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Apr. 30, 2023

Vikram Seshadri
201 Shaver Street
San Rafael, CA 94901

Re: Proposed Project at 1515 Fourth Street, San Rafael

Dear Vikram Seshadri,

In response to your request, we have conducted a peer review of the traffic study prepared by AMG (Advance Mobility Group) for the proposed mixed-use development at 1515 Fourth Street in Downtown San Rafael. We understand the project is a 7-story mixed-use development with 162 apartments and 9,000 square feet of commercial retail on the ground floor. Our review indicated that the AMG traffic report lacks details on several key aspects of the development and was unable to provide a full evaluation of the traffic impact of the project. Below is a list of issues we have identified in the report that need further evaluation and consideration.

Project Descriptions

- 1: The project description lacks details on the type of apartments, site traffic access, driveways locations, garage access, and the land uses in the vicinity of the project site. These details are needed for people to visualize the magnitude of the project and how well the project fits in the area.

Recommendation

Add a discussion on the types of apartment units, the number, and locations of access driveways, surrounding land uses, access to and from Freeway US 101, and traffic circulation patterns in the adjacent area. Add project site plans, or plans to show the site access driveways.

Project Trip/Traffic Generation Analysis

- 1: The report shows the daily apartment trip generation rate as 2.93 per dwelling unit (ITE land use code 221, "Trip Generation Manual 11th Edition"). This appears low. The trip rate from the previous "Trip Generation Manual 10th Edition" for the same mid-rise apartment is 5.44 trips per day per dwelling unit. At 2.93 trips per unit per day, the residential portion of the project will generate 475 daily trips, while at 5.44 trips per unit per day, it will generate 881

daily trips. This discrepancy means the traffic report may have significantly underestimated the traffic impact of the project.

Recommendation

Revisit and confirm the project trip generation rates for both apartments and retail/commercial uses. Revise the trip generation analysis if needed, and recalculate the traffic LOS for the study intersections.

- 2: The project site is developed and currently occupied by commercial uses. How much more traffic the proposed project will generate compared to the previous use? Are there credits (reductions) taken for the previous use of the site in the traffic analysis?

Recommendation

Compare the site traffic generation between the previous use and the proposed use. Discuss the trip generation difference between the previous and proposed uses. Discuss whether or not any credits or reductions were taken in the traffic analysis. Revise the traffic LOS analysis as needed.

Study Intersection Traffic LOS Analysis

- 1: With 162 apartments plus 9,000 square feet of ground floor retail/commercial use, site-related traffic will likely access the site from various directions via 4th Street, 3rd Street, Second Street, Shaver Street, and E Street. The traffic report evaluates traffic operations (LOS) on only two intersections along 4th Street near the project site. This is inadequate and will be unable to fully capture the project trips and the traffic impact of the project on the other surrounding intersections.

Recommendation

Evaluate more intersections around the project site to fully capture the site traffic impact. The list of study intersections should include 4th Street at E Street and Shaver Street, 3rd Street at E Street and Shaver Street, and 2nd Street at E Street and Shaver Street. The traffic study also needs to evaluate traffic operations at the two proposed access driveways on Shaver Street. Access driveways are the linkage between the project site and the current street network and their design and operation need to be evaluated. The analysis should include driveway turning radius, sight distances, and spacing between the two proposed driveways.

Traffic Conditions Study Scenarios

- 1: The traffic report studies only two traffic scenarios, existing and existing plus the project scenario. This is inadequate and will likely miss the cumulative traffic from other proposed but not yet built or occupied development projects in the area. These approved but not yet built projects will add more traffic to the study area affecting traffic operations when they are complete and occupied.

Recommendation

Add and evaluate a short-term traffic scenario. The short-term traffic scenario should identify development projects near the proposed project site that have already received city approvals but have not yet been built or occupied. The traffic from these projects needs to be added to the intersection traffic LOS analyses as they will likely affect the traffic operation at the study intersections and the overall circulation in the area.

