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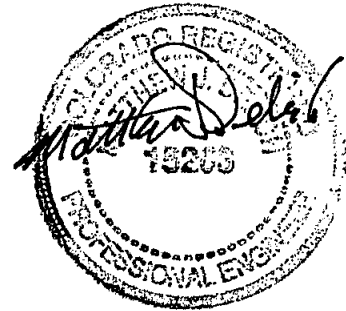
MEMORANDUM

TO: Bill Coulson, Eldon James Corporation
Nicole Hahn, Fort Collins Traffic Operations

FROM: Matt Delich

DATE: November 28, 2016

SUBJECT: WilMarc Medical Transportation Impact Study Addendum
(File: 1611ME01)



This memorandum serves as an addendum to the "WilMarc Medical Transportation Impact Study" (WMMTIS) dated October 2016. It addresses City staff comments with regard to signalization of the Harmony/Technology-HP intersection.

Based upon previous documentation, there has been an expectation that the subject intersection could be signalized at some future date. Meeting the signal warrants, in the **Manual on Uniform Traffic Control Devices**, would need to be evaluated through a traffic assignment process in transportation impact studies (TIS) for all development proposals within the Harmony Technology Park (HTP). While the peak hour signal warrant may be applicable at this intersection, other signal warrants should also be evaluated. The evaluation/assignment would be based upon the likely route of HTP users, notwithstanding the delay that would be experienced prior to actual signalization. It is primarily the northbound left turns that cause the signal warrant to be met. This is described as a theoretical signal warrant evaluation. It is acknowledged that signalization of the subject intersection does not meet the spacing criteria of the City of Fort Collins. The City of Fort Collins has agreed to abide by the previous agreements with regard to signalization of this intersection. It is not known when the signal will be implemented. While a TIS is necessary for each proposed development within the HTP, in most/all cases, there are alternative routes for the northbound left-turning traffic at this intersection. Therefore, each development can make a judgment whether to pursue the subject signalization. The overall developer of the HTP may choose to pursue implementation of the signal when there has been sufficient development activity within the HTP, since it will provide the funding.

As agreed to in the base assumptions scoping of the WMMTIS, one of the other traffic studies that was to be included in the background traffic was the Harmony Technology Park Retail development, located in the southwest quadrant of the Harmony/Lady Moon intersection. In the TIS for that retail development it was demonstrated, through the traffic assignment at the Harmony/Technology-HP intersection,

that there would be a sufficient number of northbound left turns such that the peak hour signal warrant would be met in both peak hours. The WilMarc Medical site generated traffic was assigned to the subject intersection, which would add traffic to the northbound left-turn movement. However, the WilMarc Medical traffic alone would not cause the signal warrant to be met. Actually the WilMarc Medical development adds very little traffic to this movement during the peak hours (2 in the morning and 13 in the afternoon).

However, the Harmony Technology Park Retail development chose not to pursue the traffic signal at the Harmony/Technology intersection. Therefore, the traffic signal would not be installed with the retail development. Given its location within the HTP, it is likely that the northbound left turns generated by the Harmony Technology Park Retail development would utilize the Harmony/Lady Moon intersection, which is signalized.

