



August 2018

Memorial Drive

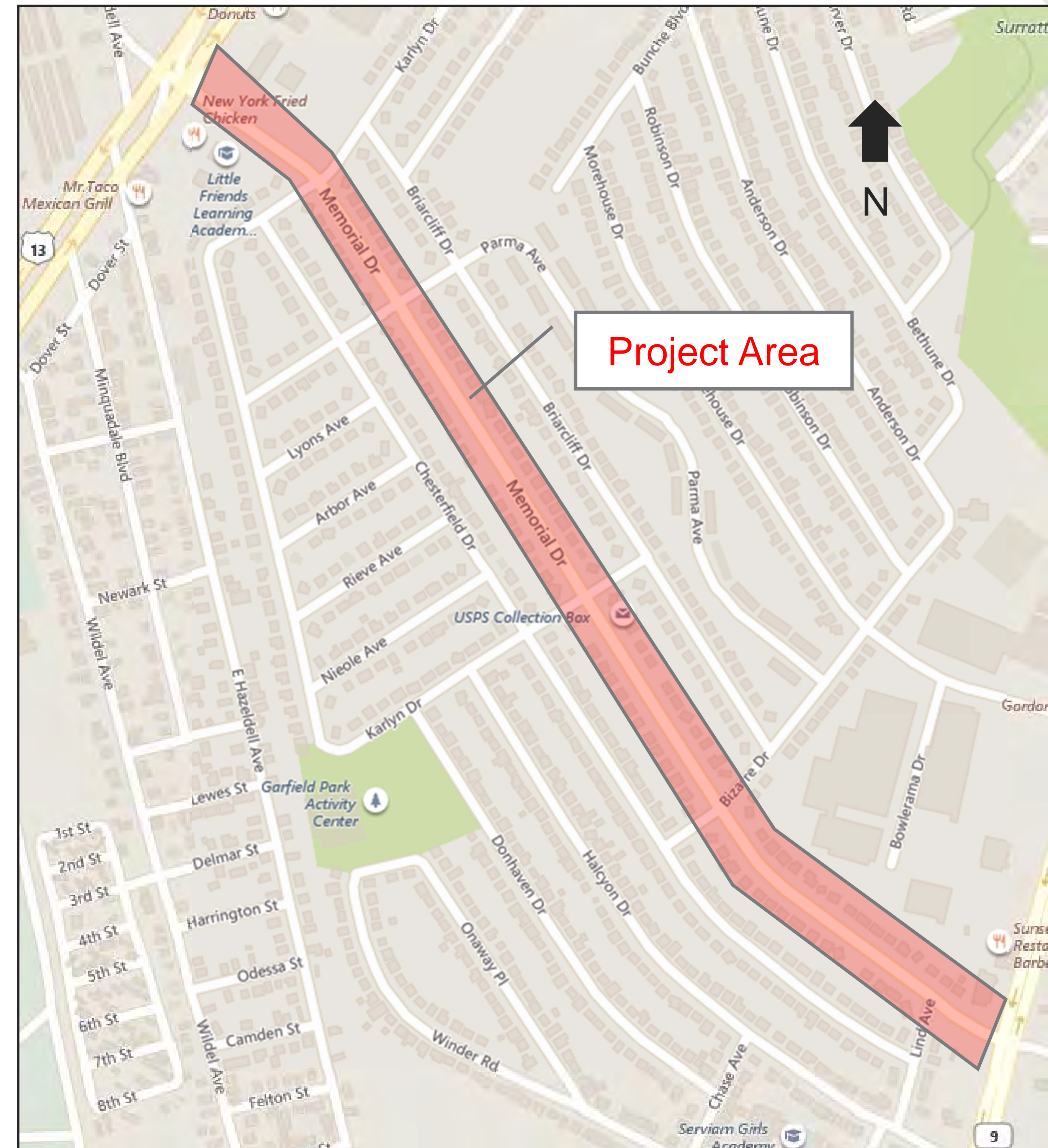
Road Diet

DeIDOT Contract Number
T201606001



Project Background

- Project area approximately 1 mile in length
- Bordered by two signalized intersections, Delaware Route 9 and US Route 13
- Five unsignalized intersections exist
 - Karlyn Drive (west)
 - Parma Avenue
 - Karlyn Drive (east)
 - Bizarre Drive
 - Lind Avenue
- Proposed Scope – Apply a road diet to convert the two lane roadway to a single lane in each direction. Maintain on-street parking and add bike lanes.

