

Community Services Planning Department

September 12, 2019

To: Planning Department

Brandy Williams, City Engineer

Arthur Gonzales, CDOT

El Paso County Development Services

Riverbend Crossing Traffic Study

TRAFFIC STUDY

The Applicant for Riverbend Crossing has provided the attached Traffic Report. Please provide a response back to the Planning Department by October 3, 2019. If you have any questions, please contact me at 322-2015 or email kristy@fountaincolorado.org

Kristy Martinez

Kristy Martinez, AICP City of Fountain Planning Department 116 S. Main Street Fountain, CO 80817

COMMENTS DUE:

October 3, 2019

116 South Main Fountain, CO 80817

Phone: 719.322.2000 Fax: 719.322.2001

www.fountaincolorado.org



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Re:

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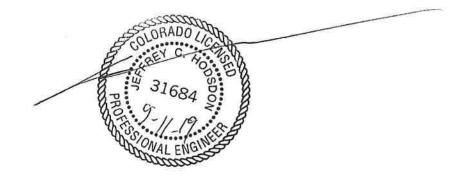
E-mail: Isc@lsctrans.com

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River Bend Crossing Traffic Impact and Access Analysis PCD File No. P189, SP187, SF1844, & SF1843 (LSC #184140) September 9, 2019

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

7 h Tull 9/1/19
Date



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E-mail: <u>lsc@lsctrans.com</u> Website: http://www.lsctrans.com

September 9, 2019

Mr. Alan Toth Avatar Fountain c/o Avatar Equities 6800 Jericho Turnpike, Suite 120W, #204 Syosset, NY 11791

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 (Hwy) 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 Hwy 85-87/Main Street and US Hwy 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.

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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 Hwy 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 restaurant. The site is planned to be razed and redeveloped for new retail uses with a total of 61,599 square feet of floor space. The proposed site plan is shown in Figure 2. The existing full-movement signalized access to US Hwy 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 Hwy 85-87 (centerline to centerline) and about 100 feet northeast of the existing Fountain Valley Senior Center entrance. A 15,625-square-foot parcel located northwest of the intersection of US Hwy 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 Hwy 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 US Hwy 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 with 221 lots for single-family homes. The residential development would have access to the signalized intersection of US Hwy 85-87/Main Street via a new Community Collector street that will extend through the redeveloped commercial parcel. An additional full-movement site access is proposed to Southmoor Drive about 925 feet south of US Hwy 85-87 aligning with an existing mobile home park access to the east.

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 Hwy 85-87 has two through lanes in each direction and a posted speed limit of 50 miles per hour (mph). US Hwy 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 Hwy 85-87 is currently signal controlled.
- Southmoor Drive forms a loop on the west side of US Hwy 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

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Drive and US Hwy 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 for the commercial portion of the development 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.

Figure 4 shows the sight distance requirements at the proposed residential full-movement intersection to Southmoor Drive. Based on a design speed of 40 miles per hour, the El Paso County required public street intersection sight distance is 445 feet. As shown in Figure 4, this access would meet El Paso County sight distance criteria.

PEDESTRIAN AND BICYCLE ROUTE ANALYSIS

Figure 5 shows a pedestrian and bicycle route analysis for the development. The local elementary, junior high, and high schools which will serve this development are all located east of US Hwy 85-87.

Existing Traffic Conditions

Figure 6 shows the morning and afternoon peak-hour traffic volumes at the intersections of US Hwy 85-87/Main, US Hwy 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 Hwy 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.

Mr. Alan Toth	
River Bend Crossing	,

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Level of Service	Signalized Intersections Average Control Delay (Seconds per Vehicle)	Unsignalized Intersections Average Control Delay (Seconds per Vehicle) 1		
Α	≤ 10.0	≤ 10.0		
В	10.1 - 20.0	10.1 - 15.0		
С	20.1 - 35.0	15.1 - 25.0		
D	35.1 - 55.0	25.1 - 35.0		
Е	55.1 - 80.0	35.1 - 50.0		
F	≥ 80.1	≥ 50.1		

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The signalized intersection of US Hwy 85-87 was analyzed to determine the existing levels of service using Synchro. The intersection of US Hwy 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 6 shows the detailed level of service analysis results. The level of service (LOS) reports are attached.

All movements at the signalized intersection of US Hwy 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 Hwy 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.

¹ For unsignalized intersections, if v/c is > 1.00, then LOS is LOS F, regardless of the projected average control delay per vehicle

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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, 2017* by ITE.

The shopping center/non-residential portion of the site is projected to generate about 2,932 non-pass-by, external vehicle-trips on the average weekday, with about half entering and half exiting this portion of the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 a.m. and 8:30 a.m., about 212 vehicles would enter and 166 vehicles would exit this portion of the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 p.m. and 6:15 p.m., about 196 vehicles would enter and 190 vehicles would exit this portion of the site.

The residential portion of the site is projected to generate about 1,982 external vehicle-trips on the average weekday, with about half entering and half exiting this portion of the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 a.m. and 8:30 a.m., about 39 vehicles would enter and 117 vehicles would exit this portion of the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 p.m. and 6:15 p.m., about 131 vehicles would enter and 77 vehicles would exit this portion of 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 7 shows the directional distribution estimates for the primary site-generated traffic projected to be generated by the shopping center/non-residential portion of the site. The estimates have been based on the following factors: the site land uses; the site location with respect to the nearby residential, employment, commercial, and activity centers; the street and roadway system serving the site; and the existing/projected traffic volumes. The non-passby trip directional distribution reflects the estimated market area of the shopping center with the highest percentage to/from the east on Main Street. This represents a significant number of "rooftops" within a relatively short travel distance. The split to the south on Highway 85 includes traffic from residential areas accessed via Fontaine Boulevard (Widefield), Fountain (via Highway 85), and other commercial areas to the south along Highway 85. The split to the north on Highway 85 accounts for trips from Stratmoor Valley and Stratmoor Hills, plus a much larger number of housing units within a reasonable driving time to the site via South Academy Boulevard and Highway 85. The site is also reasonably close to the South Academy Boulevard interchange to draw some diverted trips. Appendix Figure 1 shows trip path assumptions used to assign the site-generated traffic projected to be generated by the shopping center/non-residential portion of the site by lot and/or tract to each of the access points.

Figure 8 shows the directional distribution estimates for the pass-by site-generated 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.

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Figure 9 shows the directional distribution estimates for the site-generated traffic projected to be generated by the residential portion of the site. The estimates have been based on the following factors: the site land uses; the site location with respect to the nearby schools, employment, commercial, and activity centers; the street and roadway system serving the site; and the existing/projected traffic volumes. The residential distribution reflects the highest trip percentage oriented to/from the north on Highway 85 up to Academy Boulevard which provides road connections to destinations north and west. The percentage to/from Main Street takes into account the Main Street connection up to Hancock Expressway. From Hancock Expressway, there is quick access to Powers Boulevard north. Main Street split also includes area schools and other commercial centers as trip destinations. The splits to the south account for trip destinations in Fountain (including the commercial to the south), Widefield, the south part of Fort Carson (via Highway 16), and Pueblo. Appendix Figure 2 shows trip path assumptions used to assign the sitegenerated traffic projected to be generated by the residential portion of the site to each of the access points.

When the distribution percentages (from Figures 7 through 9) were applied to the trip generation estimates (from Table 2), the site-generated traffic volumes on the area roadways were determined. Figure 10 shows the site-generated traffic volumes due to development of the shopping center/non-residential portion of the site. Figure 11 shows the projected traffic volumes on the area roadways due to development of the 53-acre residential portion 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 shopping center/non-residential and residential portions 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 Hwy 85-87 and Main Street and an estimate of "cut-through" traffic traveling between Southmoor and the traffic signal at Main/US Hwy 85-87 through the site.

Figure 12a shows the estimated short-term baseline traffic volumes. The short-term baseline traffic volumes are based on the existing traffic volumes shown in Figure 6 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 12b shows the lane geometry, traffic control, and level of service at the key intersections based on the short-term baseline volumes.

Figure 13a shows the estimated 2040 baseline traffic volumes. These volumes are based on the short-term baseline traffic volumes shown in Figure 12a plus additional growth of through traffic on the adjacent streets based on the Colorado Department of Transportation (CDOT) twenty-year growth factor for US Hwy 85-87 adjacent to the site.

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Figure 13b shows the lane geometry, traffic control, and level of service at the key intersections based on the 2040 baseline volumes.

TOTAL TRAFFIC

Figure 14a 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 12a plus the site-generated traffic volumes due to development of the shopping center/non-residential portion of the site (from Figure 10) plus the site-generated traffic estimated to be generated by development of the residential portion of the site (from Figure 11). The volumes shown in Figure 14a represent the short-term impacts of the development.

Figure 14b shows the lane geometry, traffic control, and level of service at the key intersections based on the short-term total volumes.

Figure 15a 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 13a plus the site-generated traffic volumes due to development of the shopping center/non-residential portion of the site from (Figure 10) plus site-generated traffic estimated to be generated by development of the residential portion of the site (from Figure 11).

Figure 15b 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 12b through 15b show the level of service analysis results. The signalized intersection of US Hwy 85-87 was analyzed using Synchro. The intersection of US Hwy 85-87/Southmoor Drive and the site access points 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 Hwy 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.



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US 85-87/Southmoor

All movements at the three-quarter movement (left-in/right-in/right-out-only) intersection of US Hwy 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 Points

The site access points to Southmoor Drive are projected to operate at LOS B or better for all movements as two-way, stop sign-controlled intersections 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 Hwy 85-87 will be sufficient to accommodate the projected queues based on the total traffic volumes. The 2040 total morning and 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. A separate simulation was also run which assumed a signal preemption due to a trail crossing Main Street just east of US Hwy 85-87 during the peak hours. The analysis assumed the railroad crossing gates would be down for four minutes during which only northbound through and left-turning traffic, southbound through and right-turning traffic and eastbound left and right-turning traffic could occur.

Based on the projected 2040 total traffic volumes, the projected maximum eastbound left-turn queue at the main access approaching US Hwy 85-87 during a typical peak hour is about 143 feet long during the morning peak hour and 131 feet long during the afternoon peak hour. If a signal preemption occurs during the peak hour, the projected maximum eastbound left-turn queue is 150 feet during the morning peak hour and 130 feet during the afternoon peak hour. This estimate is likely conservative as the Synchro modeling software only allows for one eastbound left-turn phase during the 240 second preemption time. Figure 16 shows the proposed lane geometry for the proposed Collector street through the site. The projected maximum queue may extend into the painted taper area about two percent of the morning peak hour and one percent of the afternoon peak hour assuming typical traffic signal timings. If a railroad crossing occurs during the morning peak hour, the queue may back into the painted taper area up to nine percent of the peak hour (again, this estimate is likely conservative as the Synchro modeling software only allows for one eastbound left-turn phase during the 240 second preemption time). The queue is not projected to extend into the first interior parking lot access point.

