
 DISTRIBUTION – SOUTH AREA

LEGEND

- (X) Study Area Key Intersection
- XX% External Trip Distribution Percentage
- XX%[XX%] Entering[Exiting] Trip Distribution Percentage

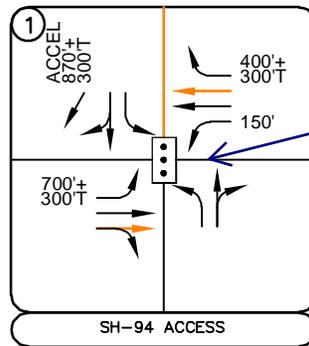
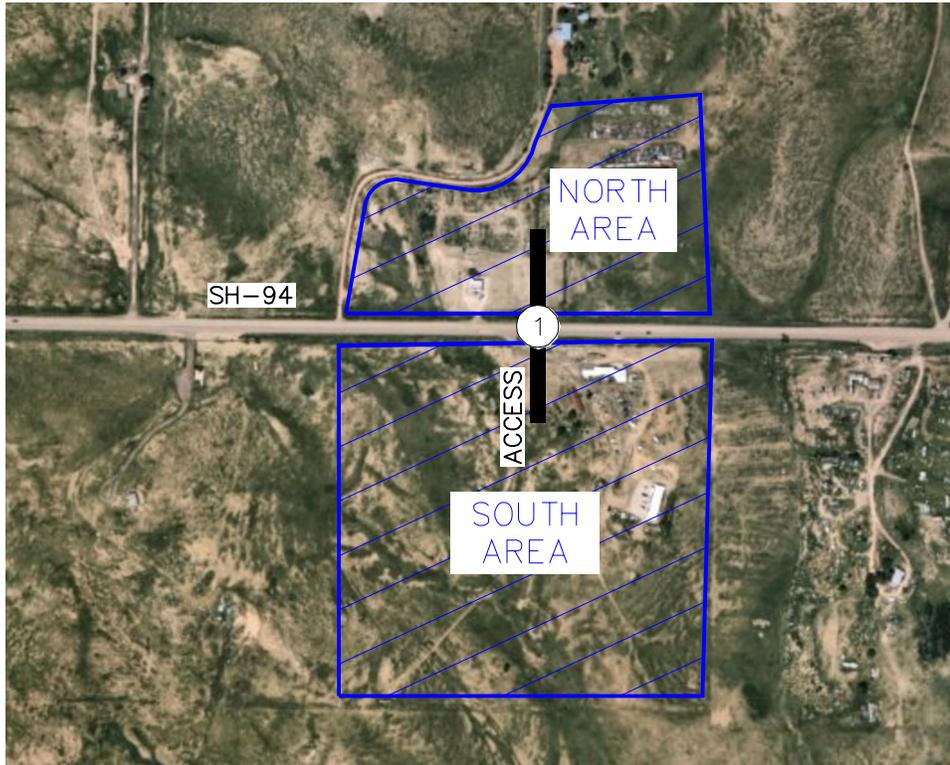


HWY94

added for reference

FIGURE 20
 UDON REZONE
 EL PASO COUNTY, COLORADO
 2045 RECOMMENDED GEOMETRY &
 CONTROL – PROPOSED BUILDOUT

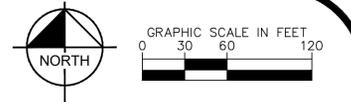
LEGEND	
(X)	Study Area Key Intersection
→	Improvement
↪	100' Turn Lane Length (feet)