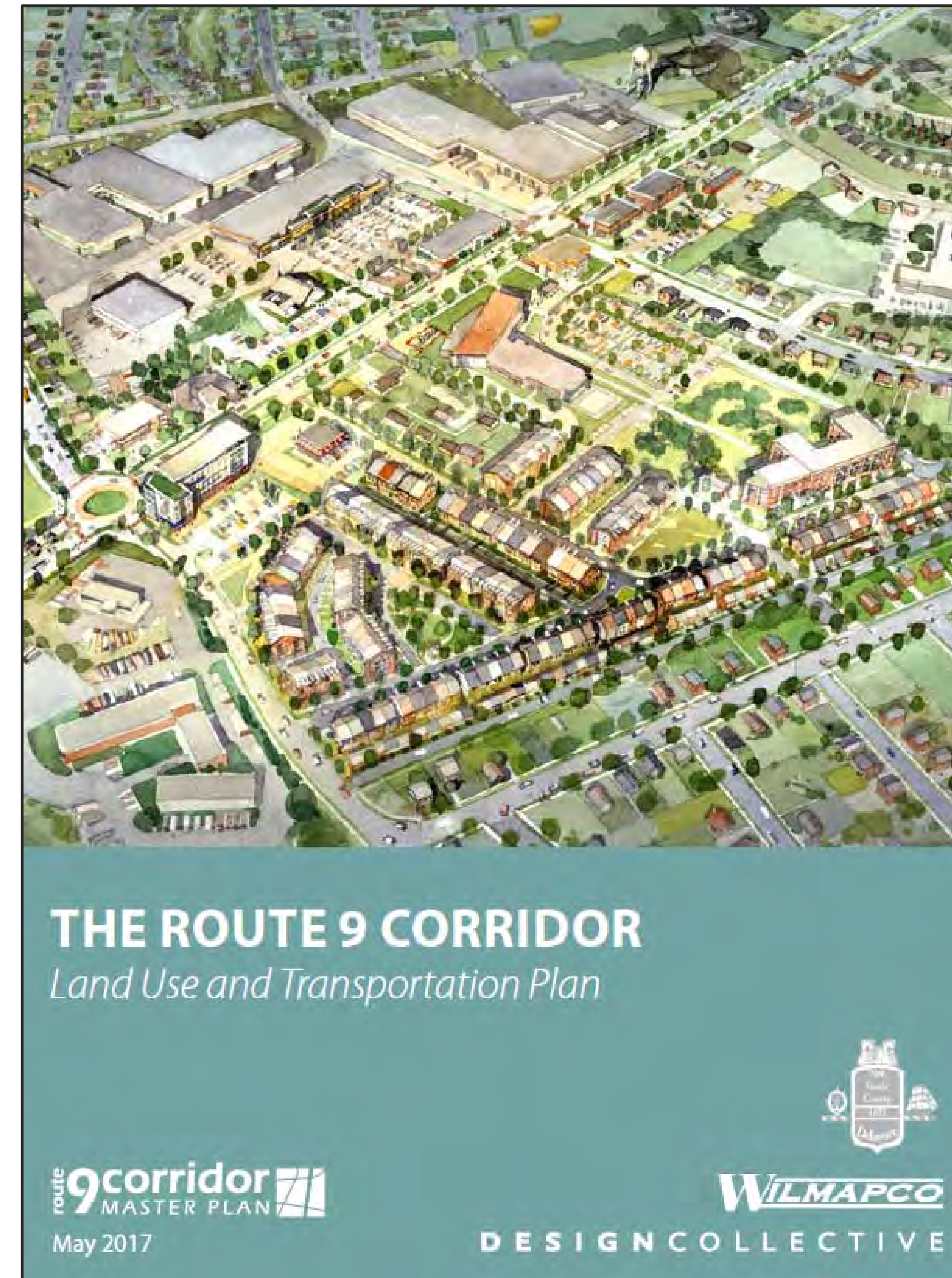


Route 9 Corridor Master Plan

- Identifies the reinvestment and redevelopment strategies for the Route 9 Corridor south of Wilmington, Delaware
- Funded and executed by the Wilmington Area Planning Council (WILMAPCO) under the guidance of a committee comprised of local civic and agency partners
- Plan recommended a road diet along Memorial Drive