The projected maximum northbound left-turn queue on US Hwy 85-87 is about 262 feet long during the morning peak hour and 109 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.

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STREET CLASSIFICATIONS

Figure 17 shows the existing and recommended street classifications in the vicinity of the site.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- The shopping center/non-residential portion of the site is projected to generate about 2,932 new external vehicle-trips on the average weekday, with about half entering and half exiting this portion of the site during a 24-hour period. During the morning peak hour about 212 vehicles would enter and 166 vehicles would exit this portion of the site. During the afternoon peak hour about 196 vehicles would enter and 190 vehicles would exit this portion of 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.
- The residential portion of the site is projected to generate about 1,982 external vehicle-trips on the average weekday, with about half entering and half exiting this portion of the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 a.m. and 8:30 a.m., about 39 vehicles would enter and 117 vehicles would exit this portion of the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 p.m. and 6:15 p.m., about 131 vehicles would enter and 77 vehicles would exit this portion of the site.

Projected Levels of Service

- All movements at the signalized intersection of US Hwy 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 Hwy 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 points to Southmoor Drive are projected to operate at a satisfactory level of service for all movements as two-way stop sign-controlled intersections based on the projected short-term and 2040 total traffic volumes.

Access Permitting

- The proposed relocated (and consolidated) site access for the shopping center/non-residential portion of the site on Southmoor Drive will require El Paso County approval.
- The proposed residential site access on Southmoor Drive will require El Paso County approval.

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• 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

- The applicant is planning to upgrade one-half of Southmoor Drive (the project side/west side of the street) to El Paso County-standard Urban Non-Residential Collector cross section 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 for the shopping center/non-residential portion of the site and approaching the proposed full-movement intersection for the residential portion of the site.
- Figure 17 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 Hwy 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 Hwy 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 Hwy 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.
- The applicant has indicated that the pedestrian ramps on the northwest and southwest corners of the intersection of Highway 85/Main Street will meet ADA requirements. The pedestrian crossing distance on the west leg of the intersection is about 106 feet. This translates to a pedestrian clearance time of 30 seconds and a pedestrian interval of 24 seconds. This matches the current pedestrian interval for this leg in use at the intersection.
- Some signal modifications will be necessary including the addition of pedestrian pedestal
 posts on the northwest and southwest corners of the intersection such that separate push
 buttons can be provided for each crossing direction. Pedestrian signal heads already exist.
 Crosswalk markings and stop bars will need to be reinstalled. The mast arm on the signal pole

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on the southeast corner of the intersection is 35 feet long. Per CDOT standard plan S-614-40A, a design length of 35 feet can accommodate 3 signal heads — one for the left-turn lane and one for each eastbound through lane. However, the overhead left-turn head may not be permitted as a primary left-turn head due to the lateral alignment. Alternatively, a primary post mounted left-turn head may be added on the island in the northeast corner. The left-turn striping may need to be modified from the concept in order to meet the lateral alignment criteria in the MUTCD. The third option is to install a short mast arm perpendicular to the existing signal pole in the northeast corner island on which a left-turn head could be mounted. The fourth option would be to add an additional signal pole with 25' mast arm in the northeast corner island. These options could be evaluated in more detail with the preparation of a signal modification plan that could be provided prior to issuance of a Notice-to-Proceed.

Roadway Improvement Fee Program

• The residential portion of the project will be required to participate in the El Paso County Road Improvement Fee Program. They will join the ten-mil PID. The ten-mil PID building permit fee portion associated with this option is \$1,221 per single-family dwelling unit. Based on 225 lots, the total building permit fee would be \$269,841.

* * * * *

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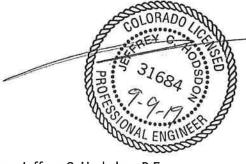
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September 9, 2019 Traffic Impact and Access Analysis

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

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.



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

JCH:KDF:jas

Enclosures: Table 2

Internal Trip Capture Estimate

Figures 1-14

Appendix Figures 1-2
Traffic Count Reports
Level of Service Reports

Queuing Reports

Table 2 Trip Generation Estimate River Bend Crossing

			Trip Gener	ation Rate	s ⁽¹⁾ Aftern	000		Bend Cros Total Trips Mornin	Generate ng	d Afterno Peak H		Inte Average Weekday	rnal Trips (Morning Peak Ho	ur	ed ⁽²⁾ Afternoon Peak Hour In Ou	W	Ex Average Veekday Traffic	ternal Trip Mornin Peak He	ıg	Peak Ho		Pass-By Trips ⁽³⁾	Generated Average Weekday Traffic
Land Use Lot Code Description mercial Trip Generation Estimate act A 820 Shopping Center act A 937 Coffee/Donut Shop With Drive-Through Window Lot 2 820 Shopping Center	Trip Generation Units 18.33 KSF ⁽⁴⁾ 0.86 KSF 2.999 KSF 7.7 KSF 4.9 KSF	Average Weekday Traffic	2.09 45.38 20.50 2.09 5.47 2.09	ıg	3.08 21.69 16.99 3.08 6.06 3.08	3.34 21.69 15.68 3.34 3.71 3.34	7,352 706 1,412 568 550 686 645	38 39 61 16 27 19	23 38 59 10 22 12		61 19 47 26 18 31 29	272 156 320 91 106 147 124	5 3 6 1 2 3 2	5 2 6 1 2 2 1 1 1	12 1: 9 1: 16 2: 5 6 7 6 6	1 0 0 4 7 6 6	1,080 550 1,092 477 444 539 521 521	33 36 55 15 25 16 16 16	18 36 53 9 20 10 10	44 10 35 19 24 22 21 21	50 9 27 22 11 25 23 23	34% 89% 50% 34% 43% 34% 34%	713 61 546 315 253 356 344 344
Lot 2 820 Shopping Center ract B 932 High-Turnover (Sit-Down) Restaurant Fract B 820 Shopping Center Fract C 820 Shopping Center Lot 4 820 Shopping Center	9.31 KSF 8.75 KSF 8.75 KSF	73.73	2.09 2.09	1.28 1.28 Total T	3.08 3.08 rip Genera	3.34 3.34 tion Estim	645 ate 6,564	236	186	263	260	1,340	24	20	67	70 4	1,982	39	117	131	77	0%	1,982
sidential Development Trip Generation Estimate 210 Single Family Detached Housing	221 DU ⁽⁵) 9.44	0.19	0,56	0.62	0.37	2,086	41	123	138	81												

(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.

		H	
	NCHRP 684 Internal Trip Capture Estimation 1001	pture Estimation 1001	
		Organization.	I.S.C. Transportation Consultants, Inc.
Project Name:	Kiver Bend Crossing	Olyanization.	
Designation:	SH 85-87/Main St	Performed By:	KDF
Project Locations			01/00/00/8
Coppario Description:	Buildout	Date:	012312013
ocellallo Description:			
Analysis Year:	2040	Checked by:	
- Carlining		.040	
Analusia Dariod	AM Street Peak Hour	Dale.	

	Toble 4	A. Base Vehicle	e-Trin Generation	A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)	e Estimate)	
	1 6	pent Data (For Information Only)	ormation Only)		Estimated Vehicle-Trips ³	
and I lea	- 1	בוור בשנש לו מי		- + +	Entering	Exiting
בשבת	ITE LUCs ¹	Quantity	Units	lotal	Ciliering	Eximis Simis
				0	0	0
ОПІСЕ				7	777	8
ic+c				1/8	011	25
Kelali				0.40	127	118
				245	121	
Restaulant				c	c	c
Ciscono/Eptortoinment				0	0	,
CITIETTE L'AITTITETT				C	C	C
Docidential				D		
Mesidential				C	C	0
lator I				o		
10101						
All Other Land Hees				0		
All Other Land Osco		THE REAL PROPERTY AND PERSONS NAMED IN	TO SECURITION OF THE PARTY OF T	103	237	186
				071	0	

		Table 2-A: I	Mode Split and Vehicle	Table 2-A: Mode Split and Vehicle Occupancy Estimates		
		Entoring Trine	90		Exiting Trips	
		CHELLIS III	200			
Land Use	Voh Orc 4	% Transit	% Transit % Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
OIIIC						
Kelall						
1						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
Athar and see						

	Table 3	-A: Average La	ind Use Interchang	3-A: Average Land Use Interchange Distances (Feet Walking Distance)	Distance)	
				Destination (To)		
Origin (From)	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
)	THE PARTY OF THE P	The second secon		
Office			A STATE OF THE PARTY OF THE PAR			
Retail		DESCRIPTION OF THE PERSON				
Restaurant						
tucaniotata Transita						
Cinema/Entertainnent						
Designation						
Residential						
0+01				See Sully Chief Control of the Contr		
TO TO			MATERIAL STATE OF THE PARTY OF		۱	

		Table 4-A: In	fernal Person-Trip	Table 4-A: Internal Person-Trip Origin-Destination Matrix*		
				Destination (To)		
!						11-4-1
Origin (From)	Office	Refail	Restaurant	Cinema/Entertainment	Residential	Hotel
	3	1000			c	C
- 340		C	0	0	0	
Office	行りないしいの				c	_
1010	_		ರಾ	0	O	
Ketall			THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT		C	_
4	_	σ		0	0	
Kestaurant				TOTAL VIOLENCE OF THE PROPERTY	c	_
taomaiota Li Lina	_	C	0	THE REAL PROPERTY OF THE PARTY	0	
Cinema/Entertallinent						_
	_	_	0		STATE OF THE PERSON OF THE PER	
Kesidential					c	
	c	c	0	-	0	
4	>)				

Table 5-A	Table 5-A: Computations Summary	ns Summary		
	Total	Entering	Exiting	
All Person-Trips	423	237	186	Offic
Internal Canture Percentage	%6	8%	10%	Reta
Illerinal Captaio Commen				Rest
T. 4- Arino	387	219	168	Cine
External Verilicie-11ips		0	0	Resi
External Italian-Tips	0	0	0	Hote

Table 6-A; Interna	Table 6-A; Internal Trip Capture Percentages by Land Use	es by Land Use
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	8%	13%
Restaurant	7%	8%
Cinema/Entertainment	A/A	N/A
Residential	A/N	N/A
	V. 74	A/N

Land Use Codes (LUCs) from *Trip* Generation Manual, published by the Institute of Transportation Engineers.

Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

*Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

*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.

*Policie-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

*Indicates computation that has been rounded to the nearest whole number.

*Indicates computation that has been rounded to the nearest whole number.

	and atachingan - citation	LSC Transportation Consultants, Inc.	מטב	TON.	010013010	0/20/2013				
oture Estimation Tool		Organization:	1	Performed By:		Date:		Checked By:		Date:
NCHRP 684 Internal Trin Capture Estimation Tool		River Bend Crossing		SH 85-87/Main St		Buildout		2040		PM Street Peak Hour
		Droipet Name.	Floject Name:	Drainat Location.	Project Location.	Constitution.	Scellario Description:	Analysis Year:	Allanysis I car.	Analysis Period

					1 - T - 4 - 4 - 7 - 4	
	Table 1	-P: Base Vehicle	e-Trip Generation	Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)	e Estimate)	
	Manalonm	Development Data (For Information Only)	formation Only)		Estimated Vehicle-Trips3	
Land Use	1	One Date (1 or mile)	linite	Total	Entering	Exiting
	ITELUCS	Quantity	OIIIG			c
- SEC				0	0	0
Office				330	163	176
Dotail				909	22	
- Colon				183	66	84
Kestaurant						c
Cincomo/Entortoinmont				0		
Omeriia/Eiitei taliillielit				c	C	0
Residential				>		
11-4-1				0	0	o
Hotel				C	C	C
All Other Land Hees ²				D		
All Other Falla Caca				522	262	260
The state of the s	THE PERSON NAMED IN COLUMN		THE RESERVE TO SECOND S			

		Table 2-P: I	Mode Split and Vehic	Table 2-P: Mode Split and Vehicle Occupancy Estimates		
		Entering Trips	SC		Exiting Trips	
		Ellisalia Ellisalia			#:	Or Mon Motorizon
Land Use	Veh Orr 4	% Transit	% Transit % Non-Motorized	Veh. Occ. ⁴	% I ransit	% NOI I-INOIOI IZEG
	200					
Office						
30110						
: 0 + 0 C						
Ketall						
4						
Restaurant						
Cinema/Entertainment						
C						
Kesideriliai						
Hotel						
6						
All Other and Uses						

	Table 3-	P: Average La	nd Use Interchang	3-P: Average Land Use Interchange Distances (Feet Walking Distance)	Jistance)	
				Destination (To)		
Origin (From)	3	Patail	Restaurant	Cinema/Entertainment	Residential	Hotel
	20110	ויסומו	10000			
Office						
20110				することには、1000年の一日の一日の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本		
Retail						
				子 一 の 日 の 日 の 日 の 日 の 日 の 日 の 日 の 日 の 日 の		
Restaurant				ののでは、 できることのできることできることできることできることできることできることできることできること		
Circumotratoriomont						
Cinema/Emerialiment				世紀は最近の世界の地では前がら前に		
Residential						
Hote	The second secon	THE PARTY OF THE P	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO			

		Table 4-P: In	ternal Person-Trip	Table 4-P: Internal Person-Trip Origin-Destination Matrix*		
				Destination (To)		
Origin (From)	9	liotod	Dectairant	Cinema/Entertainment	Residential	Hotel
	esilice	Netall	יכפוממומוני	•	c	C
() H		0	0	O	0	0
Oillog			oc		C	0
Retail	0		67			c
l'oral		77		0	0	0
Restaurant	0	t	THE REAL PROPERTY AND ADDRESS OF THE PARTY AND			c
Cinema/Entertainment	0	0	0			
Cilicinal Lincold		c	c	0		0
Residential	D	0	>			
110401	C	0	0	0	D)	
Hole	>					

Table 5-P:	Computatio	Table 5-P: Computations Summary		ř
	Total	Entering	Exiting	
All Person-Trips	522	262	260	Office
Percentage	24%	24%	24%	Retail
				Restau
External Vehicle-Trine ⁵	396	199	197	Cinema
Cyterial Vender Tripe	0	0	0	Reside
External Non-Motorized Trips ⁶	0	0	0	Hotel

Table 6-P: Interna	Table 6-P: Internal Trip Capture Percentages by Land Use	jes by Land Use
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	21%	16%
Restaurant	29%	40%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
	6714	A/N

Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

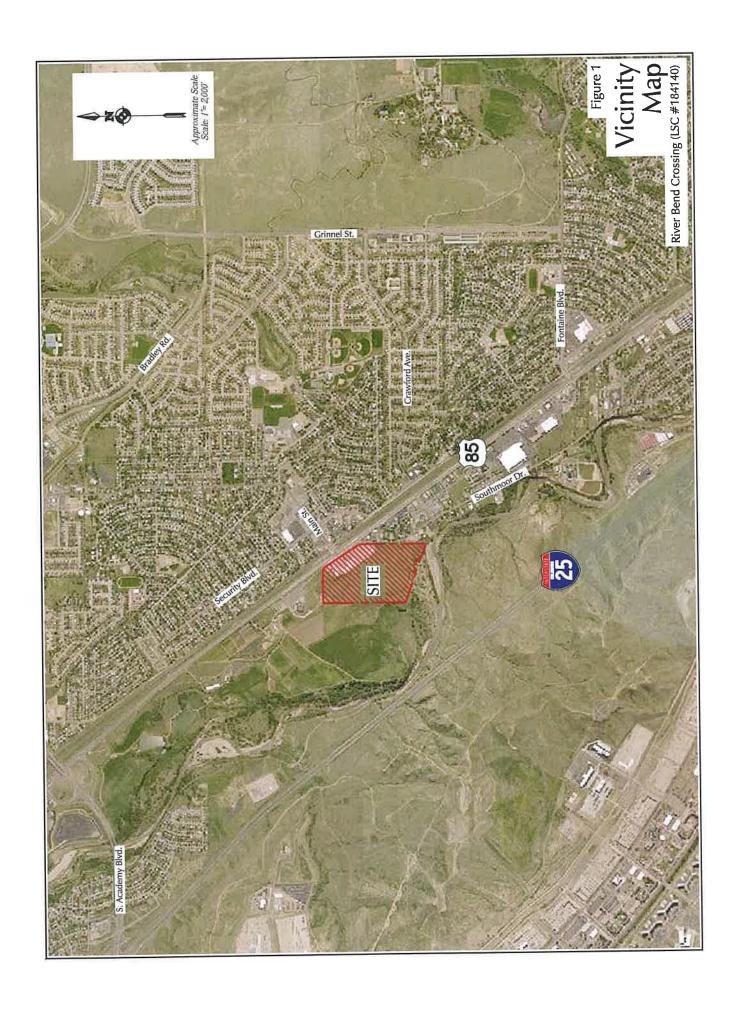
⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be solution somputed using the mode split and vehicle occupancy values provided in Table 2-P.

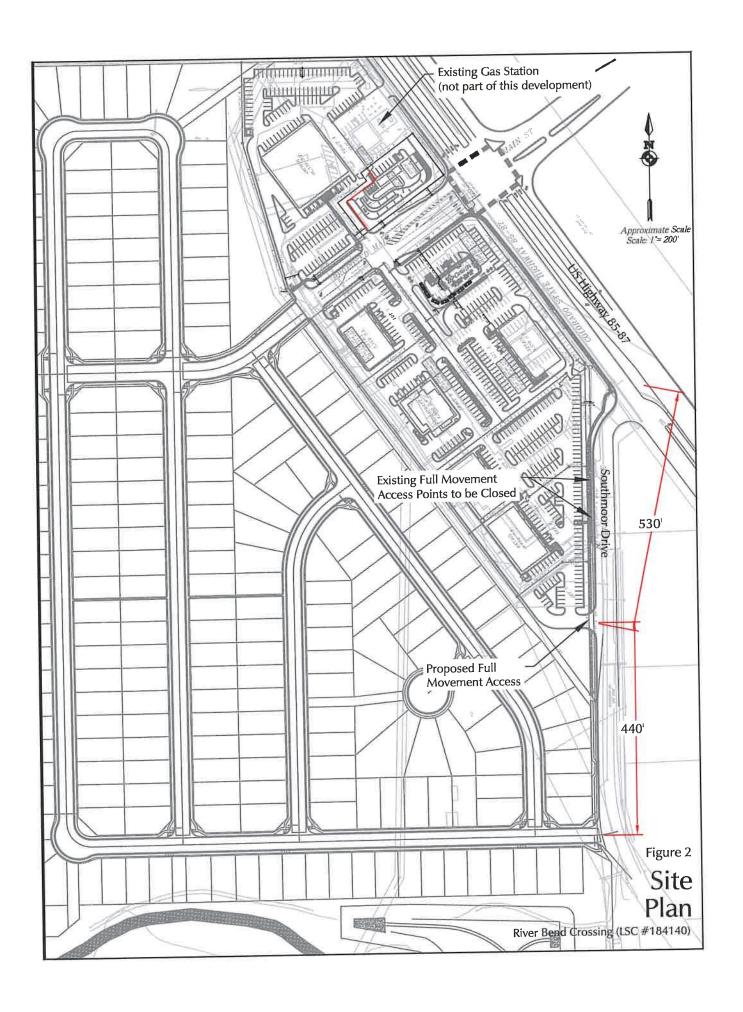
⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

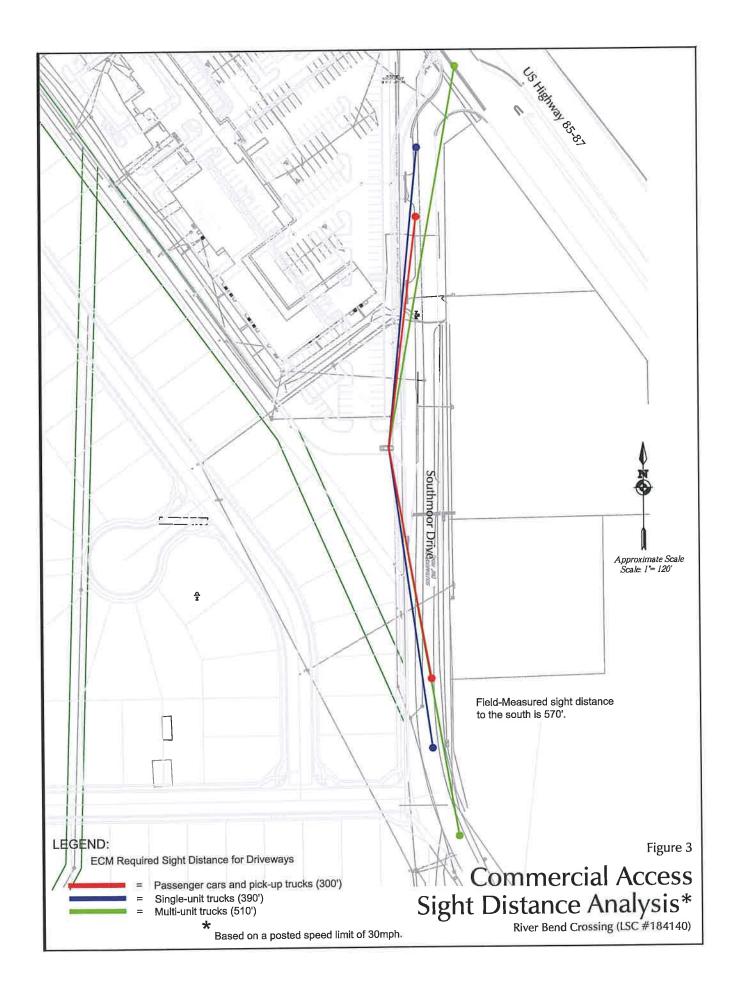
*Indicates computation that has been rounded to the nearest whole number.

