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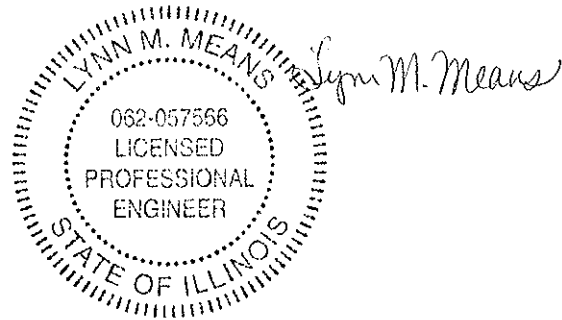
MEMORANDUM

TO: Father Adam Bobola
Society of Christ in America

FROM: Lynn M. Means, P.E., PTOE
Senior Transportation Engineer

DATE: March 25, 2010

SUBJECT: Divine Mercy Polish Mission Church
Traffic and Parking Study Update
DuPage County, Illinois



Metro Transportation Group, Inc. (Metro) prepared supplemental information to address comments raised at the DuPage County Zoning Board of Appeals meeting on Thursday, June 11, 2009 regarding the Traffic Impact and Parking Analysis report dated June 26, 2008, prepared by Metro for the existing, 700-seat Divine Mercy Polish Mission Church. Specifically, traffic and parking conditions were re-evaluated based on current attendance and parking data collected by Church staff during Saturday and Sunday services in June and July 2009. This memorandum documents the analysis conducted and study findings.

Future Site Characteristics

Based on the *Proposed Parking Plan* prepared by Brancki-Virgilio & Associates, the proposed improvements at Divine Mercy Polish Mission Church include expanding the parking from 175 spaces to 305 spaces. An additional 102 spaces are provided on the north side of Sunset Avenue: 17 spaces were obtained in the existing parking lot by reconfiguring the access and egress driveways, re-striping, and converting a portion of the landscape islands to parking; 4 existing spaces were lost due to the ingress/egress lane for the parking lot expansion; 82 parking spaces are provided as an easterly



expansion to the existing parking lot; and 7 are available on the adjacent Provincial House existing driveway. An additional 28 parking spaces are provided on the south side of Sunset Avenue, across the street from the existing facility: 16 proposed spaces and 12 existing spaces.

Existing Parking Demand

Divine Mercy Polish Mission Church staff conducted a parking demand survey on Saturday, July 25 and Sunday, July 26, 2009, at the Divine Mercy Polish Mission Church to determine existing parking characteristics. The parking demand was recorded for each of the 7 services held: Saturday at 6:00 PM and Sunday at 7:30 AM, 9:00 AM, 11:00 AM, 1:00 PM, 3:00 PM, and 8:00 PM. Parking demand was recorded on-site located on the north side of Sunset Avenue and at the off-site parking located on adjacent Church owned parcels. The reported demand includes those attending the scheduled services, as well as volunteers and staff. *Table 1* presents a summary of the parking survey results.

**TABLE 1
EXISTING PARKING DEMAND**

DATE/TIME	TOTAL PARKING
Saturday, July 25, 2009	
6:00 PM	175
Sunday, July 26, 2009	
7:30 AM	142
9:00 AM	248
11:00 AM	291
1:00 PM	216
3:00 PM	87
8:00 PM	209

As shown in Table 1, the existing peak parking demand is 291 and occurred at the 11:00 AM service.

Existing Vehicle Occupancy

In an effort to determine the average occupancy of vehicles accessing the church, a count of church attendance was conducted for each service. The attendance count of staff and visitors was performed by church staff for each of the seven scheduled services, corresponding to the parking data collected on Saturday, July 25 and Sunday, July 26, 2009. The total number of people at the Divine Mercy Polish Mission Church, the overall parking demand, and the average vehicle occupancy for each service is presented in *Table 2*.



