TRAFFIC COUNT COLLECTION AND ANALYSIS

Michael Baker Jr., Inc. (Baker), a unit of Michael Baker International, LLC, undertook a limit traffic analysis as part of the AWP initiative for key intersections identified in the CURP.

Task I - Data Collection

Manual turning movement counts were performed in December 2013 for the following intersections.

- North Hanover Street (SR 0011) & Carlisle Springs Road (SR 0034)
- North Hanover Street (SR 0011) & Penn Street
- North College Street & B Street (SR 0074)

Figure 1 illustrates the project study area within which the traffic counts were performed and the system peak hour calculations are provided in Attachment 1.

Task II (Traffic Volume Scenarios) and Task III (Traffic Analysis)

Traffic volume scenarios—supported by the Task I manual turning movement counts—were used to evaluate “No Build” and “Build” traffic design alternative analyses for the above three intersections. Future conditions were developed for the year 2023 (Design Year) for three (3) scenarios as follows:

- Existing Year 2013
- Design Year 2023 without proposed development
- Design Year 2023 with proposed development
  - Alternate 1 – Traffic Signals
  - Alternate 2 – Roundabouts

Figures 2 – 21 illustrate the “No Build” and “Build” levels of service for each scenario, including existing conditions.

Figures 22 and 23 illustrate traffic design alternatives (Alternative 1 and Alternative 2) proposed for each of the three intersections and the following narratives provide a summary of each.

North Hanover Street (SR 0011) & Carlisle Springs Road (SR 0034)

Both alternatives realigned and signalized the intersection of North Hanover Street (SR 0011) & Carlisle Springs Road (SR 0034). The realignment and signalization of this intersection is a crucial improvement as the current intersection crosses an existing railroad line at the center of the intersection. The proposed realignment of this intersection corrects this safety hazard and provides safer operations due to the installation of a traffic control signal that keeps queued traffic off of the at-grade rail crossing.

North Hanover Street (SR 0011) & Penn Street

The intersection of North Hanover Street (SR 0011) & Penn Street presented difficulties, especially due to the increase of traffic from the proposed development and the existing intersection alignment. Alternative 2 presented a roundabout at the intersection, and although this location is expected to operate at a volume to capacity ratio greater than 1.0, safety is greatly improved over the signalized option. Volume to Capacity could be improved by converting Fairground Ave. to one-way northbound (see public meeting feedback). The Alternative 1 option requires relocating an approach which may cause unsafe operating conditions; however, the intersection is anticipated to operate at an overall LOS C.

Note a signalized intersection records a Level of Service (LOS) based on the average delay in seconds each vehicle experiences at that intersection. The LOS of an intersection can range from A to F, with A being the best and F the worst. In contrast, a volume to capacity ratio (V/C) is used for roundabouts, when the volume of vehicles utilizing the roundabout exceeds the capacity of the roundabout (V/C >1.0), the intersection may not operate efficiently.

North College Street & B Street (SR 0074)

The intersection of North College Street & B Street (SR 0074) is much more efficient when utilizing a roundabout rather than a stop controlled intersection, as the stop controlled intersection recorded an overall intersection LOS F for an approach turning movement, and the roundabout had a volume to capacity ratio of 0.64 (utilizing just over half of the ultimate capacity of the intersection).

Task V - Meetings

Baker staff participated in the following project meetings:

