



Per El Paso County Engineering Criteria Manual Appendix B.8 the traffic memo shall include a cover sheet and certification page with the following information:

- Engineer statement as follows
"The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports."
- Engineer's stamp, signature, and date.
- Developer's statement, developer name, address, and signature block
- "I, the Developer, have read and will comply with all commitments made on my behalf within this report." Include a printed or typed developer name and address as well as a signature block.

May 12, 2015

Chuck Runge
Runge Architecture
5315 Germain
Colorado

Engineer/Developer statements
with signature blocks added.

Add "PCD File No. PPR2255"
to the cover sheet.

File number added.

**RE: 7530 Mohawk St. John's / Traffic Generation Analysis
El Paso County, Colorado**

Dear Chuck,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled 7530 Mohawk St. John's. This development is located at the northwest corner of the intersection of Mohawk Road with Woodmen Frontage Road in El Paso County, Colorado.

The intent of this analysis is to present traffic volumes likely generated by the proposed development and consider potential impacts to the adjacent roadway network.

The following is a summary of analysis results.

Please refer to El Paso County Engineering Criteria Manual Appendix B for report requirements. The proposed development shall meet Transportation Memorandum criteria.

Site Description and Access

Comment acknowledged. Traffic letter updated.

Land for the development is currently vacant and surrounded by a mix of residential, recreational, institutional, and open space land uses. The proposed development is understood to entail the new construction of an approximate 3,300 square foot church supporting as many as 135 attendees.

Proposed access to the development is provided at the following locations: one full-movement access onto Mohawk Road (referred to as Site Access).

Applicant's letter of intent states the church will be 3,475 sf. Please revise statement and calculations.

General site and access locations are shown on Figure 1.

A conceptual site plan, as prepared by Runge Architecture, is provided for illustrative purposes only.

Report updated based on latest available site density information.

Please include a discussion on pedestrian and bicycle traffic. Per ECM Appendix B.2.1 sidewalks shall be included in the discussion. Discuss rural area conformity regarding the construction of sidewalks if none are proposed.

Pedestrian/bicycle discussion added.

Figure 1: Site and Access Location

Figure 1 is missing.

Figure correctly included in updated report.

Include a section on the proposed access and ECM criteria. Explain what the criteria requires and how the proposed access location meets criteria.

Discussion added.

Figure 2: Site Plan

Figure 2 is missing

Figure correctly included in updated report.

Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the proposed land use in order to estimate the average daily traffic (ADT) and peak hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from point of origin to point of destination.

Table 1 presents average trip generation rates for the development area proposed. Use of average trip generation rates presents a conservative analysis. ITE land use code 560 (Church) was used for analysis because of its best fit to the proposed land use.

It is noted that site operations may also include services on Saturdays as well as evening services during the week. However, it is expected that trips generated during these additional periods of operation will be less than those occurring during the Sunday peak. Furthermore, evening weekday services are expected to occur outside of the typical peak hours for adjacent street traffic.

Table 1 – Trip Generation Rates

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES			
			24 HOUR	SUNDAY PEAK HOUR		
				ENTER	EXIT	TOTAL
560	Church	KSF	31.46	4.97	5.39	10.36

Key: KSF = Thousand Square Feet Gross Floor Area.

Table 2 summarizes the projected ADT and peak hour traffic volumes likely generated by the land use area proposed.

Table 2 – Trip Generation Summary

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED			
			24 HOUR	PM PEAK HOUR		
				ENTER	EXIT	TOTAL
560	Church	3.3 KSF	104	16	18	34
<i>Total:</i>			104	16	18	34

Key: KSF = Thousand Square Feet Gross Floor Area.

Note: All data and calculations above are subject to being rounded to nearest value.

As Table 2 shows, the development area has the potential to generate approximately 104 daily trips with 34 of those occurring during the Sunday peak hour.

Adjustments to Trip Generation Rates

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

Trip Generation Distribution and Assignment

Overall directional distribution of site-generated traffic was determined based on existing area land uses, the site location within the County, and the available roadway network. Site-generated traffic is anticipated to be distributed through the proposed Site Access. Distribution along Mohawk Road is general and assumed to be 5 percent to/from the north and 80 percent to/from the south. Distribution along Woodmen Frontage Road is assumed to be 10 percent to/from the east and 5 percent to/from the west.

Traffic assignment is how the site-generated and distributed trips are expected to be loaded on the roadway network. Applying assumed trip distribution patterns to site-generated traffic provides the peak hour trip volume assignments for the proposed Site Access. These volumes are then divided further upon travel through adjacent roadways serving the overall development area. Table 3 below uses the trip generation volumes from Table 2 and denotes projected traffic volumes at Site Access and the adjacent intersection.

Table 3 – Site Generated Trip Assignment

DEVELOPMENT ACCESS TURNING MOVEMENTS	SUNDAY PEAK HOUR	
	Inbound Volume	Outbound Volume
Woodmen Frontage Road / Mohawk Road		
Eastbound Left	2	-
Westbound Right	1	-
Northbound Through	13	-
Southbound Left	-	1
Southbound Through	-	14
Southbound Right	-	2
Site Access / Mohawk Road		
Eastbound Left	-	1
Eastbound Right	-	17
Northbound Left	16	-
Southbound Right	0	-

State if turn lanes are required or other roadway improvements.

Discussion added.

Provide a section discussing the following per ECM Appendix B.2.3D:
- Continuity and adequacy of pedestrian and bicycle facilities adjacent to the site; or

-Access to the most direct public transportation services facility or public transportation services route adjacent to the site.

Development Impacts

Pedestrian/bicycle discussion added.

As Tables 2 and 3 show, there is an increase in peak hour traffic volumes anticipated for the proposed development. However, these additional volumes are considered to be minor and are not likely to negatively impact operations of Mohawk Road, Woodmen Frontage Road, nor other adjacent roadways or intersections.

Discuss all adjacent roadways, intersections, and high-volume accesses. Provide LOS for each access.

Conclusion

This analysis assessed traffic impacts to the adjacent roadway.

It is our professional opinion that the impact to traffic operations for the Mohawk Road intersection concludes that proposed development traffic volumes are minor.

Additional discussion on potential impacts added. However, it is noted that due to the rural location of the site, and the proposed use being limited to weekends during non-peak periods for adjacent roadways, specific analysis of LOS is not considered to be needed. Given the minor trip generation expected, no negative impacts to existing LOS results are expected. Please clarify if the County will require traffic count collections in order to perform Synchro analysis necessary for determination of actual LOS results on a given Sunday.

We trust that our findings will assist in the planning and approval of the 7530 Mohawk St. John's development. Please contact us should further assistance be needed.

Sincerely,

Confirm if roadway improvements are required due to the development. See ECM Appendix B.8

SM ROCHA Additional detail added.
Traffic and Transportation Consultants



Stephen Simon, EIT
Traffic Engineer

Fred Lantz, PE
Traffic Engineer

Please include the following missing information:
- State what the current applicable Transportation Impact Fees are and developer's responsibility for payment
- State if the proposed access to Mohawk Road meets ECM Chapter 2 access design requirements including sight distance, stopping distance, etc. Provide the criteria and proposed values (ex. 300 ft sight distance, access will have 350 feet sight distance).

Impact discussion added.