*Indicates computation that has been rounded to the nearest whole number.

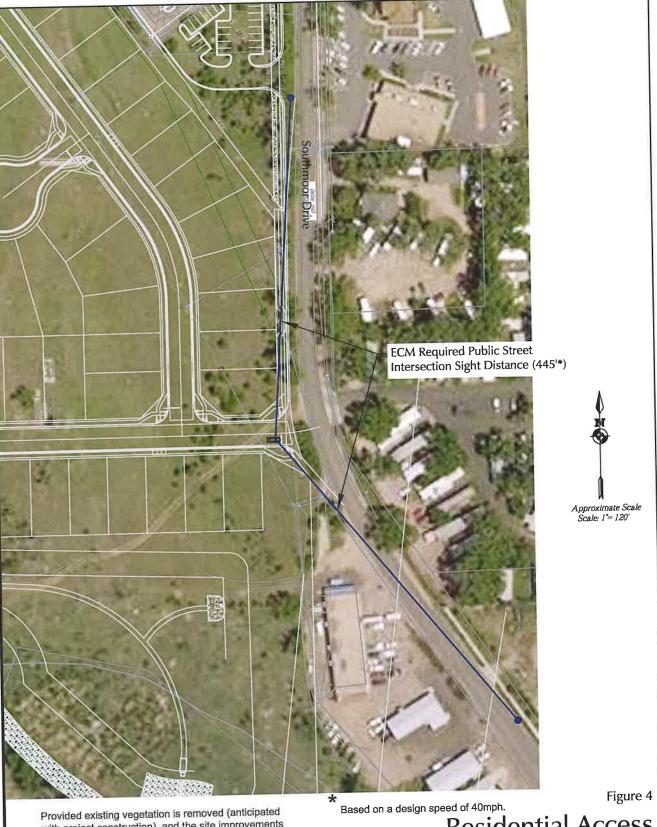








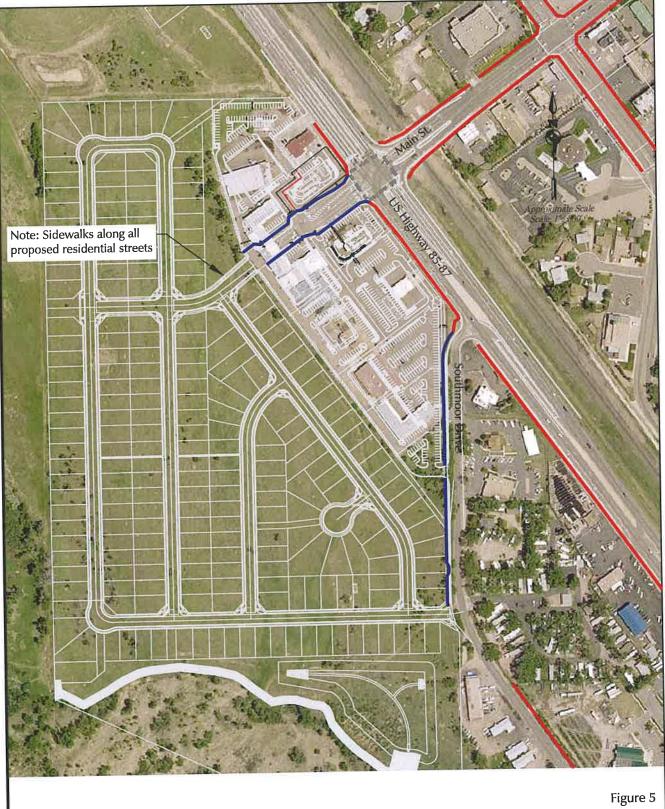




Provided existing vegetation is removed (anticipated with project construction), and the site improvements do not add any obstructions that would block the line of sight, more than adequate lines of sight exists to the north and south from the driver's eye location on the proposed public street.

*
Based on a design speed of 40mph.

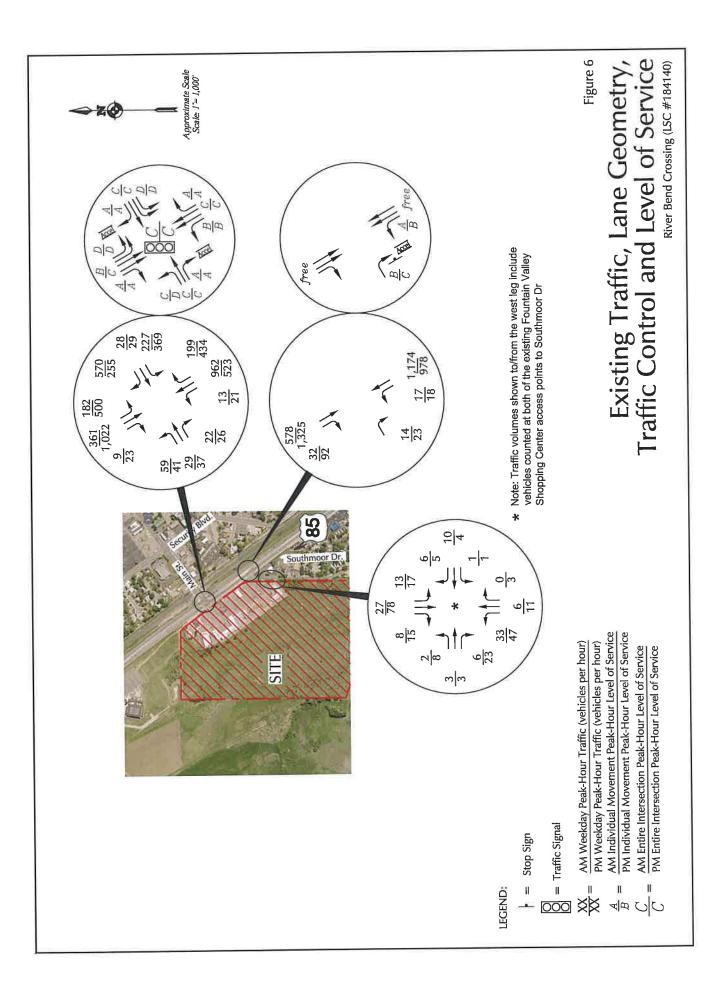
Residential Access
Sight Distance Analysis*
River Bend Crossing (LSC #184140)

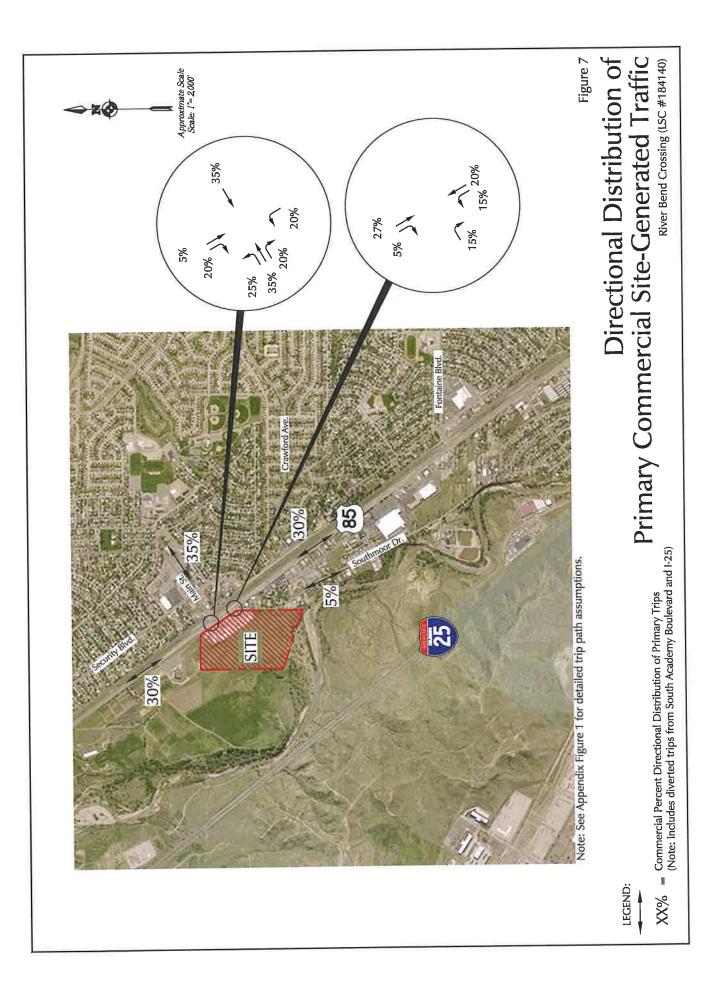


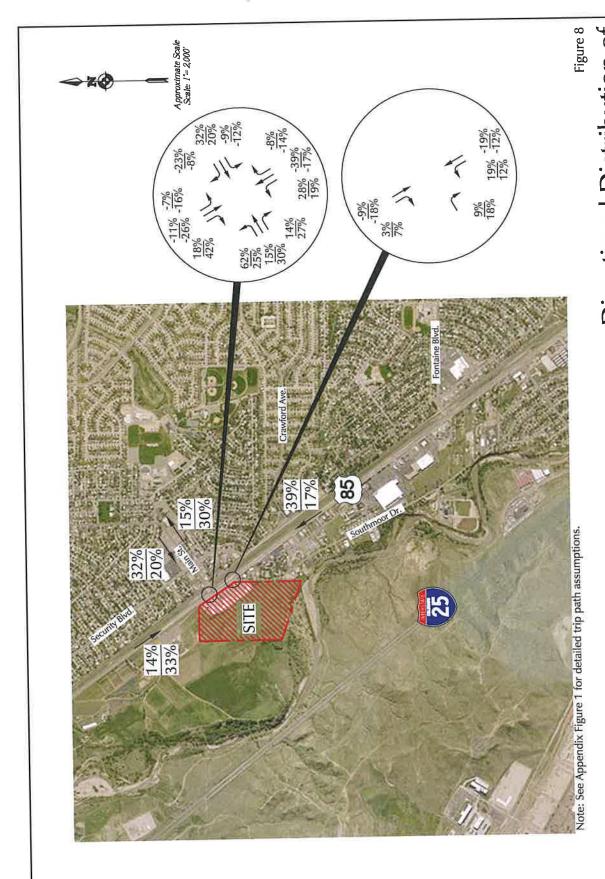
Pedestrian
Route Analysis
River Bend Crossing (LSC #184140)