For more information, see website:

<http://www.wilmapco.org/route9/>

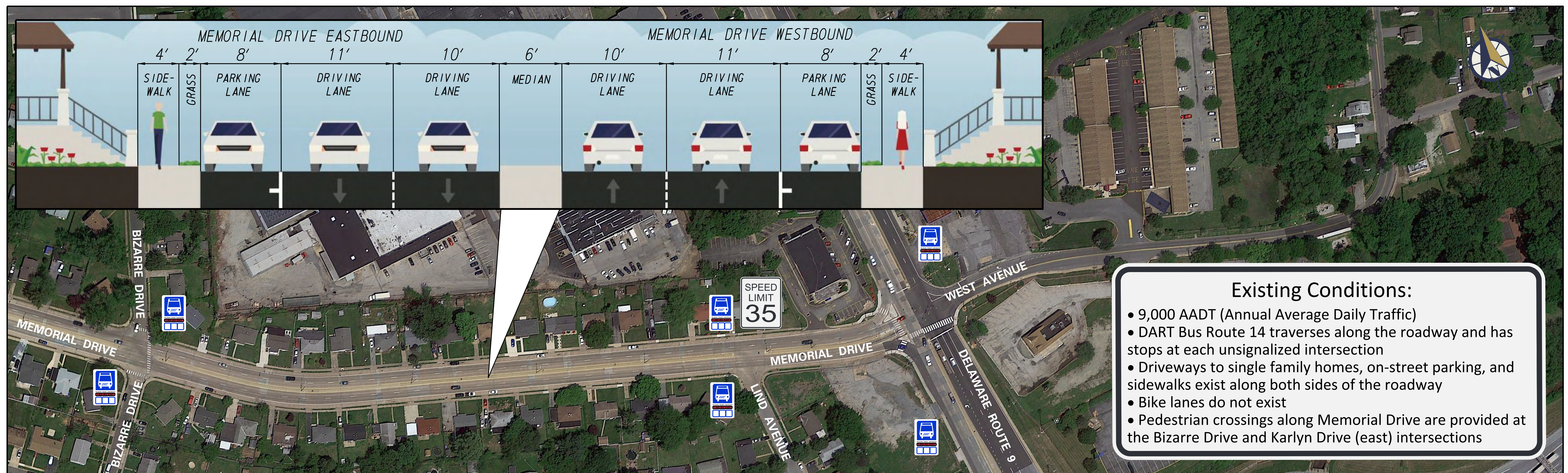
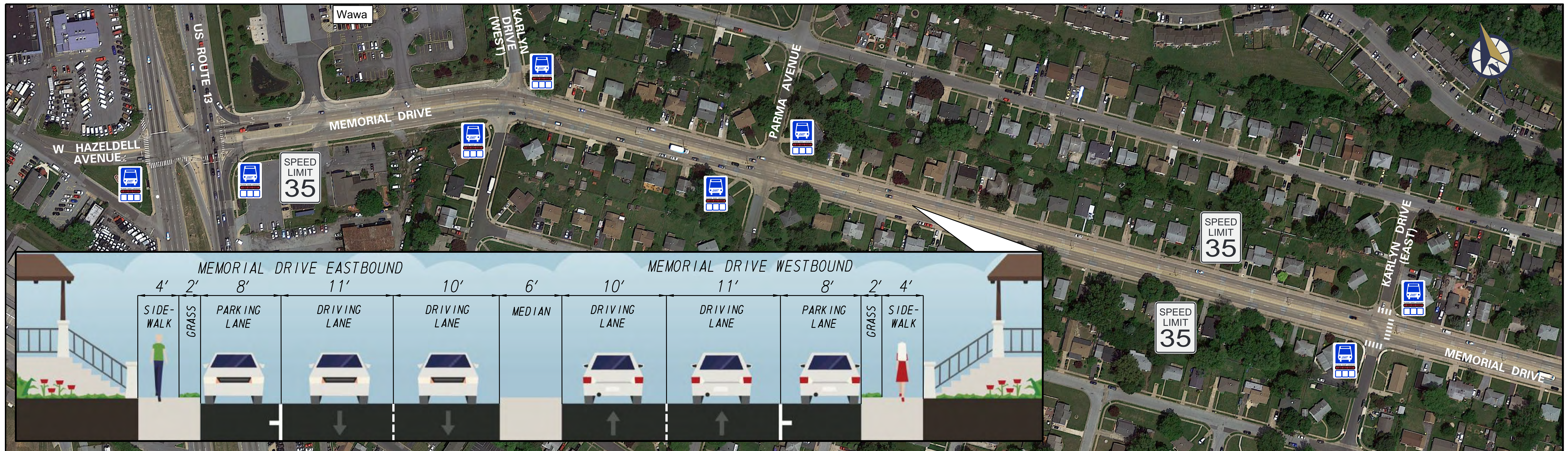