Project Site Access (Driveway Access)

- 1: The project site plan shows two site access driveways to be located on Shaver Street while pedestrian access will be on E Street. There is a discussion on the stopping sight distance for vehicles, however, there is no discussion on the sight distance between the exiting vehicle and pedestrians on the sidewalk. The sight distance between exiting vehicles and pedestrians is critical if the access driveways (garage driveways) have solid walls on both sides of the driveway while the sidewalks are narrow. In this situation, motorists exiting the garage driveways may not be able to see pedestrians in time to stop until the front end of the vehicle reaches the middle of the sidewalk, thus creating unsafe conditions for pedestrians. This is especially crucial for vehicles exiting (emerging) from the underground garage, which will make it even more difficult for motorists and pedestrians to see each other.

Recommendation

Evaluate sight distance for pedestrians and vehicles exiting from the garage. Discuss the type of walls to be installed at the garage exits/entrances and indicate whether or not pedestrian warning systems such as warning sound systems and or mirrors are needed. Identify the number of lanes for the two proposed driveways, spacing between the two driveways, and traffic controls, and discuss any traffic operations at the driveways and the security gates.

- 2: As discussed earlier, the site access driveways are links between the project site and the adjacent street network. The report did not identify and discuss the number of entering and exiting lanes for the proposed driveways and traffic controls, signs, and security gates needed; and whether or not the driveway design and traffic entering and exiting the driveways would create conflicts with traffic circulation in Shaver Street.

Recommendation

Identify the number of lanes for the two proposed driveways, traffic controls, and operation of security gate controls if there are any, and discuss any traffic operation issues and any potential conflict at the driveways and Shaver Street.

- 3: Shaver Street is a narrow two-way street with parking on both sides and narrow pedestrian sidewalks. The two proposed project access driveways will likely impact traffic operation, pedestrians, and residential access to and from Shaver Street and Latham Street.

Recommendation

Consider reversing the site access plan by locating the vehicle driveways on E Street and the pedestrian access at Shaver Street. E Street is wider and the land use is mostly commercial. Reversing the driveways will minimize vehicle impacts and conflicts on residential access to and from Shaver Street and Latham Street, and conflict with the pedestrians on the narrow sidewalk.

Parking (On-Street and On-Site)

- 1: The two proposed access driveways on Shaver Street will result in a loss of on-street parking spaces. Will the project provide parking spaces in the parking garage to compensate for the loss of street parking? The project includes 9,000 square feet of retail space on the ground floor. Are there parking spaces in the parking garage designated for retail use? Or will they be accommodated on the street?

Recommendation

Identify how many parking spaces will be eliminated on Shaver Street as a result of the new project access driveways. Discuss whether or not the lost street parking spaces will be compensated in the garage. Discuss how parking for the retail portion of the project will be accommodated.

- 2: The report does not discuss the internal circulation, drive aisles and how vehicles will navigate within the parking garage, and whether or not some of the parking spaces will be designated for the ground floor retail use.

Recommendation

Identify parking stall and drive aisle dimensions and discuss parking garage internal circulation, and whether or not vehicles can move between upper and lower levels of the garage internally.

Signals Warrant Study for Stop Control Intersections

- 1: The intersection of 4th Street and Shaver Street is controlled by a stop sign at the Shaver Street approach. The report needs to discuss whether or not the intersection needs to be signalized with the addition of the project traffic and also traffic from other approved but not yet built projects in the area.

Recommendation

Conduct signal warrant analyses to determine whether or not the intersection of 4th Street and Shaver Street needs to be signalized with the addition of the project traffic and traffic from other approved but not yet built projects in the short-term traffic scenario.

Study Area Traffic Safety

- 1: The proposed project site is bordered by 4th Street, 3rd Street, and 2nd Street further south. All of these streets are crosstown arterial streets that provide access to and from the Freeway US 101. These streets have on-street and must also must share the road with bicyclists. Traffic safety is a major concern.

Recommendation

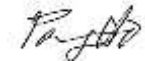
Conduct a traffic collision review for the area to identify collision hot spots and recommend remedial strategies as needed.

Conclusion

In conclusion, I believe most of the issues we identified above could be addressed and resolved. The most significant concern is the project site access driveways as currently proposed at Shaver Street. Relocating the driveways to E Street, or even moving just one of the driveways to E Street, would greatly reduce the project impact on the residential access and traffic operation on Shaver Street and Latham Street. It will also minimize conflict between vehicles exiting the garage and pedestrians due to narrow sidewalks.

Please feel free to contact me if you have any questions regarding the above analysis. We appreciate the opportunity to review the project.

Regards,



Pang Ho, AICP
Principal