

Powell Crossing

Summary of Traffic Study and Roadway Planning

06-16-14

- A traffic study was prepared as requested by the City and the results of the traffic study were summarized in a report dated October 7, 2013. The key findings were:
 - 55 vehicles are projected to enter the site during the PM peak commuter hour (30 associated with the proposed residential component and 25 associated with the proposed retail component).
 - With 32 vehicles projected to turn left into the site from westbound West Olentangy Street, a separate left turn lane is warranted.
 - Based on ODOT Location and Design Manual standards, the left turn lane needs to have 50 feet of storage.
- City representatives requested roadway design studies to determine how the roadway widening in front of the site could be integrated with the City's plans for the installation of a "queue cutter" at the railroad crossing. In response to this request, the consultant team prepared preliminary plans showing alternatives for widening Olentangy Street to meet the requirements of the City and the Ohio Rail Development Commission.
 - Initial plans included potential widening of Olentangy Street from Traditions Way to Liberty Road (since ORDC indicated that an eastbound left turn lane needed to be constructed on Olentangy Street at its intersection with Hall Street).
 - Upon further discussion and review, the requirement by ORDC for the left turn lane at Hall Street was eliminated; thus, roadway plans were revised to address modifications to Olentangy Street from a point just east of Depot Street to Traditions Way.
- Under the current roadway plan:
 - Olentangy Street would have a three-lane cross-section from the CSX rail crossing to Traditions Way.
 - A westbound left turn lane could be created to serve vehicles turning into Powell Crossing. This left turn lane would have 150 feet of storage – three times that defined by ODOT standards.
 - In addition, left turn lanes could be created at Lincoln Street and at Traditions Way (to serve the existing development on the south side of Olentangy Street). These left turn lanes would each have at least 100 feet of storage.
 - In the eastbound direction just west of the rail tracks a left turn lane can be created to serve existing developments on the north side of Olentangy Street.
 - A queue cutter signalization system could be installed commensurate with the roadway widening efforts.
- The community benefits from having this work performed as a single project.
 - The streetscape plan of the Downtown can be extended westward in a consistent manner.
 - Curbing can be installed to change the character of the roadway from rural (i.e. open ditch) to urban (with enclosed drainage). This enhances and aligns the roadway edges.
 - Sidewalks and street trees can be added to enhance the pedestrian environment.
 - Turn lanes can be installed to move turning vehicles out of the paths of through traffic.
 - A queue cutter signal system can be installed to reduce the risks of vehicles stopping on the rail tracks.

- With multiple improvements being made at one time, both pedestrian and vehicular travel along the corridor can be made safely and efficiently.
- Development of the site and the construction of the site access system (including the widening of Olentangy Street to gain the defined westbound left turn lane) would likely take place in 2015. Occupancy would likely be toward the end of 2015. This would be in the same time-frame as the extension of Murphy Parkway.
- With Murphy Parkway completed, some traffic will be able to use an alternate route and not pass through the intersection of Liberty Road and Olentangy Street.
 - It is estimated that about 50 vehicles in each direction could divert to Murphy Parkway during the PM peak hour.
 - This would reduce the volume of traffic on Olentangy Street by about 100 vehicles in front of Powell Crossing.
- Taken in aggregate, the planned/programmed roadway modifications will enhance traffic flow along Olentangy Street and yield safe conditions for pedestrians, bicyclists, and drivers who travel along the corridor.