Existing Sidewalk Proposed Sidewalk





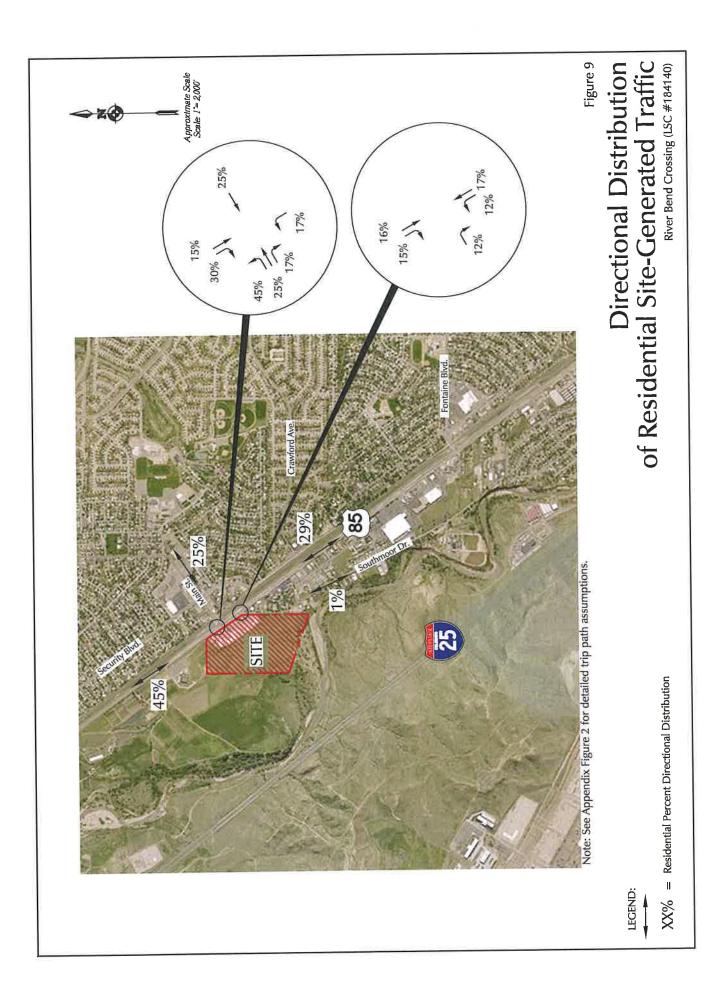


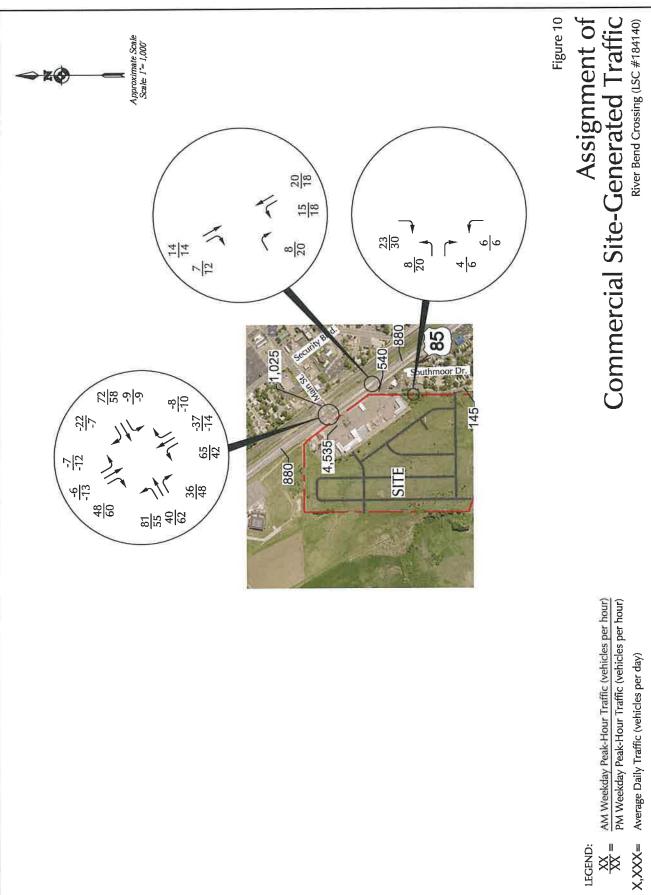
LEGEND:

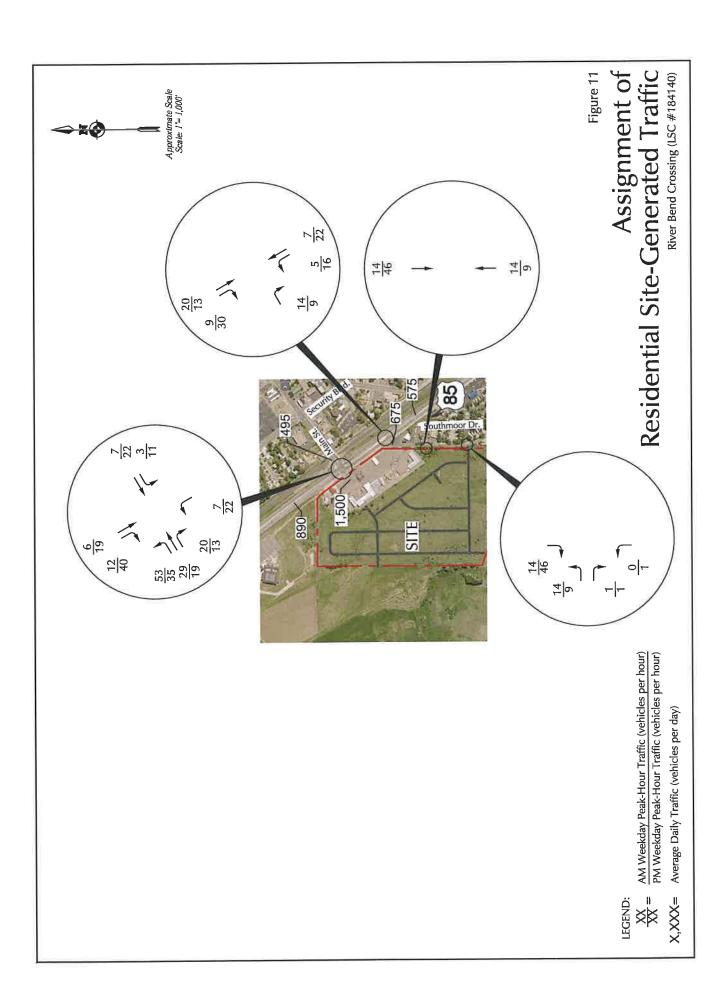
=%XX

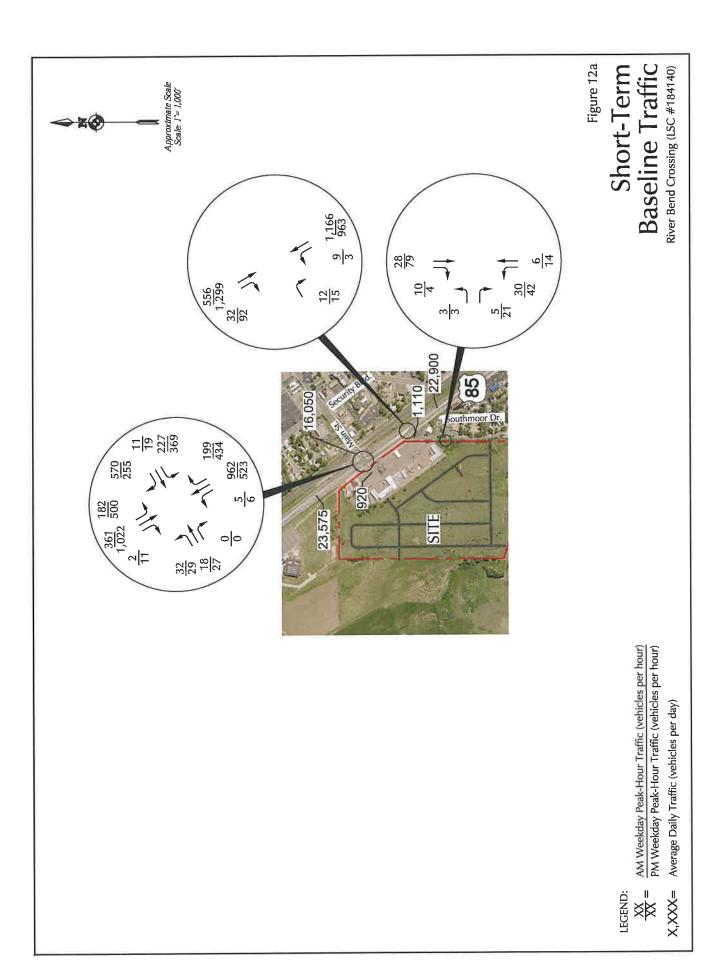
AM Commercial Percent Directional Distribution PM Commercial Percent Directional Distribution

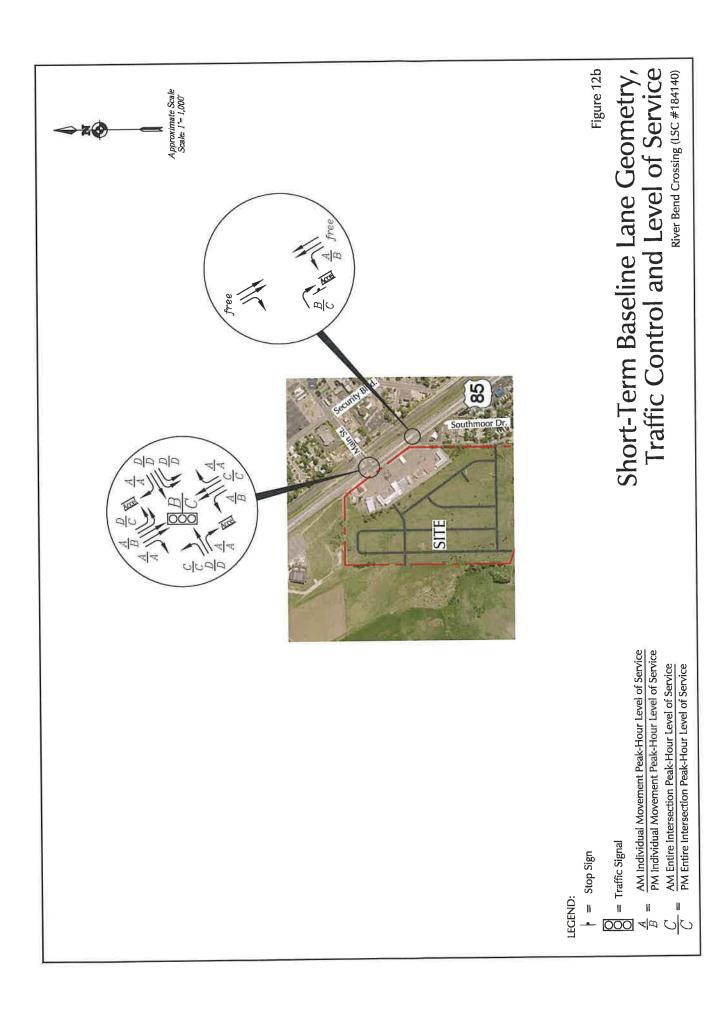
Directional Distribution of Pass-by Commercial Site-Generated Traffic River Bend Crossing (LSC #184140)

