

COLORADO

Department of Transportation

Region 2

Traffic & Safety

Hwy 094A/MP 9.43 (NR-A) EI Paso County

February 3, 2025

Ryan Howser, Principal lanner (<u>ryanhowser@elpasoco.com</u>) El Paso County Planning & Community Development 2880 International Circle Colorado Springs, CO 80910

RE: Flying Horse East Phase 1 Sketch Plan (SKP242)

Ryan,

I am in receipt of a referral request for comments for <u>Flying Horse East Phase 1 Sketch Plan</u>. The proposed development is in the southeast corner of Enoch Road and State Highway 094A in Calhan. A variety of land uses are proposed within this Sketch Plan including a range of residential densities, business park, commercial, mixed-use, and a future school site. The parcels being subdivided are 4400000438, 4400000360 & 4400000374 in El Paso County. The submittals for Flying Horse East Phase 1 Sketch Plan have been reviewed by CDOT. Our comments are as follows:

<u>Traffic</u>

- <u>Traffic Report Comments:</u>
 - Trip generation: The proposed development has residential (ITE 210, ITE 215, ITE 220), school (ITE 538), office (ITE 770), and retail (ITE 822) land uses. Internal trip reduction assumes that residential land uses are the contributors to the external network use, while school, office and retail land uses attract these existing trips, warranting the reduction in generated traffic. Therefore, no internal reduction should be applied to residential uses. For ITE 538, ITE 770, and ITE 822, internal trip reductions of 2% in the AM peak and 8% in the PM peak may be applied (refer to Table 6).
 - **Trip distribution:** Display Average Annual Daily Traffic (AADT) volumes for all analyzed roads (Figures 3 and 7). Illustrate the trip distribution to align with the AADT volumes (Figure 9).
 - Analysis Years: As the buildout year is 2030, future conditions should reflect 2050 traffic volumes (a 20-year projection). The proposed growth factor must be extended to 2050, instead of ending in 2045.
 - **Traffic Signal Warrants:** Warrant 3 alone does not justify signal installation. Evaluate Warrants 1 and 2 under buildout conditions. Apply the following right-turn volume reductions for minor approaches:
 - 0%: No separate right-turn lane exists.
 - 50%: A separate right-turn lane exists, but no dedicated receiving lane is provided.
 - 100%: Both a separate right-turn lane and an acceleration lane for the right-turn exists.
 - Queues and storage requirements: Storage Requirements: Ensure turn lane lengths accommodate 95th percentile queues for 2050. For example, at Intersection #8 (SH-94 & Slocum/Access B), the northbound approach (Table 10) shows a 95th percentile queue of 903 feet, but the recommended turn lane length is only 115 feet.
 - Synchro Model: Please provide .syn files for all analyzed scenarios for AM and PM peaks:
 - 2030: Background, total, total with mitigations (if any)
 - 2050: Background, total, total with mitigations (if any)



- Mitigations: Provide a comprehensive list of all proposed mitigations. For example, Table 10 indicates that the southbound left-turn approach at Intersection #1 (Powers & Bradley) has a 95th percentile queue of 1,156 feet, with a recommended double left-turn lane of 580 feet. However, this mitigation (adding a southbound left-turn lane) must also be included in the Synchro model, which is currently missing. All proposed mitigations must ensure efficient traffic operations and eliminate conditions where demand exceeds capacity or LOS F is observed.
- Access to SH-94: We are particularly concerned with access to SH-94, especially near Enoch Road, due to a relatively high northbound left-turn demand, as well as Access B/Slocum Road. Adding the through lane capacity on SH-94 is not necessarily required by CDOT. However, an alternative design should be considered (e.g., a flyover) to accommodate the demand. The evaluation of auxiliary lanes is needed regardless. However, if the County mandates the addition of through lanes at SH-94 or the development includes it in their plans, that would be acceptable. Additionally, the Access B/Slocum Road access may not warrant a signal, so an ICAT analysis will be needed to determine the appropriate intersection configuration.
- **Drake Drive:** Drake Drive is too close for full movement to Slocum Road per SHAC so analyze as RIRO (E-X so 1 mile spacing required).
- Final Deliverables: Ensure that all recommendations and assumptions are clearly documented and consistent across tables, figures, and Synchro models. The submission should provide sufficient detail to confirm that the proposed improvements address operational deficiencies and ensure acceptable traffic performance for the projected 2050 conditions.

Address the above comments and resubmit documents as necessary.

Hydraulics

- <u>Report comments:</u>
 - As the design progresses, verify that there will be no increase in flows to the impacted existing culverts along Highway 94 in the proposed detained condition.
 - Additionally, provide an analysis of those existing culverts in the proposed undetained condition (i.e. back-to-back 100-year storms when the emergency spillway would be utilized).

Address the above comments and resubmit documents as necessary.

Access

- Section 1.4(1) of the State Highway Access Code, states in part that no person, shall construct any access providing direct vehicular movement to or from any state highway from or to property in close proximity or abutting a state highway without an access permit issued by the designated issuing authority with the written approval of the Department.
- Under Section 2.6 (Change in Land Use and Access Use) of the State Highway Access Code, states the requirements of a new access permit. It states in part that if any significant changes are made or will be made in the use of the property which will affect access operation, traffic volume increases by 20% and or vehicle type, the permittee or property owner will coordinate with the local authority and the Department to determine if a new access permit and modifications to the access are required.
- Three CDOT Access Permits will be required for this development prior to the subdivision being finalized. The three locations are as follows:
 - "Access A" (south leg east of Drake Drive) to SH 94 connection
 - "Access B" (south leg of Slocum Road) to SH-94 Connection
 - Enoch Road to SH-94 connection
 - The Development shall coordinate with El Paso County Engineering to determine Permittee/Applicant requirements for the Access Application to CDOT for Enoch Road.



Please contact me at 719-248-0318 or teresa.guagliardo@state.co.us with any questions.

Sincerely,

Teresa Guagliardo Teresa Guagliardo

CDOT R2 Access Management

Xc: Phil Stuepfert, HR Green, (<u>pstuepfert@hrgreen.com</u>) Jeff Smith, Flying Horse East Development (<u>dbalsick@classichomes.com</u>) Nelson / Whittlef / Karapetrovic / Werdel / Roerkohl / Lancaster / file

