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Traffic Engineer's Statement and
Developer's Statement is missing.

April 29, 2019

Submit the correct report. The submitted report
is for the commercial redevelopment within City
of Fountain. Not the proposed residential
development.

RE: River Bend Crossing
City of Fountain, Colorado
Updated Traffic Impact and Access Analysis
LSC #184140

Dear Mr. Toth:

LSC Transportation Consultants, Inc. has prepared this updated traffic impact and access analysis for the proposed River Bend Crossing development to be located generally southwest of US Highway 85-87 (US 85-87) and Main Street in the City of Fountain, Colorado. The proposed plan includes the redevelopment of the existing Fountain Valley Shopping Center. Figure 1 shows the site location.

REPORT CONTENTS

The report contains the following:

- The proposed land uses for the site.
- The roadways in the study area including the number of lanes, classifications, posted speed limits, existing and proposed intersection/access spacing, lane geometries, traffic controls, etc.
- The existing traffic volumes at the intersections of US 85-87/Main Street and US 85-87/Southmoor Drive.
- The projected future peak-hour traffic volumes for the site access points and the key area intersections.
- The resulting traffic impacts. The traffic impacts have been quantified by determining the future levels of service at the study-area intersections.
- Findings and recommendations

SITE LAND USE AND ACCESS

The Fountain Valley Shopping Center is located within the city limits of Fountain and the residential development site is located outside the city limits in unincorporated El Paso County.

The Fountain Valley Shopping Center, located west of US 85-87 and Main Street, includes about 83,000 square feet of floor space including a discount store, inline retail, a bowling alley, and a

Add PCD File No. P189, SP187, SF1844, & SF1843
Unresolved.

restaurant. The site is planned to be razed and redeveloped for new retail uses with a total of 61,407 square feet of floor space. The proposed site plan is shown in Figure 2. The existing full-movement signalized access to US 85-87 (aligning with Main Street) is planned to remain. The two existing access points to Southmoor Drive are planned to be closed and replaced with a single full-movement access about 560 feet southwest of US 85-87. A 15,625-square-foot parcel located northwest of the intersection of US 85-87 and Main Street is not included in this development. The existing gas station with convenience market located on this parcel is under different ownership and is not part of this site or redevelopment. A right-in/right-out-only access point for the gas station to US 85-87 just north of Main Street is also outside the property boundary of this site. As required by CDOT, the applicant has updated the site plan to show a vehicular connection to/from this outparcel. This would allow for vehicular access to/from this outparcel if CDOT were to close that parcel's direct access to Highway 85/87 in the future.

A 53-acre parcel located adjacent to and southwest of the Fountain Valley Shopping Center is planned to be developed in the future as part of a separate submittal with 221 lots for single-family homes. Traffic projected to be generated by this parcel is included in the short-term and long-term traffic analysis contained in this report; however, this report does not include analysis for the residential development including analysis of any additional access points. The residential development access will be addressed in an upcoming submittal to El Paso County for the residential development.

EXISTING ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The roadways in the study area are shown on Figure 1 and are described below.

- **US Highway 85-87** is a major north/south route serving Fountain Valley. Adjacent to the site US 85-87 has two through lanes in each direction and a posted speed limit of 50 miles per hour (mph). US 85-87 is classified by the Colorado Department of Transportation as a Rural Highway (NR-B) south of Main Street and a Non-Rural Principal Highway (NR-A) north of Main Street. The intersection of US 85-87 is currently signal controlled.
- **Southmoor Drive** forms a loop on the west side of SH 85-87 from just north of Mesa Ridge Parkway to just south of Main Street. This is an El Paso County Roadway from US Highway 85-87 to Lovitt Lane. South of Lovitt Lane, it is a City of Fountain street. Access to this site would be to the El Paso County-owned section. The El Paso County roadway inventory identifies Southmoor Drive as an Urban Collector (FC-17). Fountain classifies Southmoor Drive as a two-lane Community Collector. The north intersection of Southmoor Drive and US 85-87 is a "three-quarter-movement" intersection and is restricted to left-in/right-in/right-out only. The eastbound approach to the state highway is Stop-sign controlled. The posted speed limit is 30 mph.

INTERSECTION ACCESS SIGHT DISTANCE

Figure 3 shows the sight distance requirements at the proposed relocated (and consolidated) full-movement access point to Southmoor Drive. Based on a posted speed limit of 30 miles per hour,

the El Paso County required sight distance for a driveway is 300 feet for passenger cars and pickup trucks, 390 feet for single-unit trucks, and 510 feet for multi-unit trucks. As shown in Figure 3, this access would meet El Paso County sight distance criteria.

Existing Traffic Conditions

Figure 4 shows the morning and afternoon peak-hour traffic volumes at the intersections of US 85-87/Main, US 85-87/Southmoor and the existing east Fountain Valley Shopping Center access to Southmoor Drive based on counts conducted by LSC in February 2018. As the existing commercial site access points to Southmoor Drive are proposed to be closed all movements from both site access points to Southmoor Drive were counted as a single intersection (i.e., the southbound right-turn volumes shown include vehicles that turned right at either the north or south access point). The traffic counts at the access points were used to determine the through traffic volumes on Southmoor Drive at the new access location and to estimate the volume of existing traffic that currently uses the Fountain Valley Shopping Center parking to travel to and from Southmoor Drive to the traffic signal at US 85-87/Main. The traffic count reports are attached.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized and signalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections and more than 80 seconds for signalized intersections. Table 1 shows the level of service delay ranges.

Table 1			
Intersection Levels of Service Delay Ranges			
Level of Service	Signalized Intersections		Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	V/C⁽¹⁾	Average Control Delay (seconds per vehicle)⁽²⁾
A	10.0 sec or less	less than 0.60	10.0 sec or less
B	10.1-20.0 sec	0.60-0.69	10.1-15.0 sec
C	20.1-35.0 sec	0.70-0.79	15.1-25.0 sec
D	35.1-55.0 sec	0.80-0.89	25.1-35.0 sec
E	55.1-80.0 sec	0.90-0.99	35.1-50.0 sec
F	80.1 sec or more	1.00 and greater	50.1 sec or more
(1) Source: <i>Transportation Research Circular 212</i>			
(2) For unsignalized intersections if V/C ratio is greater than 1.0 the level of service is LOS F regardless of the projected average control delay per vehicle.			

The signalized intersection of US 85-87 was analyzed to determine the existing levels of service using Synchro. The intersection of US 85-87/Southmoor was analyzed based on the unsignalized intersection method of analysis procedures found in the *Highway Capacity Manual, 6th Edition*

by the Transportation Research Board. Figure 4 shows the detailed level of service analysis results. The level of service (LOS) reports are attached.

All movements at the signalized intersection of US 85-87 are currently operating at LOS D or better during the morning and afternoon peak hours.

All movements at the three-quarter movement intersection of US 85-87/Southmoor are currently operating at LOS C or better during the morning and afternoon peak hours.

TRIP GENERATION

Estimates of the traffic volumes expected to be generated by the site were made using the nationally published trip generation rates found in *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 2 shows the trip generation estimates. Table 2 also shows a trip generation estimate for the 53-acre parcel located adjacent to and southwest of the site.

The shopping center will not be a new “greenfield” development, rather redevelopment of an existing shopping center. The following trip generation estimate for the shopping center redevelopment represents the post-redevelopment trip generation with current trips generated removed. Note: the gas station outparcel is not a part of this project.

The total number of vehicle-trips generated by the land uses has been reduced to account for the internal vehicle-trips made within the site between land uses, without use of the external streets surrounding the site. Table 2 shows the number of internal trips assumed for each land use. The internal trip reduction is an estimate by LSC based on National Highway Cooperative Highway Research Program (NCHRP) Report 684 Enhancing Internal Trip Capture Estimation for Mixed-Use Developments. The results of the spreadsheet model are attached.

The total number of vehicle-trips generated has also been reduced to take into account the “pass-by” phenomena. A pass-by trip is made by a motorist who would already be on the adjacent roadways regardless of the proposed development, but who stops in at the site while passing by. The motorist would then continue on his or her way to a final destination in the original direction. The pass-by percentages shown on Table 2 are from the *Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2014* by ITE.

The site is projected to generate about 2,876 non-pass-by, external vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 204 vehicles would enter and 159 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about 194 vehicles would enter and 188 vehicles would exit the site.

TRIP DISTRIBUTION AND ASSIGNMENT

The estimated directional distribution of the site-generated traffic volumes on the adjacent roadways is an important factor in determining the site’s traffic impacts. Figure 5 shows the

directional distribution estimates for the primary site-generated traffic. The estimates have been based on the following factors: the site land uses; the site location; the street and roadway system serving the site; and the existing/projected traffic volumes.

The pass-by trips were assigned based in large part on the magnitude and direction of the existing and projected background traffic volumes on the adjacent roadways.

Figure 6 shows the trip generation estimate for future residential trips assumed to be generated by development of the 53-acre parcel located adjacent to and southwest of the site.

When the distribution percentages (from Figure 5) were applied to the trip generation estimates (from Table 2), the site-generated traffic volumes on the area roadways were determined. Figure 7 shows the site-generated traffic volumes. Figure 8 shows the projected traffic volumes on the area roadways due to development of the 53-acre parcel located adjacent to and southwest of the site.

BASELINE (BACKGROUND) TRAFFIC

Baseline traffic is the traffic estimated to be on the adjacent roadways and at adjacent intersections without the proposed development's trip generation of site-generated traffic volumes. Background traffic includes the through traffic and the traffic generated by nearby developments, but assumes zero traffic generated by the site and zero traffic generated by 53-acre parcel located adjacent to and southwest of the site. The baseline traffic volumes also do not include any traffic estimated to be currently generated by land uses within the existing Fountain Valley Shopping Center that are planned to be razed. The baseline traffic volumes include traffic estimated to be generated by the existing gas station located northwest of the intersection of US 85-87 and Main Street and an estimate of "cut-through" traffic traveling between Southmoor and the traffic signal at Main/US-85-87 through the site.

Figure 9a shows the estimated short-term baseline traffic volumes. The short-term baseline traffic volumes are based on the existing traffic volumes shown in Figure 4 without traffic estimated to be currently generated by land uses within the existing Fountain Valley Shopping Center that are planned to be razed/removed.

Figure 9b shows the lane geometry, traffic control, and level of service at the key intersections based on the short-term baseline volumes.

Figure 10a shows the estimated 2040 baseline traffic volumes. These volumes are based on the short-term baseline traffic volumes shown in Figure 9a plus additional growth of through traffic on the adjacent streets based on the Colorado Department of Transportation (CDOT) twenty-year growth factor for US 85-87 adjacent to the site.

Figure 10b shows the lane geometry, traffic control, and level of service at the key intersections based on the 2040 baseline volumes.

TOTAL TRAFFIC

Figure 11a shows the projected short-term total traffic volumes at the site access points and key adjacent intersections. The short-term total traffic volumes are the sum of the short-term baseline traffic volumes from Figure 9a plus the site-generated traffic volumes (from Figure 7) plus future traffic estimated to be generated by development of the 53-acre parcel located adjacent to and southwest of the site (from Figure 8). The volumes shown in Figure 11a represent the short-term impacts of the development.

Figure 11b shows the lane geometry, traffic control, and level of service at the key intersections based on the short-term total volumes.

Figure 12a shows the projected 2040 total traffic volumes at the site access points and key adjacent intersections. The 2040 total traffic volumes are the sum of the 2040 baseline traffic volumes from Figure 10a plus the site-generated traffic volumes from (Figure 7) plus future traffic estimated to be generated by development of the 53-acre parcel located adjacent to and southwest of the site (from Figure 8).

Figure 12b shows the lane geometry, traffic control, and level of service at the key intersections based on the 2040 total volumes.

PROJECTED LEVELS OF SERVICE

Intersection Levels of Service

The site access points and key area intersections were analyzed to determine the projected levels of service for the short-term and 2040 baseline and total traffic volumes. Figures 10b through 12b show the level of service analysis results. The signalized intersection of SH 85-87 was analyzed using Synchro. The intersection of SH85-87/Southmoor Drive and the site access point to Southmoor Drive were analyzed using the unsignalized/two-way, Stop-sign-controlled intersection method of analysis procedures found in the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The level of service (LOS) reports are attached.

US 85-87/Main

All movements at the signalized intersection of US 85-87 Main are projected to operate at LOS D or better during the peak hours based on the projected short-term and 2040 total traffic volumes.

US 85-87/Southmoor

All movements at the three-quarter movement (left-in/right-in/right-out-only) intersection of US 85-87/Southmoor are projected to operate at LOS C or better during the peak hours based on the projected short-term and 2040 total traffic volumes.

Site Access Point

The site access point to Southmoor Drive is projected to operate at LOS A for all movements as a two-way, Stop-sign-controlled intersection based on the projected short-term and 2040 total traffic volumes.

QUEUING ANALYSIS

A queuing analysis was performed using Synchro/SimTraffic to determine if the proposed laneage for the main access to US 85-87 will be sufficient to accommodate the projected queues based on the total traffic volumes. The 2040 total afternoon peak-hour traffic volumes were entered into the Synchro model. The simulation was run five times and the results were averaged. The queueing reports are attached.

Based on the projected 2040 total traffic volumes, the projected maximum eastbound left-turn queue at the main access approaching US 85-87 is about 134 feet long during the morning peak hour and 132 feet long during the afternoon peak hour. Figure 13 shows the proposed lane geometry for the proposed Collector street through the site.

The projected maximum northbound left-turn queue on US 85-87 is about 102 feet long during the morning peak hour and 204 feet long during the afternoon peak hour. The existing northbound left-turn lane at this intersection is about 335 feet long. Based on the criteria contained in The Colorado State Highway Access Code for a roadway with a classification of NR-B and a posted speed limit greater than 40 mph, the required turn lane length for the northbound left-turn lane would be 320 feet plus a 180-foot taper.

STREET CLASSIFICATIONS

Figure 14 shows the existing and recommended street classifications in the vicinity of the site.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- The site is projected to generate about 2,876 new external vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour about 204 vehicles would enter and 159 vehicles would exit the site. During the afternoon peak hour about 194 vehicles would enter and 188 vehicles would exit the site. The shopping center will not be a new “greenfield” development, rather redevelopment of an existing shopping center. This trip generation estimate for the shopping center redevelopment represents the post-redevelopment trip generation with current trips generated removed. Note: the gas station outparcel is not a part of this project.

Projected Levels of Service

- All movements at the signalized intersection of US 85-87 are projected to operate at LOS D or better during the peak hours based on the projected short-term and 2040 total traffic volumes.
- All movements at the three-quarter movement (left-in/right-in/right-out only) intersection of US 85-87/Southmoor are projected to operate at LOS C or better during the peak hours based on the projected short-term and 2040 total traffic volumes.
- The site access point to Southmoor Drive is projected to operate at a satisfactory level of service for all movements as a two-way Stop-sign-controlled intersection based on the projected short-term and 2040 total traffic volumes.

Access Permitting

- The proposed relocated (and consolidated) site access on Southmoor Drive will require El Paso County approval.
- CDOT will require the submittal of a Colorado State Highway Access Permit Applications for the main access at the US Highway 85-87 intersection. They may also require the submittal of an application for the intersection of Southmoor Drive/US Highway 85-87.

Recommendations

- Southmoor Drive should be improved to an El Paso County-standard Urban Non-Residential Collector street adjacent to the site. This improvement is not reimbursable under the current MTCP plan.
- Based on projected 2040 total traffic volumes and the criteria contained in the *El Paso County Engineering Criteria Manual* (ECM) a southbound right-turn deceleration lane would **not** be required on Southmoor Drive approaching the proposed relocated full-movement site access point.
- Figure 13 shows the proposed laneage for the main access.
- Signal modifications may be needed to the existing traffic signal at the intersection of US 85-87/Main Street to accommodate the recommended modifications to the site access (west leg). CDOT will likely require a signal modification plan as part of the terms and conditions of the State Highway Access Permit. CDOT will also likely require the submittal of design plans for the west leg intersection improvements. These will likely need to be approved by CDOT prior to issuance of a Notice-to-Proceed (NTP).
- There are existing northbound left-turns lane on US 85-87 approaching Southmoor Drive and Main Street. These lanes meet the criteria contained in The Colorado State Highway Access Code based on a classification of NR-B with a posted speed limit greater than 40 mph.

- There are existing continuous right-turn acceleration/deceleration lanes on US 85-87 between the right-in/right-out access just north of Main Street to Mesa Ridge Parkway. There is an existing 70-foot right-turn deceleration lane on US 85-87 approaching the right-in/right-out access just north of Main Street. Based on criteria contained in The Colorado State Highway Access Code this lane should be extended to 350 feet plus a 150-foot taper.