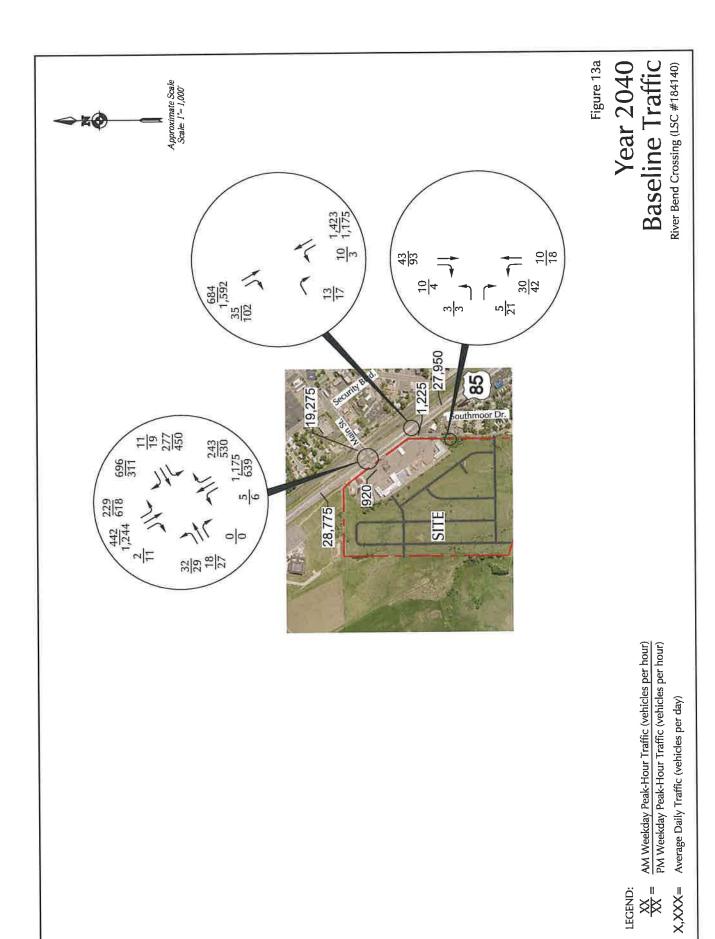


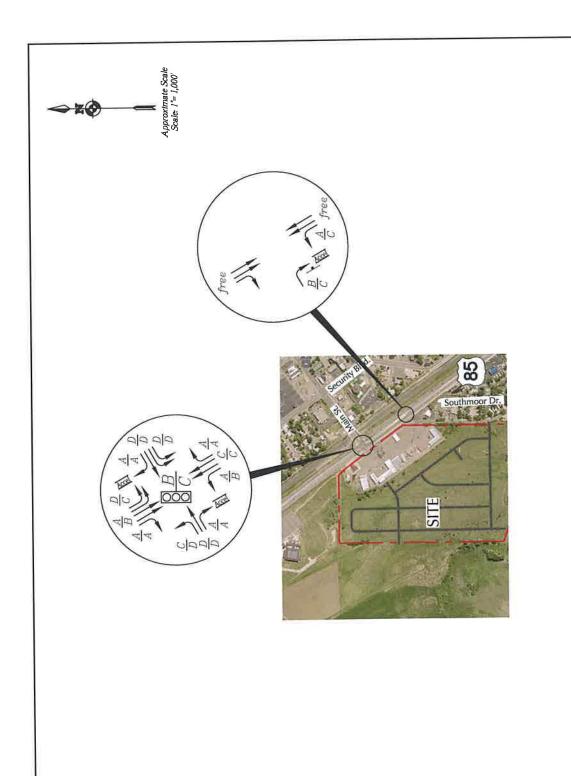












Traffic Signal

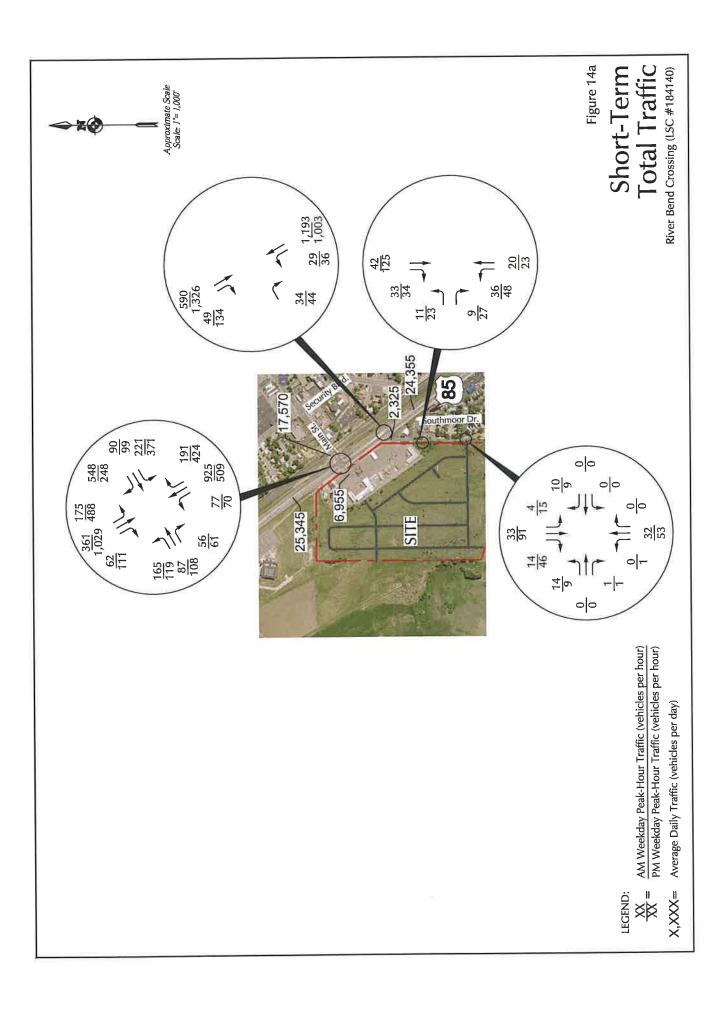
AM Individual Movement Peak-Hour Level of Service

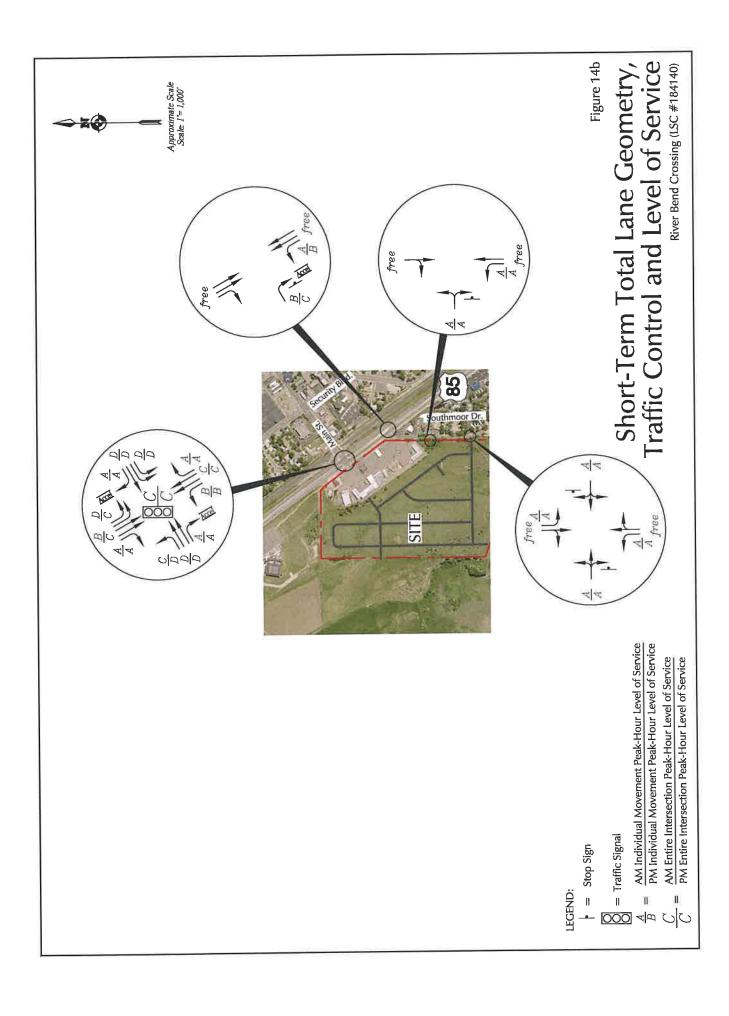
B PM Individual Movement Peak-Hour Level of Service

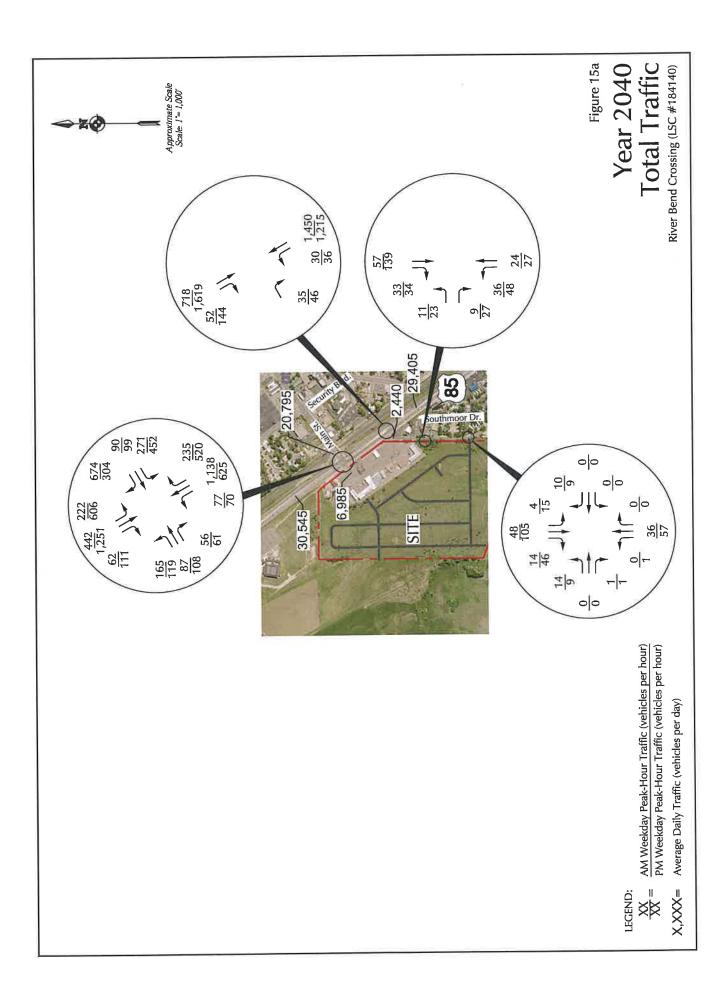
C AM Entire Intersection Peak-Hour Level of Service