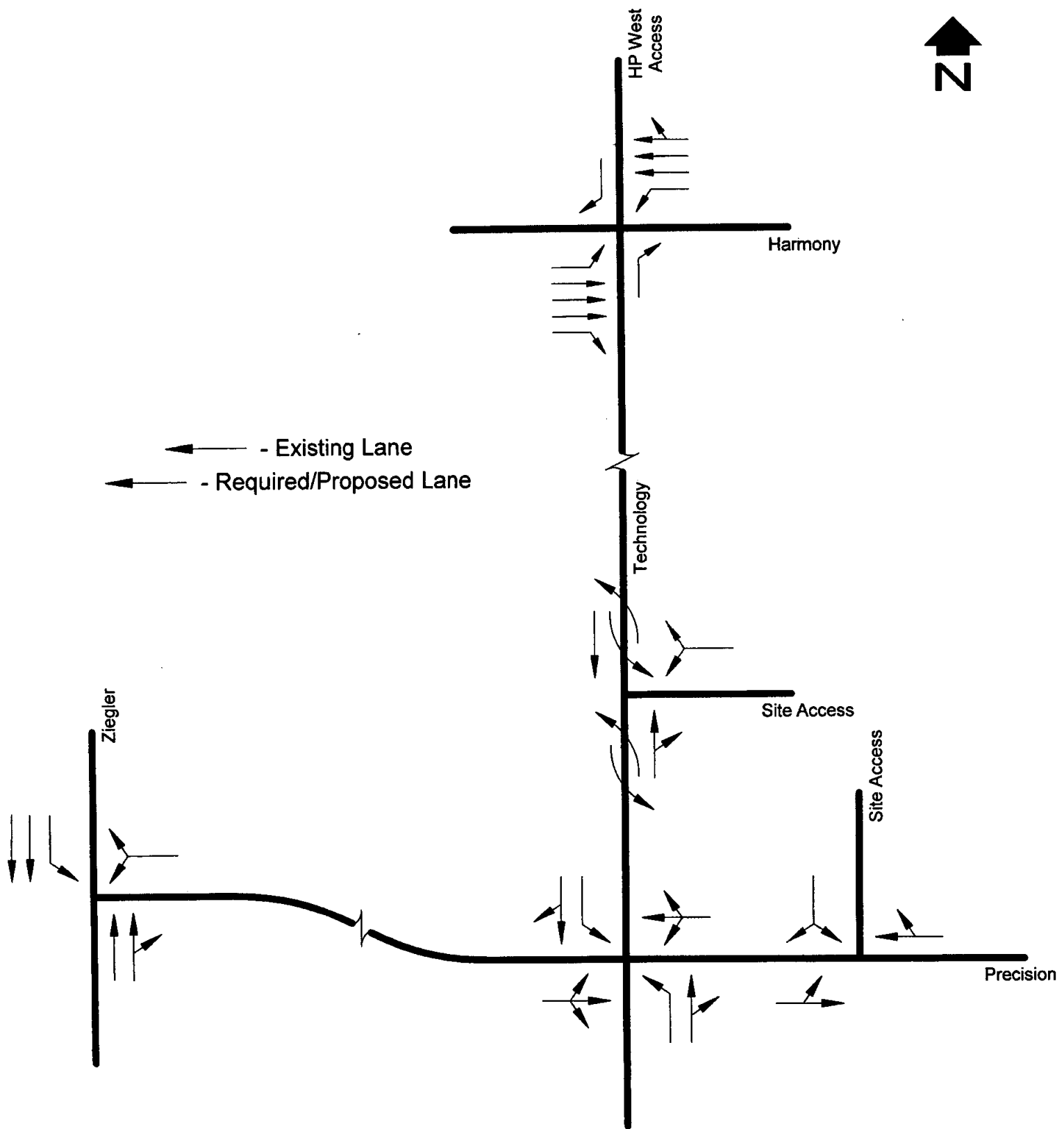
Since the WilMarc Medical traffic alone will not meet the peak hour signal warrant, a reassignment of the peak hour northbound left turns to a route via Precision Drive to Ziegler Road to the Harmony/Ziegler intersection was performed. This would add 1 percent and 5 percent, respectfully, to the current peak hour traffic on the south leg of the Harmony/Ziegler intersection. It is expected that the operation at this intersection would continue to meet the criteria of the City.

Therefore, it is concluded that the WilMarc Medical development does not require, nor will it pursue, signalization of the Harmony/Technology-HP intersection. It can move forward in the Fort Collins development review process without signalization at the Harmony/Technology-HP intersection. A revision of the 'CONCLUSIONS' page of the WMMTIS and the 'Figure 9, Short Range (2021) Geometry' page are attached.

IV. CONCLUSIONS

This study assessed the impacts of the WilMarc Medical site on the street system in the vicinity of the proposed development in the short range (2021) future. As a result of this analysis, the following is concluded:

- The development of WilMarc Medical is feasible from a traffic engineering standpoint. The trip generation for the WilMarc Medical development resulted in 564 daily trip ends, 71 morning peak hour trip ends, and 74 afternoon peak hour trip ends.
- The key intersections operate acceptably with the existing traffic and geometry, except for the Harmony/HP West Access intersection during both peak hours. Delays commensurate with level of service F are considered to be normal at stop sign controlled intersections along arterial streets in an urban area.
- The theoretical peak hour signal warrant evaluation demonstrated that a signal would be warranted at the Harmony/Technology-HP West Access intersection with the short range (2021) background traffic. That background traffic includes the Harmony Technology Park Retail development. However, signalization of the Harmony/Technology-HP intersection has not been pursued by the Harmony Technology Park Retail development, located in the southwest quadrant of the Harmony/Lady Moon intersection. Therefore, this intersection will function as a right-in/right-out/left-in intersection for the foreseeable future. Since this intersection will not be signalized prior to the WilMarc Medical development, the peak hour warrant will not be met with only the WilMarc Medical site generated traffic. The WilMarc Medical development will not pursue signalization of the intersection.
- In the short range (2021) future, given development of the WilMarc Medical site and an increase in background traffic, the key intersections will operate acceptably.
- The short range (2021) geometry is shown in Figure 9. The Harmony/Technology-HP intersection is shown with right-in/right-out/left-in movements.
- Acceptable level of service is achieved for pedestrian, bicycle, and transit modes based upon the measures in the multi-modal transportation guidelines and future improvements to the street system in the area.



SHORT RANGE (2021) GEOMETRY

Figure 9