* * * * *

Please contact me if you have any questions regarding this report.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

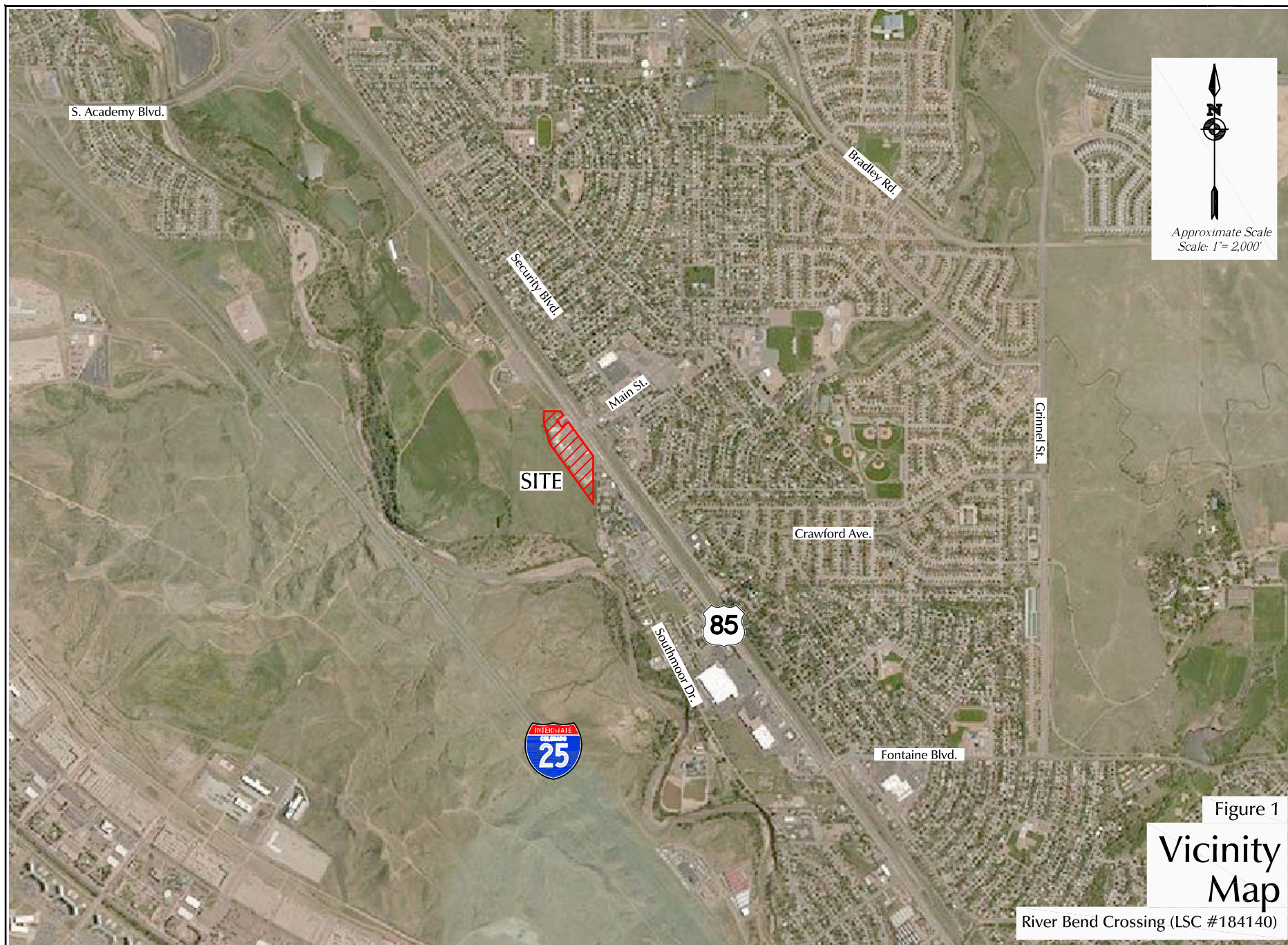


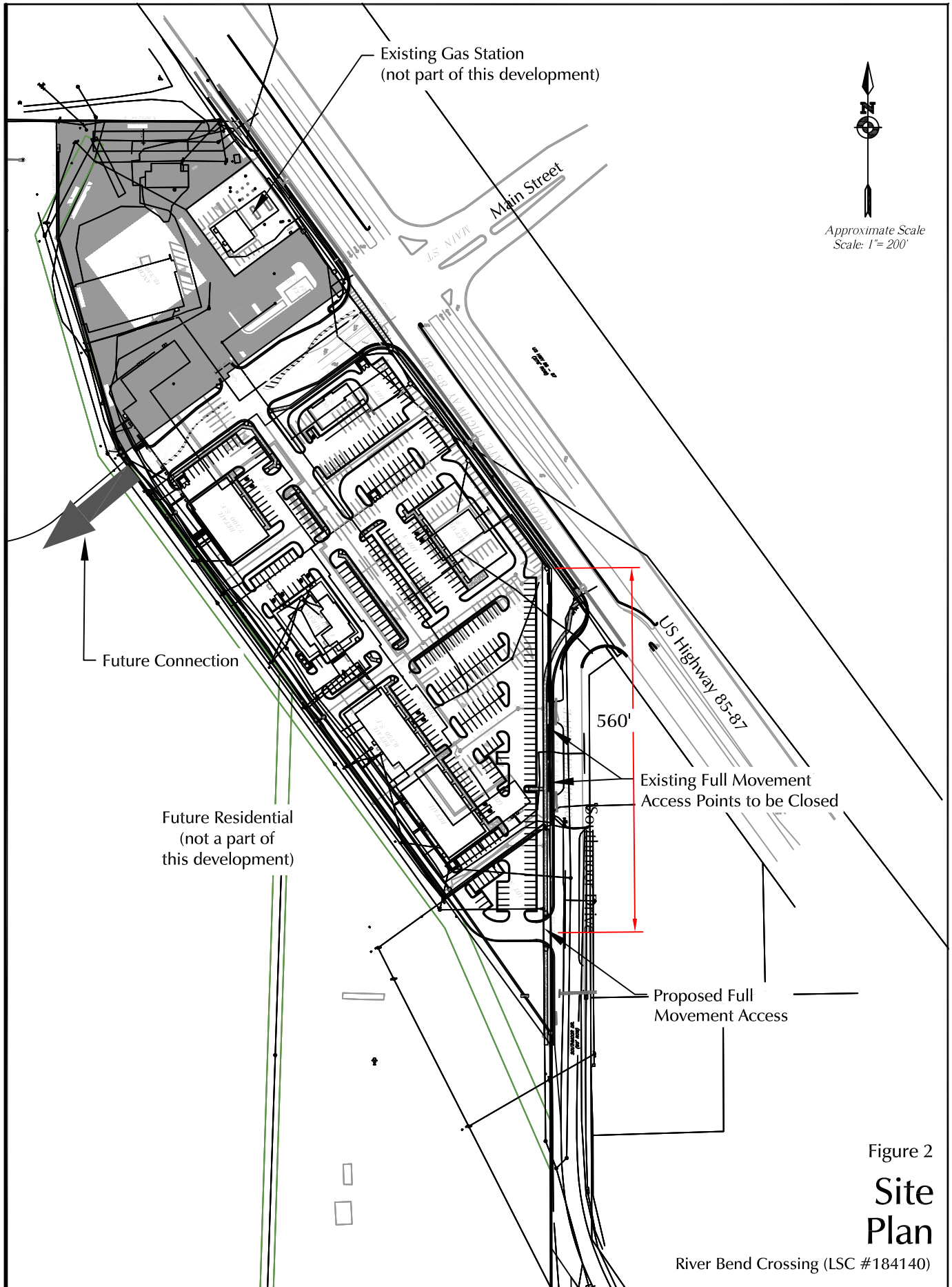
By: Jeffrey C. Hodsdon, P.E.
Principal

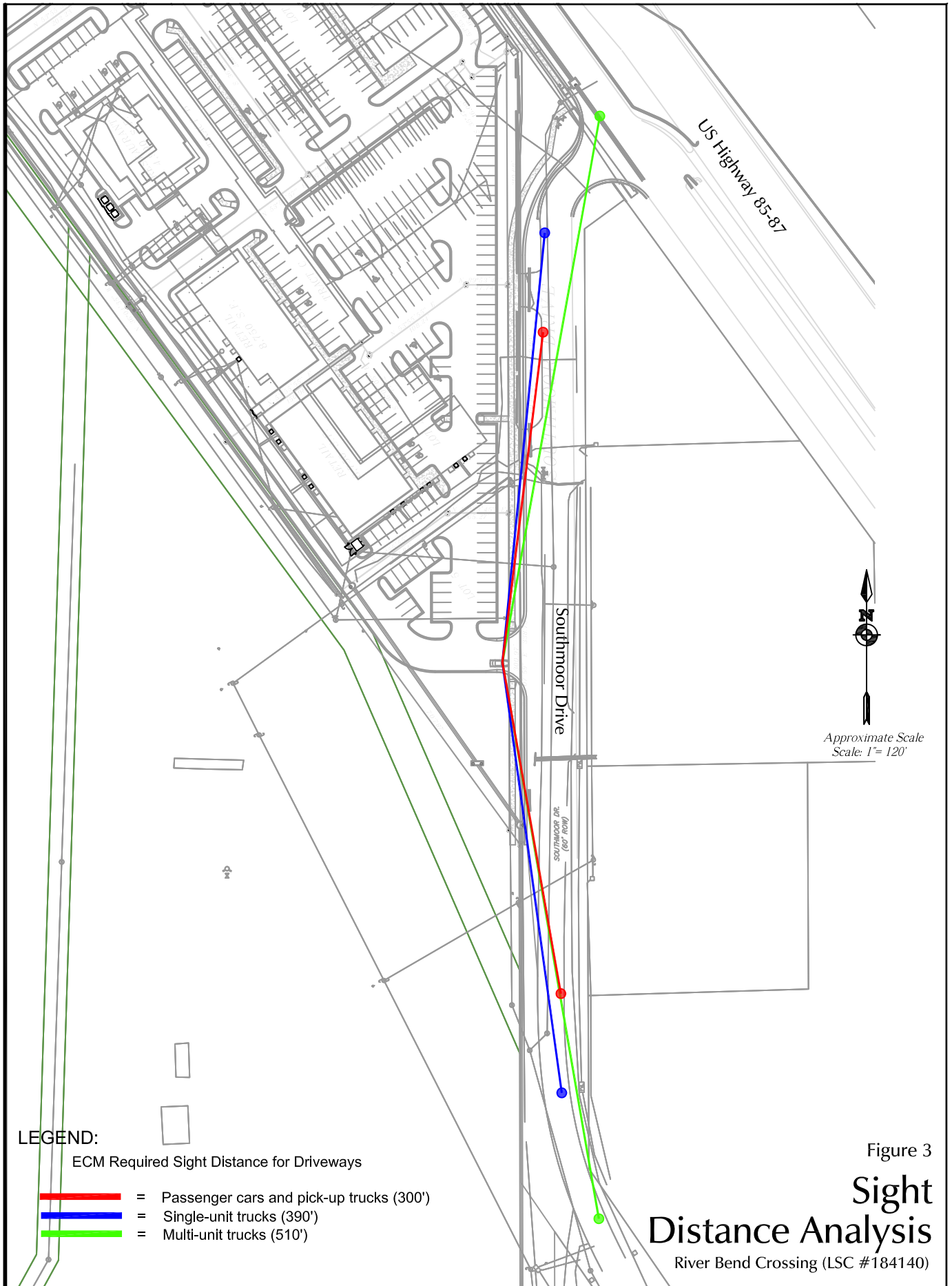
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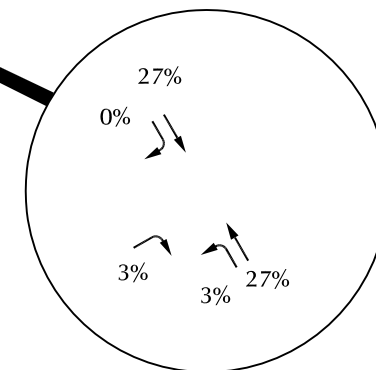
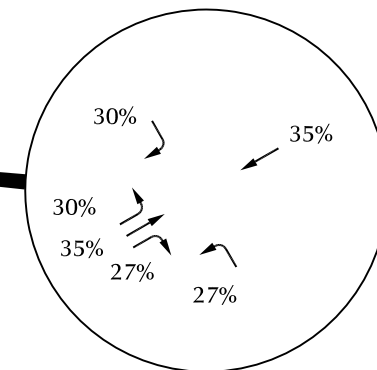
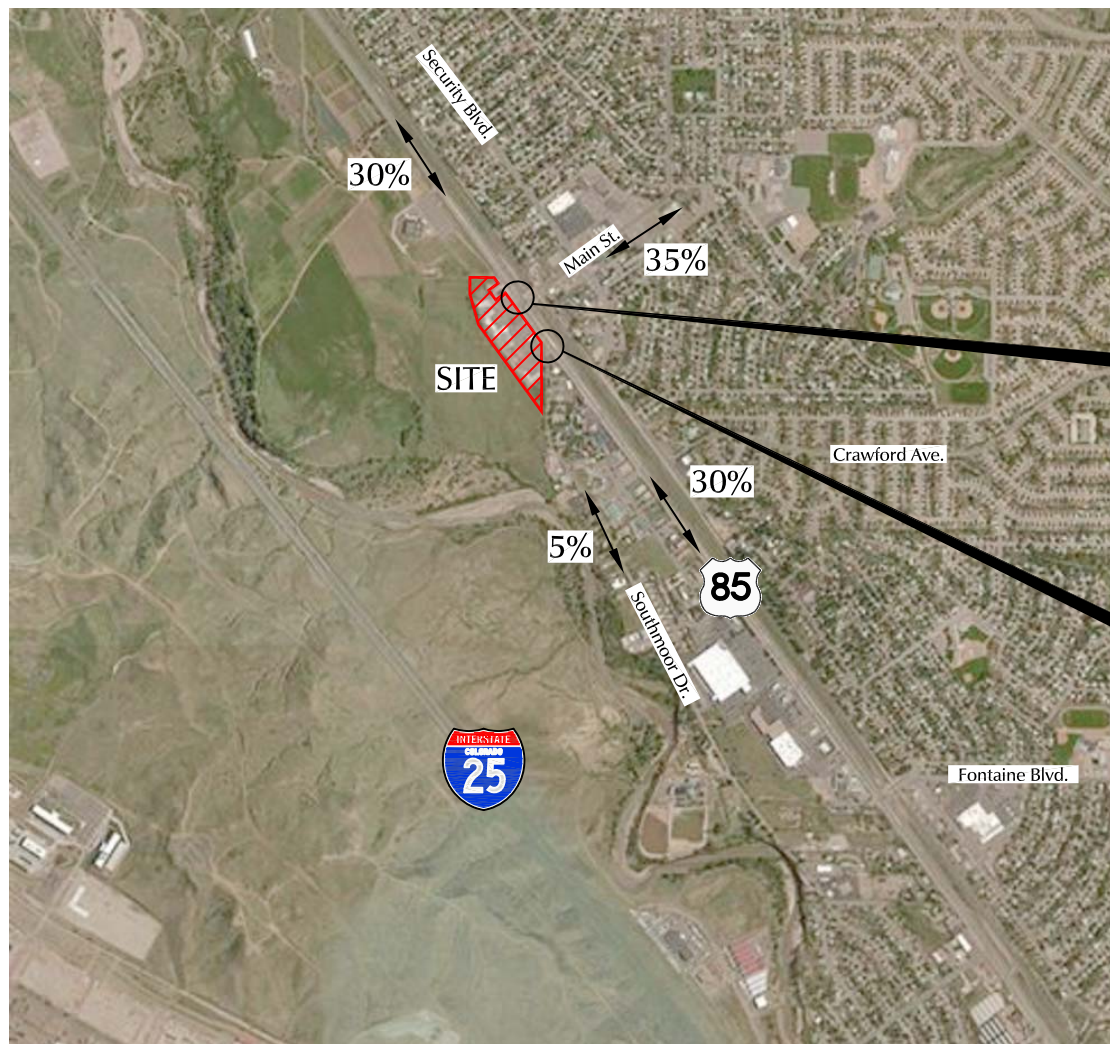
Enclosures: Table 2
Figures 1-14
Spreadsheet Model Results
Traffic Count Reports
Level of Service Reports

Table 2 Trip Generation Estimate River Bend Crossing																								
Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾				Total Trips Generated				Internal Trips Generated ⁽²⁾				External Trips Generated				Pass-By Trips ⁽³⁾	New External Trips Generated				
			Average Weekday	Morning Peak Hour		Afternoon Peak Hour		Average Weekday	Morning Peak Hour		Afternoon Peak Hour		Average Weekday	Morning Peak Hour		Afternoon Peak Hour		Average Weekday		Morning Peak Hour		Afternoon Peak Hour		
			Traffic	In	Out	In	Out	Traffic	In	Out	In	Out	Traffic	In	Out	In	Out	Traffic		In	Out	In	Out	Average Weekday Traffic
River Bend Crossing Trip Generation Estimate																								
820	Shopping Center	52.84 KSF ⁽⁴⁾	73.73	2.09	1.28	3.08	3.34	3,896	110	68	163	176	727	13	10	34	31	3,169	97	58	129	145	34%	2,092
934	Fast-Food Restaurant with Drive-Through Window	2.667 KSF	470.95	20.50	19.69	16.99	15.68	1,256	55	53	45	42	298	6	5	15	17	958	49	48	30	25	50%	479
932	High-Turnover (Sit-Down) Restaurant	4.9 KSF	112.18	5.47	4.47	6.06	3.71	550	27	22	30	18	117	3	2	6	8	433	24	20	24	10	43%	247
937	Coffee/Donut Shop With Drive-Through Window	0.824 KSF	820.38	45.38	43.61	21.69	21.69	676	37	36	18	18	147	3	2	7	10	529	34	34	11	8	89%	58
Total Trip Generation Estimate								6,378	229	178	256	254	1,289	25	19	62	66	5,089	204	159	194	188		2,876
Future Residential Development Trip Generation Estimate (Not a part of the currently proposed development)																								
210	Single Family Detached Housing	221 DU ⁽⁵⁾	9.44	0.19	0.56	0.62	0.37	2,086	41	123	138	81	104	2	6	7	4	1,982	39	117	131	77	0%	1,982
Notes: (1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE) (2) See attached NCHRP 684 Internal Trip Capture Estimate Tool Sheets (3) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice, Third Edition September 2017" by ITE (4) KSF = one thousand square feet of floor space (5) DU = dwelling unit																								
Source: LSC Transportation Consultants, Inc.																								