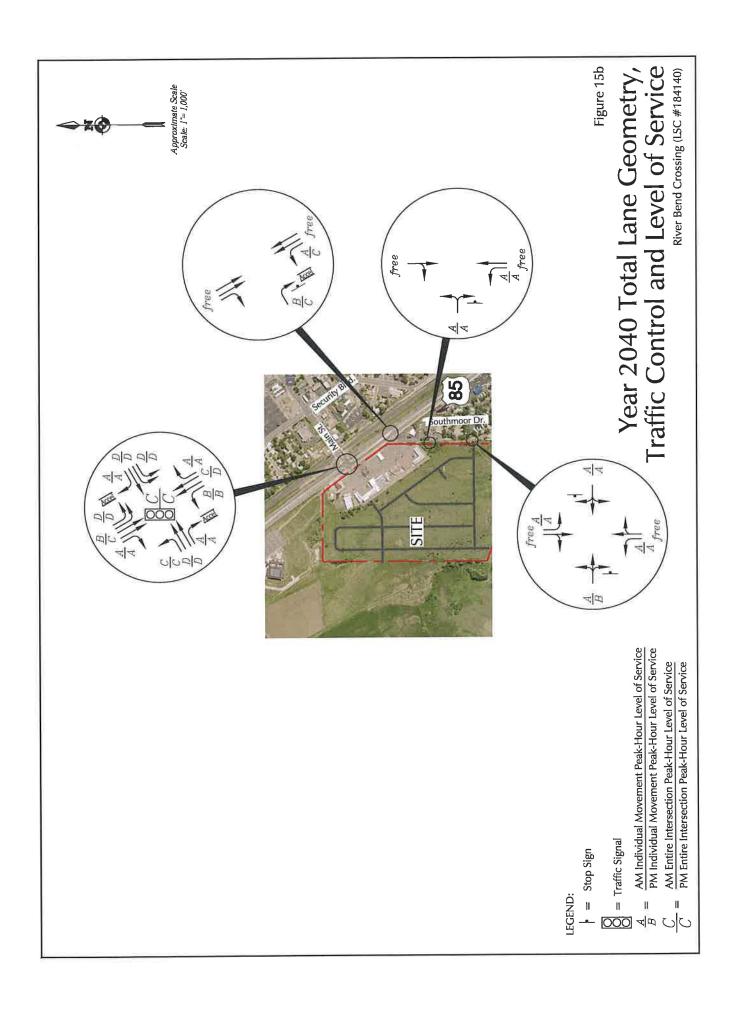
C PM Entire Intersection Peak-Hour Level of Service

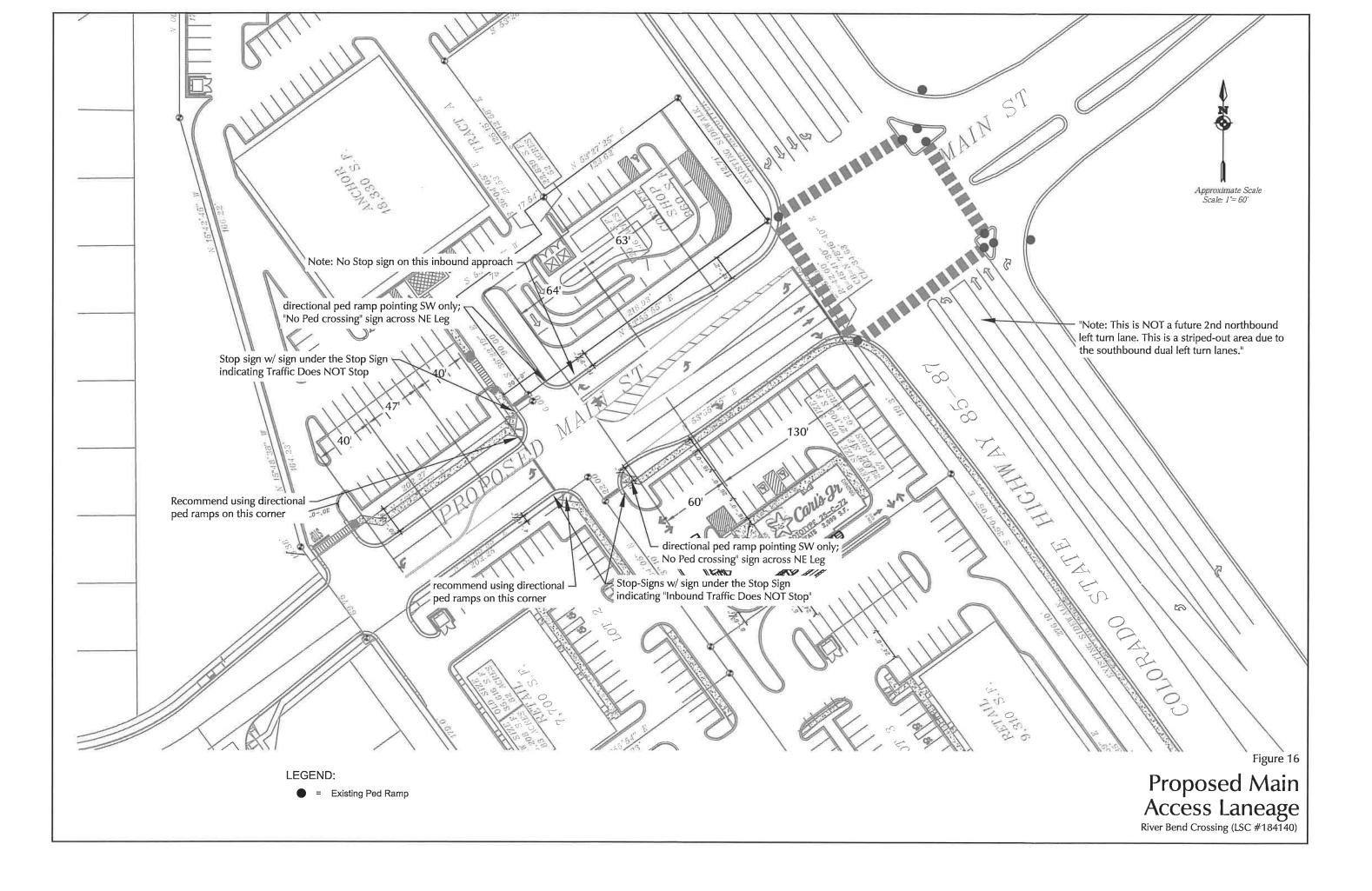
Figure 13b Year 2040 Baseline Lane Geometry, Traffic Control and Level of Service River Bend Crossing (LSC #184140)