EXISTING CONDITIONS

MEMORIAL DRIVE



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Existing Conditions:

- 9,000 AADT (Annual Average Daily Traffic)
- DART Bus Route 14 traverses along the roadway and has stops at each unsignalized intersection
- Driveways to single family homes, on-street parking, and sidewalks exist along both sides of the roadway
- Bike lanes do not exist
- Pedestrian crossings along Memorial Drive are provided at the Bizarre Drive and Karlyn Drive (east) intersections

Existing Traffic Conditions

- Approximately 9,000 vehicles per day
- No significant traffic operational issues such as significant congestion or queue lengths
- Approximately 5 to 10 pedestrians crossed Memorial Drive at the Lind Avenue, Bizarre Drive, Karlyn Drive (East), and Parma Avenue intersections during the weekday AM peak period
- During the weekday PM peak period, approximately 10 pedestrians crossed Memorial Drive at the Bizarre Drive intersection
- Detailed information regarding the existing delays and queue lengths are located in the Appendix of this presentation

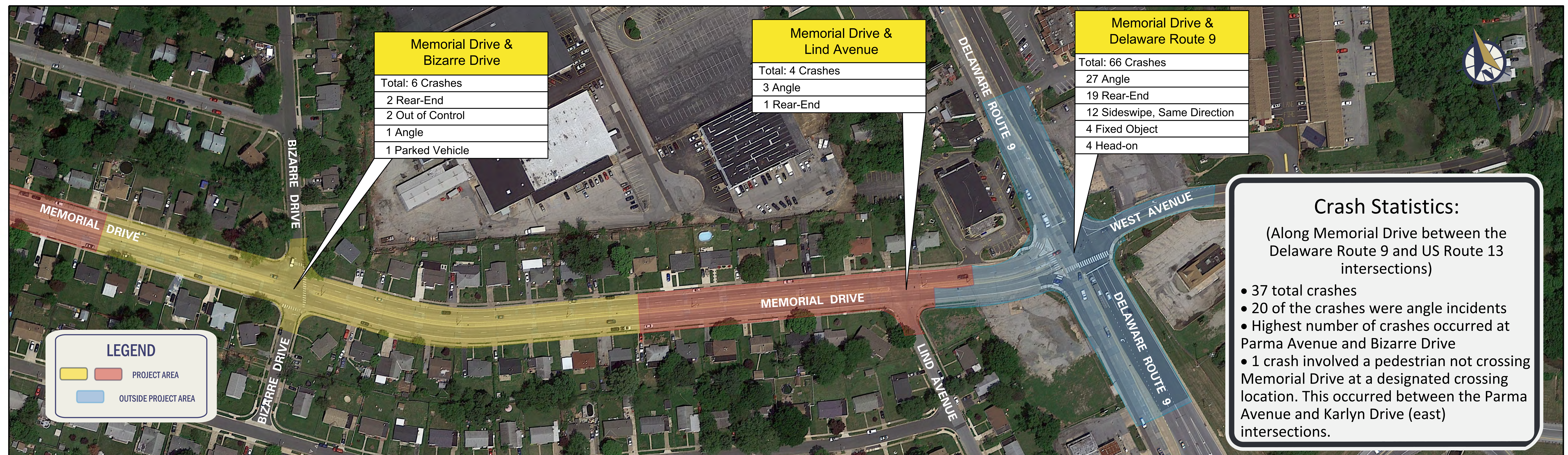
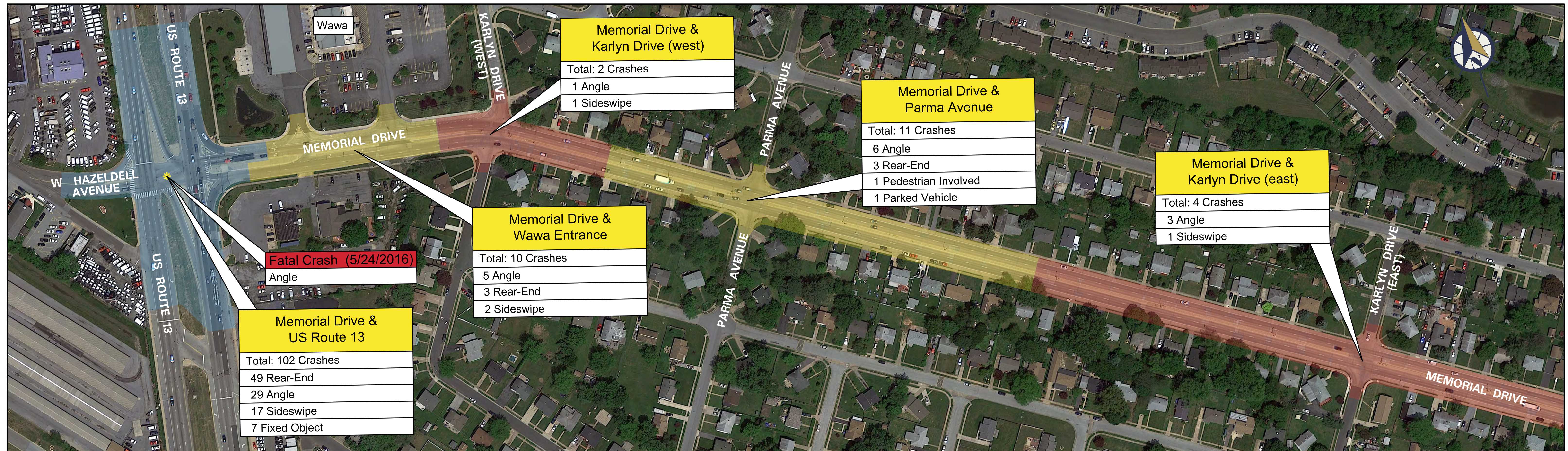


CRASH DATA (APRIL 2015 - APRIL 2018)