HWY94
 added for reference

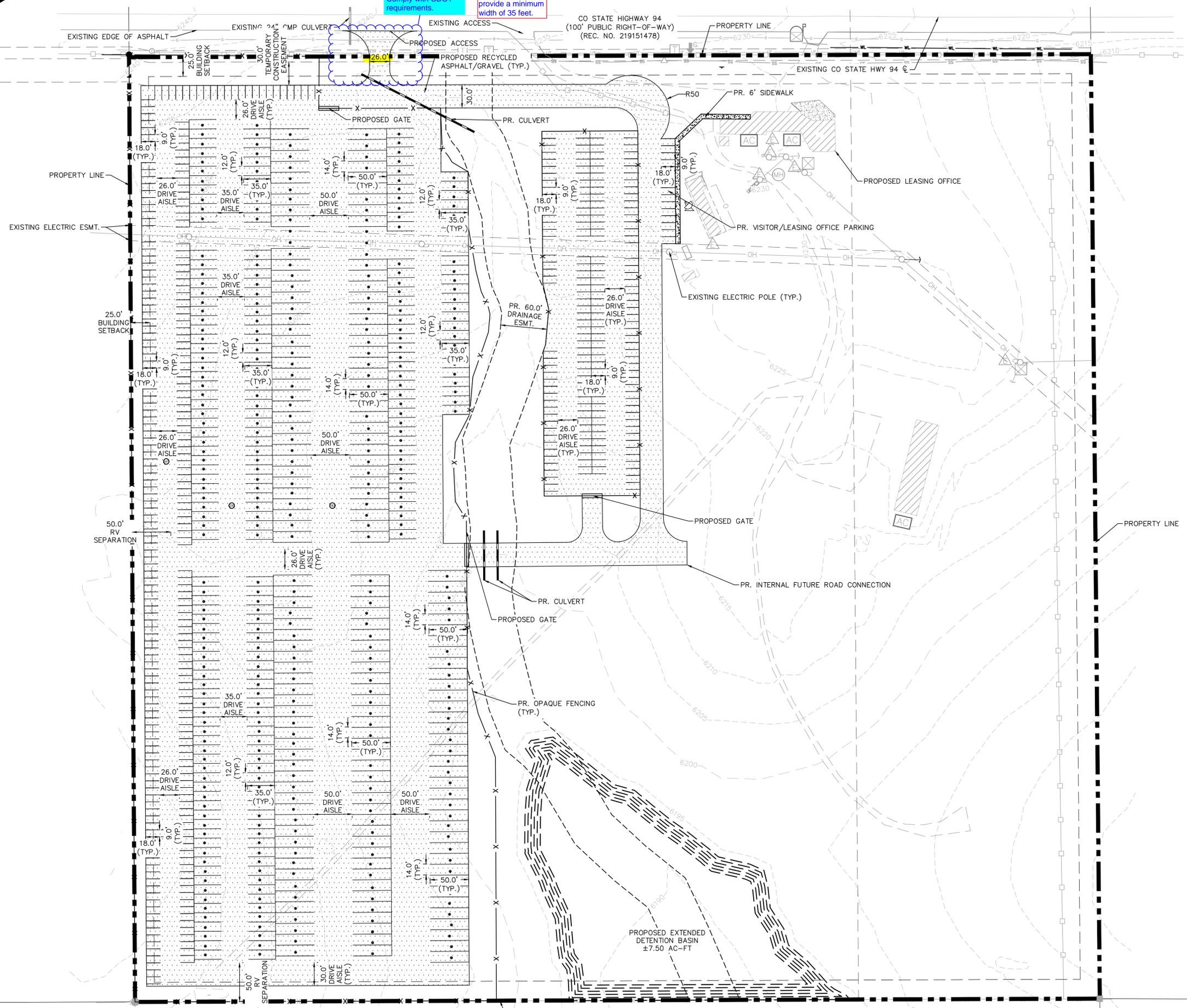
FIGURE 21
 UDON REZONE
 EL PASO COUNTY, COLORADO
 2045 RECOMMENDED GEOMETRY &
 CONTROL – HIGHEST USE

LEGEND	
(X)	Study Area Key Intersection
⋮	Signalized Intersection
→	Improvement
↪	100' Turn Lane Length (feet)



Min 35ft wide access from an arterial road per County ECM. Comply with CDOT requirements.

The driveway will provide a minimum width of 35 feet.



ALTERNATIVE 2 – PARKING LAYOUT WITH FUTURE ACCESS

PARKING DATA:

PARKING STALL SIZE	NO. OF STALLS
18.0' X 9.0'	447
35.0' X 12.0'	230
50.0' X 14.0'	183
TOTAL	860

Does not match Letter of intent or the SDP

An updated site plan and parking data has been provided in the updated submittal

UDON SOUTH - CONCEPT SITE LAYOUT



© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
 2 N NEVADA AVE., SUITE 900, COLORADO SPRINGS, 80903
 PHONE: 719-453-0180

Date: March 12, 2024 -- 9:02am / User: DrewMcClain
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