



Providence Bicycle and Pedestrian Advisory Commission
Jorge O. Elorza, Mayor

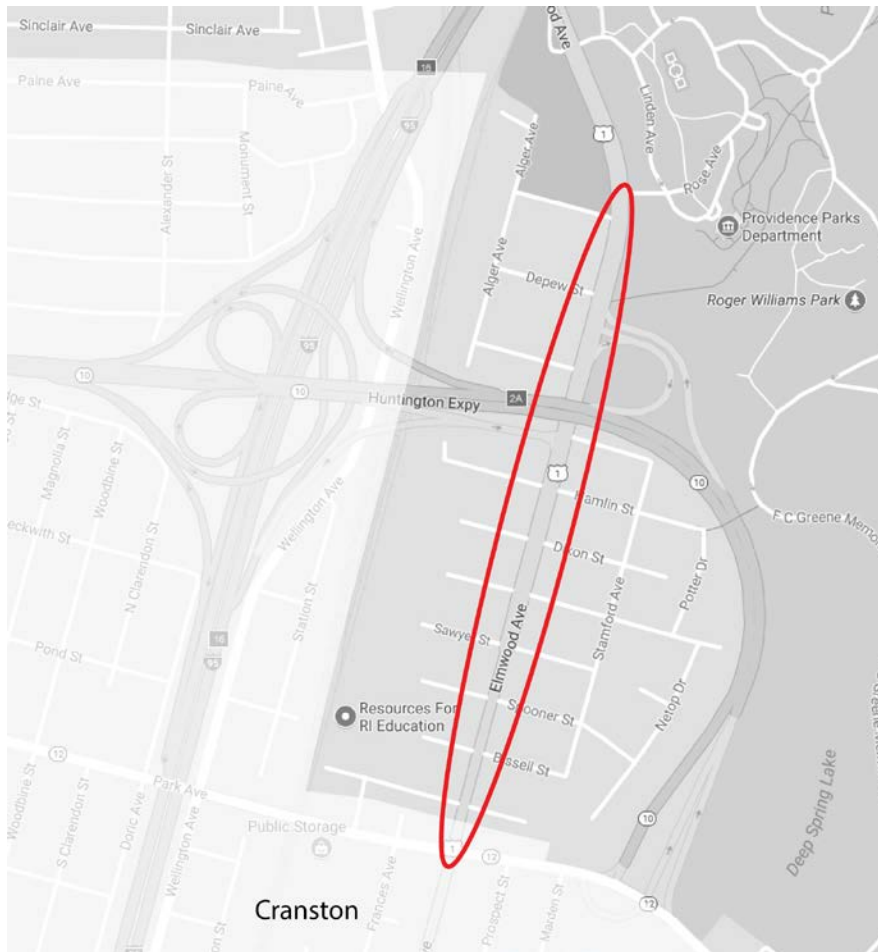
“Elmwood Avenue Road Safety Assessment” – South Elmwood - Ward 9 (For Action)

Presented at September 20, 2017 BPAC meeting

Project Description

The Rhode Island Department of Transportation, in coordination with the City of Providence, has conducted a Road Safety Assessment (RSA) for Elmwood Avenue south of Rose Avenue. The final recommendations of the RSA have been submitted to the City. This review will allow the Commission to provide comment on these RSA recommendations. If advanced in the future, this project will come back to the Commission for preliminary plan review.

Project Map





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Highlights from the RSA report

“There was no vulnerable road user (pedestrian and bicycle) crashes reported along this segment of Elmwood Avenue during the study period.”

	Posted Speed Limit (mph)	85 th Percentile Speed Limit (mph)	Average Speed (mph)
Elmwood Avenue at Hamlin Street - Northbound	25	39	34
Elmwood Avenue at Hamlin Street - Southbound	25	38	32
Elmwood Avenue at Spooner Street - Northbound	25	37	33
Elmwood Avenue at Spooner Street - Southbound	25	41	36

Proposed new crosswalks: “During the RSA, interest was expressed in striping a new crossing at Spooner to provide a designated crossing area to accommodate parishioners of the Centro Cristian de Adoración parish crossing Elmwood Avenue and at Hamlin Street. To determine the feasibility of installing new crosswalks, an uncontrolled crosswalk evaluation was completed under the existing condition (4-lane cross section).”

A traffic study performed as part of the RSA found that on the day of study, the vehicular Annual Daily Traffic (ADT) was **12,362** at Hamlin Street and **11,910** at Spooner Street. The report states, based on the traffic study conclusions, that these conditions do not meet the Federal Highway (FHA) guidelines for installation of a crosswalk at either Spooner Street or Hamlin Street.

Roadway Type	Vehicle ADT ≤9,000			Vehicle ADT >9,000 to 12,000			Vehicle ADT >12,000 to 15,000			Vehicle ADT >15,000		
	Speed Limit (miles per hour)											
	30	35	40	30	35	40	30	35	40	30	35	40
Two lanes	C	C	P	C	C	P	C	C	N	C	P	N
Three lanes	C	C	P	C	P	P	P	P	N	P	N	N
4+ lanes (with median)	C	C	P	C	P	N	P	P	N	N	N	N
4+ lanes (no median)	C	P	N	P	P	N	N	N	N	N	N	N

If a road diet to three lanes or installation of a median reduce the 85th percentile speeds to 35 or even 30 mph, both locations would meet FHA criteria for a crosswalk. Hamlin Street already features a median, so other traffic calming techniques would be needed to create the conditions for crosswalk feasibility. At Spooner Street, even without a reduction in speed, a road diet to three lanes would make