LEGEND:
 XX% = Commercial Percent Directional Distribution

Figure 5
**Directional Distribution
of Site-Generated Traffic**
River Bend Crossing (LSC #184140)

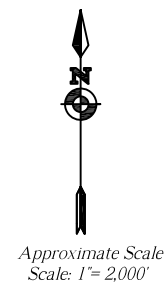
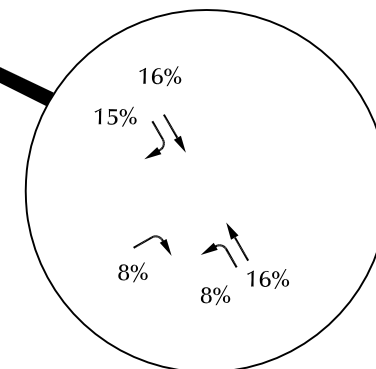
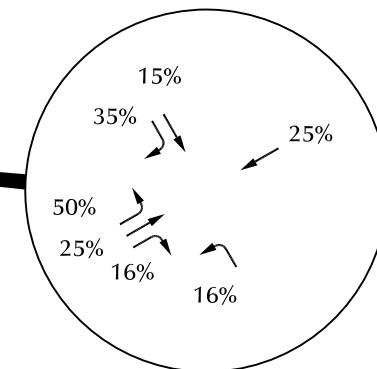
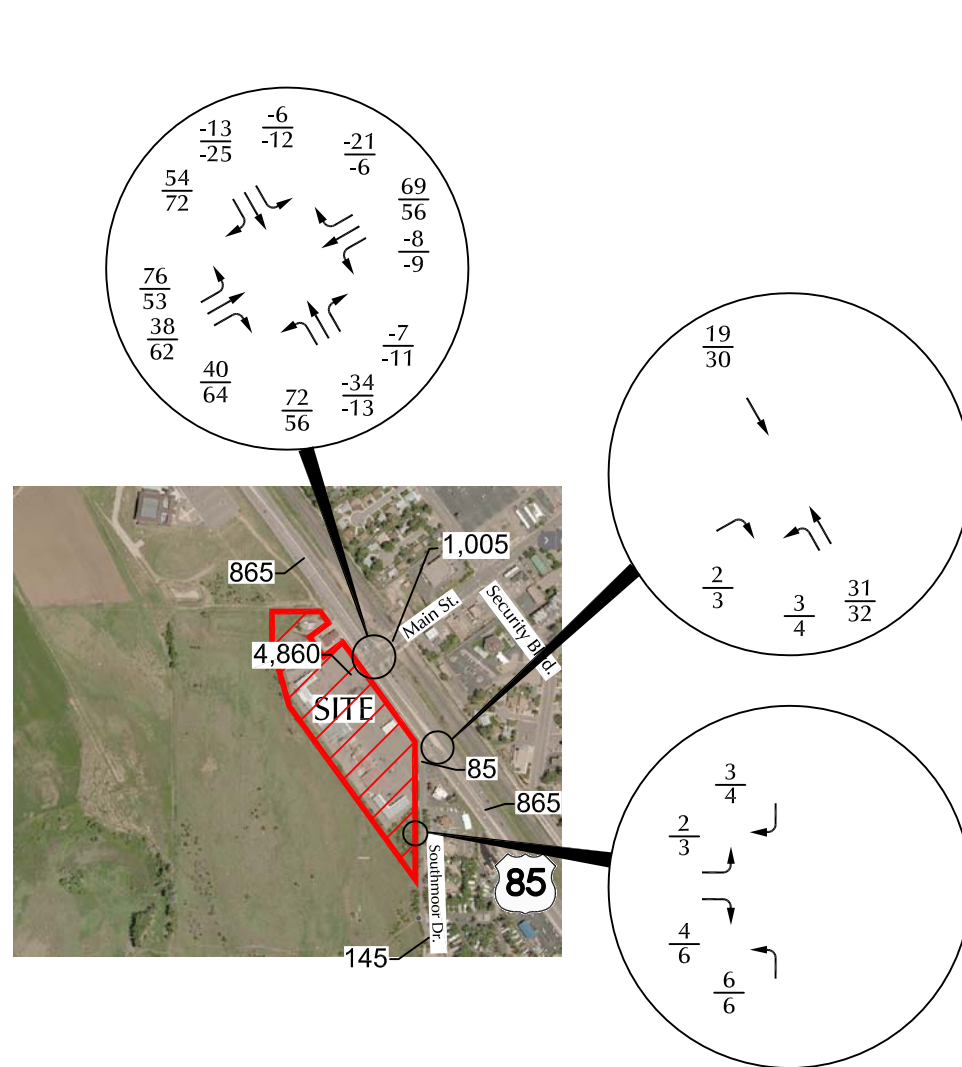


Figure 6
**Directional Distribution
of Future Residential Traffic**
River Bend Crossing (LSC #184140)

LEGEND:
 XX% = Residential Percent Directional Distribution

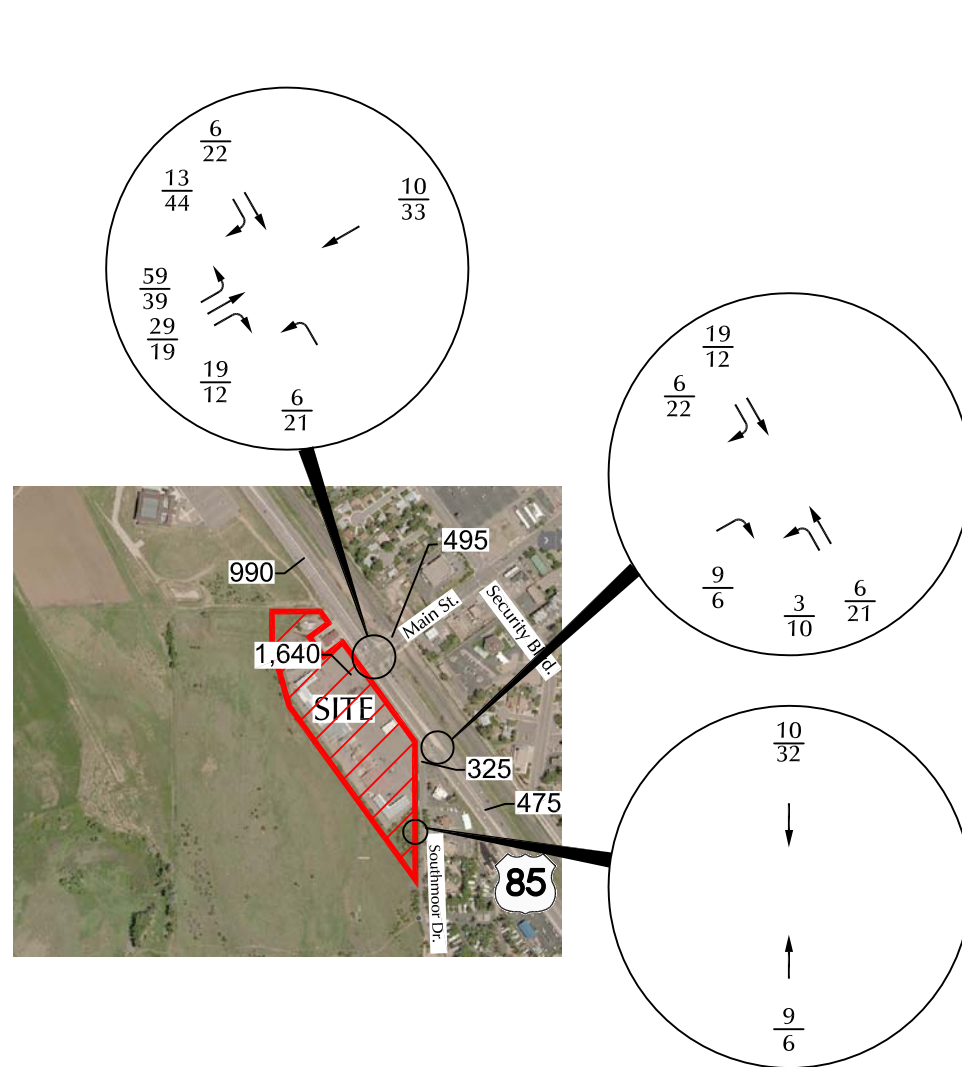


Approximate Scale
Scale: 1" = 1,000'

LEGEND:

$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
 X,XXX= Average Daily Traffic (vehicles per day)

Figure 7
**Assignment of
 Commercial Site-Generated Traffic**
 River Bend Crossing (LSC #184140)



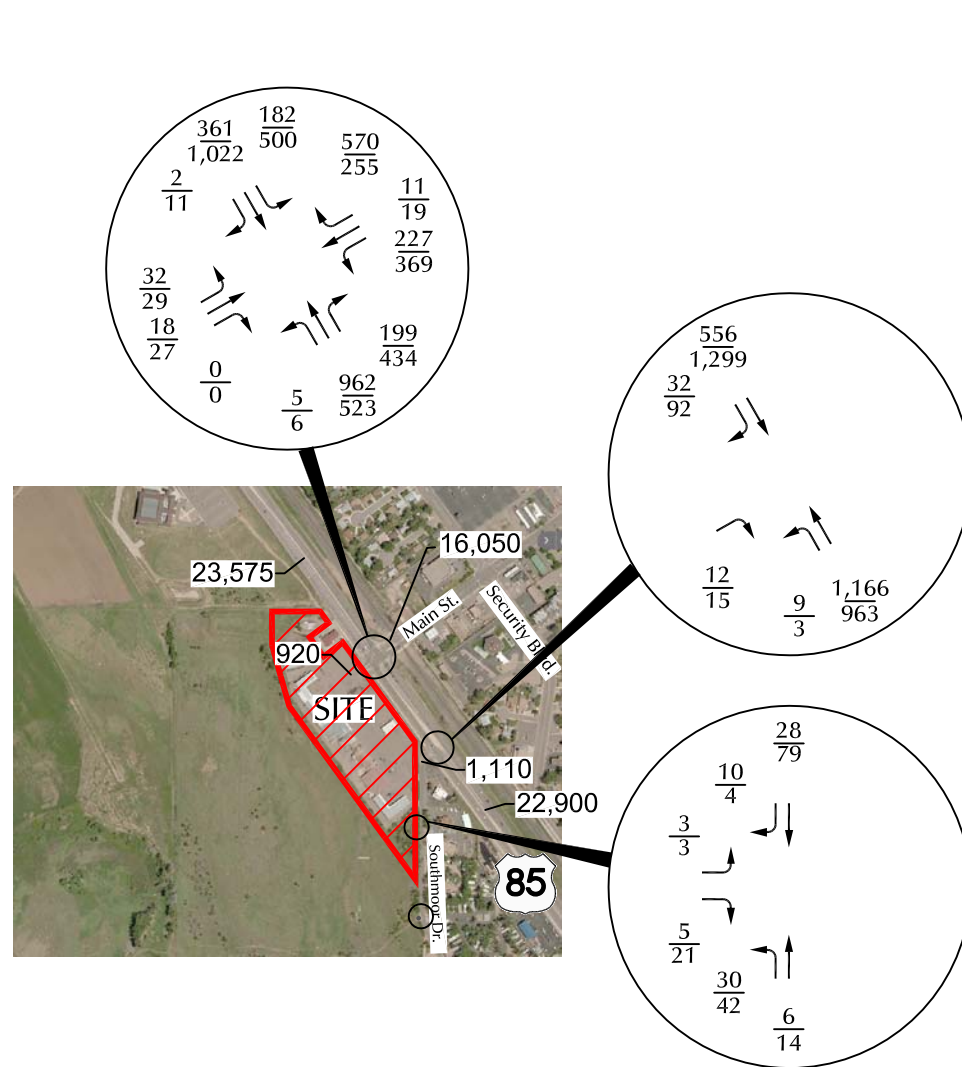
Approximate Scale
Scale: 1" = 1,000'

Figure 8
**Assignment of
Future Residential Traffic**
River Bend Crossing (LSC #184140)

LEGEND:

$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)

X,XXX= Average Daily Traffic (vehicles per day)



Approximate Scale
Scale: 1" = 1,000'

LEGEND:

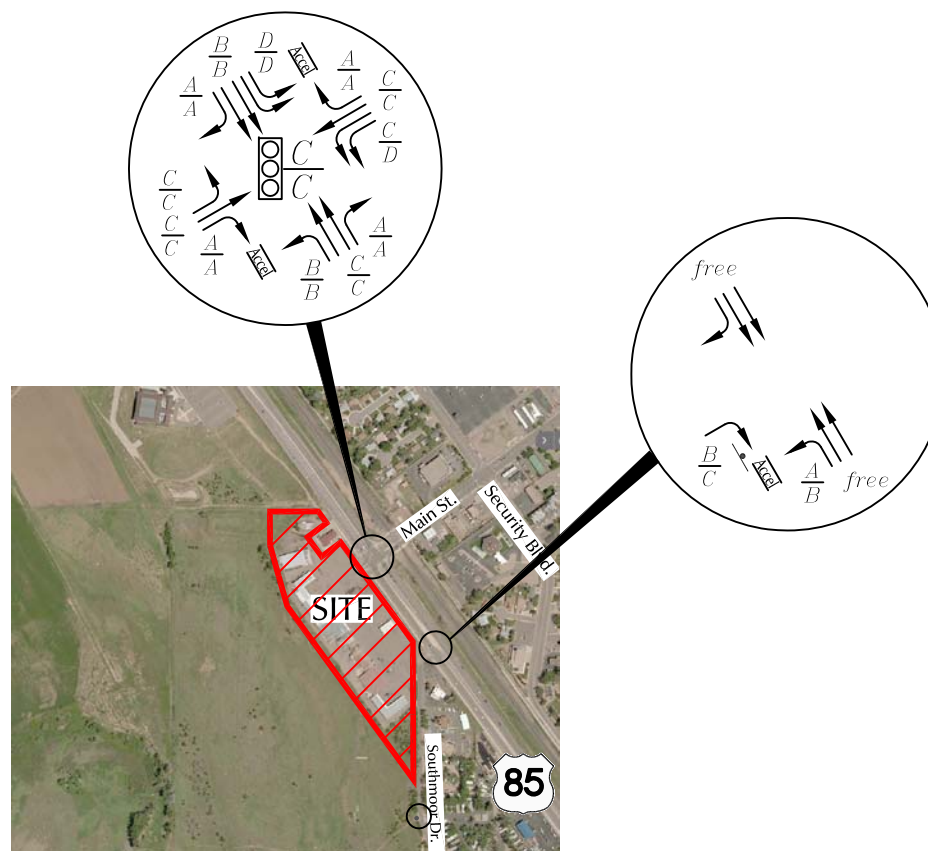
$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)

X,XXX= Average Daily Traffic (vehicles per day)

Figure 9a
**Short-Term
 Baseline Traffic**
 River Bend Crossing (LSC #184140)



Approximate Scale
Scale: 1" = 1,000'



LEGEND:

└ = Stop Sign

⬢ = Traffic Signal

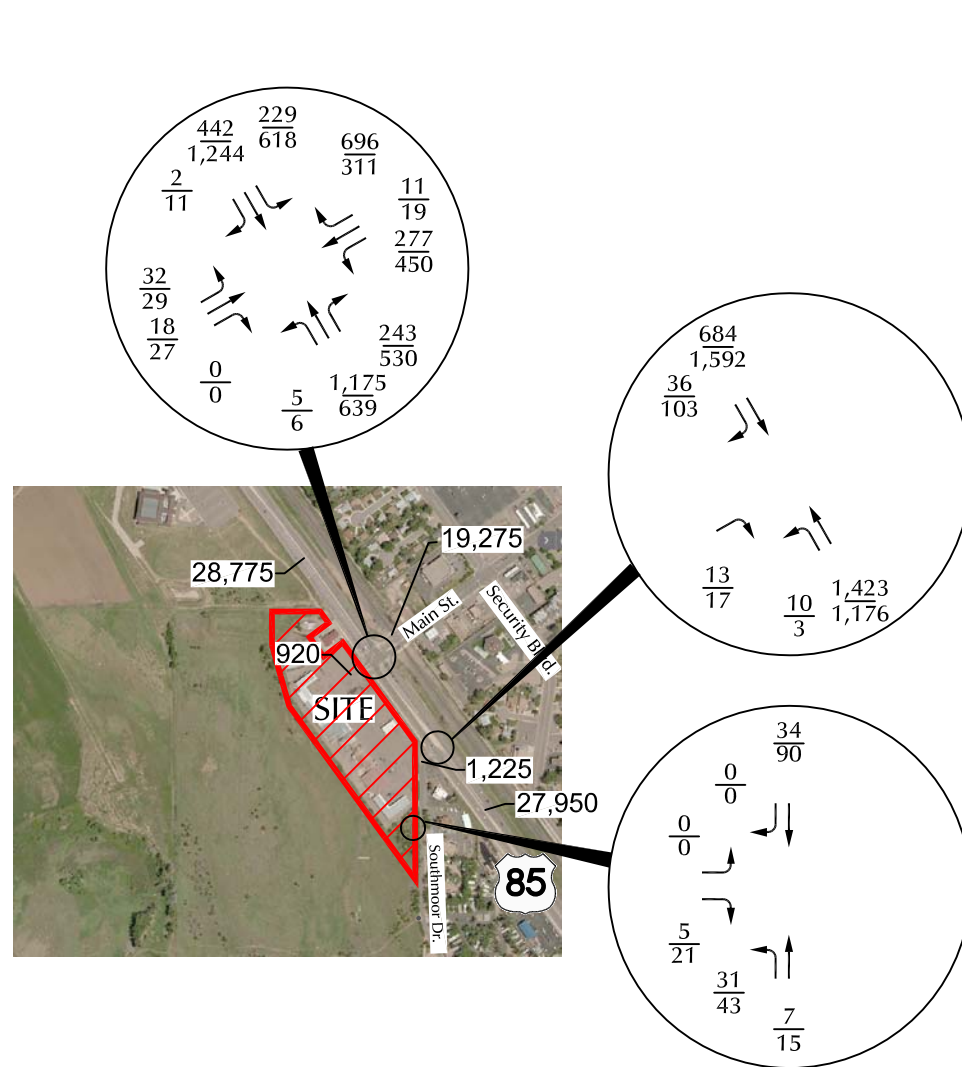
$\frac{A}{B}$ = $\frac{\text{AM Individual Movement Peak-Hour Level of Service}}{\text{PM Individual Movement Peak-Hour Level of Service}}$

$\frac{C}{C}$ = $\frac{\text{AM Entire Intersection Peak-Hour Level of Service}}{\text{PM Entire Intersection Peak-Hour Level of Service}}$

Figure 9b

Short-Term Baseline Lane Geometry, Traffic Control and Level of Service

River Bend Crossing (LSC #184140)



Approximate Scale
Scale: 1" = 1,000'

LEGEND:

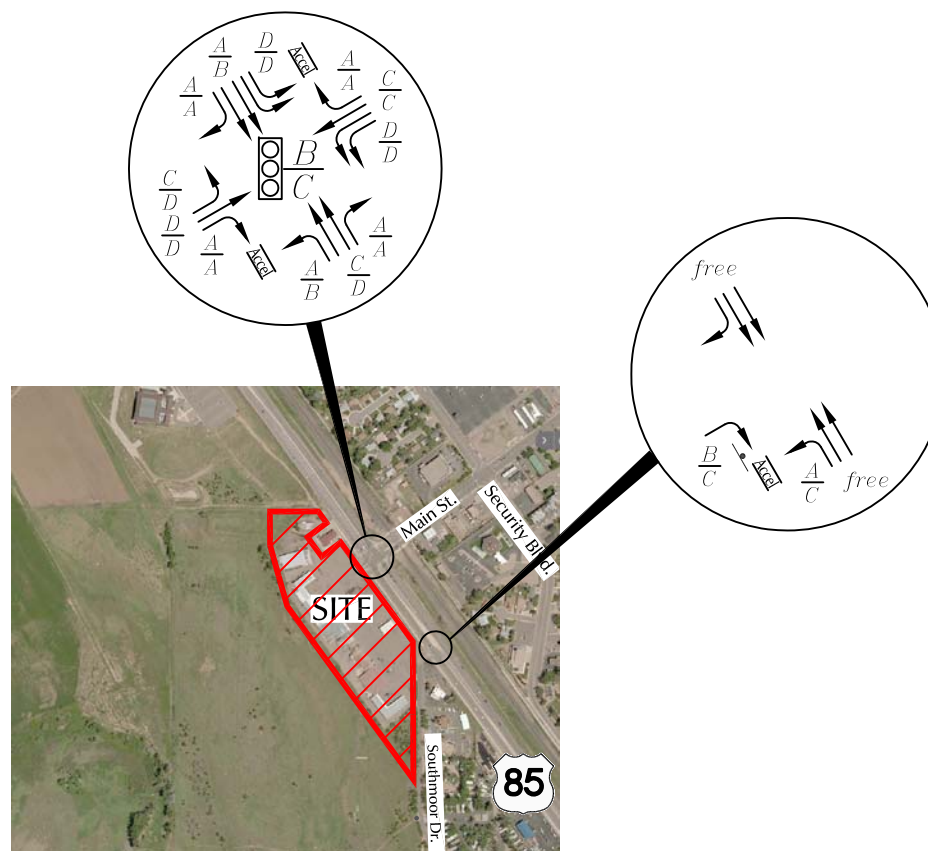
$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)