- January 21, 2014 – Carlisle Area Wide Consultant team and Steering Committee Meeting (Carlisle, PA)
- January 28, 2014 – Carlisle EPA AWP Core Group Meeting (Carlisle, PA)
- February 12, 2014 – Carlisle EPA Brownfields Modeled Traffic Counts Discussion (Conference Call)
- February 18, 2014 – Carlisle Area Wide Plan: Transportation Issues and Opportunities (Carlisle, PA)
- March 31, 2014 – Pennsylvania Department of Transportation (PennDOT) District 8-0 (Harrisburg, PA)
- March 31, 2014 – Carlisle Transportation Improvement Cost Estimations (Conference Call)
- April 24, 2014 – Carlisle URP Cost Estimates Discussion (Conference Call)
- May 14, 2014 – Carlisle Area Wide Plan: Transportation and Stormwater/Public Space Open House (Carlisle, PA) Note a summary of the questions and comments that Baker International staff fielded during the May 14, 2014 Open House are as follows:
  - Make sure pedestrians have the most direct path possible (circumtous routes will be ignored and safety will be compromised).
  - Make sure pedestrian crossings have clear sight lines to drivers/cars.
  - Concerns were expressed about maintaining similar access to businesses on N. Hanover in the “Build” condition.
  - Concerns were expressed about traffic island curbing and drainage along N. Hanover St. between Penn Ave and Carlisle Springs Road. The traffic island curbing would preclude north bound vehicles from making a left into Chen’s restaurant.
  - Consider conducting business driveway traffic counts to document how drivers access the businesses (and how many during peak hours).
  - Make Fairground Ave. 1-way northbound to improve traffic flow at the N. Hanover/West Penn/Fairground intersection.
### System Peak Hour
#### Morning Peak Hour

<table>
<thead>
<tr>
<th>Time Begin</th>
<th>North Hanover Street (US 0011) and Penn Street &amp; Fairground Avenue</th>
<th>North Hanover Street (US 0011) and Carlisle Springs Road &amp; Kerrs Avenue</th>
<th>North College Street (SR 0074) and B Street (SR 0074)</th>
<th>Intersection Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 AM</td>
<td>117</td>
<td>127</td>
<td>53</td>
<td>277</td>
</tr>
<tr>
<td>6:15 AM</td>
<td>134</td>
<td>127</td>
<td>87</td>
<td>348</td>
</tr>
<tr>
<td>6:30 AM</td>
<td>206</td>
<td>183</td>
<td>111</td>
<td>500</td>
</tr>
<tr>
<td>6:45 AM</td>
<td>235</td>
<td>225</td>
<td>145</td>
<td>605</td>
</tr>
<tr>
<td>7:00 AM</td>
<td>236</td>
<td>213</td>
<td>143</td>
<td>592</td>
</tr>
<tr>
<td>7:15 AM</td>
<td>262</td>
<td>248</td>
<td>193</td>
<td>703</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>316</td>
<td>292</td>
<td>224</td>
<td>832</td>
</tr>
<tr>
<td>7:45 AM</td>
<td>330</td>
<td>306</td>
<td>188</td>
<td>824</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>240</td>
<td>217</td>
<td>165</td>
<td>622</td>
</tr>
<tr>
<td>8:15 AM</td>
<td>251</td>
<td>232</td>
<td>173</td>
<td>656</td>
</tr>
<tr>
<td>8:30 AM</td>
<td>223</td>
<td>192</td>
<td>144</td>
<td>559</td>
</tr>
<tr>
<td>8:45 AM</td>
<td>209</td>
<td>184</td>
<td>116</td>
<td>509</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>209</td>
<td>184</td>
<td>116</td>
<td>509</td>
</tr>
<tr>
<td>9:15 AM</td>
<td>254</td>
<td>221</td>
<td>109</td>
<td>584</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>248</td>
<td>208</td>
<td>100</td>
<td>556</td>
</tr>
<tr>
<td>9:45 AM</td>
<td>242</td>
<td>202</td>
<td>97</td>
<td>541</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>237</td>
<td>207</td>
<td>92</td>
<td>536</td>
</tr>
<tr>
<td>10:15 AM</td>
<td>231</td>
<td>201</td>
<td>86</td>
<td>518</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>225</td>
<td>195</td>
<td>80</td>
<td>500</td>
</tr>
<tr>
<td>10:45 AM</td>
<td>219</td>
<td>185</td>
<td>74</td>
<td>488</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>223</td>
<td>193</td>
<td>73</td>
<td>499</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>227</td>
<td>197</td>
<td>71</td>
<td>495</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>231</td>
<td>201</td>
<td>69</td>
<td>491</td>
</tr>
<tr>
<td>11:45 AM</td>
<td>235</td>
<td>205</td>
<td>67</td>
<td>497</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>240</td>
<td>217</td>
<td>65</td>
<td>522</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>251</td>
<td>232</td>
<td>63</td>
<td>546</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>262</td>
<td>248</td>
<td>59</td>
<td>569</td>
</tr>
<tr>
<td>12:45 PM</td>
<td>278</td>
<td>263</td>
<td>55</td>
<td>596</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>275</td>
<td>262</td>
<td>52</td>
<td>590</td>
</tr>
<tr>
<td>1:15 PM</td>
<td>281</td>
<td>268</td>
<td>49</td>
<td>578</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>302</td>
<td>273</td>
<td>43</td>
<td>588</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>254</td>
<td>221</td>
<td>38</td>
<td>553</td>
</tr>
<tr>
<td>Total</td>
<td>3,467</td>
<td>3,251</td>
<td>1,123</td>
<td>7,841</td>
</tr>
</tbody>
</table>

