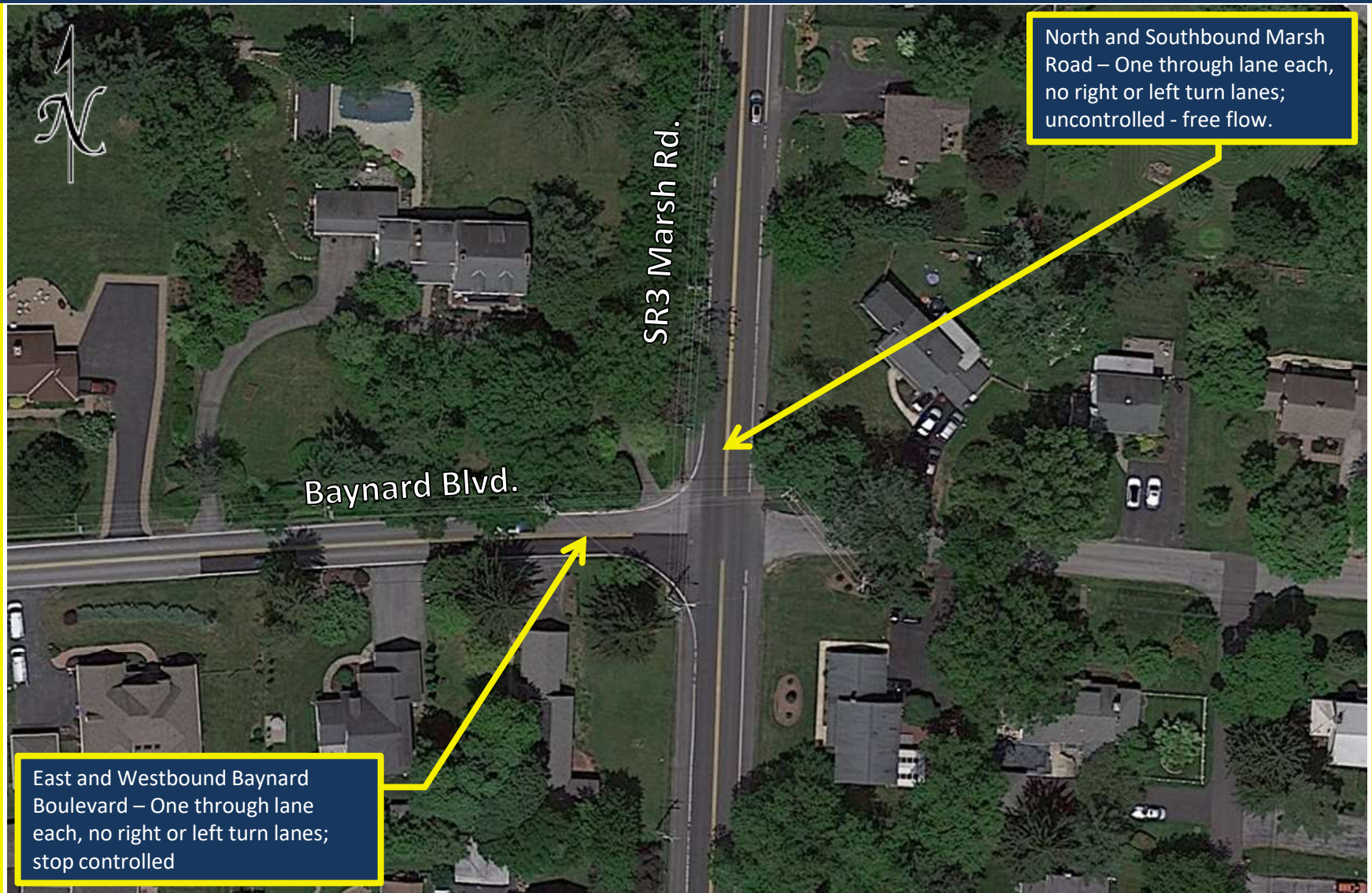


SR3 Marsh Rd. and Baynard Blvd. – Traffic Signal Evaluation



SR3 Marsh Rd. and Baynard Blvd. – Traffic Signal Evaluation (Existing Geometry)