X,XXX= Average Daily Traffic (vehicles per day)

Figure 10a
Year 2040
Baseline Traffic
 River Bend Crossing (LSC #184140)



Approximate Scale
Scale: 1" = 1,000'



LEGEND:

└ = Stop Sign

⬢ = Traffic Signal

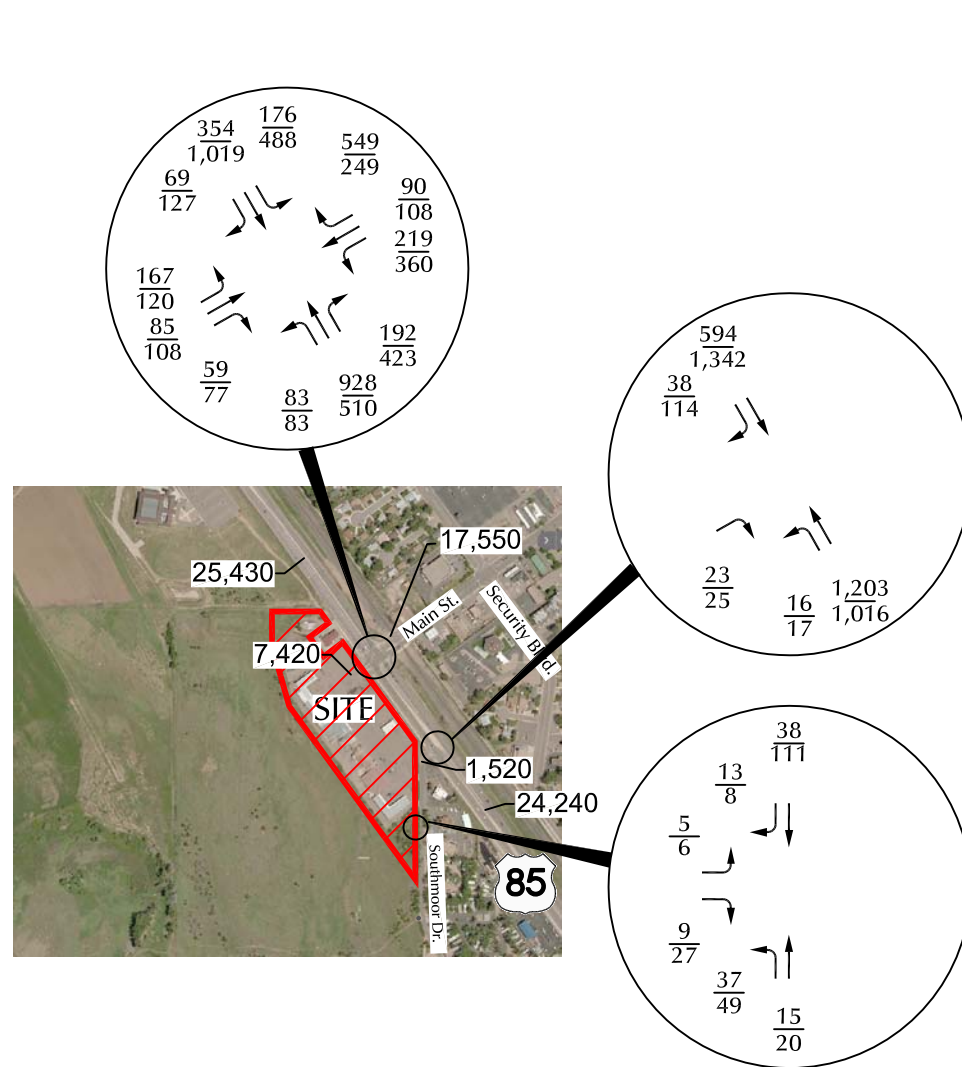
$\frac{A}{B}$ = $\frac{\text{AM Individual Movement Peak-Hour Level of Service}}{\text{PM Individual Movement Peak-Hour Level of Service}}$

$\frac{C}{C}$ = $\frac{\text{AM Entire Intersection Peak-Hour Level of Service}}{\text{PM Entire Intersection Peak-Hour Level of Service}}$

Figure 10b

Year 2040 Baseline Lane Geometry, Traffic Control and Level of Service

River Bend Crossing (LSC #184140)



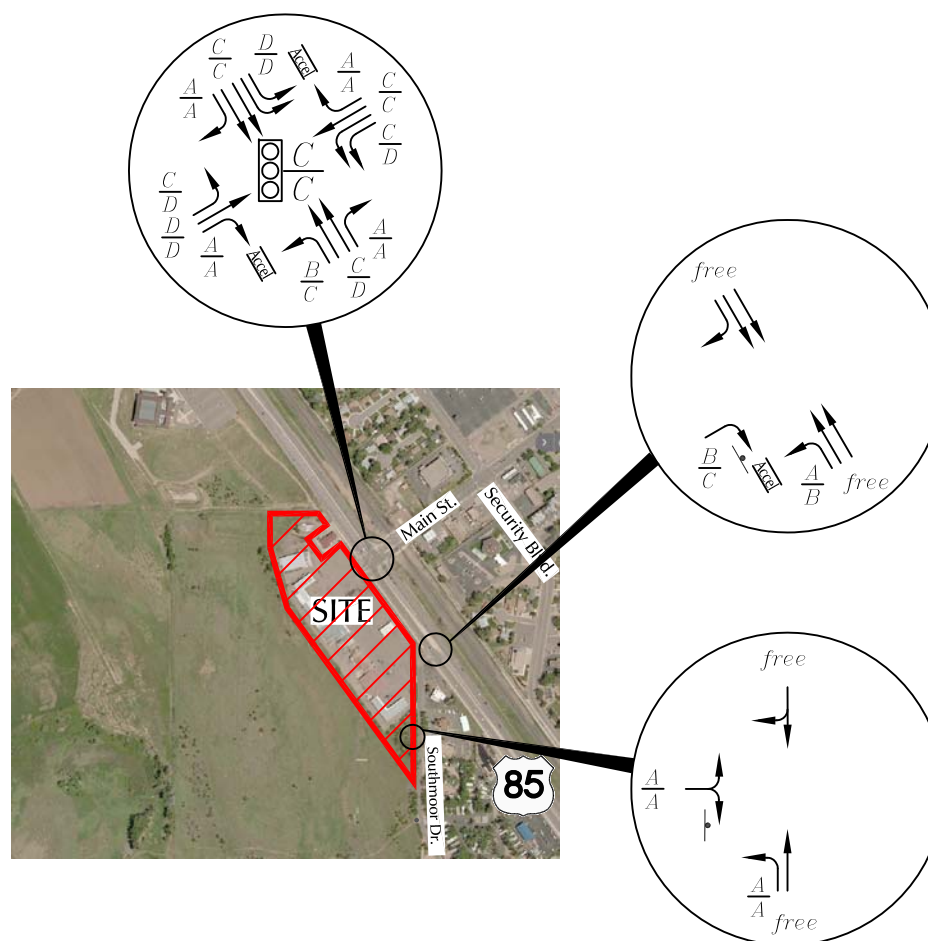
Approximate Scale
Scale: 1" = 1,000'

LEGEND:
 $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
 X,XXX= Average Daily Traffic (vehicles per day)

Figure 11a
**Short-Term
 Total Traffic**
 River Bend Crossing (LSC #184140)



Approximate Scale
Scale: 1" = 1,000'



LEGEND:

└ = Stop Sign

⬢ = Traffic Signal

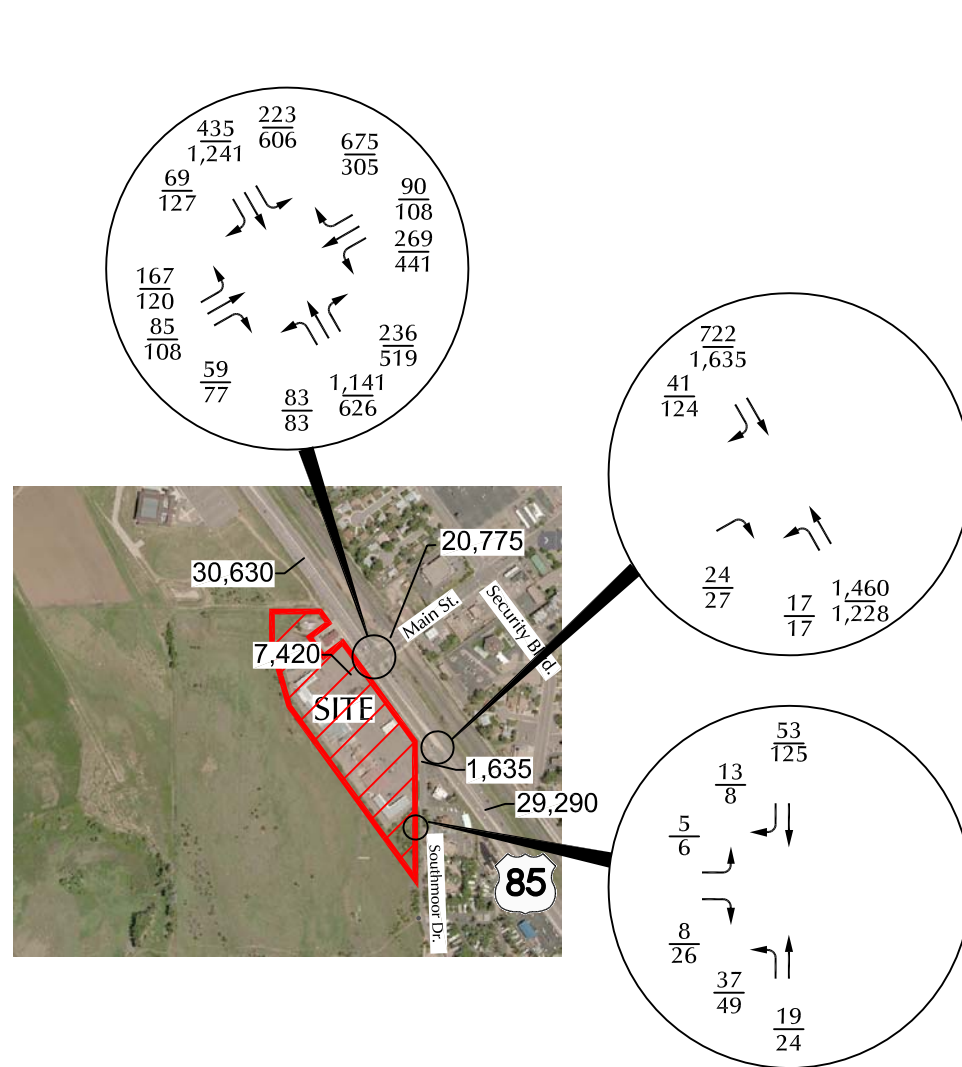
$\frac{A}{B}$ = $\frac{\text{AM Individual Movement Peak-Hour Level of Service}}{\text{PM Individual Movement Peak-Hour Level of Service}}$

$\frac{C}{C}$ = $\frac{\text{AM Entire Intersection Peak-Hour Level of Service}}{\text{PM Entire Intersection Peak-Hour Level of Service}}$

Figure 11b

Short-Term Total Lane Geometry, Traffic Control and Level of Service

River Bend Crossing (LSC #184140)



Approximate Scale
Scale: 1" = 1,000'

LEGEND:

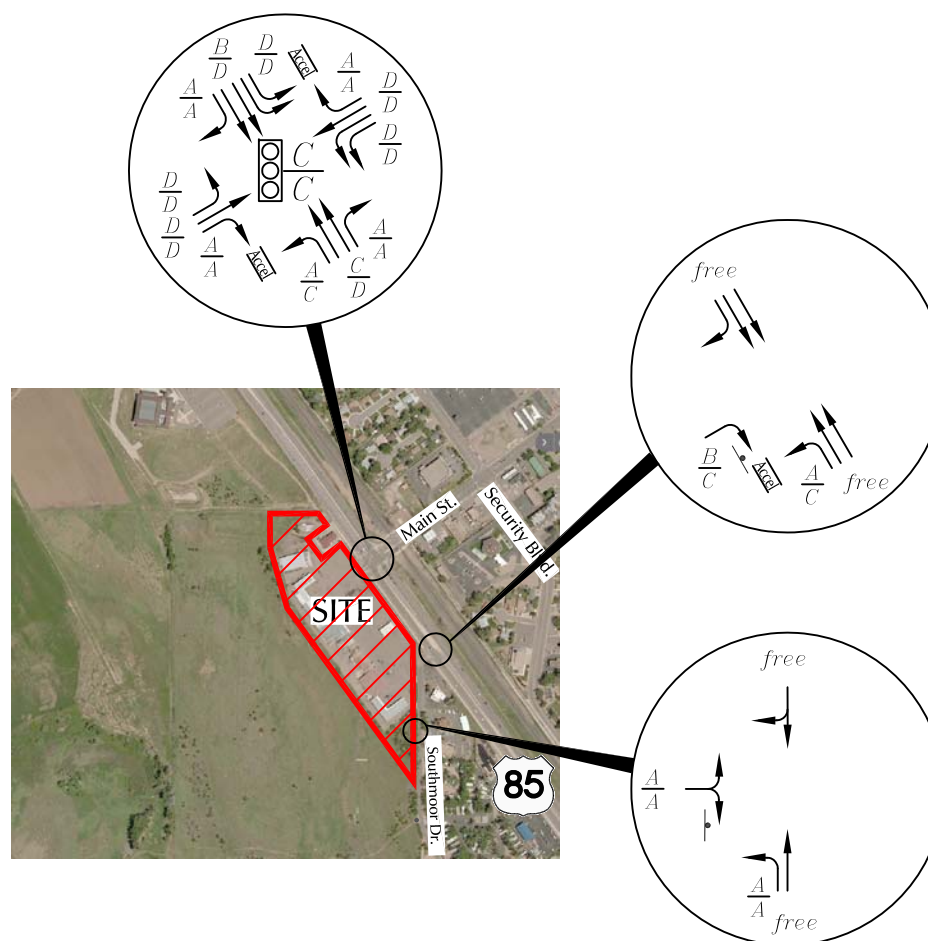
$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)

X,XXX= Average Daily Traffic (vehicles per day)

Figure 12a
Year 2040
Total Traffic
 River Bend Crossing (LSC #184140)



Approximate Scale
Scale: 1" = 1,000'



LEGEND:

 = Stop Sign

 = Traffic Signal

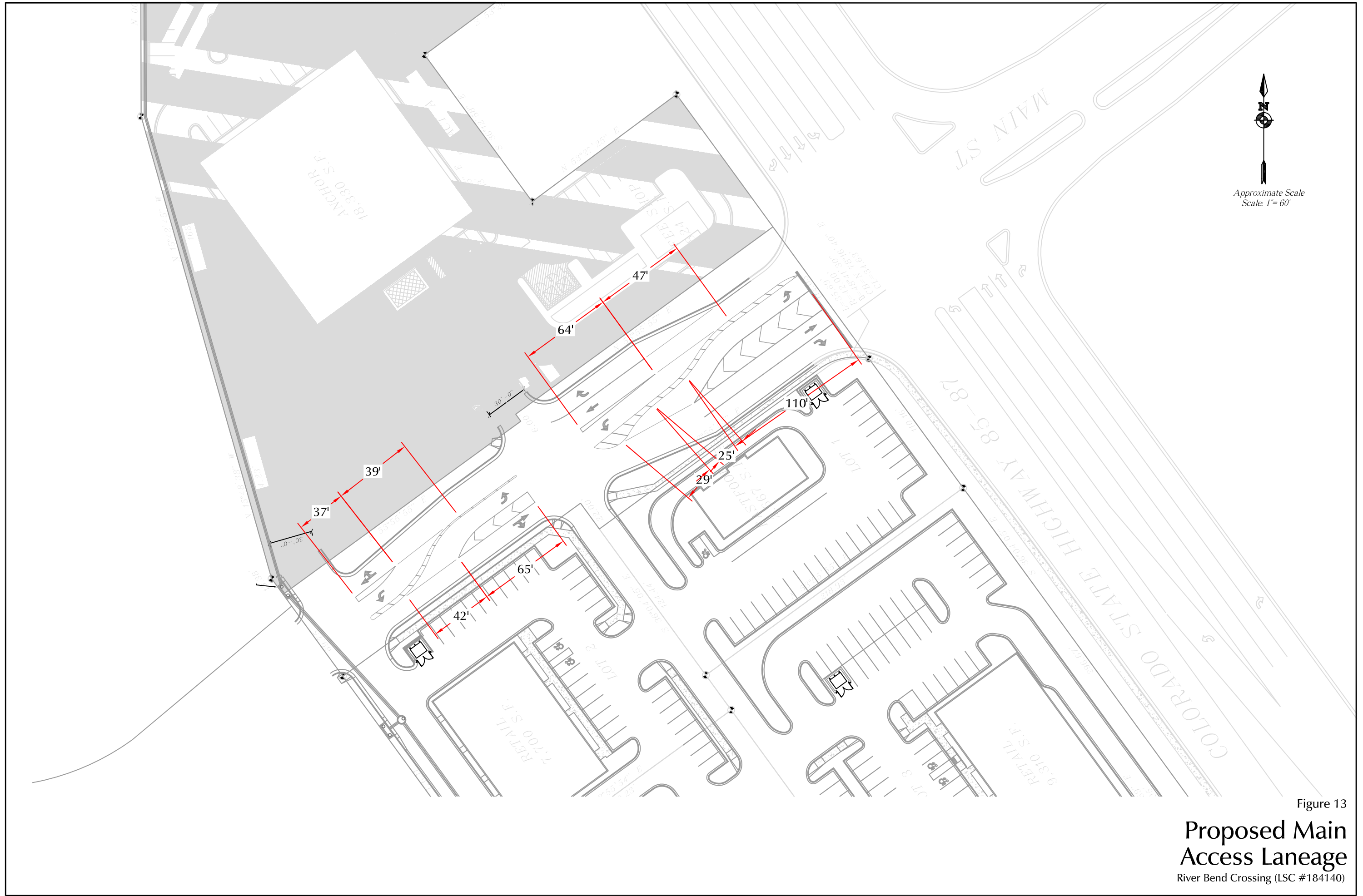
$\frac{A}{B}$ = $\frac{\text{AM Individual Movement Peak-Hour Level of Service}}{\text{PM Individual Movement Peak-Hour Level of Service}}$