### Evening Peak Hour

<table>
<thead>
<tr>
<th>Time Begin</th>
<th>North Hanover Street (US 0011) and Penn Street &amp; Fairground Avenue</th>
<th>North Hanover Street (US 0011) and Carlisle Springs Road &amp; Kerrs Avenue</th>
<th>North College Street (SR 0074) and B Street (SR 0074)</th>
<th>Intersection Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 PM</td>
<td>315</td>
<td>288</td>
<td>174</td>
<td>777</td>
</tr>
<tr>
<td>4:15 PM</td>
<td>295</td>
<td>266</td>
<td>188</td>
<td>749</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>318</td>
<td>285</td>
<td>222</td>
<td>825</td>
</tr>
<tr>
<td>4:45 PM</td>
<td>340</td>
<td>298</td>
<td>162</td>
<td>800</td>
</tr>
<tr>
<td>5:00 PM</td>
<td>349</td>
<td>303</td>
<td>167</td>
<td>819</td>
</tr>
<tr>
<td>5:15 PM</td>
<td>338</td>
<td>298</td>
<td>162</td>
<td>798</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>297</td>
<td>270</td>
<td>142</td>
<td>709</td>
</tr>
<tr>
<td>5:45 PM</td>
<td>295</td>
<td>253</td>
<td>141</td>
<td>689</td>
</tr>
<tr>
<td>6:00 PM</td>
<td>271</td>
<td>245</td>
<td>157</td>
<td>673</td>
</tr>
<tr>
<td>6:15 PM</td>
<td>267</td>
<td>213</td>
<td>155</td>
<td>635</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>214</td>
<td>196</td>
<td>138</td>
<td>548</td>
</tr>
<tr>
<td>6:45 PM</td>
<td>248</td>
<td>208</td>
<td>100</td>
<td>556</td>
</tr>
<tr>
<td>7:00 PM</td>
<td>242</td>
<td>202</td>
<td>97</td>
<td>541</td>
</tr>
<tr>
<td>7:15 PM</td>
<td>237</td>
<td>207</td>
<td>92</td>
<td>536</td>
</tr>
<tr>
<td>7:30 PM</td>
<td>231</td>
<td>201</td>
<td>86</td>
<td>518</td>
</tr>
<tr>
<td>7:45 PM</td>
<td>225</td>
<td>195</td>
<td>80</td>
<td>500</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>219</td>
<td>185</td>
<td>74</td>
<td>488</td>
</tr>
<tr>
<td>8:15 PM</td>
<td>223</td>
<td>193</td>
<td>73</td>
<td>499</td>
</tr>
<tr>
<td>8:30 PM</td>
<td>227</td>
<td>197</td>
<td>71</td>
<td>495</td>
</tr>
<tr>
<td>8:45 PM</td>
<td>231</td>
<td>201</td>
<td>69</td>
<td>491</td>
</tr>
<tr>
<td>9:00 PM</td>
<td>235</td>
<td>205</td>
<td>67</td>
<td>497</td>
</tr>
<tr>
<td>9:15 PM</td>
<td>240</td>
<td>217</td>
<td>65</td>
<td>522</td>
</tr>
<tr>
<td>9:30 PM</td>
<td>251</td>
<td>232</td>
<td>63</td>
<td>546</td>
</tr>
<tr>
<td>9:45 PM</td>
<td>262</td>
<td>248</td>
<td>59</td>
<td>569</td>
</tr>
<tr>
<td>10:00 PM</td>
<td>278</td>
<td>263</td>
<td>55</td>
<td>596</td>
</tr>
<tr>
<td>10:15 PM</td>
<td>275</td>
<td>262</td>
<td>52</td>
<td>590</td>
</tr>
<tr>
<td>10:30 PM</td>
<td>302</td>
<td>273</td>
<td>43</td>
<td>588</td>
</tr>
<tr>
<td>10:45 PM</td>
<td>254</td>
<td>221</td>
<td>38</td>
<td>553</td>
</tr>
<tr>
<td>Total</td>
<td>3,547</td>
<td>3,123</td>
<td>1,908</td>
<td>8,578</td>
</tr>
</tbody>
</table>

