APPENDIX C

Supporting Traffic Documentation
This is good information to include as well

*** This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. ***

This is the email that discusses how the other numbers were calculated

Danielle Cemprola | Environmental Specialist II | Michael Baker International
danielle.cemprola@mbakerintl.com | www.mbakerintl.com

Danielle,

I have reviewed the LOS results you calculated for the SCDOT Planning Capacity section of Table 1.2 and everything checks out correctly. The HCM 2010 sections is purely a lookup comparing the AADT to the HCM 2010 volume tables, and I have entered in the correct LOS values for each year in the table.

Below is a picture of the table, and attached is a copy of your document with the table updated. Please let me know if you need anything else.
Table 1.2: AADT and Level-of-Service along U.S. 17

<table>
<thead>
<tr>
<th>Year</th>
<th>AADT</th>
<th>SCDOT Planning Capacity</th>
<th>HCM 2010 (k=0.10; D=0.65)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Principal Arterial</td>
<td>2 Lane (No Build)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 Lane</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 Lane (div)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 Lane</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 Lane</td>
</tr>
<tr>
<td>2020</td>
<td>18,700</td>
<td>1.28 (LOS E)</td>
<td>0.64 (LOS B)</td>
</tr>
<tr>
<td>2030</td>
<td>21,000</td>
<td>1.44 (LOS F)</td>
<td>0.72 (LOS B)</td>
</tr>
<tr>
<td>2040</td>
<td>23,300</td>
<td>1.60 (LOS F)</td>
<td>0.80 (LOS C)</td>
</tr>
</tbody>
</table>

Thanks,

Kelly M. Cory, P.E., PTOE | Traffic Engineer | Michael Baker International
420 Technology Parkway, Suite 150 | Norcross, GA 30092
Office: 770-263-9118 | Direct: 678-966-6632
kmcory@mbakerintl.com | www.mbakerintl.com

From: Cemprola, Danielle
Sent: Wednesday, July 06, 2016 2:56 PM
To: Ruhsam, Bill <Bill.Ruhsam@mbakerintl.com>
Subject: US 17 Traffic

Hi Bill,

We are in the process of updating an EA for the widening of US 17 in Jasper County, SC, and there is some new traffic information that we need to include. I was able to pull the latest traffic data and calculate the LOS for the design years (based on the capacity numbers included in the EA) thanks to the help of Google, but I have not been able to figure out how to calculate the HCM using the K and D factors. Is this something you can provide guidance on or do quickly? I know you’re incredibly busy but I am no traffic engineer and Google has taken me as far as I can go. The table that needs to be updated is Table 1.2 on page 1-6, just the highlighted columns. Please let me know if you have any questions (and also if I did the LOS wrong on the other columns)

Thanks,
Danielle

Danielle Cemprola | Environmental Specialist | Michael Baker International
danielle.cemprola@mbakerintl.com | www.mbakerintl.com
Traffic Projection Request
for JASPER US-17 N Main Line (27020001700N)
from Milepost 5.31 to 0.00

General
Created by NTS\LongCC on 3/3/2016 10:43 AM
Base Year: 2020
Future Year: 2040
Roadwork Type: Widening
Comments:

Traffic Projections

<table>
<thead>
<tr>
<th>Year</th>
<th>ADT</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>2015</td>
<td>17,700</td>
</tr>
<tr>
<td>Base</td>
<td>2020</td>
<td>18,700</td>
</tr>
<tr>
<td>Mid</td>
<td>2030</td>
<td>21,000</td>
</tr>
<tr>
<td>Design</td>
<td>2040</td>
<td>23,300</td>
</tr>
</tbody>
</table>

Number of Lanes: 0
Comments: