

February 13, 2017

Mr. Jeff Blackman  
Bedford Lodging  
5646 Milton Street, Suite 890  
Dallas, TX 75206

## **Focused Evaluation of AC Hotel Off-site Parking Lot**

Dear Mr. Blackman;

As requested, W-Trans has prepared a focused evaluation of the potential AC Hotel off-site parking lot at 510 Davis Street, on the northeast corner of the Sixth Street/Davis Street intersection in Santa Rosa. The analysis includes an evaluation of traffic operation in the immediate vicinity, including parking lot driveway access, as well as an assessment of typical parking lot usage over the course of a typical weekday and weekend day. This evaluation supplements the analysis contained in the *Traffic Impact Study for the AC Hotel*, W-Trans, November 2016.

### **Study Area**

The study area consists of the intersections that are expected to encounter traffic growth associated with valet drivers shuttling vehicles between the proposed hotel, located at 210 Fifth Street, and the Sixth and Davis off-site parking lot. Conditions during the weekday a.m. and p.m. peak periods were analyzed for the following intersections:

1. Sixth Street/Davis Street-US 101 South Off-ramp
2. Sixth Street/Morgan Street-US 101 North On-ramp
3. Fifth Street/Davis Street
4. Fifth Street/Morgan Street
5. Fourth Street/Davis Street
6. Fourth Street/Morgan Street

### **Project Description**

The project as proposed includes a 142-room hotel with a 3,300 square foot restaurant and 1,033 square feet of retail space. The applicants intend to provide 26 parking spaces on-site and an additional 102 spaces in the off-site parking lot, for a total of 128 spaces.

### **Trip Generation**

As indicated in the project's November 2016 traffic impact study (Page 12), the proposed project is expected to generate an average of 1,160 trips per day, including 75 trips during the a.m. peak hour and 85 during the p.m. peak hour. This trip generation represents the traffic associated with guests, customers, and employees traveling to and from the hotel site. Because the project intends to use an off-site location to accommodate some of its parking demand, however, additional short-distance trips will be created by valet drivers shuttling vehicles to and from the Sixth and Davis parking lot.

Approximately 20 percent of the hotel's total parking supply will be accommodated on-site. Accordingly, it was assumed that 80 percent of the trips generated by the proposed project would result in secondary valet trips to the off-site parking lot<sup>1</sup>. Based on this assumption, the valet service to the off-site parking lot would generate an average of 928 daily trips with 60 during the a.m. peak hour and 68 during the p.m. peak hour, as summarized in Table 1.

**Table 1 – Trip Generation Summary**

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Hotel	142 rooms	8.17	1,160	0.53	75	44	31	0.60	85	43	42
Off-Site Valet Parking Trips (80%)			928		60	35	25		68	34	34

## Intersection Level of Service

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation. The study intersections were analyzed using methodology published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000.

## Existing plus Project Conditions

Upon the addition of project-related traffic and valet trips to/from the off-site parking lot to the Existing volumes, the study intersections are expected to continue operating acceptably at LOS A or B. These results are summarized in Table 2.

**Table 2 –Existing plus Project Peak Hour Intersection Levels of Service**

Study Intersections	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
1. Sixth St/Davis St-US 101 S Off-Ramp	12.1	B	12.7	B
2. Sixth St/Morgan St-US 101 N On-Ramp	9.7	A	12.2	B
3. Fifth St/Davis St	5.6	A	8.0	A
4. Fifth St/Morgan St	4.4	A	7.7	A
5. Fourth St/Davis St	9.2	A	10.3	B
6. Fourth St/Morgan St	3.8	A	5.4	A

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

<sup>1</sup> While some hotel-related vehicle trips are associated with pick-up and drop-off activity, thereby not resulting in a secondary trip to the offsite parking lot, all primary trips were conservatively assumed to result in a secondary valet parking trip for the purposes of this analysis.

## Future plus Project Conditions

Upon the addition of project-generated traffic and valet trips to/from the off-site parking lot to the anticipated Future volumes, the study intersections are expected to operate acceptably at LOS D or better. The Future plus Project operating conditions are summarized in Table 3.

**Table 3 – Future plus Project Peak Hour Intersection Levels of Service**

Study Intersections	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
1. Sixth St/Davis St-US 101 S Off-Ramp	18.1	B	38.5	D
2. Sixth St/Morgan St-US 101 N On-Ramp	12.5	B	17.8	B
3. Fifth St/Davis St	11.6	B	8.5	A
4. Fifth St/Morgan St	5.9	A	10.7	B
5. Fourth St/Davis St	20.7	C	28.3	D
6. Fourth St/Morgan St	5.3	A	5.6	A

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

## Parking Lot Access

The off-site parking lot's driveway will be located on the north side of Sixth Street, just east of the intersection of Sixth Street/ Davis Street. The alignment of Sixth Street is generally straight, with no anticipated obstructions to the lines of sight east and west of the proposed parking lot driveway. Because landscaping and signs can impede clear sight lines, any new plantings or signs should be designed to ensure that adequate sight lines will be maintained.

