

Example of Design Exception Request
Attach to the LPA-700 or LPA-800

Design Exception Request

Local Public Agency:

Date:

County:

Route/Termini:

LPA Project Number:

MDOT Project Number:

This report has been developed to provide justification for a Design Exception Request for the following items:

1. Design Speed (40 mph in lieu of 45 mph)
2. Lane Width (11 ft. thru lanes in lieu of 12 ft.)
3. Shoulder Width (2 ft. in lieu of 6 ft.)

The above referenced project is 0.6 miles in length and involves the widening of Main Street from three lanes to five lanes in the City of _____. Main Street is classified as an urban arterial.

The request for design exception approval for design speed is in reference to the MDOT Roadway Design Manual requiring a minimum design speed of 45 mph for urban arterials. The City is proposing to use a design speed of 40 mph for the following reasons:

- Two prior projects involving widening to five lanes have already been completed on this arterial and both have a posted speed limit of 35 mph. It is anticipated the posted speed limit of this section of Main Street will be 35 mph.
- A footnote in the design criteria tables for Urban Arterials says “*a design speed of 30 mph may be used in areas that are restricted and built-up*”. This project is located in a densely developed area of downtown. The project begins and ends at signalized intersections, and there is one 4-way stop controlled intersections between the two signals intersections.

The request for design exception approval for lane width is in reference to the MDOT Roadway Design Manual requiring a lane width of 12 feet for urban arterials. The city is proposing to widen this segment of Main Street from three lanes to five lanes, using 11-ft. thru lanes and a 12-ft. continuous two-way center turn lane. The city is asking for the design exception for reduced lane width for the following reasons:

- The existing lanes are 11 feet wide.
- AASHTO design guidance allows 11-ft. lanes for urban arterial street design, especially where truck volumes are low. The truck volume on this section of Main Street is less than 3 percent of the ADT.
- The 11 foot lanes will help reduce the footprint of the project. The project is located downtown with several potentially historic properties on both sides of the street. Additional right of way for the project is not possible due to the historic properties and the added costs for right of way and utility relocations.

The request for design exception for shoulder width is in reference to the MDOT Roadway Design Manual requiring a minimum shoulder width of 6 feet for urban arterials. The proposed shoulder width is 2 feet (the width of the gutter pan). The City is asking to use the reduced shoulder width for the following reasons:

- The existing shoulders are 2 feet wide.
- Sidewalks will be rebuilt on both sides of the street to bring the facility up to current ADA PROWAG standards. The wide shoulders and sidewalks will not fit in the available right of way.

The posted speed limit is 35 mph. The existing ADT is 4000 vpd. The design year (2035) ADT is 6200 vpd.

The attached crash data indicate the existing 11 foot lanes and 2 foot shoulders did not contribute to any of the recorded crashes.

Based on the aforementioned reasons, approval of design exceptions for design speed, lane width and shoulder width is requested.

Jane Doe, PE
Consultant Engineer (or City Engineer)

John Buck
Chief LPA Official