SM ROCHA, LLC
TRAFFIC AND TRANSPORTATION CONSULTANTS

April 22, 2019

Kurt Lang
Roth Lang Engineering Group
7853 East Arapahoe Court, Suite 2500
Centennial, Colorado 80112

RE: Element Hotel / Traffic Generation Analysis and Compliance Letter
Aurora, Colorado

Dear Mr. Lang,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled Element by Westin. This hotel development is located at the intersection of 4th Avenue and Abilene Street in Aurora, Colorado.

The intent of this analysis is to present traffic volume likely generated by the proposed development, provide a traffic volume comparison to previous land use assumptions approved for the development site, and consider potential impacts to the adjacent roadway network. This analysis is also provided to address City Engineering review comments.

The following is a summary of analysis results.

Site Description and Access

Land for the two-acre development is currently vacant and is known as Lot 1, Block 1 of Abilene Station Subdivision Filing 1. The development proposes new hotel building construction to accommodate 120 rooms. The development site is surrounded by a mix of residential, office, governmental and institutional land uses. The 2nd Avenue and Abilene RTD Park-n-Ride is located immediately west of the proposed development site.

Development site traffic is accommodated by two full-movement accesses. One access is on Blackhawk Street and the other on 3rd Avenue. Both access drives are proposed to operate as stop sign controlled intersections.

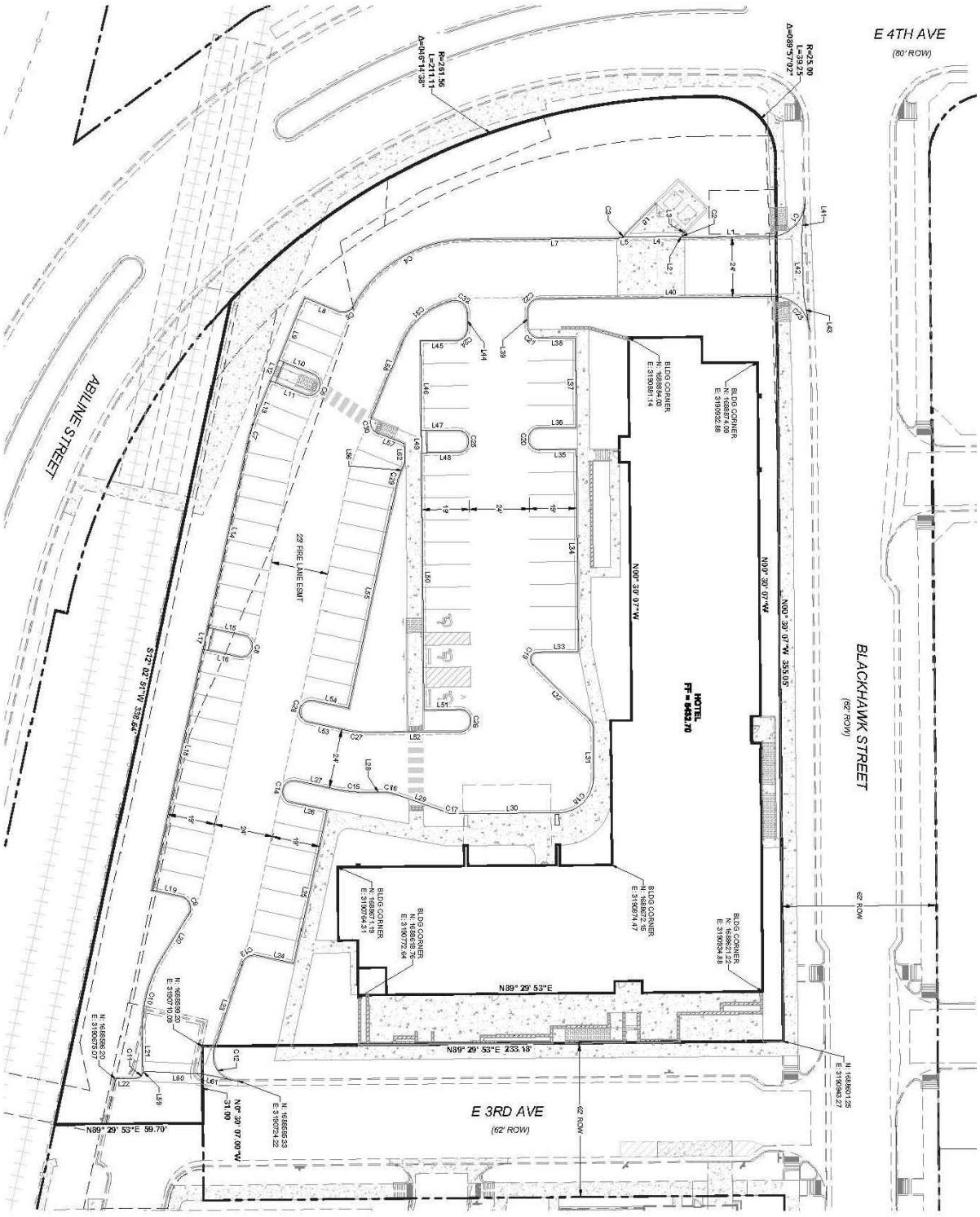
General site and access locations are shown on Figure 1.