MEMORIAL DRIVE



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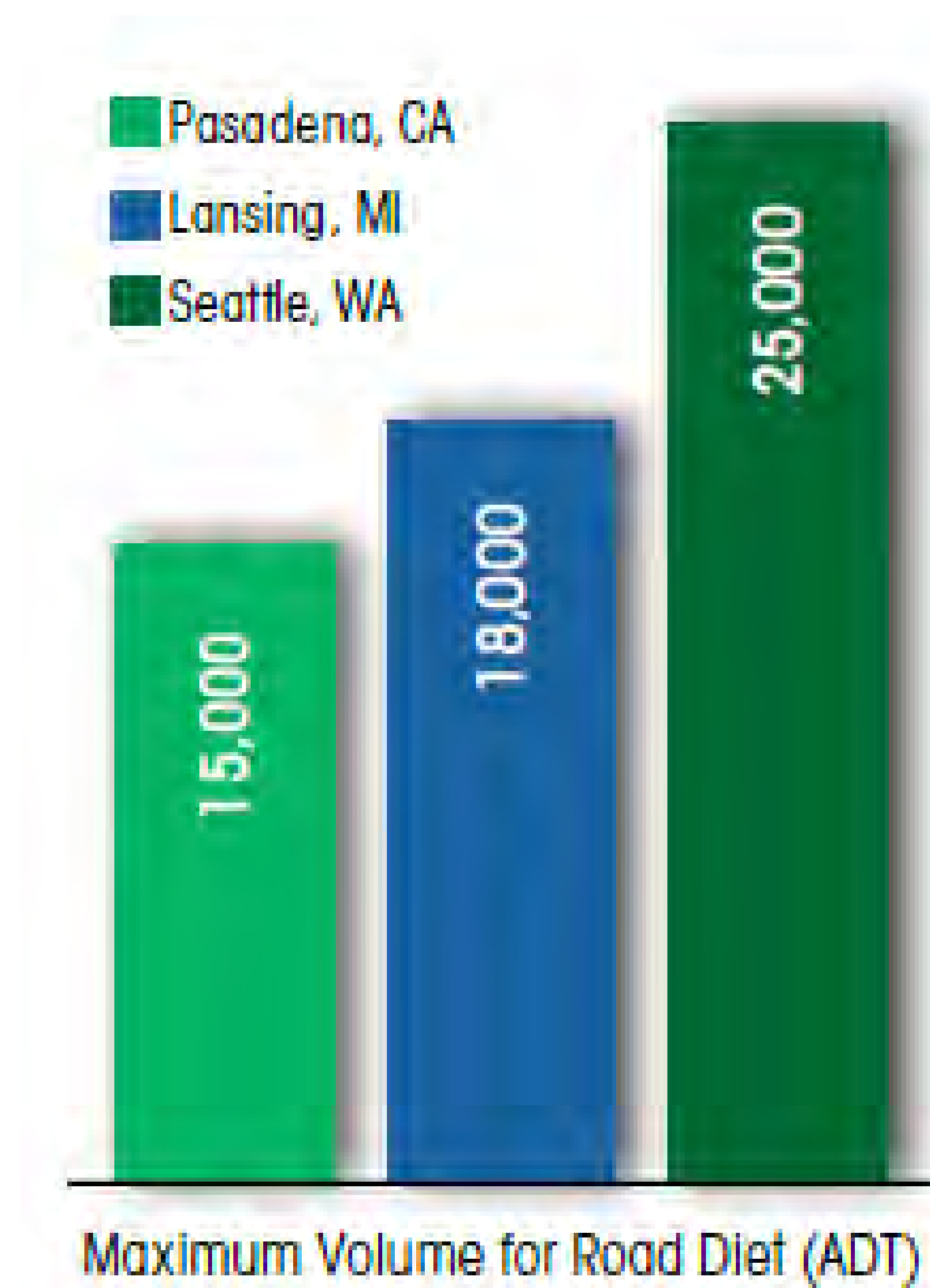


Considerations

Taken into account when modifying two lanes in each direction roadway to provide one lane in each direction:

