



ALDRIDGE TRANSPORTATION CONSULTANTS, LLC

Advanced Transportation Planning and Traffic Engineering

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Westminster OC, LLC
c/o Mark Nickless
9033 East Easter Pl. #110
Centennial, CO 80112

Re: Traffic Impact Study – Response to CDOT Comments
Uplands – Westminster, CO

Dear Mr. Nickless:

The following are my responses to comments made by CDOT re the Uplands (aka Rose Hill) traffic impact study.

- 1) Re: the 95th percentile queue length report. While the Synchro reports show the 50th percentile back of queue, the Queuing and Blocking reports that are attached per CDOT's request provide the 95th percentile queue lengths.
- 2) Re: balancing. Shown the are peak hour data for each intersection which may not coincide or balance with the proximal intersections. It is more important to understand the peak hour impacts of each intersection vs. forcing a balance.
- 3) Re: number of units. The Uplands traffic study analyzes the maximum build out of 2350 residential units.
- 4) Re: Trip distribution: The trip distribution is based on the present directional splits at each intersection plus consideration of the shortest trip path to shopping, schools etc.
- 5) Re: Growth factors. We applied the recommended growth factors of 1.04 in the 5-year scenario and 1.14 for the 20-year scenario.
- 6) Re: Truck percentage. While the percent of heavy vehicles on Federal Blvd. is 2.9 percent, we applied the default percentage of 2 percent to all roads in the area most of which carry 0 to 1 percent heavy trucks. We reviewed applying 2.9 percent only on Federal Blvd. and the result was no change in overall delay and/or LOS.
- 7) Re: Signal phasing and clearance. All the signal timing information is provided in the Synchro reports. Note as the signals are fully actuated the signal timing will vary from cycle to cycle. The signal at 86th Ave. will be semi-actuated (dwell on mainline with force off changes).
- 8) Re: Peak hour factor. Per the HCM, the peak hour factor is only used for a planning analysis of the peak 15 minutes. It is not useful in this case and may skew the results of the peak hour analysis. The default peak hour factor is recommended for the total peak hour.
- 9) Re: Crown Point peak hour factor. Crown Pointe is not signalized and will have a different traffic loading with the addition of Uplands. It is best to use the HCM default factor for the peak hour analysis.



ATC appreciates the opportunity to be of service. Please call if you have any questions. We can be reached at 303-703-9112.



Respectfully submitted,

Aldridge Transportation Consultants, LLC

John M.W. Aldridge, P.E.
Principal