

REPORT FOR:

VILLAGE OF ELM GROVE

City of Brookfield request for Wisconsin Avenue Extension To Pilgrim Pkwy

DATE SUBMITTED: February 5, 2016

PREPARED FOR:

Village of Elm Grove
13600 Juneau Blvd
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Phone: 262-782-6700
Contact Person: David De Angelas

PREPARED BY:

Traffic Engineering Services, Inc.
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Contact Person: Wayne R. Higgins, PE, PTOE, TSOS



Our previous reports and meetings that I attended have brought forth several items to address.

1. In TES last comments on the City Wisconsin Avenue extension proposal we suggested a 90-day trial period for evaluation of the true impact of proposed restrictions at Watertown Plank Road and Pilgrim Pkwy. After preliminary design for such a test, it was found that the Watertown Plank Road and Pilgrim Pkwy intersection can be modified with barriers to do the test. It was also found that U-turns for trucks just south of Ace Hardware's driveway requires over 60 feet of widening to the west to accommodate a semi-truck U-turn even starting from the through northbound lane. Therefore this trial period is not recommended.
2. It is very undesirable to have heavy loads on Pilgrim Pkwy north of Ace Hardware due to poor roadway sub soils. The evaluation of the temporary U-turns near Ace Hardware's driveway further identified the problems that would be faced if a traffic signal was installed and U-turns for heavy vehicles were accommodated. The U-turn at a traffic signal has to be made without backing up. Thus 5 lanes would be needed southbound to accommodate the swing of trucks. Since the road is restricted for trucking there should not be thru trucks but they will be present from deliveries on Watertown Plank Road and would therefore need to be accommodated. In traffic signal operation truck could turn left on Wisconsin Avenue and then travel to Main Street in Brookfield. This would be difficult to communicate to truckers as an acceptable route under traffic signal control. It is my opinion and recommendation that the Pilgrim Pkwy, Ace Hardware north driveway and Wisconsin Avenue intersection only be built as a roundabout to best accommodate all vehicles completing a U-turn that would be due to restrictions at Watertown Plank Road and Pilgrim Pkwy.
3. The request to remove traffic signal movement for eastbound traffic at Pilgrim Pkwy and Watertown Plank Road has generated the following comments and recommendation. Yes, this would remove one traffic signal movement from the intersection. The intersection could be modified to permit westbound Watertown Plank Road traffic to access the private Frontage Road and eastbound to be right out with southbound traffic as right in through the use of barricades, signing and modifying traffic signal faces. In my opinion the benefit is not there because the westbound movement is not provided every cycle of the signals. Observation showed about one out of four cycles the eastbound traffic signal green movement is used. If the restriction were in place before the Wisconsin Avenue roundabout is built the alternative to travel east or north is to go north to the driveway opposite Ace Hardware or travel west to Main Street to left turn or on Bluemound Road to U-turn at Main Street. The conflicts with southbound traffic the closely spaced signal are very evident.



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4. Meetings with WisDOT staff have shown their desire to implement restrictions at Pilgrim Pkwy and Watertown Plank Road that includes removal of the traffic signal. This is to improve traffic operations at their Bluemound traffic signal. Thus a long term operation of the Watertown Plank Road and Pilgrim Pkwy traffic signal is very unlikely.
5. The motor vehicle crash (accident) reports for 2015 have been copied by Elm Grove PD for engineering review. The result is there is no significant number of crashes to warrant restricting eastbound traffic. Traffic crashes at or near Pilgrim Pkwy and Watertown Plank Road is summarized in the attached Exhibit 1-1.

Please feel free to contact me if there are other questions that I have not addressed.

Sincerely,

Wayne R. Higgins, PE, PTOE, TSOS
President



NOT TO SCALE



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JN# 14E28

Feb 03, 2016, 2:25pm

LEGEND



CRASH REFERENCE NUMBER

* CRASH DATA IN APPENDIX
BY REFERENCE NUMBER

EXHIBIT 1-1
CRASH REPORT
VILLAGE OF ELM GROVE
PILGRIM PKWY AND WATERTOWN
PLANK RD
ELM GROVE, WI
SUBMITTAL DATE: 2-2016