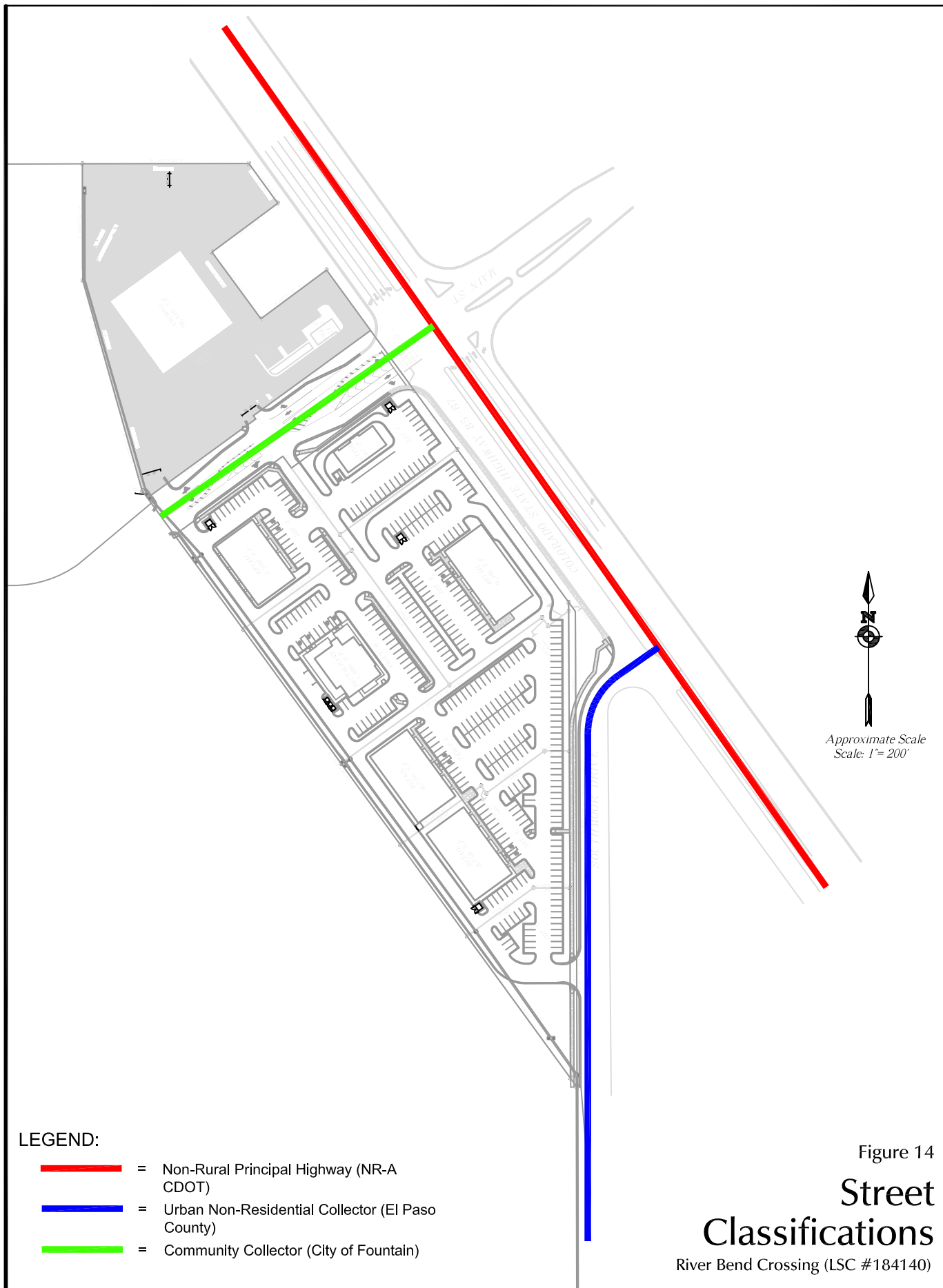
$\frac{C}{C}$ = $\frac{\text{AM Entire Intersection Peak-Hour Level of Service}}{\text{PM Entire Intersection Peak-Hour Level of Service}}$

Figure 12b

Year 2040 Total Lane Geometry, Traffic Control and Level of Service

River Bend Crossing (LSC #184140)





NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	River Bend Crossing			Organization:	LSC Transportation Consultants, Inc.
Project Location:	SH 85-87/Main St			Performed By:	KDF
Scenario Description:	Buildout			Date:	4/26/2019
Analysis Year:	2040			Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				178	110	68
Restaurant				229	119	110
Cinema/Entertainment				0	0	0
Residential				0	0	0
Hotel				0	0	0
All Other Land Uses ²				0		
				407	229	178

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		9	0	0	0
Restaurant	0	9		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	407	229	178
Internal Capture Percentage	9%	8%	10%
External Vehicle-Trips ⁵	371	211	160
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	8%	13%
Restaurant	8%	8%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	River Bend Crossing	Organization:	LSC Transportation Consultants, Inc.		
Project Location:	SH 85-87/Main St	Performed By:	KDF		
Scenario Description:	Buildout	Date:	4/26/2019		
Analysis Year:	2040	Checked By:			
Analysis Period:	PM Street Peak Hour	Date:			

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				339	163	176
Restaurant				171	93	78
Cinema/Entertainment				0	0	0
Residential				0	0	0
Hotel				0	0	0
All Other Land Uses ²				0	0	0
				510	256	254

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		27	0	0	0
Restaurant	0	32		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	510	256	254
Internal Capture Percentage	23%	23%	23%
External Vehicle-Trips ⁵	392	197	195
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	20%	15%
Restaurant	29%	41%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Main St AM

Site Code : 00184140

Start Date : 02/14/2018

Page No : 1

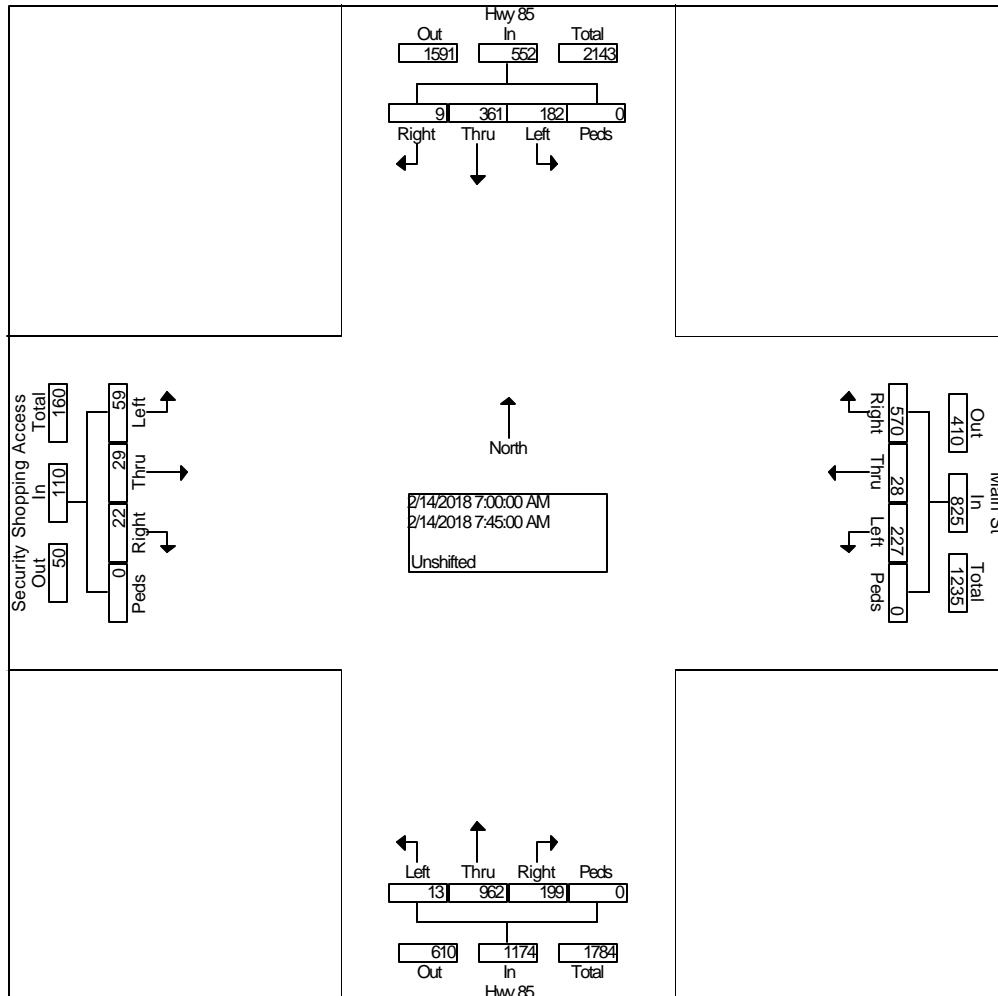
Groups Printed- Unshifted

	Hwy 85 From North				Main St From East				Hwy 85 From South				Security Shopping Access From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	1	53	21	0	105	6	42	0	29	193	1	0	8	6	13	0	478
06:45 AM	2	80	31	0	94	6	52	0	32	166	1	0	4	3	14	0	485
Total	3	133	52	0	199	12	94	0	61	359	2	0	12	9	27	0	963
07:00 AM	0	79	59	0	125	8	59	0	49	191	4	0	6	9	12	0	601
07:15 AM	2	86	36	0	144	11	57	0	40	257	7	0	8	8	18	0	674
07:30 AM	5	95	43	0	180	3	66	0	58	317	2	0	4	8	20	0	801
07:45 AM	2	101	44	0	121	6	45	0	52	197	0	0	4	4	9	0	585
Total	9	361	182	0	570	28	227	0	199	962	13	0	22	29	59	0	2661
08:00 AM	2	75	43	0	69	5	49	0	41	154	0	0	1	6	6	0	451
08:15 AM	3	98	33	0	94	4	63	0	44	132	2	0	2	8	6	0	489
Grand Total	17	667	310	0	932	49	433	0	345	1607	17	0	37	52	98	0	4564
Apprch %	1.7	67.1	31.2	0.0	65.9	3.5	30.6	0.0	17.5	81.6	0.9	0.0	19.8	27.8	52.4	0.0	
Total %	0.4	14.6	6.8	0.0	20.4	1.1	9.5	0.0	7.6	35.2	0.4	0.0	0.8	1.1	2.1	0.0	

Counts by LSC

File Name : Hwy 85 - Main St AM
 Site Code : 00184140
 Start Date : 02/14/2018
 Page No : 2

	Hwy 85 From North					Main St From East					Hwy 85 From South					Security Shopping Access From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	9	36	18	0	552	57	28	22	0	825	19	96	13	0	1174	22	29	59	0	110	2661
		1	2			0		7			9	2									
Percent	1.6	65.	33.	0.0		69.	3.4	27.	0.0		17.	81.	1.1	0.0		20.	26.	53.	0.0		
		4	0			1		5			0	9				0	4	6			
07:30																					
Volume	5	95	43	0	143	18	3	66	0	249	58	31	2	0	377	4	8	20	0	32	801
						0						7									
Peak Factor																					0.831
High Int.	07:45 AM					07:30 AM					07:30 AM					07:15 AM					
Volume	2	10	44	0	147	18	3	66	0	249	58	31	2	0	377	8	8	18	0	34	
		1				0						7									
Peak Factor					0.93					0.82					0.77					0.80	
					9					8					9					9	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Main St PM

Site Code : 00184140

Start Date : 02/13/2018

Page No : 1

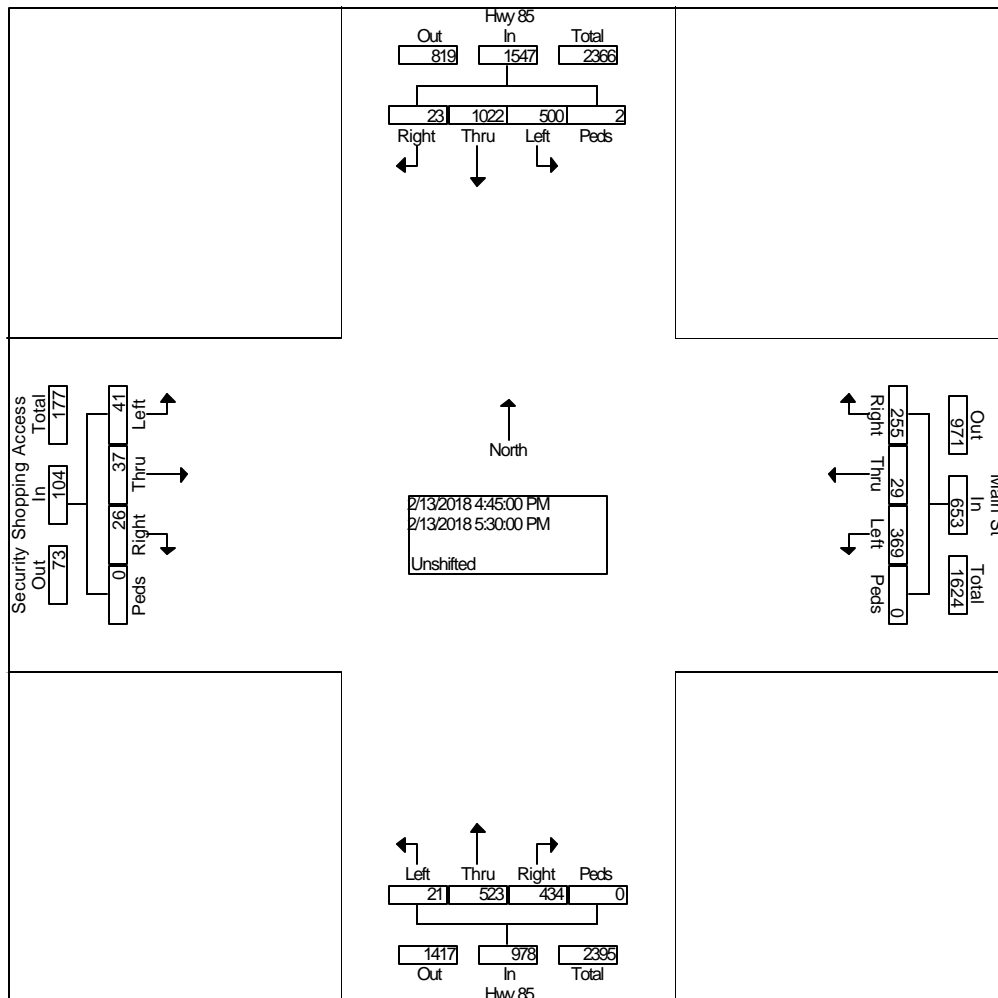
Groups Printed- Unshifted

	Hwy 85 From North				Main St From East				Hwy 85 From South				Security Shopping Access From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	6	244	115	0	55	2	115	0	81	119	4	0	4	13	12	0	770
04:15 PM	7	220	123	0	45	6	91	0	99	105	4	0	11	8	10	0	729
04:30 PM	3	238	124	0	53	8	109	0	88	132	2	1	3	9	10	0	780
04:45 PM	6	264	134	0	65	6	86	0	115	152	3	0	8	7	9	0	855
Total	22	966	496	0	218	22	401	0	383	508	13	1	26	37	41	0	3134
05:00 PM	8	244	123	0	59	4	74	0	116	126	12	0	3	9	10	0	788
05:15 PM	8	282	119	1	70	7	86	0	109	123	1	0	10	11	13	0	840
05:30 PM	1	232	124	1	61	12	123	0	94	122	5	0	5	10	9	0	799
05:45 PM	4	239	129	1	53	4	110	0	129	123	2	0	6	13	5	0	818
Total	21	997	495	3	243	27	393	0	448	494	20	0	24	43	37	0	3245
Grand Total	43	1963	991	3	461	49	794	0	831	1002	33	1	50	80	78	0	6379
Apprch %	1.4	65.4	33.0	0.1	35.4	3.8	60.9	0.0	44.5	53.7	1.8	0.1	24.0	38.5	37.5	0.0	
Total %	0.7	30.8	15.5	0.0	7.2	0.8	12.4	0.0	13.0	15.7	0.5	0.0	0.8	1.3	1.2	0.0	

Counts by LSC

File Name : Hwy 85 - Main St PM
 Site Code : 00184140
 Start Date : 02/13/2018
 Page No : 2

	Hwy 85 From North					Main St From East					Hwy 85 From South					Security Shopping Access From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	23	10	50	2	1547	25	29	36	0	653	43	52	21	0	978	26	37	41	0	104	3282
		22	0			5		9			4	3									
Percent	1.5	66.	32.	0.1		39.	4.4	56.	0.0		44.	53.	2.1	0.0		25.	35.	39.	0.0		
		1	3			1		5			4	5				0	6	4			
04:45		26	13								11	15	3								
Volume	6	4	4	0	404	65	6	86	0	157	5	2	3	0	270	8	7	9	0	24	855
Peak																					
Factor																					0.960
High Int.	05:15 PM					05:30 PM					04:45 PM					05:15 PM					
Volume	8	28	11	1	410	61	12	12	0	196	11	15	3	0	270	10	11	13	0	34	
		2	9					3			5	2									
Peak																					
Factor					0.94					0.83					0.90					0.76	
					3					3					6					5	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Southmoor Dr AM

