

Add Project Title



The project title has been added to the cover page.

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

August 13, 2021
Date

Developer's Statement

I, the Developer, have read and will comply with this report.

Revise. Provide PE Stamp with signature and date of signature across the stamp

on my behalf within

Seal, signature, and date has been added to the Traffic Engineer's Statement.

Ms. Kelly Nelson
Pikes Peak Investments LLC
c/o The Equity Group
90 South Cascade Avenue
Suite 1500
Colorado Springs, Colorado 80903

Date

Per criteria this warrants exclusive left and right turn lanes. Revise the preliminary plan street layout to allow restriping for a second outgoing lane or submit deviation request for consideration.

Unresolved. A deviation request was not included with the 4th submittal. In reviewing the private road there appears to be room to reconfigure the cross section to fit the two separate turn lanes on the 36' pavement width (3x 12' lanes). If you rescind the deviation request, then update the TIS narrative by identifying the phasing for the left turn lane. Include the following:

- 1. Identify in the short range horizon lane configuration such as either to a) chevron stripe the left turn lane or b) stripe per the standard cross section provided. (Add the cross section in the preliminary plan if you are going with "a")**
- 2. Identify the long range horizon lane configuration to include how long this separate lane should be (provide the cross section in the preliminary plan).**
- 3. Identify the trigger/warrant for installing the separate left and right turn lane. Seems likely to be when Marksheffel/Peterson connection is made.**
- 4. Identify who will be responsible to restripe the entrance once it's warranted.**

- An eastbound right turn lane is not warranted for the Meadowbrook Parkway Middle Access based on projected 2040 total traffic volumes being 45 eastbound right turns during the peak hour and the threshold being 50 vehicles per hour.
- An eastbound right turn lane is not warranted for the Meadowbrook Parkway East Right-in/Right-out Access based on projected 2040 total traffic volumes being 30 eastbound right turns during the peak hour and the threshold being 50 vehicles per hour.

Likewise, the El Paso County ECM was used to determine if left turn lanes are warranted at the studied intersections along Meadowbrook Parkway. For minor arterials or lower classifications, a left turn lane is required for any access with a projected peak hour ingress turning volume of 25 vehicles per hour or greater. Therefore, a westbound left turn lane will be required at the west access along Meadowbrook Parkway while a northbound and westbound left turn lane will be required at the middle access along Meadowbrook Parkway. However, the project is requesting a deviation to allow for the middle access street be constructed to a local street cross section and to allow for a single shared lane for the northbound approach of this intersection. El Paso County standards are for ingress movements as this is an egress movement without any opposing movements as a north leg is not constructed at this intersection. Further, as identified below, this intersection is expected to operate with acceptable level of service.

The project team will include separate northbound left and right turn lanes at the middle access along Meadowbrook Parkway and will not pursue a deviation request. We agree that one receiving lane, a separate left turn lane, and a separate right turn lane can be accommodated within the 36 feet of pavement width. The following are responses to the comments for left turn phasing:

- 1) The project will include in the northbound left turn lane at the middle access in the short-term horizon and a cross section will be included in the preliminary plan. Chevron striping will not be provided in the short-term as restriping a left turn lane in the future is not desired.
- 2) The storage length required at this northbound left turn lane in the short term is only 50 feet shorter than the storage length required for the long-term horizon; therefore, the long-term configuration is recommended for the short-term horizon to avoid restriping this lane again in the future. As such, the short and long-term configuration for the northbound left turn lane at the middle access is 115 feet of lane length plus 100 feet of storage plus a 120-foot taper.
- 3) The trigger for the northbound left turn lane at the middle access would be when Meadowbrook Parkway is extended to Peterson Road; however, the northbound left turn lane will be implemented in the short-term.
- 4) The project will incorporate the northbound left turn lane with the initial phase of development.

Update to include the required storage length. Per ECM 2.3.7.E.1 and Figure 2-25 the design elements for a left turn lane are the bay taper, lane length, and storage length. What's provided is only the lane length and storage length which makes up the deceleration.

See ECM 2.3.7.E.3 for storage length criteria.

Unresolved. Update the 2040 to match or provide an explanation why the required turn lane in the long range horizon should be reduced from the short range buildout condition.

The short and long-term lengths are the same in the revised traffic study.

| Intersection Approach / Turn Lane | Turn Lane Length (feet) | Queue Length (feet) | Recommended Turn Lane Length (feet) | Queue Length (feet) | Recommended Turn Lane Length (feet) |
|--|-------------------------|---------------------|-------------------------------------|---------------------|-------------------------------------|
| Meadowbrook Parkway & Newt Drive | | | | | |
| Northbound Approach | | 75' | C | 50' | C |
| Southbound Approach | | 25' | C | 25' | C |
| Westbound Approach | | 75' | C | 100' | C |
| Eastbound Approach | | 75' | C | 100' | C |
| Meadowbrook Parkway West Access (Residential) | | | | | |
| Northbound Approach | DNE | 25' | C | 25' | C |
| Westbound Left | DNE | 25' | \$ 180' + 100' T | 25' | 155' + 160' T |
| Meadowbrook Parkway Middle Access | | | | | |
| Northbound Approach | DNE | 25' | C | 125' | C |
| Westbound Left | DNE | 50' | 405' + 160' | 50' | 155' + 160' |
| Meadowbrook Parkway East Access | | | | | |
| Northbound Right | DNE | 50' | C | 50' | C |

DNE = Does Not Exist; C = Continuous Lane; T= Taper; \$ = Length deviated from standards due to

Improvement Summary

See the County's redline comment regarding the recommended turn lane for the west access in the deviation request form.

The deviation request has been updated with additional supporting analysis including 95th percentile vehicle queue lengths and CDOT standard lengths. Further, it should be noted that there will be an access on the north leg of the middle access due to configuration of the single-family development to north. This prevents having to provide back-to-back left turn lanes in the future which provides additional space for the proposed left turn lane at the west access along Meadowbrook Parkway.

The lengths have been updated to be consistent with design plans and presentable constraints.

760 feet to 960 feet at the Newt Drive/SH-94 intersection. The improvements are based on the global and local traffic volume growth that contribute to the improvement needs as well. As such project traffic contribution percentages are provided for these three improvements. Project traffic is expected to contribute approximately 67 percent (942 / 1,405) of the peak hour movements in 2026 at the intersection of Newt Drive and Meadowbrook Parkway. Likewise, the project is expected to contribute approximately 51.9 percent (257 / 495) and 61.2 percent (260 / 425) of the eastbound right turn movements and northbound left turn movements during the peak hour in 2026 at the intersection of Newt Drive/SH-94 and US-24, respectively.