

MEMORANDUM

Date: January 8, 2015
To: Marc Stout – City of Roseville
From: Alan Telford – Fehr & Peers
Subject: **NCRSP Parcel 49**

RS14-3252

Dear Mr. Stout:

Per your request, Fehr & Peers has performed an analysis to recommend a time interval between the end of a church worship service and the beginning of the next service on a Sunday morning. We have also evaluated the parking demand versus supply for a Saturday evening and Sunday morning under the assumption that the church assembly/worship building is fully occupied with 2,800 adults.

Recommended Interval Between Church Services

Fehr & Peers' transportation study (*Transportation Impact Study for the North Central Roseville Specific Plan Parcel 49, November 14, 2014*), provided a detailed analysis of expected traffic generation assuming buildout of all uses on the parcel, with particular focus on arrival and departure characteristics and impacts before and after church services on Saturday evenings and Sunday mornings. Using the information from that report, we developed estimates of traffic volumes (inbound and outbound) by 15-minute increments assuming three different interval scenarios as described. All scenarios assume that the Sunday morning worship service would commence at 9:15 AM and conclude at 10:30 AM, and that both the 9:15 AM and the following service would have an attendance level at 80 percent of capacity.

Scenario 1 assumes that the next service would begin at 11 AM (30 minutes after the conclusion of the 9:15 service). Scenario 2 assumes that the next service would begin at 11:15 AM, and Scenario 3 assumes the next service would begin at 11:30 AM. Exhibit 1 shows the inbound and outbound traffic volumes by 15-minute increment for each scenario. Scenario 1, which as mentioned assumes 30 minutes between the conclusion of the earlier service and the beginning of the next service, would result in significant overlap between outbound traffic from the earlier service and inbound traffic from the later service. This would lead to substantial delays for both outbound and inbound traffic; at 10:45 AM almost 600 vehicles would be entering the site while almost 600 vehicles would be exiting the site. Providing a 45-minute interval between services in



Scenario 2 would improve traffic operations over Scenario 1, yet still about 350 vehicles would be entering the site when 350 vehicles would be exiting the site. Scenario 3, which assumes a full one hour period between the conclusion of the earlier service and the beginning of the next service, would result in minimal overlap of outbound and inbound vehicles, and as such, would result in minimal traffic delay. Given these results, we recommend that the interval of time between the conclusion of the earlier service and the beginning of the next service be 60 minutes. We also recommend that the spacing between services be further reviewed with the Stage 2 approvals when there is a specific proposal for operations and a traffic management plan for church operations.

Parking Demand Versus Supply

The traffic study referred to in the first paragraph of the memorandum contains a discussion of parking and concludes that the site would have ample parking supply during Saturday evening and Sunday morning church worship services. The study assumed that the attendance at the church services would be 67 percent of seating capacity for the Saturday evening service and 80 percent capacity for the Sunday morning service. The City has since requested that we determine the parking needs assuming maximum (2,800 adults) attendance at both the Saturday evening and Sunday morning services.

Table 1 shows the results. On Saturday evening, if the church assembly/worship building were fully occupied with 2,800 adults, the entire parking lot would be 91 percent occupied with 241 unoccupied parking spaces. If the church building was fully occupied on Sunday morning the entire parking lot would be 86 percent occupied with 404 empty spaces.

TABLE 1 - PARKING DEMAND DURING PEAK CHURCH SERVICES

Uses	SATURDAY		SUNDAY	
	Church Attendance at 67% Capacity	Church Attendance at 100% Capacity	Church Attendance at 80% Capacity	Church Attendance at 100% Capacity
Church	1,138	1,707	1,366	1,707
Topgolf	397	397	234	234
Offices	50	50	50	50
Retail	125	125	125	125
Restaurants	144	144	144	144
Hotel	125	125	125	125
Total Demand	1,979	2,548	2,044	2,385
Number of Parking Spaces on Site (Supply)	2,789	2,789	2,789	2,789
Percent Demand Over Supply	71%	91%	73%	86%
Number of Empty Parking Spaces	810	241	745	404