Site Code : 00184140

Start Date : 02/15/2018

Page No : 1

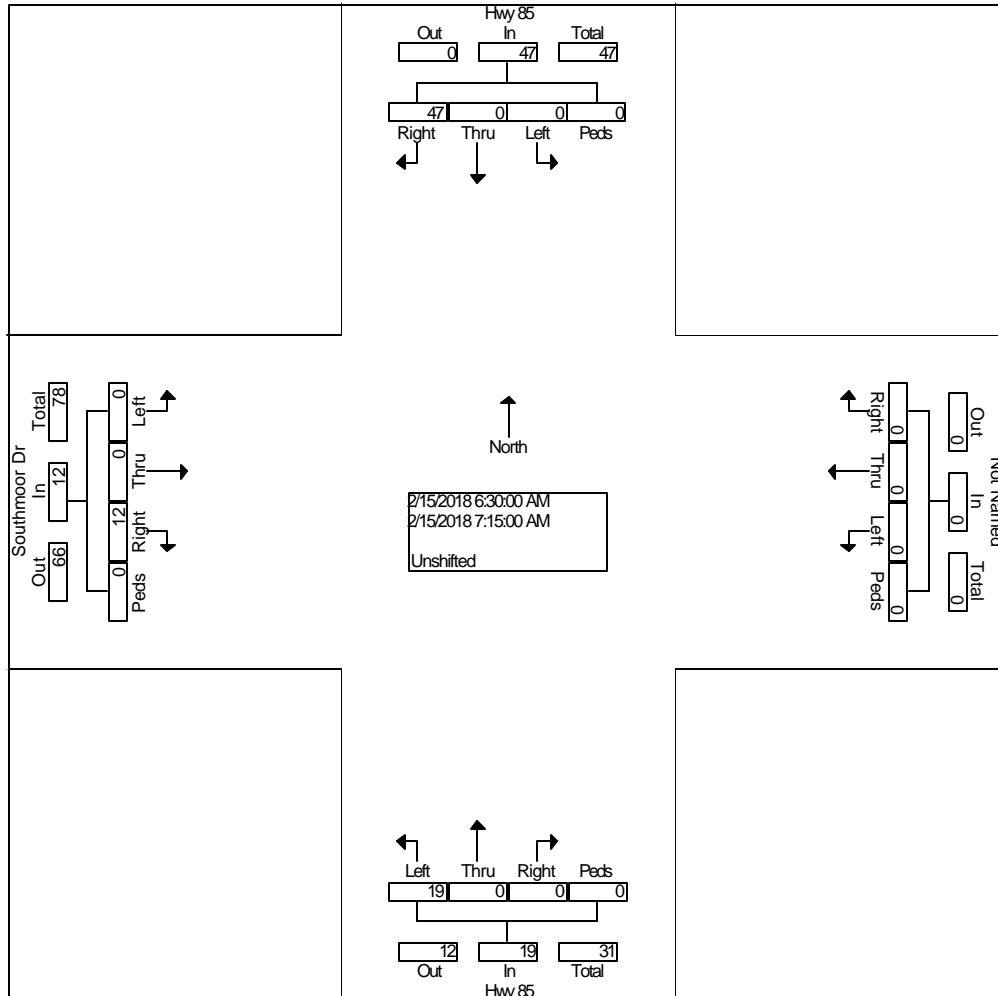
Groups Printed- Unshifted

	Hwy 85 From North				From East				Hwy 85 From South				Southmoor Dr From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	12	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	20
06:45 AM	17	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	25
Total	29	0	0	0	0	0	0	0	0	0	8	0	8	0	0	0	45
07:00 AM	6	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	11
07:15 AM	12	0	0	0	0	0	0	0	0	0	7	0	3	0	0	0	22
07:30 AM	8	0	0	0	0	0	0	0	0	0	2	0	6	0	0	0	16
07:45 AM	6	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	14
Total	32	0	0	0	0	0	0	0	0	0	17	0	14	0	0	0	63
08:00 AM	12	0	0	0	0	0	0	0	0	0	5	0	7	0	0	0	24
08:15 AM	7	0	0	0	0	0	0	0	0	0	4	0	3	0	0	0	14
Grand Total	80	0	0	0	0	0	0	0	0	0	34	0	32	0	0	0	146
Apprch %	100. 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100. 0	0.0	100. 0	0.0	0.0	0.0	
Total %	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	21.9	0.0	0.0	0.0	

Counts by LSC

File Name : Hwy 85 - Southmoor Dr AM
 Site Code : 00184140
 Start Date : 02/15/2018
 Page No : 2

	Hwy 85 From North					From East					Hwy 85 From South					Southmoor Dr From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	06:30 AM																				
Volume	47	0	0	0	47	0	0	0	0	0	0	0	19	0	19	12	0	0	0	12	78
Percent	10	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	10	0.0		10	0.0	0.0	0.0		
	0.0												0.0			0.0					
06:45																					
Volume	17	0	0	0	17	0	0	0	0	0	0	0	4	0	4	4	0	0	0	4	25
Peak																					0.780
Factor																					
High Int.	06:45 AM					6:15:00 AM					07:15 AM					06:30 AM					
Volume	17	0	0	0	17	0	0	0	0	0	0	0	7	0	7	4	0	0	0	4	
Peak																					
Factor	0.69										0.67					0.75					
	1										9					0					



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Southmoor Dr PM

Site Code : 00184140

Start Date : 02/14/2018

Page No : 1

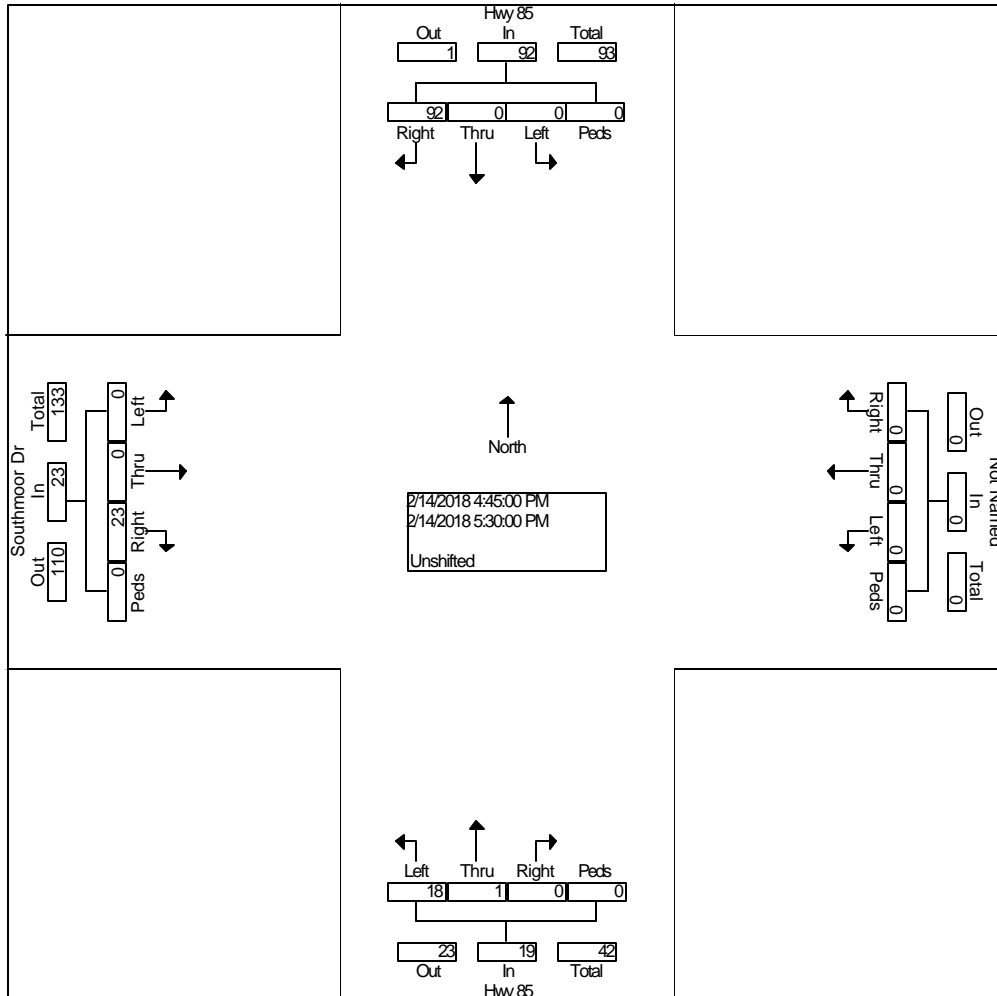
Groups Printed- Unshifted

	Hwy 85 From North				From East				Hwy 85 From South				Southmoor Dr From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	14	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	22
04:15 PM	21	0	0	0	0	0	0	0	0	1	2	0	16	0	0	0	40
04:30 PM	18	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	22
04:45 PM	15	0	0	0	0	0	0	0	0	1	8	0	9	0	0	0	33
Total	68	0	0	0	0	0	0	0	0	4	15	0	30	0	0	0	117
05:00 PM	24	0	0	0	0	0	0	0	0	0	5	0	7	0	0	0	36
05:15 PM	23	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	30
05:30 PM	30	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	35
05:45 PM	19	0	0	0	0	0	0	0	0	0	4	0	9	0	0	0	32
Total	96	0	0	0	0	0	0	0	0	0	14	0	23	0	0	0	133
Grand Total	164	0	0	0	0	0	0	0	0	4	29	0	53	0	0	0	250
Apprch %	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	87.9	0.0	100.0	0.0	0.0	0.0	
Total %	65.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	11.6	0.0	21.2	0.0	0.0	0.0	

Counts by LSC

File Name : Hwy 85 - Southmoor Dr PM
 Site Code : 00184140
 Start Date : 02/14/2018
 Page No : 2

	Hwy 85 From North					From East					Hwy 85 From South					Southmoor Dr From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	92	0	0	0	92	0	0	0	0	0	0	1	18	0	19	23	0	0	0	23	134
Percent	10	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	5.3	94.7	0.0		10	0.0	0.0	0.0		
	0.0															0.0					
05:00																					
Volume	24	0	0	0	24	0	0	0	0	0	0	0	5	0	5	7	0	0	0	7	36
Peak																					0.931
Factor																					
High Int.	05:30 PM					3:45:00 PM					04:45 PM					04:45 PM					
Volume	30	0	0	0	30	0	0	0	0	0	0	1	8	0	9	9	0	0	0	9	
Peak																					
Factor	0.76										0.52					0.63					
	7										8					9					



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Southmoor Dr - Security Shopping Access AM

Site Code : 00184140

Start Date : 02/15/2018

Page No : 1

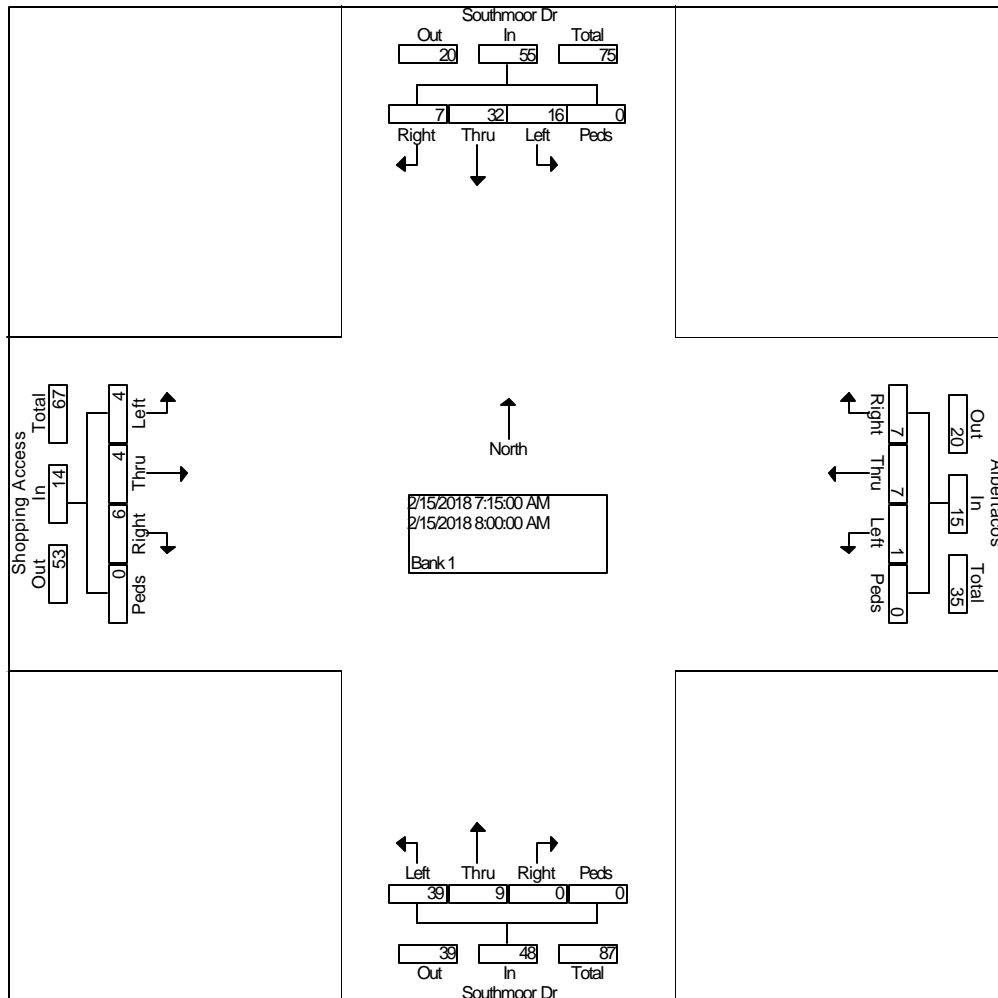
Groups Printed- Bank 1

	Southmoor Dr From North				Albertacos From East				Southmoor Dr From South				Shopping Access From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	2	12	2	0	0	0	0	0	0	4	10	0	2	0	0	0	32
06:45 AM	2	17	2	0	3	0	0	0	0	1	5	0	0	1	0	0	31
Total	4	29	4	0	3	0	0	0	0	5	15	0	2	1	0	0	63
07:00 AM	3	4	3	0	1	4	0	0	0	0	0	0	0	1	0	0	16
07:15 AM	3	10	5	0	2	3	0	0	0	1	16	0	1	2	0	0	43
07:30 AM	1	5	3	0	2	1	1	0	0	4	14	0	1	0	0	0	32
07:45 AM	1	8	2	0	1	2	0	0	0	1	3	0	4	0	2	0	24
Total	8	27	13	0	6	10	1	0	0	6	33	0	6	3	2	0	115
08:00 AM	2	9	6	0	2	1	0	0	0	3	6	0	0	2	2	0	33
08:15 AM	1	9	1	0	2	4	1	0	0	1	5	0	0	0	0	0	24
Grand Total	15	74	24	0	13	15	2	0	0	15	59	0	8	6	4	0	235
Apprch %	13.3	65.5	21.2	0.0	43.3	50.0	6.7	0.0	0.0	20.3	79.7	0.0	44.4	33.3	22.2	0.0	
Total %	6.4	31.5	10.2	0.0	5.5	6.4	0.9	0.0	0.0	6.4	25.1	0.0	3.4	2.6	1.7	0.0	

Counts by LSC

File Name : Southmoor Dr - Security Shopping Access AM
 Site Code : 00184140
 Start Date : 02/15/2018
 Page No : 2

	Southmoor Dr From North					Albertacos From East					Southmoor Dr From South					Shopping Access From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	7	32	16	0	55	7	7	1	0	15	0	9	39	0	48	6	4	4	0	14	132
Percent	12.	58.	29.	0.0		46.	46.	6.7	0.0		0.0	18.	81.	0.0		42.	28.	28.	0.0		
	7	2	1			7	7					8	3			9	6	6			
07:15 Volume	3	10	5	0	18	2	3	0	0	5	0	1	16	0	17	1	2	0	0	3	43
Peak Factor																					0.767
High Int.	07:15 AM					07:15 AM					07:30 AM					07:45 AM					
Volume	3	10	5	0	18	2	3	0	0	5	0	4	14	0	18	4	0	2	0	6	
Peak Factor	0.76					0.75					0.66					0.58					
	4					0					7					3					



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Southmoor Dr - Security Shopping Access PM

Site Code : 00184140

Start Date : 02/14/2018

Page No : 1

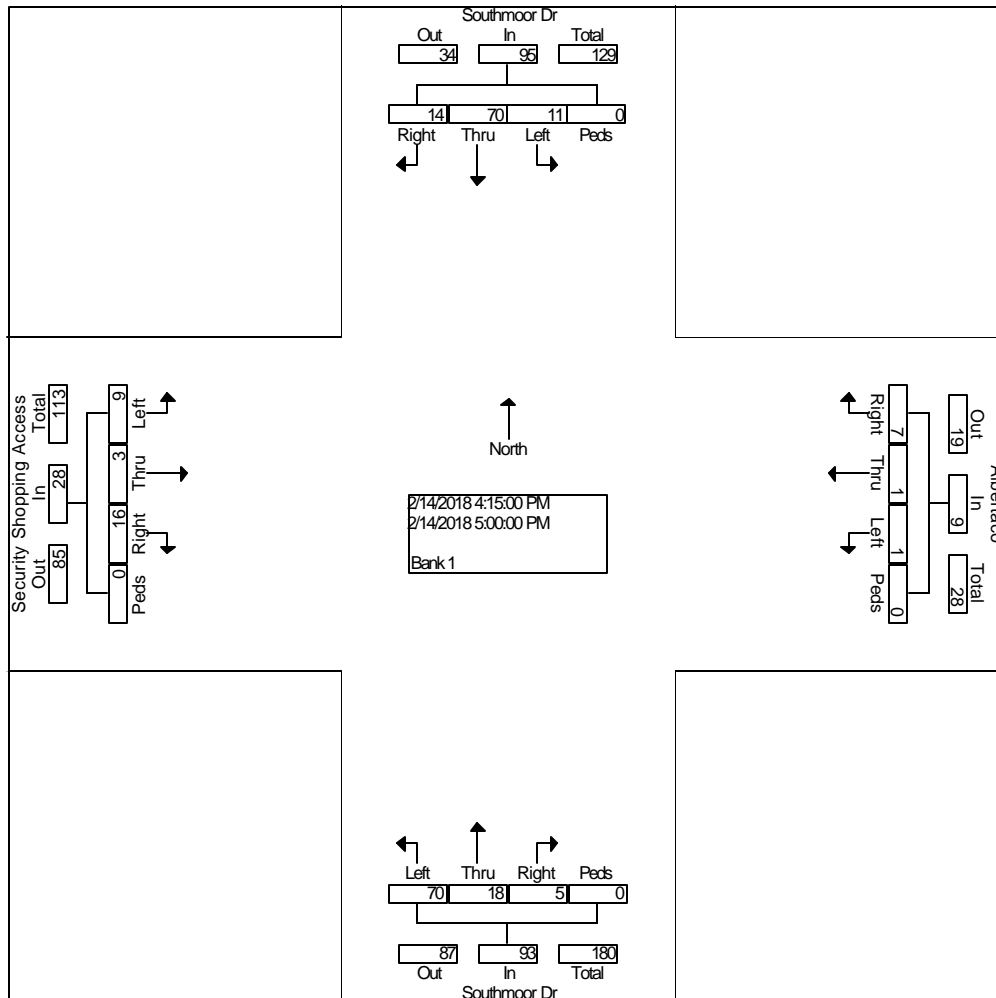
Groups Printed- Bank 1

	Southmoor Dr From North				Albertaco From East				Southmoor Dr From South				Security Shopping Access From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	2	10	4	0	0	0	0	0	0	2	22	0	7	0	0	0	47
04:15 PM	1	19	2	0	5	0	1	0	1	9	26	0	2	1	2	0	69
04:30 PM	3	18	0	0	0	1	0	0	1	0	18	0	2	0	1	0	44
04:45 PM	5	13	5	0	1	0	0	0	0	6	12	0	8	1	4	0	55
Total	11	60	11	0	6	1	1	0	2	17	78	0	19	2	7	0	215
05:00 PM	5	20	4	0	1	0	0	0	3	3	14	0	4	1	2	0	57
05:15 PM	2	22	1	0	2	1	1	0	0	2	10	0	7	1	1	0	50
05:30 PM	3	23	7	0	1	3	0	0	0	0	11	0	4	0	1	0	53
05:45 PM	6	15	4	0	3	2	0	0	0	1	8	0	1	0	5	0	45
Total	16	80	16	0	7	6	1	0	3	6	43	0	16	2	9	0	205
Grand Total	27	140	27	0	13	7	2	0	5	23	121	0	35	4	16	0	420
Apprch %	13.9	72.2	13.9	0.0	59.1	31.8	9.1	0.0	3.4	15.4	81.2	0.0	63.6	7.3	29.1	0.0	
Total %	6.4	33.3	6.4	0.0	3.1	1.7	0.5	0.0	1.2	5.5	28.8	0.0	8.3	1.0	3.8	0.0	