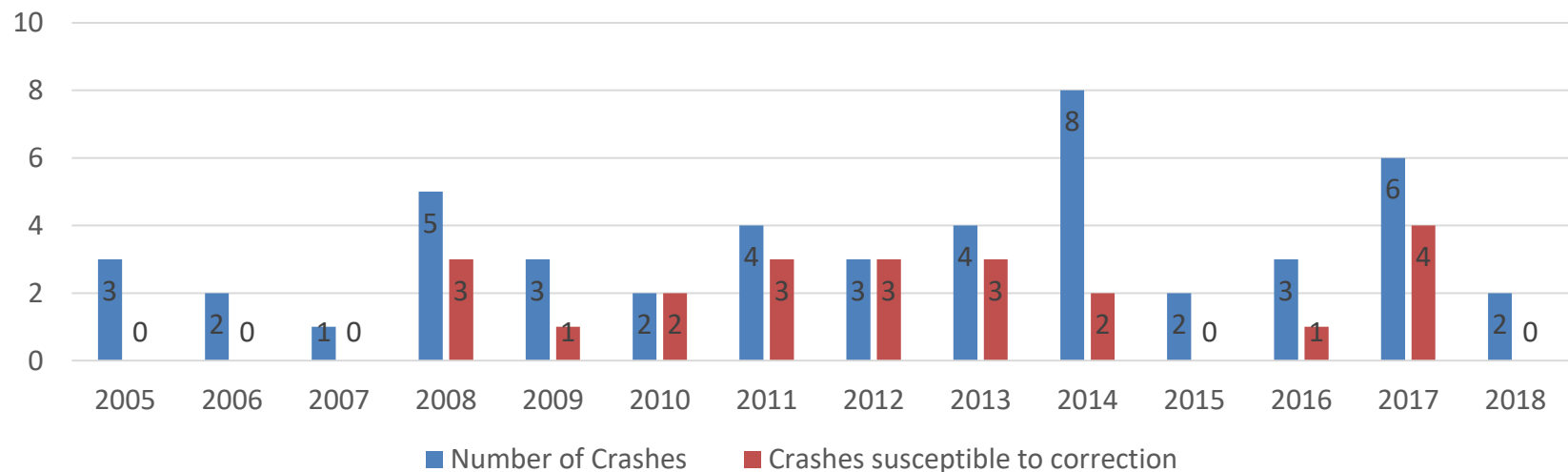


SR3 Marsh Rd. and Baynard Blvd. – Traffic Signal Evaluation (Existing Crash Patterns and Operations)

Crash Patterns:

- Thirteen crashes between October 2014 and January 2019.
 - Six angle crashes
 - Two head-on crashes
 - Two sideswipe crashes
 - One rear-end crash
 - One animal involved crash
 - One road departure crash

Total Crashes vs. Crashes Susceptible to Correction



SR3 Marsh Rd. and Baynard Blvd. – Traffic Signal Evaluation (Existing Operations)

