



Legislation Text

File #: 17-183, **Version:** 1

TITLE:

Review of Alternatives - Intersection Improvements at Merritt Mill- Franklin-E. Main - Brewer

PURPOSE: The purpose of this item is for the Board of Aldermen to receive information on alternative improvements being designed to alleviate congestion and increase safety at this intersection and consider communicating support for NCDOT's continued work on the project.

DEPARTMENT: Planning

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INFORMATION: This high-profile intersection has marked the boundary between the Towns of Carrboro and Chapel Hill for many decades. Funding for transportation improvements at this intersection was included in the State Transportation Improvement Program FY 2014 to 2020. Town staff have been in communication with North Carolina Department of Transportation (NCDOT), Durham Chapel Hill Carrboro Metropolitan Planning Organization (DCHC MPO), and Town of Chapel Hill representatives on the review of conceptual designs since reporting to the Board of Aldermen on the project status on May 10, 2016 (<https://carrboro.legistar.com/LegislationDetail.aspx?ID=2712759&GUID=F31D4355-7E4E-4453-84E3-912FFAA0AA8&Options=&Search=&FullText=1>>).

Estimated level of service - increased capacity, reduced delay, and improved safety are the primary design considerations in this location. The tight urban setting provides little room for significant change without affecting existing surrounding properties, including existing buildings, in some way. After considering many options when a clearly superior design had not emerged, NCDOT requested direction on how the Towns would like the project to proceed so that possible designs could be further refined and scheduled for consideration by the public at an input session. The project schedule envisions right of way acquisition proceeding so that construction could be underway in 2019.

Of the many conceptual designs that have been identified, during the meeting in mid-May staff of the Towns of Carrboro and Chapel Hill identified two, alternatives 4 and 7, as meeting many of the interests that lead to the project's inclusion in DCHC's priority list. Some questions remain about the viability of these conceptual designs - especially the proposed realignment of Brewer Lane and the magnitude of property impacts on properties in Carrboro, cost and scheduling. A summary of the two alternatives is provided below, with illustrations included as Attachment B:

Alternative 4- 4-leg roundabout at the intersection of East Main Street/West Franklin Street & Merritt Mill Road, with Brewer Lane relocated to the northwest. With the elimination of Brewer Lane, this roundabout option performs better than a five-legged roundabout (inspired by Downtown Traffic

Circulation Study). In 2040, the roundabout is modelled to operate at LOS A in the AM peak hour and LOS E in the PM peak hour. Bicycle traffic would mix with vehicles in the roundabout. Pedestrian improvements are added around the entirety of the intersection and splitter islands at each leg. There is still excessive queuing on West Franklin Street in the 2040 PM peak hour affecting the West Franklin Street & Graham Street intersection (~650 feet) but less than a 5-leg roundabout condition. This approach to the roundabout operates at LOS E in the PM peak hour. Property impacts are currently primarily occurring on the Al's Garage, Carolina Carwash, and St. Paul's AME properties, with less impacts overall than the five-leg intersection.

Alternative 7 - This alternative looked at adding dual left turn lanes on the S Merritt Mill Rd approach of the intersection. All study intersections operated at LOS D or better in the AM peak hour. In the PM peak hour, the Merritt Mill Rd/Franklin St/Main St intersection operated at LOS F. All approaches were at LOS E or F. In addition, there were queue lengths exceeding 1000' on the E Main Street approach.

The Chapel Hill Town Council reviewed the two alternatives on May 22nd and approved work continuing with NCDOT on the project. The Council expressed a preference for Alternative 4, noting that Carrboro had concerns about property impacts and the Brewer Lane relocation.

Further consideration of the information and discussion between Carrboro and NCDOT staff has occurred and suggests that the Board may wish to consider requesting careful exploration of whether property impacts can be more balanced around the intersection and between the jurisdictions and that additional measures be utilized to evaluate the safety of all users moving through the alternative intersection improvements.

FISCAL & STAFF IMPACT: No extraordinary impacts have been identified related to the Board deciding to continue working with NCDOT on the consideration of intersection improvements.

RECOMMENDATION: It is recommended that the Board of Aldermen adopt the attached resolution which supports continued work on intersection improvements.