Counts by LSC

























File Name : Southmoor Dr - Security Shopping Access PM
 Site Code : 00184140
 Start Date : 02/14/2018
 Page No : 2

	Southmoor Dr From North					Albertaco From East					Southmoor Dr From South					Security Shopping Access From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	14	70	11	0	95	7	1	1	0	9	5	18	70	0	93	16	3	9	0	28	225
Percent	14.	73.	11.	0.0		77.	11.	11.	0.0		5.4	19.	75.	0.0		57.	10.	32.	0.0		
	7	7	6			8	1	1				4	3			1	7	1			
04:15																					
Volume	1	19	2	0	22	5	0	1	0	6	1	9	26	0	36	2	1	2	0	5	69
Peak																					0.815
Factor																					
High Int.																					
Volume	5	20	4	0	29	5	0	1	0	6	1	9	26	0	36	8	1	4	0	13	
Peak																					
Factor																					0.53
																					8



Timings
1: US Highway 85 & Main St

Existing Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	29	22	227	28	570	13	962	199	182	361	9
Future Volume (vph)	59	29	22	227	28	570	13	962	199	182	361	9
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	14.0	34.0	34.0	21.0	41.0		17.0	18.0	18.0	17.0	18.0	18.0
Total Split (%)	15.6%	37.8%	37.8%	23.3%	45.6%		18.9%	20.0%	20.0%	18.9%	20.0%	20.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	17.3	11.1	11.1	22.3	13.9	90.0	45.6	39.6	39.6	10.2	50.8	50.8
Actuated g/C Ratio	0.19	0.12	0.12	0.25	0.15	1.00	0.51	0.44	0.44	0.11	0.56	0.56
v/c Ratio	0.23	0.15	0.07	0.42	0.12	0.43	0.03	0.79	0.31	0.48	0.19	0.01
Control Delay	23.1	32.6	0.3	26.7	29.5	0.9	13.5	30.5	7.4	41.3	15.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	32.6	0.3	26.7	29.5	0.9	13.5	30.5	7.4	41.3	15.0	0.0
LOS	C	C	A	C	C	A	B	C	A	D	B	A
Approach Delay		21.0			8.9			26.4			23.5	
Approach LOS		C			A			C			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 65 (72%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.2

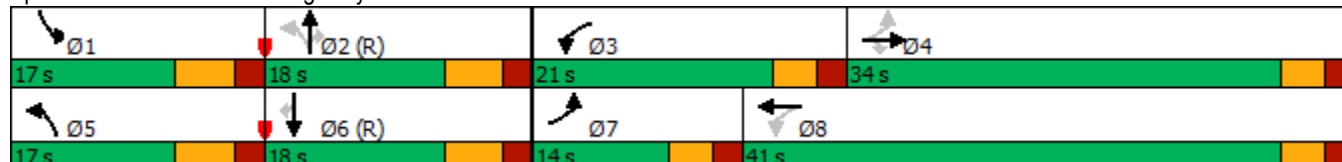
Intersection LOS: C

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Main St



HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

Existing Traffic
AM Peak Hour

























Intersection										
Int Delay, s/veh	0.2									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	14	17	1174	0	0	578	32	0	0
Future Vol, veh/h	0	14	17	1174	0	0	578	32	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	58	58	79	79	79	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	24	22	1486	0	0	628	35	0	0
Major/Minor	Minor2	Major1		Major2						
Conflicting Flow All	-	332	663	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	664	922	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	664	922	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB	NB		SB						
HCM Control Delay, s	10.6	0.1		0						
HCM LOS	B									
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)	922	-	664	-	-					
HCM Lane V/C Ratio	0.023	-	0.036	-	-					
HCM Control Delay (s)	9	-	10.6	-	-					
HCM Lane LOS	A	-	B	-	-					
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-					

Timings

1: US Highway 85 & Main St

Existing Traffic

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	37	26	369	29	255	21	523	434	500	1022	23
Future Volume (vph)	41	37	26	369	29	255	21	523	434	500	1022	23
Turn Type	Prot	NA	Perm	Prot	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free	2		2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	17.0	35.0	35.0	22.0	40.0		25.0	8.0	8.0	25.0	8.0	8.0
Total Split (%)	18.9%	38.9%	38.9%	24.4%	44.4%		27.8%	8.9%	8.9%	27.8%	8.9%	8.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	7.5	11.2	11.2	14.5	18.2	90.0	34.9	28.7	28.7	18.0	47.5	47.5
Actuated g/C Ratio	0.08	0.12	0.12	0.16	0.20	1.00	0.39	0.32	0.32	0.20	0.53	0.53
v/c Ratio	0.28	0.16	0.08	0.67	0.08	0.16	0.08	0.51	0.58	0.76	0.57	0.03
Control Delay	42.9	32.7	0.4	41.6	25.3	0.2	19.1	33.3	8.0	41.5	22.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	32.7	0.4	41.6	25.3	0.2	19.1	33.3	8.0	41.5	22.6	0.0
LOS	D	C	A	D	C	A	B	C	A	D	C	A
Approach Delay		28.7			24.7			21.8			28.4	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 25.7

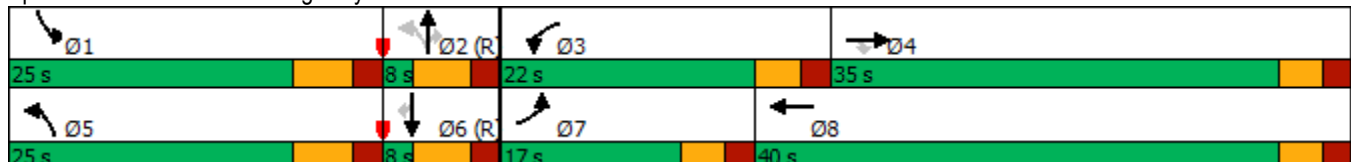
Intersection LOS: C

Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Main St





























HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

Existing Traffic
PM Peak Hour

Intersection										
Int Delay, s/veh	0.3									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	23	18	978	0	0	1325	92	0	0
Future Vol, veh/h	0	23	18	978	0	0	1325	92	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	64	64	90	90	90	99	99	99	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	20	1087	0	0	1338	93	0	0
Major/Minor	Minor2		Major1		Major2					
Conflicting Flow All	-	716	1431	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	373	471	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	373	471	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB		NB		SB					
HCM Control Delay, s	15.7		0.2		0					
HCM LOS	C									
Minor Lane/Major Mvmt	NBL		NBT EBLn1		SBT		SBR			
Capacity (veh/h)	471		-		373		-		-	
HCM Lane V/C Ratio	0.042		-		0.096		-		-	
HCM Control Delay (s)	13		-		15.7		-		-	
HCM Lane LOS	B		-		C		-		-	
HCM 95th %tile Q(veh)	0.1		-		0.3		-		-	

Timings 1: US Highway 85 & Community Collector/Main St

Short-Term Background Traffic
AM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			 				 		 	 	
Traffic Volume (vph)	32	18	227	11	570	5	962	199	182	361	2
Future Volume (vph)	32	18	227	11	570	5	962	199	182	361	2
Turn Type	pm+pt	NA	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		Free	2		2			6
Detector Phase	7	4	3	8		5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	14.0	34.0	21.0	41.0		17.0	18.0	18.0	17.0	18.0	18.0
Total Split (%)	15.6%	37.8%	23.3%	45.6%		18.9%	20.0%	20.0%	18.9%	20.0%	20.0%
Yellow Time (s)	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	17.5	10.7	20.3	14.2	90.0	45.6	39.9	39.9	10.2	53.7	53.7
Actuated g/C Ratio	0.19	0.12	0.23	0.16	1.00	0.51	0.44	0.44	0.11	0.60	0.60
v/c Ratio	0.12	0.09	0.43	0.04	0.43	0.01	0.79	0.31	0.48	0.18	0.00
Control Delay	21.2	31.4	29.2	27.2	0.9	14.2	30.1	7.3	41.3	13.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	31.4	29.2	27.2	0.9	14.2	30.1	7.3	41.3	13.1	0.0
LOS	C	C	C	C	A	B	C	A	D	B	A
Approach Delay		24.9		9.2			26.2			22.5	
Approach LOS		C		A			C			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 65 (72%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.1

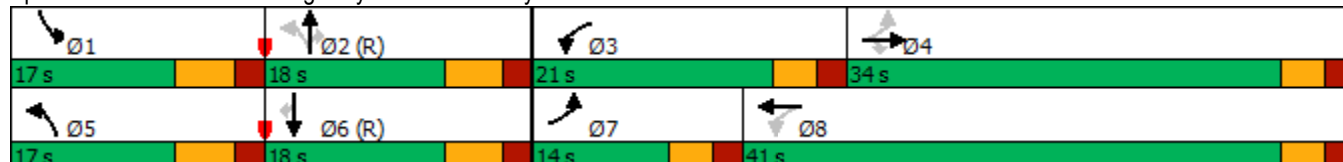
Intersection LOS: C

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St



HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

Short-Term Background Traffic
AM Peak Hour

Intersection										
Int Delay, s/veh	0.2									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	12	9	1166	0	0	556	32	0	0
Future Vol, veh/h	0	12	9	1166	0	0	556	32	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	58	58	79	79	79	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	21	11	1476	0	0	604	35	0	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	320	639
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	2.22
Pot Cap-1 Maneuver	0	676	941
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	676	941
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.1	0
HCM LOS	B		























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	941	-	676	-	-
HCM Lane V/C Ratio	0.012	-	0.031	-	-
HCM Control Delay (s)	8.9	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Timings

1: US Highway 85 & Community Collector/Main St

Short-Term Background Traffic

PM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	29	27	369	19	255	6	523	434	500	1022	11
Future Volume (vph)	29	27	369	19	255	6	523	434	500	1022	11
Turn Type	Prot	NA	Prot	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					Free	2		2			6
Detector Phase	7	4	3	8		5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	17.0	35.0	22.0	40.0		25.0	8.0	8.0	25.0	8.0	8.0
Total Split (%)	18.9%	38.9%	24.4%	44.4%		27.8%	8.9%	8.9%	27.8%	8.9%	8.9%
Yellow Time (s)	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	7.0	10.9	14.5	20.7	90.0	34.7	28.9	28.9	18.0	50.4	50.4
Actuated g/C Ratio	0.08	0.12	0.16	0.23	1.00	0.39	0.32	0.32	0.20	0.56	0.56
v/c Ratio	0.21	0.12	0.67	0.04	0.16	0.03	0.51	0.57	0.76	0.54	0.01
Control Delay	41.9	32.0	41.6	22.5	0.2	18.2	33.1	8.0	41.5	19.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	32.0	41.6	22.5	0.2	18.2	33.1	8.0	41.5	19.9	0.0
LOS	D	C	D	C	A	B	C	A	D	B	A
Approach Delay		37.1		24.6			21.7			26.8	
Approach LOS		D		C			C			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 24.9

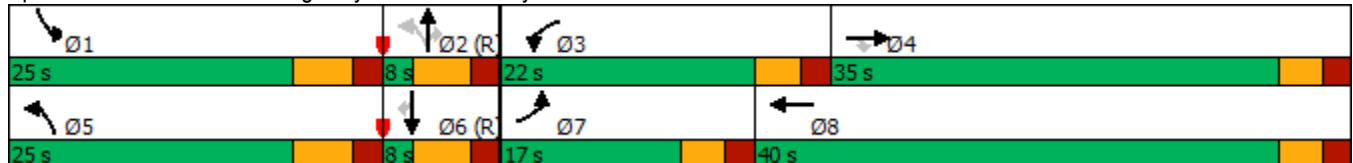
Intersection LOS: C

Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St



HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

Short-Term Background Traffic
PM Peak Hour

























Intersection										
Int Delay, s/veh	0.1									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	15	3	963	0	0	1299	92	0	0
Future Vol, veh/h	0	15	3	963	0	0	1299	92	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	64	64	90	90	90	99	99	99	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	3	1070	0	0	1312	93	0	0
Major/Minor	Minor2		Major1		Major2					
Conflicting Flow All	-	703	1405	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	380	482	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	380	482	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB		NB		SB					
HCM Control Delay, s	15.1		0		0					
HCM LOS	C									
Minor Lane/Major Mvmt	NBL		NBT EBLn1		SBT		SBR			
Capacity (veh/h)	482		-		380		-		-	
HCM Lane V/C Ratio	0.007		-		0.062		-		-	
HCM Control Delay (s)	12.5		-		15.1		-		-	
HCM Lane LOS	B		-		C		-		-	
HCM 95th %tile Q(veh)	0		-		0.2		-		-	

Timings

1: US Highway 85 & Community Collector/Main St

Short-Term Total Traffic

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	85	59	219	90	549	83	928	192	176	354	69
Future Volume (vph)	167	85	59	219	90	549	83	928	192	176	354	69
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	14.0	34.0	34.0	21.0	41.0		17.0	18.0	18.0	17.0	18.0	18.0
Total Split (%)	15.6%	37.8%	37.8%	23.3%	45.6%		18.9%	20.0%	20.0%	18.9%	20.0%	20.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	20.9	13.1	13.1	24.2	14.9	90.0	44.7	36.4	36.4	10.0	40.5	40.5
Actuated g/C Ratio	0.23	0.15	0.15	0.27	0.17	1.00	0.50	0.40	0.40	0.11	0.45	0.45
v/c Ratio	0.56	0.37	0.16	0.36	0.35	0.42	0.19	0.83	0.32	0.47	0.23	0.09
Control Delay	29.5	35.9	0.8	23.5	33.7	0.8	13.3	34.2	7.2	41.3	20.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	35.9	0.8	23.5	33.7	0.8	13.3	34.2	7.2	41.3	20.8	0.2
LOS	C	D	A	C	C	A	B	C	A	D	C	A
Approach Delay		25.8			10.1			28.4			24.4	
Approach LOS		C			B			C			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 65 (72%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 22.1

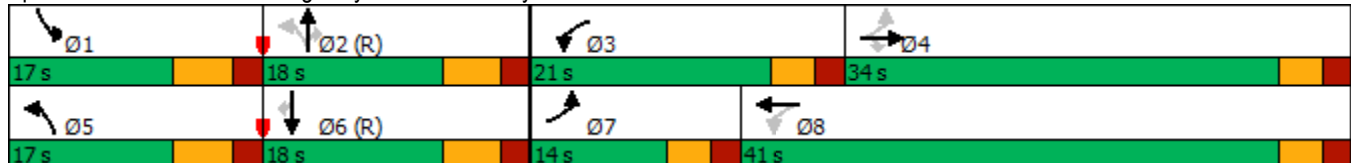
Intersection LOS: C

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St







HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

Short-Term Total Traffic
AM Peak Hour

Intersection										
Int Delay, s/veh	0.3									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	23	16	1203	0	0	594	38	0	0
Future Vol, veh/h	0	23	16	1203	0	0	594	38	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	58	58	79	79	79	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	20	1523	0	0	646	41	0	0
Major/Minor	Minor2	Major1		Major2						
Conflicting Flow All	-	344	687	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	652	903	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	652	903	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB	NB		SB						
HCM Control Delay, s	10.9	0.1		0						
HCM LOS	B									
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)	903	-	652	-	-					
HCM Lane V/C Ratio	0.022	-	0.061	-	-					
HCM Control Delay (s)	9.1	-	10.9	-	-					
HCM Lane LOS	A	-	B	-	-					
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-					

HCM 6th TWSC
4: Southmoor Dr & Site Access

Short-Term Total Traffic
AM Peak Hour

























Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	37	15	38	13
Future Vol, veh/h	5	9	37	15	38	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	57	67	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	10	40	26	57	14
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	170	64	71	0	-	0
Stage 1	64	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	820	1000	1529	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	799	1000	1529	-	-	-
Mov Cap-2 Maneuver	775	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9	4.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1529	-	906	-	-	
HCM Lane V/C Ratio	0.026	-	0.017	-	-	
HCM Control Delay (s)	7.4	-	9	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

Timings

1: US Highway 85 & Community Collector/Main St

Short-Term Total Traffic

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	108	77	360	108	249	83	510	423	488	1019	127
Future Volume (vph)	120	108	77	360	108	249	83	510	423	488	1019	127
Turn Type	Prot	NA	Perm	Prot	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free	2		2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	17.0	35.0	35.0	22.0	40.0		25.0	8.0	8.0	25.0	8.0	8.0
Total Split (%)	18.9%	38.9%	38.9%	24.4%	44.4%		27.8%	8.9%	8.9%	27.8%	8.9%	8.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	13.5	13.5	13.5	14.3	16.6	90.0	30.6	22.4	22.4	17.8	34.4	34.4
Actuated g/C Ratio	0.15	0.15	0.15	0.16	0.18	1.00	0.34	0.25	0.25	0.20	0.38	0.38
v/c Ratio	0.45	0.39	0.20	0.66	0.31	0.16	0.37	0.63	0.63	0.75	0.79	0.19
Control Delay	42.5	36.1	1.2	41.5	31.2	0.2	24.6	38.9	9.2	41.3	34.1	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	36.1	1.2	41.5	31.2	0.2	24.6	38.9	9.2	41.3	34.1	4.7
LOS	D	D	A	D	C	A	C	D	A	D	C	A
Approach Delay		29.8			25.6			25.4			33.9	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 29.6