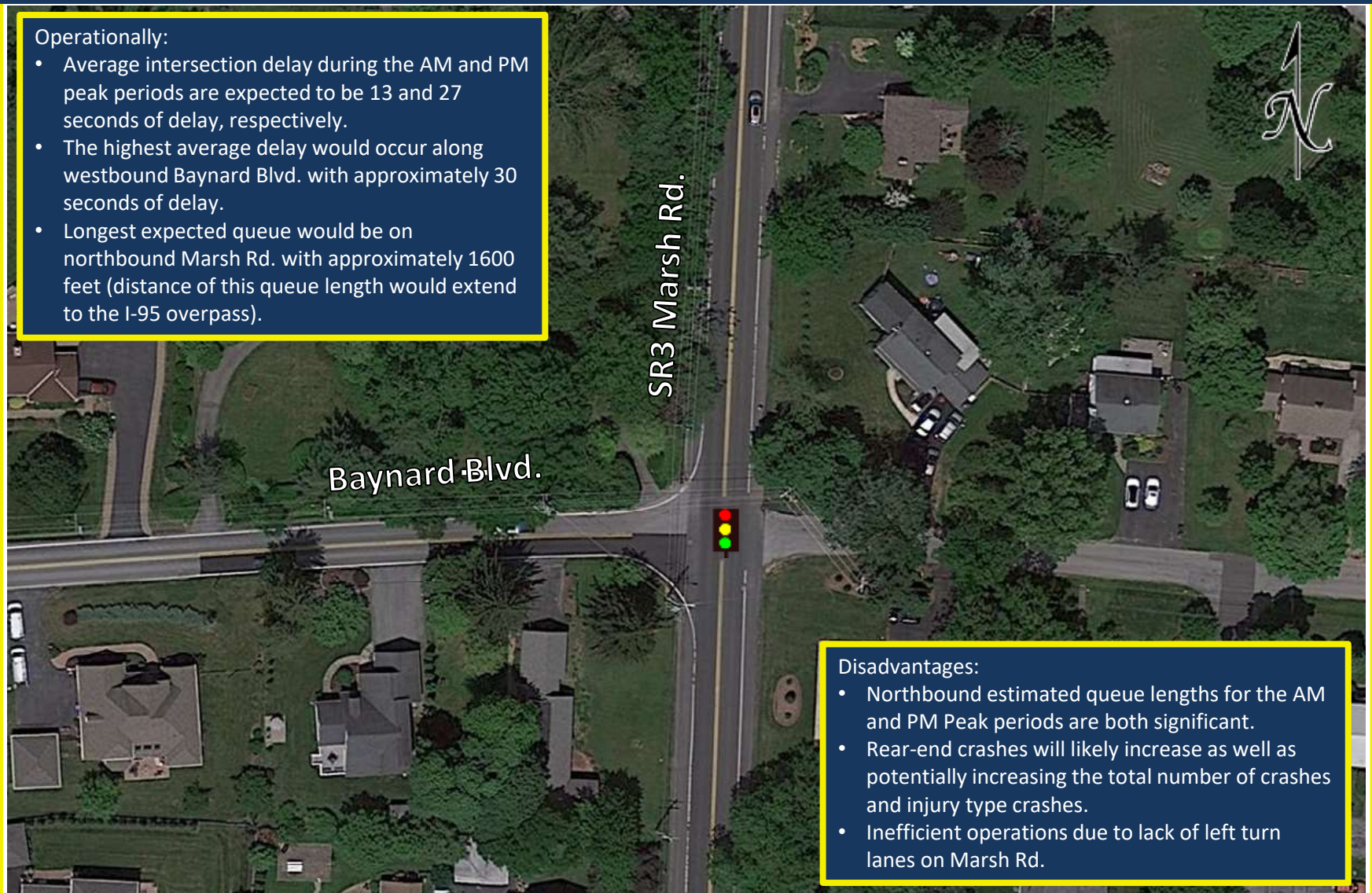
Intersection Operations:

- The highest intersection delay and queue lengths are encountered during the PM Peak Hour along the eastbound Baynard Blvd. approach with a 248 second delay and 478 foot queue length.
- The AM Peak Hour of 7-8 AM has the highest number of right turn movements with 272 vehicles compared to the off—peak hour volume of 113 vehicles from 1-2 PM.

SR3 Marsh Rd. and Baynard Blvd. – Traffic Signal Evaluation (Consideration – Traffic signal with existing lane configuration)

Operationally:

- Average intersection delay during the AM and PM peak periods are expected to be 13 and 27 seconds of delay, respectively.
- The highest average delay would occur along westbound Baynard Blvd. with approximately 30 seconds of delay.
- Longest expected queue would be on northbound Marsh Rd. with approximately 1600 feet (distance of this queue length would extend to the I-95 overpass).



Disadvantages:

- Northbound estimated queue lengths for the AM and PM Peak periods are both significant.
- Rear-end crashes will likely increase as well as potentially increasing the total number of crashes and injury type crashes.
- Inefficient operations due to lack of left turn lanes on Marsh Rd.

SR3 Marsh Rd. and Baynard Blvd. – Traffic Signal Evaluation (Considerations)

Considerations:

- 1) Leave location unsignalized but continue to monitor crash patterns over time.

- 2) Install a traffic signal based on existing lane configuration.
 - * If future safety or operational aspects develop, a project nomination could be submitted to DeIDOT's Capital Transportation Program to consider the installation of dedicated turn lanes or a roundabout while accommodating a multimodal design.