



Date: April 2, 2013

To: Thomas J. Bonfield, City Manager
Through: Keith Chadwell, Deputy City Manager
From: Mark D. Ahrendsen, Transportation Director
Subject: Main Street Bridge Replacement Over Campus Drive - Progress Report

Executive Summary

Three major construction projects have been underway since January 2012 along Main Street. They are: 1) the City's Main Street water main replacement project; 2) the NCDOT resurfacing and restriping project along Main Street from 9th Street to Peabody Street, and a segment of Swift Avenue from Main Street to Caswell Place; 3) and the NCDOT bridge replacement project over Campus Drive. Representatives of the City, NCDOT, Duke University and residents have met over the past 18 months to discuss opportunities to mitigate traffic impacts, accelerate and compress construction timelines and coordinate the construction phasing of the three construction projects.

The water main replacement and resurfacing projects are complete. Temporary pavement markings for the "road diet" along Main Street have been installed on the new asphalt surface. Final pavement markings, a signalized pedestrian crossing on the east leg of Main Street and Campus Drive and traffic signal safety improvements will be completed in April 2013. The NCDOT bridge replacement project is scheduled to begin on May 13, 2013 and end on September 20, 2013.

Recommendation

Receive a report from the administration concerning the NCDOT Main Street bridge replacement project over Campus Drive.

Background

Transportation staff recognized the need to institute a communication plan to receive and disseminate project related information in a timely manner to all project stakeholders. The City's Transportation Department, Public Works Department, Police Department, Water Management Department, Public Affairs Department, NCDOT, Triangle Transit, Duke University Transit and public and private stakeholders have been proactively meeting over the past 18 months to discuss opportunities to mitigate traffic impacts, accelerate and compress construction timelines and coordinate the construction phasing of the three projects.

The first project was the City's water main replacement project on Main Street. It consisted of the replacement of an existing 12-inch and 20-inch water main with a new 36-inch water main along Main Street bounded by Rutherford Street and Peabody Street. The notice to proceed was issued on January 17, 2012. The 12-inch and 20-inch water mains were

attached to the bridge over Campus Drive. As a result, the City had to complete the water main replacement project prior to the start of NCDOT's resurfacing and bridge replacement projects. The water main replacement project was completed in the fall of 2012.

NCDOT's resurfacing and "road diet" project along Main Street from Anderson Street/15th Street to Peabody Street and a segment of Swift Avenue from Main to NC 147 started on November 30, 2012. The road diet consists of restriping the new pavement with three auto travel lanes with bike lanes in each direction. This was possible by reducing the four general-purpose vehicle lanes from four to three. NCDOT completed the resurfacing and temporary pavement marking installation. Temporary pavement markings were installed based on seasonal limitations of the permanent markings. The final roadway markings will include a "road diet" on Main Street from Buchanan Boulevard to 15th Street. Swift Avenue will also feature wide outside lanes to facilitate bicycle access between Caswell Place and Main Street. The resurfacing project includes the installation of a signalized pedestrian crossing at the intersection of Campus Drive and Main Street.

The Main Street bridge replacement over Campus Drive was advertised and awarded by NCDOT in April 2012. It was advertised as an "A+B," manner where "A" is the construction bid, and "B" is the total number of days to construct the project. The contractor was provided a \$13,000-per-day credit for each day they were able to remove from the project timeline. This bidding method was utilized to shorten the construction timeline. The bridge removal contractor is scheduled to begin work on May 13, 2013. This date was selected to accommodate Duke University's commencement ceremony of May 12, 2013. This construction timeframe will coincide with reduced enrollment during the summer session. The project construction timeline is 130 days (September 20, 2013). Changeable message traffic signs will be installed east of Buchanan Boulevard and west of Swift Avenue to provide public notification along Main Street beginning on May 6, 2013.

Main Street will be completely closed to through traffic between Buchanan Boulevard and Swift Avenue/Broad Street for the duration of construction. The east side of the project will have a hard closure at Buchanan Boulevard. The west side of the project will have a soft closure at Swift Avenue and a hard closure 100 feet east of Southgate Circle. The primary detour will route vehicle traffic along NC 147 via Swift Avenue, Duke Street, Gregson Street, and Chapel Hill Street. The project detour route is shown on the attached map.

Issues and Analysis

City Transportation staff was involved in meetings to secure the opinions of neighborhoods and businesses most affected by the upcoming closure of Main Street. Citizen concerns included cut-through traffic, speeding, targeting aggressive driving, installing new street lighting, pedestrian and bicycle access, tree trimming for improved sight distances and pedestrian visibility, installing new pavement markings, refreshing existing pavement markings, traffic signal timing, implementing traffic calming measures, modifying transit routes, dissemination of project information, special event management, emergency response vehicle access, parking enforcement, reduction of speed limits, truck traffic restrictions and traffic signal upgrades.

The City's Transportation Department, Public Works Department, Police Department, Water Management Department, Public Affairs Department, NCDOT, Triangle Transit ensured the feedback provided by the project stakeholders was thoroughly documented, evaluated and included in an action plan to follow up with neighborhoods and businesses as needed for the duration of the project.

Alternatives

There are no alternatives proposed for this project.

Financial Impact

There are no financial impacts for this project report.

SDBE Requirements

There are no SDBE requirements for this project report.

Attachment

Main Street Detour Map