A conceptual site plan, as prepared by Roth Lang Engineering Group, is shown on Figure 2. This plan is provided for illustrative purposes.


North
Not to Scale
4th Avenue
Development Site
3rd Avenue
Abilene Street
Blackhawk Street
225
2nd Place
Blackhawk Street

North

Not to Scale



Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation, 10th Edition, was 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.

The approved traffic study for overall Abilene Station TOD Development[1] used trip generation rates from ITE's Trip Generation, 7th Edition and identified development of approximately 560 townhome/condominium units, 90,000 square feet of commercial office space, and 10,000 square feet of commercial retail space for the 10.08 acres of overall developable land. Overall development was assumed to represent approximately 80 percent residential (70 units per acre) and 20 percent commercial (Floor Area Ration (FAR) of 1.1) with a ten percent trip reduction to account for TOD.

The proposed hotel development represents twenty percent of the overall development land area. Table 1 summarizes the projected average daily traffic (ADT) and peak hour traffic volumes likely generated by the land use area proposed and provides comparison to the original Abilene Station TOD Development traffic study. ITE land use codes in Table 1 are from the latest edition of the Trip Generation report and were used for analysis because of their best fit to assumed and proposed land use.

TABLE 1
TRIP GENERATION SUMMARY

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Site Development - Assumed in Overall Traffic Study									
230	Condominium / Townhouse	112 DU	651	8	41	49	39	19	58
710	General Office	18 KSF	199	25	3	28	5	22	27
820	Shopping Center	2 KSF	85	1	1	2	4	4	7
	Existing Total with 10% TOD Reduction:		*841*	*31*	*41*	*71*	*42*	*41*	*83*
Site Development - Proposed									
310	Hotel	120 RMS	980	38	26	64	37	35	72
	Proposed Total with 10% TOD Reduction:		*882*	*34*	*23*	*57*	*33*	*32*	*65*
	Build-Out Total / Comparison of New Trips:		*41*	*3*	*-17*	*-14*	*-9*	*-9*	*-18*

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

As Table 1 shows, the proposed development has the potential to generate approximately 882 daily trips with 57 of those occurring during the morning peak hour and 65 during the afternoon peak hour. Table 1 further shows how proposed development represents a decrease of 14 trips and 18 trips during the respective peak traffic hour from that approved in the overall traffic study.

[1] "Abilene Station TOD Development Traffic Impact Study", Felsburg Holt & Ullevig, April 2007

Conclusion

This analysis assessed traffic generation for the Element by Westin Hotel development, provided a traffic volume comparison to previous land use assumptions approved for development site, and considered potential impacts to the adjacent roadway network.

It is our professional opinion that the site-generated traffic resulting from the proposed hotel development is expected to create no negative impact to traffic operations for the surrounding roadway network and site access, nor at the adjacent roadway intersections, and is in compliance with the previously approved Abilene Station TOD Development Traffic Impact Study.

We trust that our findings will assist in the planning and approval of the Element by Westin development. Please contact us should further assistance be needed.

Sincerely,

SM ROCHA, LLC
Traffic and Transportation Consultants

Mike Rocha, TSOS, TOPS
Principal

Fred Lantz, PE
Traffic Engineer