TABLE 2
AVERAGE VEHICLE OCCUPANCY

SERVICE	CHURCH ATTENDANCE ¹	PARKING DEMAND	AVERAGE VEHICLE OCCUPANCY (PERSONS / VEHICLE)
Saturday, July 25, 2009			
6:00 PM	338	175	1.93
Sunday, July 26, 2009			
7:30 AM	321	142	2.26
9:00 AM	538	248	2.17
11:00 AM	846	291	2.91
1:00 PM	539	216	2.50
3:00 PM	185	87	2.13
8:00 PM	481	209	2.30
AVERAGE VEHICLE OCCUPANCY			2.31

¹ Includes both visitors and staff.

As shown in Table 2, the vehicle occupancy ranged between 1.93 to 2.91 persons per vehicle, with an average rate of 2.31 for the seven services and a rate of 2.91 during the peak service (11:00 AM).

Based on Metro's previous experience with vehicle occupancy for church services, average vehicle occupancy rates are typically approximately 2.0 persons per vehicle. The average vehicle occupancy for the three services observed at the church in June 2008, as documented in the Traffic Impact and Parking Analysis report dated June 26, 2008, ranged between 1.94 to 2.36 persons per vehicle, with an average of 2.18 and a rate of 2.36 during the peak service (Sunday at 9:00 AM).

In addition, based on parking generation rates contained in the Institute of Transportation Engineers (ITE) *Parking Generation Report*, the average peak parking demand per attendee on a Sunday between the peak period of 9:00 AM and 12:00 PM is 0.44 vehicles per attendee. This rate corresponds to a vehicle occupancy of 2.27 persons per vehicle. Thus, the average vehicle occupancy data collected at Divine Mercy Polish Mission Church for the seven services are typical.

Parking Analysis

Based on the parking requirements outlined in the *DuPage County Zoning Ordinance*, 175 off-street parking spaces are required for the existing, 700-seat church (1 space per each 4 seats in the main auditorium, or a parking ratio of 0.25). As currently proposed, the on site parking, on the north side of Sunset Avenue, will be expanded to provide a total of 277 parking spaces. This equates to a



parking ratio of 0.40 (277 spaces/700 seats). In addition, 28 parking spaces are proposed on the south side of Sunset Avenue, across the street from the existing facility, for a total of 305 off-street parking spaces. Based on information provided by the client, the existing Divine Mercy Polish Mission Church has an occupancy capacity of 1,046 persons: 700 in the church, 46 in the chapel, 93 in the balcony, and 207 in the vestibule. This equates to parking ratio of 0.29 (305 spaces/1,046 person capacity). Therefore, the proposed parking expansion exceeds the DuPage County parking requirements.

However, as previously indicated, the existing total parking demand observed of 291 vehicles, occurring at the Sunday, 11:00 AM service, with an attendance of 846 persons, exceeds the existing parking supply (175 parking spaces) on site. The parking ratio during the peak service is 0.34 (291 spaces/846 persons). Based on the latest site plan, this equates to 14 excess parking spaces. Therefore, the existing peak parking demand of 291 vehicles can be accommodated on site, within the planned 305 parking spaces.

In order to accommodate current, special events and holiday services and future growth of the church, for a maximum occupancy of 1,046 persons, a total of 359 parking spaces is required, an additional 54 over currently proposed. This value assumes a vehicle occupancy rate of 2.91 (or a parking ratio of 0.34), similar to that observed during the peak church service (Sunday at 11:00 AM). In the event the additional parking spaces cannot be provided on-site to accommodate the maximum occupancy, consideration should be given to provide off-site shuttle bus service and/or to add or regulate scheduled services.

Attendance Comparison

As previously stated, Divine Mercy Polish Mission Church currently utilizes seven scheduled services: one on Saturday at 6:00 PM and six on Sunday at 7:30 AM, 9:00 AM, 11:00 AM, 1:00 PM, 3:00 PM, and 8:00 PM. Last year (June 2008), when the original traffic and parking study was completed, the church used the same, seven-service schedule. **Table 3** summarizes a comparison of the attendance associated with each service.



