

SR 1 AND SR 16 GRADE SEPARATED INTERSECTION

T201500301

PUBLIC WORKSHOP NOVEMBER 5, 2015 AT EAGLE'S NEST CHRISTIAN ACADEMY

A Public Workshop was held on November 5, 2015 at the Eagles Nest Christian Academy to present six Alternatives to the public for improvements at the intersection of SR 1 and SR 16. The improvements proposed at this location were a grade separated intersection utilizing bridges and ramps to access SR 1 and SR 16. Based on the public input obtained at the workshop and during the comment period, along with maintaining the goals of the Department, it has been decided to advance the project with a design that closely resembles Alternative #5. This alternative will raise the existing SR 1 northbound and southbound lanes to allow SR 16 to remain on its existing alignment while passing underneath.

Final plans will be communicated to the public via a second public workshop once the selected alternative has been designed to a point that impacts can be determined. It is anticipated that this workshop will occur in the fall of 2016.



MOST RECURRING COMMENTS/QUESTIONS FROM THE PUBLIC WORKSHOP

- **How long will construction take?**

It is anticipated that construction of the grade separated intersection will take approximately two and a half years.

- **How will vehicles turning onto SR 1 be able to locate gaps once signals are removed?**

Presently, motorists at nearby downstream median crossovers, unsignalized intersections, and other access points in the vicinity of the existing signal experience two types of gaps in SR 1 traffic during peak traffic periods. Because the upstream traffic signal “interrupts” free-flowing traffic along SR 1, the first type of traffic pattern observed downstream is a dense platoon (pack) of thru traffic across both lanes that recently received a green at the signal. This dense platoon has significantly smaller gaps than free-flowing traffic because these motorists were stopped together at the preceding red signal. The second type of traffic pattern presently experienced by downstream motorists is when SR 1 is red at the signal and the left-turning and right-turning traffic from the minor roads turn onto SR 1 and effectively occupy one lane of traffic. During this second portion of each signal cycle, motorists at the downstream median crossover are much more likely to observe a “safe gap” in SR 1 traffic and subsequently cross the highway.

Note that the distinction between the two traffic patterns is most apparent very close to the traffic signal, and dissipates farther away. This is due to the differing driving behaviors of individual motorists (e.g., aggressive, conservative, etc.) as well as the intermixing of traffic from other cross streets and access points. Between a half mile and a mile away from the signal, traffic patterns tend to revert to one, random distribution of traffic.

Once the intersection of SR 1 and SR 16 is grade-separated, the traffic conditions downstream will be more susceptible to free-flowing traffic conditions with more “random” gaps in SR 1 traffic. With this future project, the resulting gaps in SR 1 traffic at downstream points will be an average of the two traffic patterns currently experienced with the upstream traffic signal. Furthermore, the anticipated gaps will be significantly longer than the (lack of) gaps when the signalized thru platoon moves past downstream points, yet not as long as the gaps when turning traffic from eastbound and westbound SR 16 pass the median crossover. The traffic patterns near SR 16 will be similar to those a mile or more away from SR 16 today.

To better understand and quantify the specific expected changes in traffic patterns and gaps along SR 1 near SR 16, additional studies will be performed during the summer of 2016.

It is also important to note that DelDOT continually monitors the safety and operations at Delaware’s unsignalized median crossovers through its annual and systemic safety programs. If problems develop at any downstream median crossover following the grade-separated intersection project at SR 1 and SR 16, DelDOT will evaluate safety and operational countermeasures and alternatives that would be discussed further with local residents and area legislators.

- **How will this project affect traffic signal congestion on SR 1 at points farther to the south, such as at the intersection of SR 1 and US 9/SR 404?**

Currently, southbound SR 1 experiences a significant amount of traffic congestion during summer Saturdays due to beach traffic and, consequently, long queues are often observed along southbound SR 1 between Milford and the beach area. The perception may be that the current traffic signal at SR 1 and SR 16 is “metering” traffic (i.e., reducing the downstream queues and delays) at SR 1 and US 9/SR 404 during peak periods. Therefore, a primary concern with removing the existing traffic signal at SR 16 is that the traffic flow approaching the “Five Points” intersection and the resulting congestion may be exacerbated during peak periods.

To assist in evaluating the impacts of grade-separating SR 1 at SR 16, flow rate studies will be performed along southbound SR 1 during the peak hours in the summertime months to identify the impacts that the traffic signal at SR 1 at SR 16 has on traffic flow rates along the corridor and to identify any anticipated impacts to the SR 1 and US 9/SR 404 traffic signal.

- **How will stormwater and drainage be addressed?**

Stormwater management facilities will be included in this project. Type and location of such facilities are yet to be determined.

- **How will added noise impacts be addressed?**

A noise evaluation will be completed in the preliminary design stages. Should noise increases due to the proposed design be deemed unacceptable, appropriate measures will be taken to mitigate such disturbances. Evaluation and abatement procedures would be completed according to Title 23 of the Code of Federal Regulations Part 772.

- **My property is in farmland preservation, what is the process?**

The process depends on what type of preservation program the property exists in (i.e. Federal, State, District). Generally, if part of the property is needed for the construction of a project, DelDOT would present the necessary information to the Farmland Preservation Board for review. The boards typically meet monthly to discuss such requests. Once approval is received DelDOT may present the offer to the property owner. As far as returning monies, that decision would be made by the Department of Agriculture based on the size and type of acquisition.