---

**U.S. EPA Brownfield Areawide Plan**
Carlisle Borough, Cumberland County
Baker Project #138493
Count Summary
12/16/2013

---

**System Peak Hour**
Saturday Peak Hour

<table>
<thead>
<tr>
<th>Time Begin</th>
<th>North Hanover Street (US 0011) and Penn Street &amp; Fairground Avenue</th>
<th>North Hanover Street (US 0011) and Carlisle Springs Road &amp; Kerrs Avenue</th>
<th>North College Street (SR 0074) and B Street (SR 0074)</th>
<th>Intersection Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 AM</td>
<td>275</td>
<td>272</td>
<td>106</td>
<td>653</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>267</td>
<td>259</td>
<td>104</td>
<td>630</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>261</td>
<td>259</td>
<td>99</td>
<td>659</td>
</tr>
<tr>
<td>11:45 AM</td>
<td>261</td>
<td>259</td>
<td>99</td>
<td>659</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>338</td>
<td>308</td>
<td>96</td>
<td>742</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>316</td>
<td>294</td>
<td>81</td>
<td>691</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>301</td>
<td>267</td>
<td>81</td>
<td>668</td>
</tr>
<tr>
<td>12:45 PM</td>
<td>291</td>
<td>261</td>
<td>80</td>
<td>652</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>290</td>
<td>285</td>
<td>79</td>
<td>654</td>
</tr>
<tr>
<td>1:15 PM</td>
<td>307</td>
<td>278</td>
<td>84</td>
<td>669</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>302</td>
<td>257</td>
<td>89</td>
<td>648</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>254</td>
<td>221</td>
<td>109</td>
<td>584</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>271</td>
<td>245</td>
<td>100</td>
<td>566</td>
</tr>
<tr>
<td>Total</td>
<td>3,467</td>
<td>3,251</td>
<td>1,123</td>
<td>7,841</td>
</tr>
</tbody>
</table>

---

**System Peak Hour**
Saturday Peak Hour
FIGURE 1
SITE LOCATION MAP
Carlisle Brownfield Area-wide Plan
FIGURE 2
EXISTING (2013) WEEKDAY PEAK HOUR TRAFFIC VOLUMES
Carlisle Brownfield Areawide Plan

LEGEND
- Morning (Evening)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site

REGIONAL SETTING
Carlisle, PA
Figure 3

Existing (2013) Saturday Peak Hour Traffic Volumes
Carlisle Brownfield Areawide Plan

Regional Setting
Carlisle, PA

Legend
- Baker Project No.: 138493
- Hamilton Street Gateway Area
- Former Tire and Wheel Area
- IAC/Mastland Reuse Area Development
- Factory Street
- A Street
- B Street
- C Street
- D Street
- F Street
- Penn Street
- College Street
- Former Tire and Wheel Area

