BAYAN TRAILS SENIOR HOUSING/TOWNHOUSE DEVELOPMENT STREET CONNECTIVITY ANALYSIS - 2020 COMPREHENSIVE PLAN

This street connectivity analysis identifies the characteristics of a local access street connection between the proposed Bayan Trails Development and the existing San Mar Villas Neighborhood.

Olympia Comprehensive Plan (Comp Plan), Section T3.20(f) requires that streets and trails connect with other streets and trails whenever practical; dead-ends and cul-de-sacs should be avoided. T3.20(f) also requires use of "stubbed out" streets and trails to provide linkages with future neighborhoods. In determining where it is practical to connect new streets with existing ones, the City or County, as appropriate, will determine whether the merits outweigh the demerits of the whole package, and whether the connection would be in the best interests of both the community at large and the neighborhood. In discussions with the existing neighborhood, the following will be considered:

1. **Neighborhood development plans**. The San Mar Villas development was planned to have a future street connection to the proposed Bayan Trails development. Located north of Alonna Drive, the existing San Mar Drive stubs into and abuts the Bayan Trails south property line.

The future Bayan Trails street connection will provide connectivity between each neighborhood that will capture mainly internal trips to those neighborhoods. Therefore, these vehicle trips can utilize the connection without leaving low-volume local access streets. People walking and biking on this local street have the opportunity for greater social interaction.

Without this connection, pedestrians, bike and vehicle trips would need to travel on Sleater-Kinney Road, a higher-volume, higher-speed major collector to reach destinations in either neighborhood. This would increase congestion and accident risks by traveling longer distances.

As shown in the table below, with the neighborhood street connection, travel distances and times to the surrounding area can be reduced up to approximately 45 percent.

	Travel Distance			Travel Time	
	Without Connection	With Connection	Reduction	Without Connection	With Connection
San Mar Villas Residence to Bayan Trail Overlook Picnic Shelter	2,400 ft.	1,300 ft.	45%	2.0 min.	1.3 min.

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Green line shows the shorter street connection route.

Red line shows the longer route without the street connection.

It is not expected that residents of Bayan Trails will typically use the San Mar Villas neighborhood to enter or exit the Bayan Trails neighborhood; likewise residents of San Mar Villas will not use Bayan Trails to enter or exit San Mar Villas. The new connection would be used minimally for internal trips between the two neighborhoods.

The reductions shown in the table above can improve drivers' safety, decrease fuel consumption and reduce vehicle emissions. By providing additional alternative access between the Bayan Trails and San Mar Villas neighborhood, private deliveries, delivery of public services and emergency vehicles can function more efficiently without the need to use Sleater-Kinney Road. By providing more and shorter route options, the amount of traffic in both neighborhoods will be less.

2. Pedestrian safety. The street connection from Bayan Trails to San Mar Villas neighborhood will include traffic-calming devices to ensure that traffic from either development will travel at a safe speed, which will increase bicycle and pedestrian safety. The connection will terminate in the Bayan Trails development at a stop sign controlled "T" intersection. Due to the existing San Mar Drive curvilinear street design, vehicles are discouraged from reaching speeds above acceptable levels for local access streets, 25 mph.

With the street connection, it is not expected that a significant amount of traffic will be added to either the San Mar Villas or Bayan Trails neighborhoods. The conditions for bicyclists and pedestrians will be similar to current conditions.

- 3. Availability or feasibility of sidewalks. Within the Bayan Trails development, this street connection would be designated as a local access street, which requires 5-foot wide sidewalks on both sides of the street. No sidewalks currently exist in the San Mar Villas Neighborhood. Street widths in the San Mar Villas Neighborhood are 32 feet wide. If desired by the neighborhood, a striped shoulder walking area could be provided with the removal of parking one side of the street. The new street connection to Bayan Trails will provide San Mar Villas residents an access to a street network (Bayan Trails development) with sidewalks and safe walking routes.
- 4. **Width of roadway**. An Olympia standard Local Access Street width is 20-feet with parking on one side and a 13 foot vehicle travel lane. This street would extend from the San Mar Drive street stub approximately 250 feet and intersect with "Roads B & C."
- 5. **Topography and environmental constraints**. No significant topography or environmental constraints exist.
- 6. Sight distance. Sight distance is available.
- 7. Likelihood of diverting significant cross-town arterial traffic onto local neighborhood streets. Non-neighborhood traffic is not likely to use this connection as a regional commute route because there no destination other than the Bayan Trails and San Mar Villas neighborhoods. The street connection would provide a local circulation option that will benefit drivers traveling between the existing San Mar Villas neighborhood and the proposed Bayan Trails. This includes resident, delivery of goods and service, and provides an emergency route if other streets are temporarily blocked. Increase connectivity between the two developments will reduce traffic circulation on Sleater Kinney Road.
- 8. Whether pedestrian/bicycle connections, rather than streets, would accomplish the desired goals. By not providing the connection, more traffic would exit on to Sleater-Kinney Road creating more conflicts between vehicle, pedestrian and bicycles. Without the connection, there would be fewer route options for private deliveries, delivery of public services and emergency vehicles. A full street connection provides route options for vehicles if streets are blocked due to construction or emergencies.
- 9. **Effectiveness of proposed traffic-calming measures.** The connection terminates at a "T" intersection with stop sign control. Therefore, there is not a long distance for vehicles to gain speed. The mid-block area of the connection would incorporate traffic-calming devices to maintain proper vehicle speeds.

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