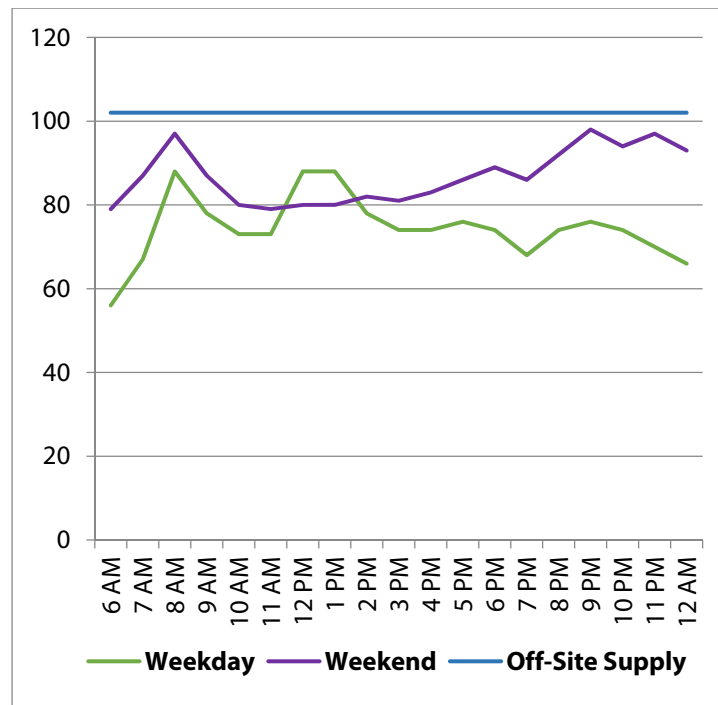
Given the surrounding one-way street patterns and location of the parking lot in relationship to the AC Hotel, all turns into and out of the parking lot driveway are anticipated to be right-turns. As a result there are anticipated to be no impacts to eastbound Sixth Street traffic associated with drivers waiting to turn left into the parking lot. Valet drivers exiting the off-site parking lot may encounter delays associated with queues on westbound Sixth Street created by the Sixth Street/Davis Street signalized intersection, though these queues generally clear with each 60-second signal cycle, and such delays are typical at private driveways along urban streets.

## Parking Demand

Based on the shared parking analysis conducted for the AC Hotel Traffic Impact Study, the hotel is expected to experience a peak parking demand on weekdays of 114 spaces at 8:00 a.m. and again between noon and 2:00 p.m. On weekends a peak parking demand of 124 spaces is projected to occur at 9:00 p.m. With plans to provide 128 spaces, the project's total parking supply is sufficient to accommodate its peak parking demand. The proposed project includes plans to provide 26 spaces on-site, which would likely be used by the valet service prior to parking vehicles in the off-site lot. Therefore, during peak parking demand, the off-site lot would be expected to experience a peak demand of 88 spaces on weekdays and 98 spaces on weekends.

On weekdays, since parking demand at the off-site lot is not expected to exceed 88 spaces, there is projected to be a surplus of at least 14 spaces at all times of day, including 20 or more free spaces between 8:00 a.m. and 6:00 p.m. On weekends, with a peak parking demand of 98 spaces in the off-site lot, there is projected to be a surplus of at least four spaces at all times of day, including at least 15 free spaces between 9:00 a.m. and 5:00 p.m.

The hourly parking demand for the off-site parking lot is show in Graph 1.

**Graph 1 - Peak Parking Demand of Off-Site Lot**

## Conclusions and Recommendations

- The valet service to/from the proposed off-site parking lot is projected to generate 928 daily trips, including 60 trips during the a.m. peak hour and 68 trips during the p.m. peak hour.
- All six study intersections would operate acceptably with the addition of project trips as well as valet trips to the proposed off-site parking lot, with operation at LOS C or better during the a.m. peak hour and LOS D or better during the p.m. peak hour under projected future volumes.
- Sight distance at the planned driveway is adequate; however, any new plantings or signage at the driveway should be designed to ensure that adequate sight lines are maintained.
- Traffic movements into and out of the off-site parking lot driveway are projected to be comprised exclusively of right turns, with little impact to traffic on Sixth Street anticipated.
- The proposed project is expected to experience a total peak parking demand of 124 spaces on weekends at 9:00 p.m. With plans to provide 128 spaces through a combination of on-site and off-site spaces, the project's parking supply would adequately accommodate its peak parking demand.
- The off-site parking lot would be expected to experience a peak parking demand of 88 spaces on weekdays and 98 spaces on weekends. A surplus of at least 14 spaces is anticipated to be available at all times during weekdays, with a surplus of at least four spaces available at all times on weekends. Between the hours of 9:00 a.m. and 5:00 p.m., a surplus of 15 or more spaces is anticipated to exist seven days a week.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Shannon Baker  
Assistant Planner

Zack Matley, AICP  
Associate Principal

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Enclosures: Level of Service Calculations

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