CHARLOTTE

City Council
Follow-Up Report

April 3, 2013

March 25, 2013 – Citizen's Forum and Council Business Meeting

Agenda Item #37 - Aircraft Air Conditioning Units Installation
Staff Resource: Jerry Orr, Aviation, 704-359-4006, tjorr@charlottenc.gov

During the Mayor and Council Consent Items portion of the meeting, Council asked about the contract awarded to Aero Bridgeworks for the installation of the aircraft air conditioning units on Concourses B&C. Following Mr. Ed Bryant's comments during the public hearing on the SBO Program, Council asked whether it was an oversight on the engineer's part to not identify that there was electrical work for which Mr. Bryant, an SBE, could have bid.

The Aviation Department has reviewed the contract documents including the engineering estimate. After review of the documents, it is clear that the estimate provided by the engineer was not detailed enough to identify subcontracting opportunities for this element of the project. Airport staff should have asked the engineer for a more detailed estimate. Staff will take steps to ensure that engineers provide more detailed estimates for all future projects. Estimates will be reviewed by senior leadership team members prior to goal setting for SBE and DBE participation.

The Aviation Department understands Mr. Bryant's desire to have subcontracting opportunities for their projects and have invited COED Electric and other SBE firms to provide bids to prime contractors for formal projects, as well as provide bids directly to the Airport for informal bids on numerous projects. For example, COED Electric is currently a sub-contractor on the electrical distribution element of this project. On that contract, COED is performing 31% of the work, valued at $940,500.

Condemnation for 3840 Beatties Ford Road
Staff Resource: Tim Greene, E&PM, 704-336-3649, tlgreene@charlottenc.gov

During the March 25, 2013 Citizen's Forum, Mr. Paul Holmes spoke to Council, requesting a two week extension on the condemnation decision. He also requested a revision to the existing plans that include a concrete median on Capps Mine Road. Mr. Holmes is the property owner at 3840 Beatties Ford Road. Council members voted unanimously to defer the condemnation and have requested more information about the Beatties Ford Road widening project that would affect Mr. Holmes' property.

Attached is a report the City's Engineering and Property Management staff prepared for Council District 2 Representative, James Mitchell, regarding the median divided roadway proposed for the Beatties Ford Road Widening Project. Mr. Holmes is opposed to the concrete median being installed from Capps Hill Mine Road

to Slater Road and prefers asphalt with a painted median (five-lane roadway). The report, which includes photos, describes the difference between media-divided lanes and five-lane roadways.

Other information shared with Council member Mitchell includes the key findings of a crash comparison study conducted by CDOT staff:

- *Median-divided roadways experienced 64% fewer crashes than five-lane roadways, excluding the crashes at signalized intersections.*
- *Median-divided roadways had 76% fewer left-turn and angle crashes.*
- *There was only one head-on collision in the median segments; conversely, there were 12 head-on collisions in the five-lane segments.*
- *One fatality occurred on a median-divided roadway, while three fatalities occurred on the five-lane roadway.*
- *Median-divided roadways had 53% fewer Class A (disabling) injuries.*
- *Class B (evident) and Class C (possible) injuries were 64% lower on median-divided roadways.*

The objective of the study was to investigate Charlotte's experience with median-divided and five-lane roadways. The study determined median-divided roadways are safer than five-lane roadways. The study was conducted in response to the public concern (similar to that of Mr. Holmes) of constructing a median on a previous CIP project to widen Prosperity Church Road from 2-lanes to 4-lanes.

Road information.pdf

Beatties Ford Road Widening Project

Report of Median Design

November 9, 2012

Council Member Mitchell,

Below is additional information regarding the Oct. 17 meeting with several property owners along Beatties Ford Road.

Several residents south of Slater Road expressed concerns about having a median separating north- and south-bound travel lanes, stating they thought it unsafe to travel north to Slater Road, and then make a U-turn to travel south.

As you know, the Beatties Ford Road Widening Project was approved for construction in the 2010 Transportation Bond Referendum from Capps Hill Mine Road to Sunset Road. Beatties Ford Road is proposed to be four lanes with bicycle lanes, planting strips, sidewalk and planted medians. As noted in the Council Approved Urban Street Design Guidelines (USDG), the purpose and benefit of medians is to separate opposing traffic flow, thereby reducing conflicts with other vehicles and pedestrians. The project is proposed to be constructed consistent with the "boulevard" typology, as described in the USDG, and reviewed in an extensive public involvement process.

A good description of why medians are needed for Beatties Ford Road is also found in the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets:

> *"Medians are highly desirable on arterials carrying four or more lanes"…."The principle functions of a median are to separate opposing traffic, provide a recovery area for out-of-control vehicles, provide a stopping area in case of emergencies, allow space for speed changes and for storage of left-turning and u-turning vehicles, diminish head light glare, and provide width for future lanes. Other potential benefits of a median in an urban area (Charlotte) are that it may offer an open green space, may provide refuge area for pedestrians crossing the street, and may control the location of intersection traffic conflicts."*

While staff understands the sacrifice of convenience that the median presents, it presents many other added benefits to the users of the street, namely the enhanced safety, opportunity for landscaping, and pedestrian refuge. The photos below illustrate the difference in aesthetic appeal of a 5-lane street with a two way left turn lane and a landscaped median divided street.

5-lane street with two way center turn lane (Mallard Creek Road)

4-Lane Median Divided Street (Central Avenue)

Due to the nature of the land use by the King Funeral Home, staff is available to discuss a modified median opening for use by funeral processions. Staff will make arrangements to meet with the owner and present options for review.

Below is crash data collected by CDOT for the sections of Beatties Ford Road from Sunset Road to B Avenue, comparing median and no median:

Sunset to Capps Hill Mine Rd (within project limits – currently two lanes, no median)

- 24 crashes (6 crashes might have been prevented by a median.)

Capps Hill Mine Rd to "B" Avenue (for portions that have four lanes with a median)

- 6 crashes (1 crash impacted the median as the driver went northbound.)

Capps Hill Mine Road to "B" Avenue (for portions that have five lanes but no median)

- 11 crashes (5 crashes might have been prevented by a median)

Beatties Ford Road from Capps Hill Mine to approximately "B" Avenue was completed in 1992 under different design standards, well before the use of Urban Street Design Guidelines, and has no planting strips or bike lanes. Part of the purpose in constructing a five- lane cross section with a two way center turn lane had to do with the commercial use of the area. If designing under current design standards, the cross section would be in accordance with the Urban Street Design Guidelines.

At your request, staff has prepared an estimate of the cost to install a planted median and a five-lane cross section with a two-way center turn lane for the stretch of Beatties Ford Road from Capps Hill Mine Road to Slater Road.

- Planted Median - $93,000
- 5th Lane (center 2-way left turn lane) - $42,000

The reason for the cost difference is the design for a two-way center turn lane uses existing pavement structure of Beatties Ford Road and resurfaces and restripes the area. The planted median means removing the pavement structure and installing storm drainage systems, monolithic concrete islands, curb, and landscape features.

A traffic signal at the intersection of Slater Road and Beatties Ford was suggested. CDOT has reviewed this suggestion. Based on the review of anticipated traffic volumes, a traffic signal is not justified at this location. This location does not meet the typical requirements for a traffic signal. This was also the case for other intersections throughout the corridor, such as Capps Hill Mine Road and the Martin Marietta Rock Quarry driveway.

Please contact us if have questions or need additional information.

Tim Greene, PE

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