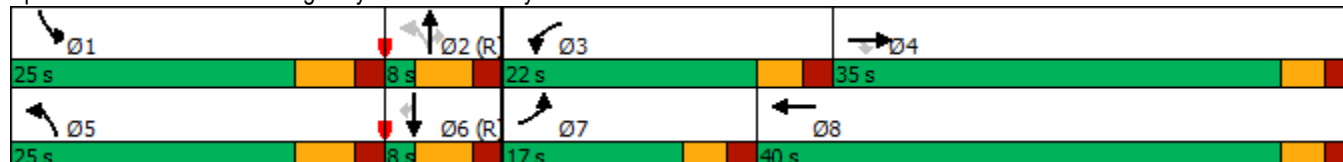
Intersection LOS: C

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St








HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

Short-Term Total Traffic
PM Peak Hour

Intersection										
Int Delay, s/veh	0.3									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	25	17	1016	0	0	1342	114	0	0
Future Vol, veh/h	0	25	17	1016	0	0	1342	114	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	64	64	90	90	90	99	99	99	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	39	19	1129	0	0	1356	115	0	0
Major/Minor	Minor2	Major1		Major2						
Conflicting Flow All	-	736	1471	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	361	454	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	361	454	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB	NB		SB						
HCM Control Delay, s	16.2	0.2		0						
HCM LOS	C									
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)	454	-	361	-	-					
HCM Lane V/C Ratio	0.042	-	0.108	-	-					
HCM Control Delay (s)	13.3	-	16.2	-	-					
HCM Lane LOS	B	-	C	-	-					
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-					



























HCM 6th TWSC
4: Southmoor Dr & Site Access

Short-Term Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	27	49	20	111	8
Future Vol, veh/h	6	27	49	20	111	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	76	95	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	29	53	26	117	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	254	122	126	0	-	0
Stage 1	122	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	735	929	1460	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	709	929	1460	-	-	-
Mov Cap-2 Maneuver	714	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	5.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1460	-	881	-	-	
HCM Lane V/C Ratio	0.036	-	0.041	-	-	
HCM Control Delay (s)	7.6	-	9.3	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

Timings
1: US Highway 85 & Community Collector/Main St

2040 Background Traffic
AM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			 				 		 	 	
Traffic Volume (vph)	32	18	277	11	696	5	1175	243	229	442	2
Future Volume (vph)	32	18	277	11	696	5	1175	243	229	442	2
Turn Type	pm+pt	NA	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		Free	2		2			6
Detector Phase	7	4	3	8		5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	10.0	35.0	10.0	35.0		11.0	42.0	42.0	13.0	44.0	44.0
Total Split (%)	10.0%	35.0%	10.0%	35.0%		11.0%	42.0%	42.0%	13.0%	44.0%	44.0%
Yellow Time (s)	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	14.7	11.0	12.6	10.9	100.0	59.3	53.8	53.8	12.2	69.9	69.9
Actuated g/C Ratio	0.15	0.11	0.13	0.11	1.00	0.59	0.54	0.54	0.12	0.70	0.70
v/c Ratio	0.15	0.09	0.77	0.06	0.46	0.01	0.65	0.27	0.57	0.19	0.00
Control Delay	30.5	35.8	54.1	34.6	1.0	9.8	21.2	3.8	48.8	8.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	35.8	54.1	34.6	1.0	9.8	21.2	3.8	48.8	8.9	0.0
LOS	C	D	D	C	A	A	C	A	D	A	A
Approach Delay		32.4		16.3			18.2			22.4	
Approach LOS		C		B			B			C	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 18.8

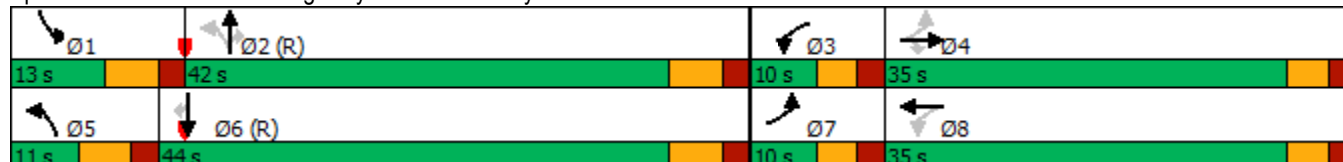
Intersection LOS: B

Intersection Capacity Utilization 67.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St





























HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

2040 Background Traffic
AM Peak Hour

Intersection										
Int Delay, s/veh	0.1									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	13	10	1423	0	0	684	35	0	0
Future Vol, veh/h	0	13	10	1423	0	0	684	35	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	11	1498	0	0	720	37	0	0
Major/Minor	Minor2	Major1		Major2						
Conflicting Flow All	-	379	757	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	619	850	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	619	850	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB	NB		SB						
HCM Control Delay, s	10.9	0.1		0						
HCM LOS	B									
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)	850	-	619	-	-					
HCM Lane V/C Ratio	0.012	-	0.022	-	-					
HCM Control Delay (s)	9.3	-	10.9	-	-					
HCM Lane LOS	A	-	B	-	-					
HCM 95th %tile Q(veh)	0	-	0.1	-	-					

Timings 1: US Highway 85 & Community Collector/Main St

2040 Background Traffic
PM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			 				 		 	 	
Traffic Volume (vph)	29	27	450	19	311	6	639	530	618	1244	11
Future Volume (vph)	29	27	450	19	311	6	639	530	618	1244	11
Turn Type	Prot	NA	Prot	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					Free	2		2			6
Detector Phase	7	4	3	8		5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	21.0	34.0	22.0	35.0		11.0	22.0	22.0	22.0	33.0	33.0
Total Split (%)	21.0%	34.0%	22.0%	35.0%		11.0%	22.0%	22.0%	22.0%	33.0%	33.0%
Yellow Time (s)	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	7.2	11.0	16.5	22.7	100.0	33.0	27.5	27.5	27.2	58.5	58.5
Actuated g/C Ratio	0.07	0.11	0.16	0.23	1.00	0.33	0.28	0.28	0.27	0.58	0.58
v/c Ratio	0.24	0.14	0.84	0.05	0.21	0.03	0.69	0.66	0.70	0.63	0.01
Control Delay	47.8	37.2	54.6	26.8	0.3	17.3	39.0	7.8	39.4	20.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	37.2	54.6	26.8	0.3	17.3	39.0	7.8	39.4	20.0	0.0
LOS	D	D	D	C	A	B	D	A	D	B	A
Approach Delay		42.8		32.3			24.8			26.2	
Approach LOS		D		C			C			C	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 27.3

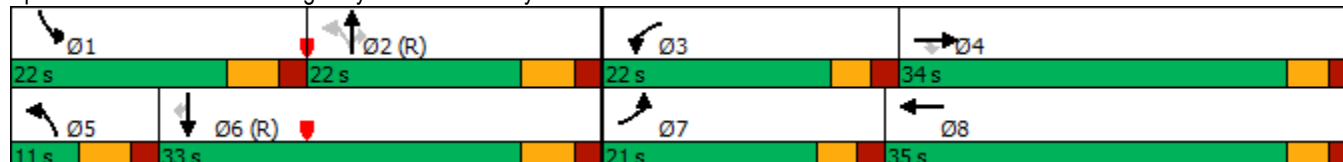
Intersection LOS: C

Intersection Capacity Utilization 72.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St



























Intersection										
Int Delay, s/veh	0.1									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	17	3	1175	0	0	1592	102	0	0
Future Vol, veh/h	0	17	3	1175	0	0	1592	102	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	3	1237	0	0	1676	107	0	0
Major/Minor	Minor2	Major1		Major2						
Conflicting Flow All	-	892	1783	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	285	344	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	285	344	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB	NB		SB						
HCM Control Delay, s	18.5	0		0						
HCM LOS	C									
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)	344	-	285	-	-					
HCM Lane V/C Ratio	0.009	-	0.063	-	-					
HCM Control Delay (s)	15.6	-	18.5	-	-					
HCM Lane LOS	C	-	C	-	-					
HCM 95th %tile Q(veh)	0	-	0.2	-	-					

Timings

1: US Highway 85 & Community Collector/Main St

2040 Total Traffic

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	85	59	269	90	675	83	1141	236	223	435	69
Future Volume (vph)	167	85	59	269	90	675	83	1141	236	223	435	69
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	10.0	35.0	35.0	10.0	35.0		11.0	42.0	42.0	13.0	44.0	44.0
Total Split (%)	10.0%	35.0%	35.0%	10.0%	35.0%		11.0%	42.0%	42.0%	13.0%	44.0%	44.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	17.3	13.5	13.5	17.3	13.6	100.0	56.3	49.9	49.9	11.9	57.6	57.6
Actuated g/C Ratio	0.17	0.14	0.14	0.17	0.14	1.00	0.56	0.50	0.50	0.12	0.58	0.58
v/c Ratio	0.71	0.35	0.18	0.59	0.38	0.45	0.15	0.68	0.27	0.58	0.22	0.08
Control Delay	50.1	40.3	1.1	38.4	41.0	0.9	9.8	24.0	3.7	49.2	13.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	40.3	1.1	38.4	41.0	0.9	9.8	24.0	3.7	49.2	13.7	0.1
LOS	D	D	A	D	D	A	A	C	A	D	B	A
Approach Delay		38.2			14.1			20.0			23.3	
Approach LOS		D			B			B			C	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 20.5

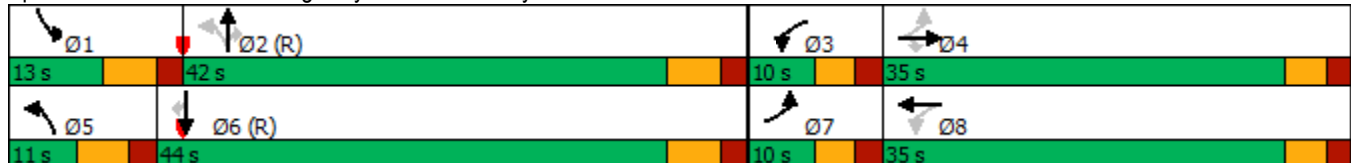
Intersection LOS: C

Intersection Capacity Utilization 68.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St



HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

2040 Total Traffic
AM Peak Hour





Intersection										
Int Delay, s/veh	0.2									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations		↗	↘	↑↑↑			↑↑			
Traffic Vol, veh/h	0	24	17	1460	0	0	722	41	0	0
Future Vol, veh/h	0	24	17	1460	0	0	722	41	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	400	-	400	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	18	1537	0	0	760	43	0	0
Major/Minor	Minor2	Major1		Major2						
Conflicting Flow All	-	402	803	0	-	-	-	0		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Critical Hdwy	-	6.94	4.14	-	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-		
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-		
Pot Cap-1 Maneuver	0	598	817	-	0	0	-	-		
Stage 1	0	-	-	-	0	0	-	-		
Stage 2	0	-	-	-	0	0	-	-		
Platoon blocked, %				-			-	-		
Mov Cap-1 Maneuver	-	598	817	-	-	-	-	-		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-		
Approach	EB	NB		SB						
HCM Control Delay, s	11.3	0.1		0						
HCM LOS	B									
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)	817	-	598	-	-					
HCM Lane V/C Ratio	0.022	-	0.042	-	-					
HCM Control Delay (s)	9.5	-	11.3	-	-					
HCM Lane LOS	A	-	B	-	-					
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-					

HCM 6th TWSC
4: Southmoor Dr & Site Access

2040 Total Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	37	19	53	13
Future Vol, veh/h	5	9	37	19	53	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	9	39	20	56	14

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	161	63	70
Stage 1	63	-	-
Stage 2	98	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	830	1002	1531
Stage 1	960	-	-
Stage 2	926	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	809	1002	1531
Mov Cap-2 Maneuver	783	-	-
Stage 1	936	-	-
Stage 2	926	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.9	0
HCM LOS	A		


Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1531	-	911	-	-
HCM Lane V/C Ratio	0.025	-	0.016	-	-
HCM Control Delay (s)	7.4	-	9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Timings

1: US Highway 85 & Community Collector/Main St

2040 Total Traffic

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	108	77	441	108	305	83	626	519	606	1241	127
Future Volume (vph)	120	108	77	441	108	305	83	626	519	606	1241	127
Turn Type	Prot	NA	Perm	Prot	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free	2		2			6
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	34.0	34.0	10.0	35.0		11.0	25.0	25.0	11.0	34.0	34.0
Total Split (s)	21.0	34.0	34.0	22.0	35.0		11.0	22.0	22.0	22.0	33.0	33.0
Total Split (%)	21.0%	34.0%	34.0%	22.0%	35.0%		11.0%	22.0%	22.0%	22.0%	33.0%	33.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	12.1	14.1	14.1	16.4	18.5	100.0	27.8	20.9	20.9	26.5	43.0	43.0
Actuated g/C Ratio	0.12	0.14	0.14	0.16	0.18	1.00	0.28	0.21	0.21	0.26	0.43	0.43
v/c Ratio	0.59	0.43	0.20	0.82	0.33	0.20	0.45	0.89	0.72	0.70	0.86	0.18
Control Delay	52.4	42.2	1.1	53.5	36.7	0.3	27.0	55.0	9.5	40.0	35.6	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	42.2	1.1	53.5	36.7	0.3	27.0	55.0	9.5	40.0	35.6	4.7
LOS	D	D	A	D	D	A	C	D	A	D	D	A
Approach Delay		35.8			32.4			33.9			35.0	
Approach LOS		D			C			C			C	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 34.2

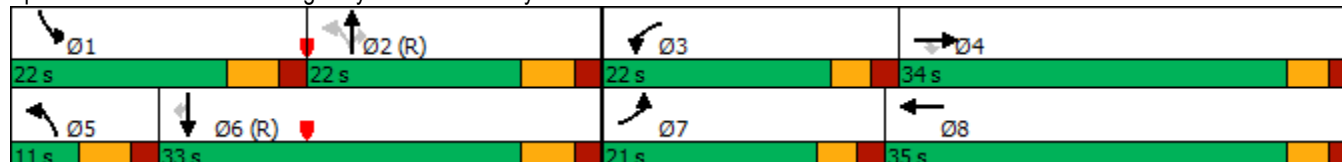
Intersection LOS: C

Intersection Capacity Utilization 72.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: US Highway 85 & Community Collector/Main St



HCM 6th TWSC
2: US Highway 85 & Southmoor Dr

2040 Total Traffic
PM Peak Hour





Intersection											
Int Delay, s/veh	0.3										
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	
Lane Configurations		↗	↘	↑↑↑			↑↑				
Traffic Vol, veh/h	0	27	17	1228	0	0	1635	124	0	0	
Future Vol, veh/h	0	27	17	1228	0	0	1635	124	0	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	-	None	-	-	None	-	-	
Storage Length	-	0	400	-	400	-	-	-	-	-	
Veh in Median Storage, #	0	-	-	0	-	-	0	-	16974	-	
Grade, %	0	-	-	0	-	-	0	-	0	-	
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	28	18	1293	0	0	1721	131	0	0	
Major/Minor	Minor2		Major1		Major2						
Conflicting Flow All	-	926	1852	0	-	-	-	0			
Stage 1	-	-	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-	-	-			
Critical Hdwy	-	6.94	4.14	-	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-			
Follow-up Hdwy	-	3.32	2.22	-	-	-	-	-			
Pot Cap-1 Maneuver	0	271	323	-	0	0	-	-			
Stage 1	0	-	-	-	0	0	-	-			
Stage 2	0	-	-	-	0	0	-	-			
Platoon blocked, %				-			-	-			
Mov Cap-1 Maneuver	-	271	323	-	-	-	-	-			
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-			
Stage 1	-	-	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-	-	-			
Approach	EB		NB		SB						
HCM Control Delay, s	19.8		0.2		0						
HCM LOS	C										
Minor Lane/Major Mvmt		NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)		323	-	271	-	-					
HCM Lane V/C Ratio		0.055	-	0.105	-	-					
HCM Control Delay (s)		16.8	-	19.8	-	-					
HCM Lane LOS		C	-	C	-	-					
HCM 95th %tile Q(veh)		0.2	-	0.3	-	-					

HCM 6th TWSC
4: Southmoor Dr & Site Access

2040 Total Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	27	49	24	125	8
Future Vol, veh/h	6	27	49	24	125	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	28	52	25	132	8

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	265	136	140
Stage 1	136	-	-
Stage 2	129	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	724	913	1443
Stage 1	890	-	-
Stage 2	897	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	698	913	1443
Mov Cap-2 Maneuver	707	-	-
Stage 1	858	-	-
Stage 2	897	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	5.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1443	-	867	-	-
HCM Lane V/C Ratio	0.036	-	0.04	-	-
HCM Control Delay (s)	7.6	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Queuing and Blocking Report

Intersection: 1: US Highway 85 & Community Collector/Main St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	L	T	L	T	T	R	L	L
Maximum Queue (ft)	134	205	98	220	260	165	102	402	402	91	162	190
Average Queue (ft)	92	82	20	95	161	66	37	251	233	15	61	120
95th Queue (ft)	148	188	55	217	237	125	77	369	361	61	151	182
Link Distance (ft)		192			380	380		487	487	487		
Upstream Blk Time (%)		5						0	0			
Queuing Penalty (veh)		17						0	0			
Storage Bay Dist (ft)	110		110	230			335				775	775
Storage Blk Time (%)	18	2	0	0	2			2				
Queuing Penalty (veh)	26	4	0	0	2			2				

Intersection: 1: US Highway 85 & Community Collector/Main St

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	154	137	65
Average Queue (ft)	76	57	19
95th Queue (ft)	138	116	48
Link Distance (ft)	1061	1061	1061
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Internal Access & Community Collector

Movement	EB	WB	SE	NW
Directions Served	TR	L	LTR	LTR
Maximum Queue (ft)	77	44	91	108
Average Queue (ft)	6	9	34	45
95th Queue (ft)	35	35	67	88
Link Distance (ft)	93		162	237
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		65		
Storage Blk Time (%)	1	0		
Queuing Penalty (veh)	0	0		

Zone Summary

Zone wide Queuing Penalty: 50

Queuing and Blocking Report

Intersection: 1: US Highway 85 & Community Collector/Main St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	R	L	L	T	R	L	T	T	R	L
Maximum Queue (ft)	132	178	121	314	396	380	66	204	410	369	278	388
Average Queue (ft)	73	69	37	210	277	93	2	63	257	235	124	203
95th Queue (ft)	129	140	91	330	395	240	48	191	411	381	228	329
Link Distance (ft)		192			380	380			487	487	487	
Upstream Blk Time (%)		1			3	1			0	0		
Queuing Penalty (veh)		2			0	0			1	0		
Storage Bay Dist (ft)	110		110	230			230	335				775
Storage Blk Time (%)	5	2	0	3	27				8			
Queuing Penalty (veh)	10	4	0	7	59				7			

Intersection: 1: US Highway 85 & Community Collector/Main St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	524	766	812	188
Average Queue (ft)	261	422	454	39
95th Queue (ft)	454	764	816	150
Link Distance (ft)		1061	1061	1061
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	775			
Storage Blk Time (%)		2		
Queuing Penalty (veh)		13		

Intersection: 9: Internal Access & Community Collector

Movement	EB	WB	WB	SE	NW
Directions Served	TR	L	T	LTR	LTR
Maximum Queue (ft)	19	43	3	71	93
Average Queue (ft)	1	8	0	33	41
95th Queue (ft)	10	30	2	57	72
Link Distance (ft)	93		192	162	237
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		65			
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Zone Summary

Zone wide Queuing Penalty: 103