Date: February 6, 2014
FIGURE 4
EXISTING (2013) MORNING PEAK HOUR LEVELS OF SERVICE
Carlisle Brownfield Areawide Plan
FIGURE 5
EXISTING (2013) EVENING PEAK HOUR LEVELS OF SERVICE
Carlisle Brownfield Areawide Plan

LEGEND
• LOS (Delay)
• Stop Controlled Intersection
• Signal Controlled Intersection
• : Railroad
• : Project Site

REGIONAL SETTING
Carlisle, PA

Carlisle Springs Road
Hamilton Street
Fairground Avenue
Penn Street

B Street
C Street
D Street
College Street
A Street
Factory Street

Former Tire and Wheel Area
IAC/Mastland Reuse Area Development

Date: February 6, 2014

Baker Project No.: 138493

Michael Baker International
FIGURE 6
EXISTING (2013) SATURDAY PEAK HOUR LEVELS OF SERVICE
Carlisle Brownfield Areawide Plan

LEGEND
- LOS (Delay)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site

Carlisle Brownfield Areawide Plan
Baker Project No.: 138493
Date: February 6, 2014

Carlisle, PA
Former Tire and Wheel Area
IAC/Mastland Reuse Area Development
B Street
A Street
C Street
D Street
Penn Street
Carroll Springs Road
Penn Street
Hamilton Street
Factory Street
College Street
Fairground Avenue
Hanover Street
Clay Street
Clarks Springs Road
Gateway Area
Pitt Street
Kerrs Avenue

Baker Project No.: 138493

CARLISLE BROWNFIELDS AREA-WIDE PLANNING STRATEGY | A.10
FIGURE 7
NO BUILD (2023) WEEKDAY PEAK HOUR TRAFFIC VOLUMES
Carlisle Brownfield Area-wide Plan

Date: February 6, 2014

Legend:
- Morning (Evening)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site
FIGURE 8
NO BUILD (2023) SATURDAY PEAK HOUR TRAFFIC VOLUMES
Carlisle Brownfield Areawide Plan
FIGURE 9

NO BUILD (2023) MORNING PEAK HOUR LEVELS OF SERVICE
Carlisle Brownfield Areawide Plan
FIGURE 10

NO BUILD (2023) EVENING PEAK HOUR LEVELS OF SERVICE
Carlisle Brownfield Areawide Plan

Date: February 6, 2014
Figure 11

NO BUILD (2023) SATURDAY PEAK HOUR LEVELS OF SERVICE
Carlisle Brownfield Area-wide Plan

Legend:
- LOS (Delay)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site

Regional Setting:
Carlisle, PA

Former Tire and Wheel Area
IAC/Mastand Reuse Area Development
Hamilton Street Gateway Area
Penn Street
Hamilton Street
Gateway Area

Date: February 6, 2014
FIGURE 12
BUILD (2023) WEEKDAY PEAK HOUR TRAFFIC VOLUMES – ALT 1
Carlisle Brownfield Areawide Plan
FIGURE 13
BUILD (2023) WEEKDAY PEAK HOUR TRAFFIC VOLUMES – ALT 2
Carlisle Brownfield Areawide Plan

Date: February 14, 2014

Regional Setting
Carlisle, PA

Legend
- Morning (Evening)
- Stop-Controlled Intersection
- Signal Controlled Intersection
- Roundabout
- Railroad
- Project Site

Michael Baker International
Baker Project No.: 138493
FIGURE 14
BUILD (2023) SATURDAY PEAK HOUR TRAFFIC VOLUMES – ALT 1
Carlisle Brownfield Areawide Plan

Date: February 14, 2014

LEGEND
- Morning (Evening)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Roundabout
- Railroad
- Project Site

Carlisle Brownfield Area-wide Planning Strategy | A.18
FIGURE 15
BUILD (2023) SATURDAY PEAK HOUR TRAFFIC VOLUMES – ALT 2
Carlisle Brownfield Areawide Plan

LEGEND
- Morning (Evening)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Roundabout
- Railroad
- Project Site
FIGURE 16
BUILD (2023) MORNING PEAK HOUR LEVELS OF SERVICE – ALT 1 IMPROVED
Carlisle Brownfield Areawide Plan