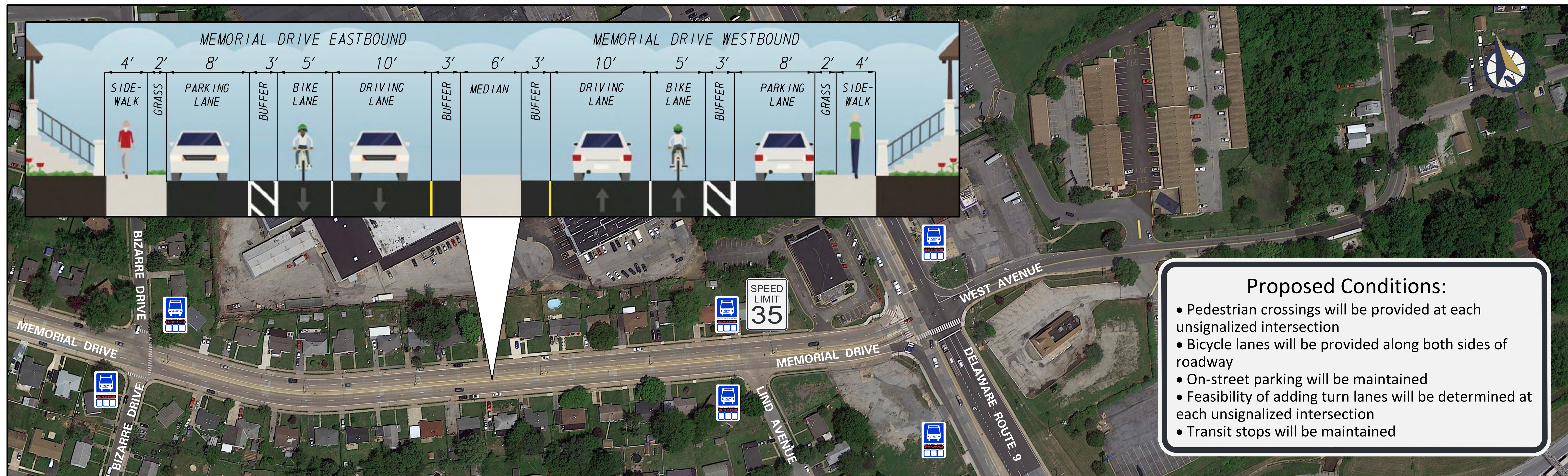
- Crash History
- Traffic Volumes
- Transit Stop Locations
- On-Street Parking
- Pedestrian Crossing Distances
- Turn Lane Feasibility
- Utility Pole Locations
- Center Median
- FHWA Road Diet Informational Guide

FHWA advises roadways with ADT of 20,000 vehicles per day or less may be good candidates for a Road Diet



Source: FHWA Road Diet Informational Guide

MEMORIAL DRIVE



- Pedestrian crossings will be provided at each unsignalized intersection
- Bicycle lanes will be provided along both sides of roadway
- On-street parking will be maintained
- Feasibility of adding turn lanes will be determined at each unsignalized intersection
- Transit stops will be maintained

Benefits of Road Diet

- Slower speeds
- Added bike facilities
- Shorter pedestrian crossing distances
- No changes to traffic operations at adjacent signalized intersections
- Consistent with Route 9 Corridor Master Plan
- Detailed information regarding the future traffic conditions along the corridor with the road diet are located in the Appendix of this presentation



APPENDIX

Existing Traffic Conditions

- The signalized intersections of US Route 13 and Delaware Route 9 with Memorial Drive operate with delays of approximately 30 seconds or less per vehicle during the AM and PM peak periods.
- During the AM and PM peak periods, the calculated 95th percentile queue length along the westbound Memorial Drive left turn at the US Route 13 intersection is approximately 120 feet and 130 feet, respectively.
- During the AM and PM peak periods, the calculated 95th percentile queue length along the eastbound Memorial Drive shared through/left turn lane is approximately 70 feet and 100 feet, respectively.
- The minor street approaches at the unsignalized intersections within the project area operate with delays of approximately 20 seconds or less per vehicle during the AM and PM peak periods with calculated 95th percentile queue lengths of approximately 20 feet or less.
- The left turning movements along Memorial Drive at the unsignalized intersections within the project area operate with delays of less than 10 seconds with calculated 95th percentile queue lengths of approximately 5 feet.

Future Traffic Conditions with Road Diet

- The signalized intersections of US Route 13 and Delaware Route 9 with Memorial Drive would continue to operate with delays of approximately 30 seconds or less per vehicle during the AM and PM peak periods.
- During the AM and PM peak periods, the calculated 95th percentile queue length along the westbound Memorial Drive left turn at the US Route 13 intersection would continue to be approximately 120 feet and 130 feet, respectively.
- During the AM and PM peak periods, the calculated 95th percentile queue length along the eastbound Memorial Drive shared through/left turn lane would continue to be approximately 70 feet and 100 feet, respectively.
- The minor street approaches at the unsignalized intersections within the project area would continue to operate with delays of approximately 20 seconds or less per vehicle during the AM and PM peak periods with calculated 95th percentile queue lengths of approximately 20 feet or less.
- The left turning movements along Memorial Drive at the unsignalized intersections within the project area would continue to operate with delays of less than 10 seconds with calculated 95th percentile queue lengths of approximately 5 feet.