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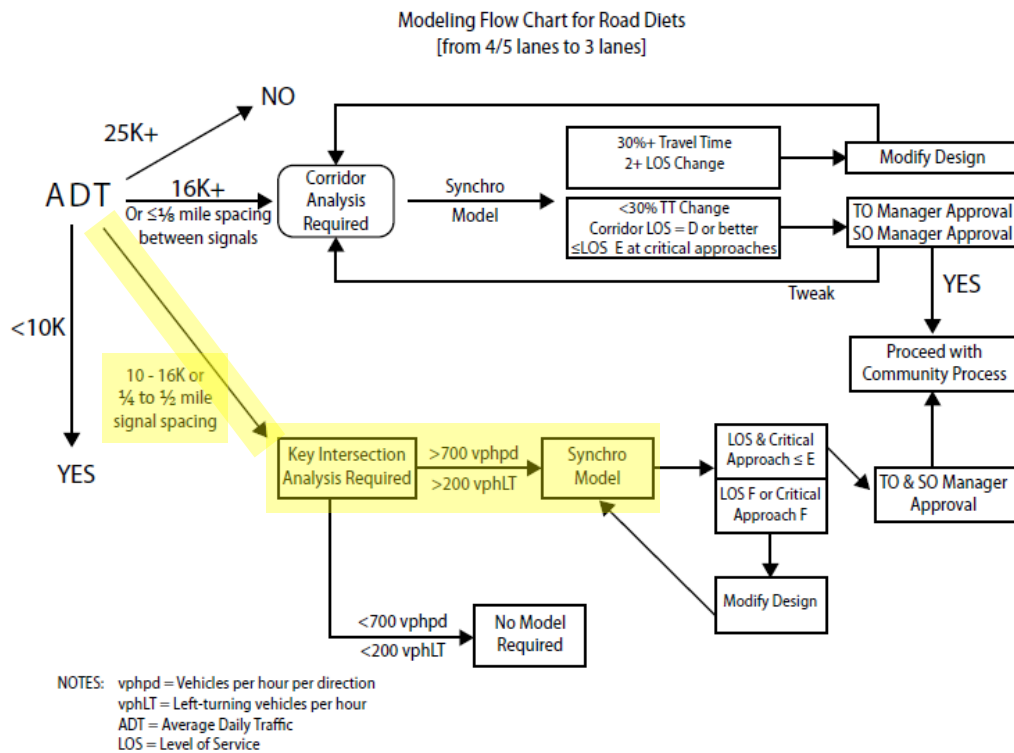
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the intersection meet FHA criteria for a crosswalk. According to FHA guidance on road diets, “85th percentile and average speed along conversions are likely to decrease by 3 to 5 mph.”

Road diet: The RSA report states “Following the RSA, a road diet was found to be infeasible due to evening peak hour traffic volumes, even though the ADT is approximately 13,800.”

Location	Vehicles per hour		
	AM Peak	PM Peak (northbound)	PM Peak (southbound)
Elmwood Avenue at Hamlin Street	1002	399	1157
Elmwood Avenue at Spooner Street	963	388	1142

FHWA guidance on road diets refers to the flow chart below used by the City of Seattle:



This process suggests that this section of Elmwood Avenue needs a Synchro (traffic modeling software) Model analysis of Level of Service (LOS) to determine whether the traffic impacts of a road diet would be too severe. It is possible that for an urban residential arterial like the study area, a “low” Level of Service would be appropriate.



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Staff Recommendations

- A Synchro Model of the LOS impacts of a road diet should be performed. Reductions in LOS should not inherently disqualify the study area from road diet consideration.
- A parking utilization study should be conducted to determine the demand for on-street parking in the study area.
- Traffic calming measures such as temporary speed feedback signs, narrowed lanes, and a campaign of increased speeding enforcement should be implemented on the corridor, and the intersections with Spooner Street and Hamlin Street should be evaluated again for crosswalk feasibility with updated speed (and traffic volume) data.
- Install continental-style crosswalks across all four branches of Sawyer Street, Spooner Street, Bissell Street, Hamlin Street, Dixon Street, Thurston Street, and McKinley Street
- Formalize each of the above mentioned intersections by striping end lines to all parking lanes and cross-hatching the no-parking zone within 20 feet of each intersection.
- Add continental-style crosswalks across all three branches of the Rose Avenue intersection.
- All recommendations framed as “Consider” should be rewritten to omit that word. For example, Recommendation 1-27 would change from “Consider the feasibility of moving the existing crosswalk to the northern side of the intersection with Carlisle Street to improve access to Williams Park, Roger Williams Park, and the existing RIPTA bus stops” to “Move the existing crosswalk to the northern side...”
- Recommendation 1-2 suggests that educating schoolchildren on safe pedestrian behavior might be effective in addressing vehicular speeds. This recommendation should be revised to state “Develop educational strategies in partnership with the Rhode Island Department of Motor Vehicles to reinforce safe driving practices and the risks of speeding.”
- Recommendation 1-15 is “Consider feasibility of installing bicycle lanes along Elmwood Avenue” and is listed in the “Long Term Improvements: Over 2 years” section. In the comments section, it is stated that “Long-term improvements to be considered after immediate- and near-term solutions have been implemented. Installing bicycle lanes is applicable if on-street parking is removed.” Recommendation 1-15 should be moved to the “Near Term Improvements: Under 2 years” section, and the comments section should have the first sentence stricken and the second sentence changed to “Installing bicycle lanes is applicable if a road diet is performed or on-street parking is removed.”
- A recommendation should be added to make reference to separated bike lanes in the event that there is adequate roadway width.
- Recommendations 1-27 should be moved from the “Long Term Improvements: Over 2 years” section to the “Near Term Improvements: Under 2 years” section.

Respectfully submitted by Alex Ellis.