Date: February 14, 2014

LEGEND
- LOS (Delay)
- Stop Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site

REGIONAL SETTING
Carlisle, PA

Michael Baker INTERNATIONAL
Baker Project No.: 138493
FIGURE 17
BUILD (2023) MORNING PEAK HOUR LEVELS OF SERVICE – ALT 2 IMPROVED
Carlisle Brownfield Areawide Plan

Regional Setting
Carlisle, PA

Legend

- LOS (Delay)
- Stop-Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site

0.69
0.95
0.96
0.21
0.40
0.26
0.95
0.87
0.33
0.95

Reported as volume to capacity ratio
Figure 18
Build (2023) Evening Peak Hour Levels of Service – Alt 1 Improved
Carlisle Brownfield Areawide Plan
FIGURE 19
BUILD (2023) EVENING PEAK HOUR LEVELS OF SERVICE – ALT 2 IMPROVED
Carlisle Brownfield Areawide Plan

Date: February 14, 2014

Legend:
- LOS (Delay)
- Stop-Controlled Intersection
- Signal Controlled Intersection
- Railroad
- Project Site

Regional Setting:
Carlisle, PA

 Reported as volume to capacity ratio

Carlisle Springs Road
Hanover Street
Penn Street
Fairground Avenue
Kerrs Avenue

Carlisle, PA

Carlisle Brownfield Area-wide Planning Strategy
FIGURE 20
BUILD (2023) SATURDAY PEAK HOUR LEVELS OF SERVICE – ALT 1 IMPROVED
Carlisle Brownfield Area wide Plan

LEGEND

Carlisle, PA

Former Tire and Wheel Area

IAC/Mastland Reuse Area Development

Fairground Avenue

Hamilton Street Gateway Area

Penn Street

Baker Project No.: 138493
Date: February 14, 2014
FIGURE 21
BUILD (2023) SATURDAY PEAK HOUR LEVELS OF SERVICE – ALT 2 IMPROVED
Carlisle Brownfield Areawide Plan

LEGEND
• pt: LOS (Delay)
■ Stop-Controlled Intersection
□ Signal Controlled Intersection
• : Railroad
• : Project Site

Carlisle Brownfields Area-wide Planning Strategy

Baker Project No.: 138493
Date: February 14, 2014

REGIONAL SETTING
Carlisle, PA
FIGURE 22

ALTERNATIVE 1 - IMPROVEMENT SUMMARY
Carlisle Brownfield Areawide Plan

Date: February 14, 2014

Legend:
- Stop Controlled Intersection
- Signal Controlled Intersection
- Roundabout
- Railroad
- Project Site

Carlisle, PA

Hanover Street (NB)
95th Percentile Queue
Left/Through/Right – 1001 feet
Right – 105 feet (75 feet)

Hanover Street (SB)
95th Percentile Queue
Left/Through/Right – 629 feet

Fairgrounds Avenue (SB)
95th Percentile Queue
Left – 72 feet
Right – 79 feet

Carlisle Springs Road (EB)
95th Percentile Queue
Left – 151 feet (Storage 75 feet)
Through/Right – 629 feet

Halvorson Avenue (SB)
95th Percentile Queue
Left – 104 feet (Storage 150 feet)
Through/Right – 629 feet

Hanover Street (EB)
95th Percentile Queue
Left/Through/Right – 152 feet

Hanover Street (SB)
95th Percentile Queue
Left/Through/Right – 152 feet

Carlisle Springs Road (SB)
95th Percentile Queue
Left – 152 feet (Storage 250 feet)
Through – 273 feet

Link = 675 feet

Link = 125 feet

Hanover Street – Max Queue (Saturday)
B Street – Max Queue (Morning)
FIGURE 1
SITE LOCATION MAP
Carlisle Brownfield Areawide Plan

LEGEND
- Morning (Evening)
- Stop Controlled Intersection
- Signal Controlled Intersection
- : Railroad
- : Project Site

Date: February 6, 2014