**TABLE 3
ATTENDANCE COMPARISON**

SERVICE	ATTENDANCE ¹				
	JUNE 7/8, 2008	2009			
		JUNE 20/21	JUNE 27/28	JULY 4/5	JULY 25/26
Saturday					
6:00 PM	287	288	366	301	338
Sunday					
7:30 AM	307	326	313	298	321
9:00 AM	784	626	668	615	538
11:00 AM	700	783	827	786	846
1:00 PM	278	586	557	482	539
3:00 PM	100	190	165	135	185
8:00 PM	278	415	411	370	481

¹ Includes both visitors and staff.

As shown in Table 3, the peak service attendance in 2008 (784 persons at 9:00 AM) is slightly higher than the peak service attendance in 2009 (on average, 810 persons at 11:00 AM). However, the average vehicle occupancy has increased from 2.25 persons per vehicle in 2008 to 2.91 persons per vehicle in 2009 during the peak service. Thus, the survey dates of the original study and this follow-up study are very comparable. Therefore, similar traffic operations at the study area intersections would be expected.

Conclusion

Based on a parking survey conducted at the Divine Mercy Polish Mission Church in July 2009, the existing peak parking demand is 291 and occurred at the 11:00 AM service. Therefore, the existing parking demand can be accommodated within the proposed 305 parking spaces, per the latest site plan.

In order to accommodate current, special events and holiday services and future growth of the church to its capacity of 1,046 persons (700 church, 46 chapel, 93 balcony, and 207 vestibule), a total of 359 parking spaces should be provided, an additional 54 over currently proposed. This value assumes a vehicle occupancy rate of 2.91, similar to that observed during the peak church service. In the event the additional parking spaces cannot be provided on-site to accommodate the maximum occupancy, consideration should be given to provide off-site shuttle bus service and/or to add or regulate scheduled services.



A comparison of the attendance data collected in June 2008 and in June and July 2009, in conjunction with the average observed vehicle occupancy, revealed comparable results. Therefore, similar traffic operations at the study area intersections would be expected. Accordingly, the following improvements are recommended, to mitigate the impacts of the existing Divine Mercy Polish Mission Church on the adjacent roadway network:

- Similar to existing conditions, police detail should be present at the intersection of Swift Road and Sunset Avenue during the peak Sunday services to facilitate entering and exiting vehicles. Also, in order to improve intersection operations at Swift Road and Sunset Avenue, as shown on the current site plan, the Sunset Avenue westbound approach will be signed "Right Turn Only on Sundays from 8:00 AM to 8:00 PM." Accordingly, acceptable operations would be expected.

Alternatively, the Swift Road southbound approach at Sunset Avenue could be widened to provide an auxiliary left-turn lane, as well as a separate left- and right-turn lane should be provided on the Sunset Avenue westbound approach, including radii improvements for westbound right-turning vehicles. However, these improvements are warranted for only a short duration, during the peak Sunday services; therefore, it is recommended that police detail be maintained in lieu of geometric improvements.

- In order to minimize conflicts between pedestrians and vehicles, as shown on the latest site plan, sidewalk will be installed on the south side of Sunset Avenue fronting the church property and a crosswalk will be striped across Sunset Avenue. In addition, to accommodate the 7 vehicles at the Provincial House, east of the site, parishioners will be guided to use the existing walkway between the church and the Provincial House.
- In order to minimize site traffic utilizing the adjacent residential streets (Argyle Street and Hoyle Road), as indicated on the current site plan, the ingress and egress driveways will be reconfigured and signed to left-in and right-out, respectively. In addition, Argyle Street will be closed to church traffic during the peak Sunday services. It should be noted, vehicles performing these maneuvers were minimal, representing less than 10 percent of the site-generated traffic.