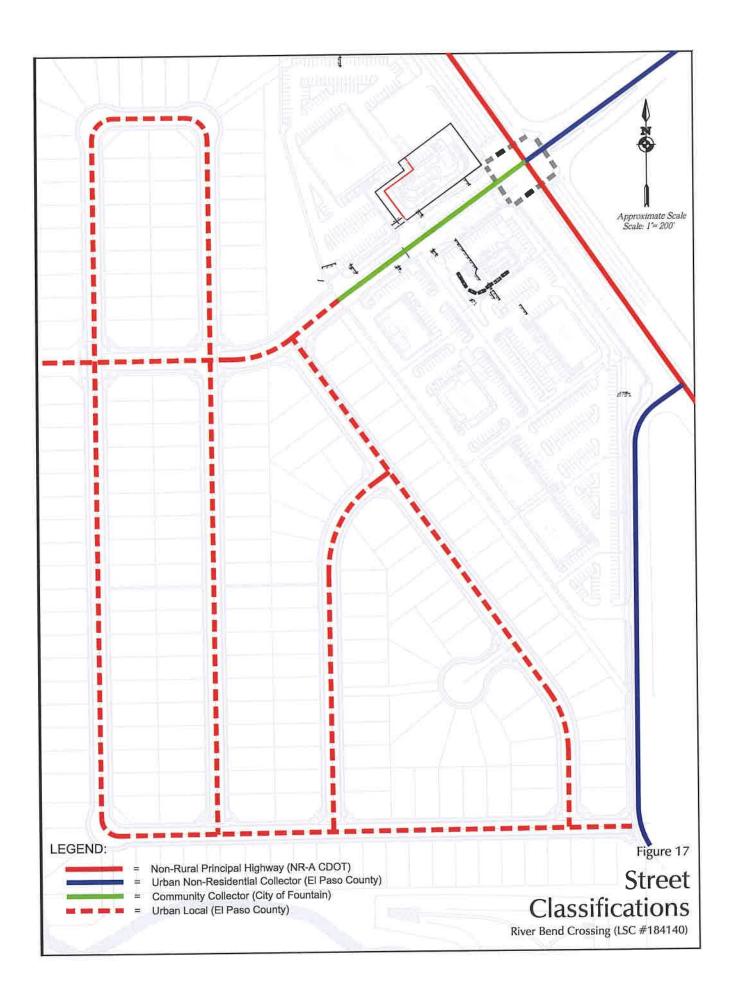






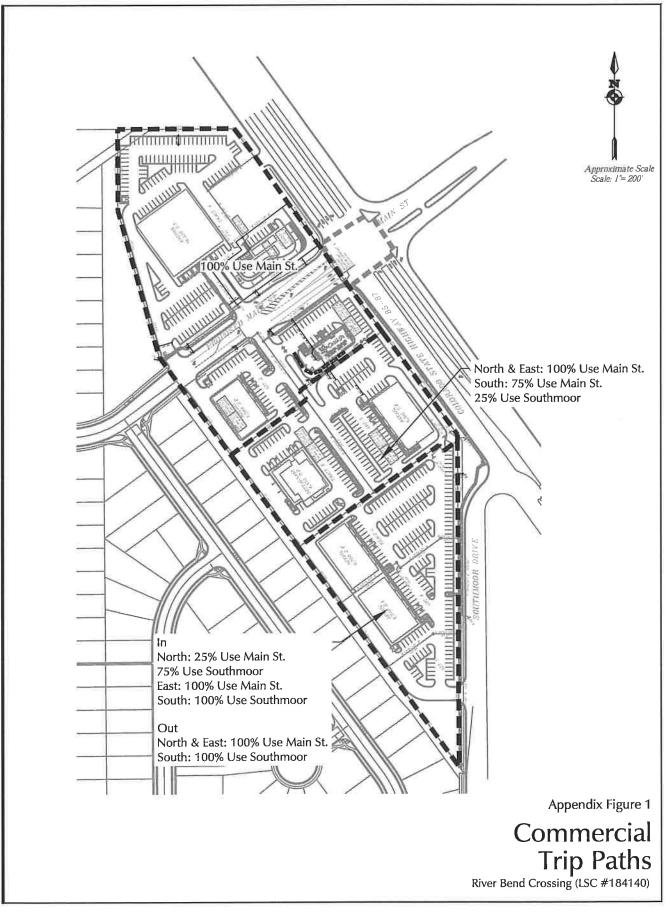




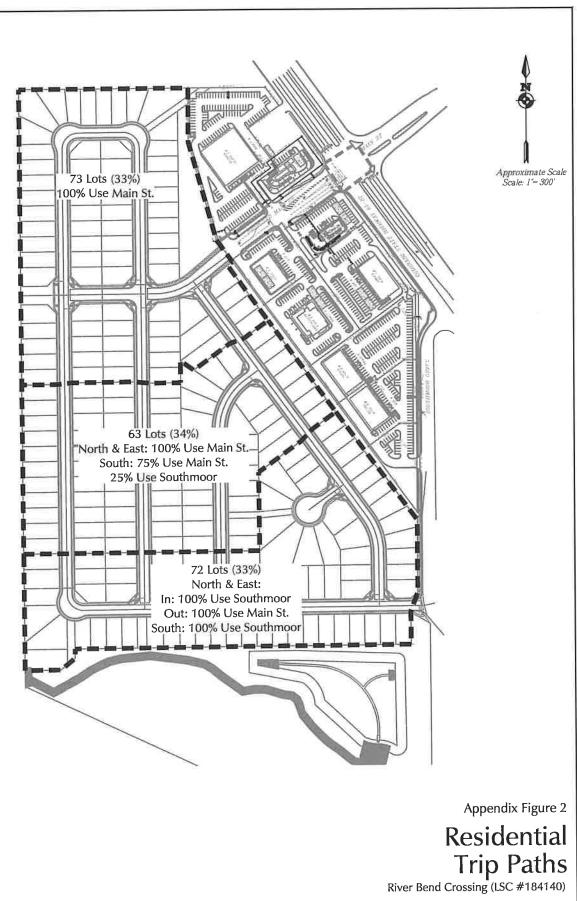


Appendix Figures 1-2









Traffic Counts



LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Main St AM Site Code : 00184140

Start Date : 02/14/2018

Page No : 1

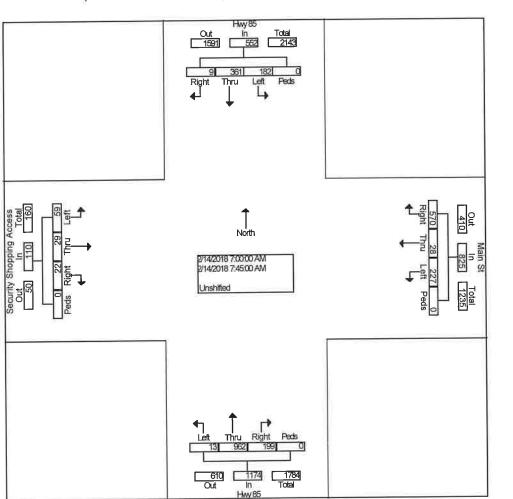
Groups Printed- Unshifted

						G	roups h	rinted-	Unsnin	ea							
		Hwy From				Main From				Hwy From S				urity Sh Acces From V	ss		
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
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 36	0	125 144	8 11	59 57	0	49 40	191 257	4 7	0	6 8	9 8	12 18	0	601 674
07:15 AM	2	86	43	0	180	3	66	0	58	317	2	0	4	8	20	0	801
07:30 AM	5	95	43	0	121	6	45	Ö	52	197	0	0	4	4	9	0	585
07:45 AM Total	9	101 361	182	0		28	227	0	199	962	13	0	22	29	59	0	2661
08:00 AM 08:15 AM Grand Total Apprch %	2 3 17 1.7	75 98 667 67.1	43 33 310 31.2	0 0 0 0.0	69 94 932 65.9	5 4 49 3.5	49 63 433 30.6	0 0 0.0	41 44 345 17.5	154 132 1607 81.6	2 17 0.9	0 0 0.0 0.0	1 2 37 19.8 0.8	6 8 52 27.8 1.1	6 98 52.4 2.1	0 0 0.0 0.0	451 489 4564
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	0.0	1.1	2.1	0.0	N.

File Name : Hwy 85 - Main St AM Site Code : 00184140

Start Date : 02/14/2018
Page No : 2

	T	Hwy 85 Main St											Hwy	85		Sec	curity	Shop	ping A	Access	7
			om N					rom E					rom S				F	rom	Vest		
Start	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Int.
Time	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	_ht	u	t	ds	Total	Total
Peak Hour	From	06:30	AM to	08:1	5 AM -	Peak	1 of 1				t.					ĩ					Ĭ
Intersecti on	07:0	0 AM																			J
Volume	9	36 1	18 2	0	552	57 0	28	22 7	0	825	19 9	96 2	13	0	1174	22	29	59	0	110	2661
Percent	1.6	65. 4	33. 0	0.0		69. 1	3.4	27. 5	0.0		17. 0	81. 9	1.1	0.0		20. 0	26. 4	53. 6	0.0		
07:30 Volume Peak	5	95	43	0	143	18 0	3	66	0	249	58	31 7	2	0	377	4	8	20	0	32	801 0.831
Factor High Int.	07:4	5 AM				07:3	O AM	l			07:	30 AN	1		1	07:	15 A l	Л			
Volume	2	10 1	44	0	147	18 0	3	66	0	249	58	31 7	2	0	377	8	8	18	0	34	
Peak Factor					0.93 9					0.82					0.77 9					0.80 9	



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

							noupe .	Tillitou	01101111								
		Hwy From				Main From				Hwy From S			Sec	curity SI Acce From V	SS	9	
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
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
									0								
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	72	0.8	12.4	0.0	13.0	15.7	0.5	0.0	0.8	1.3	1.2	0.0	I

File Name : Hwy 85 - Main St PM Site Code : 00184140

Start Date : 02/13/2018

Page No : 2

			Hwy 8					Main	St			-	Hwy	85 suth		Sec	curity	Shopp From V	oing A	Access	
Stort	Rig	Fr Thr	om No Lef	orth Pe	App.	Rig	Thr	rom E	ast	App.	Rig	Thr	om S Lef	Pe	App.	Rig	Thr	Lef	Pe		Int.
Start Time	ht	ü	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	Total
Peak Hour F Intersecti on	From 0 04:45	PM		05:45	5 PM - F		of 1	20		i i	43	52			ı					404	2000
Volume	23	10 22	50 0	2	1547	25 5	29	36 9	0	653	4	3	21	0	978	26 25.	37 35.	41 39.	0	104	3282
Percent	1.5	66. 1	32. 3	0.1		39. 1	4.4	56. 5	0.0		44. 4	53. 5	2.1	0.0		0	6	4	0.0		
04:45 Volume Peak Factor	6	26 4	13 4	0	404	65	6	86	0	157	11 5	15 2	3	0	270	8	7	9	0	24	0.960
High Int.	05:1					05:3	0 PM	40			04:	45 PM 15				١.	15 PN		_	0.4	1
Volume	8	28 2	11 9	1	410	61	12	12 3	0	196	5	2	3	0	270	10	11	13	0	34	
Peak Factor		_	·		0.94 3					0.83 3					0.90 6					0.76 5	
									1	Out 819 23	1022	547] C	Total 2366	ı							
										Right	Thru	Left L	Peds								
			Security Shopping Access Out In Total	73 104 177	Peds Right Thru Left	→					018 4:45 018 5:30						+	Right Thru Left Peds		Out In Total 971 653 1924	
										Left 27	17 [Right 3 43 978 In		0							

LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Southmoor Dr AM

Site Code : 00184140 Start Date : 02/15/2018

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Groups Printed- Unshifted

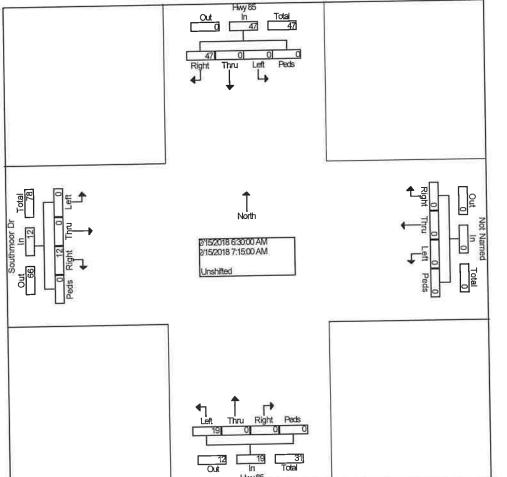
						G	roups I	rinted-	Unsniπ	ea							
		Hwy				From	Foot			Hwy From S			S	outhmo From V			
Start Time	Right	From Thru	North Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	12	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	20
	17	0	0	0	ő	0	0	0	0	0	4	0	4	0	0	0	25
06:45 AM 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	1 0	0	0	0	0	0	5	0	7	0	0	0	24
08:15 AM		0	ō	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	100. 0	0.0	100.	0.0	0.0	0.0	
T-4-1.0/	E4 0	0.0	0.0	0.0	1 00	0.0	0.0	0.0	0.0	0.0	23.3	0.0	21.9	0.0	0.0	0.0	l.

Counts by LSC

File Name : Hwy 85 - Southmoor Dr AM Site Code : 00184140 Start Date : 02/15/2018

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																					7
		_	Hwy 8	15									Hwy i					outhmo			1
			om No				F	rom E	ast			F	rom S			<u>L</u>		rom \			1
Start	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Int.
Time	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	Total
Peak Hour			AM to			Peak	1 of 1									1					1
Intersecti						1					1										1
on	06:3	MA 0													7.9	1		_	_	ا م	70
Volume	47	0	0	0	47	0	0	0	0	0	0	0	19	0	19	12	0	0	0	12	78
VOIGITIO	10		_						0.0		0.0	0.0	10	0.0		10	0.0	0.0	0.0		
Percent	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0,0		0.0	0.0				
06:45				_			_	0	0	0	0	0	4	0	4	4	0	0	0	4	25
Volume	17	0	0	0	17	0	0	0	0	U	l. "	U	7	·	- 1			_			1 0 700
Peak						ì															0.780
Factor																1					
High Int.	06.7	15 AM				6:15	5:00 A	M			07:	15 AN	1			06:	30 AN				l.
Volume	17		0	0	17	0	0	0	0	0	0	0	7	0	7	4	0	0	0	4	li)
		U	U	·	0.69	ľ									0.67					0.75	
Peak					1	1									9					0	Ų
Factor						ļ					•										
												N.C.			-	_		_	-	\neg	
										Out	Hwy	, es	Total	- 1							
			1						l.			47	47	- 1						- 1	
												_								- 1	
									1	47	0	O	0							- 1	
									1	Right	Thru	Left	Peds							- 1	



LSC Transportation Consultants, Inc.

File Name : Hwy 85 - Southmoor Dr PM Site Code : 00184140

Start Date : 02/14/2018

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Groups Printed- Unshifted

						G	roups	rinted-	Unsnin								
		Hwy	85							Hwy			_	outhmo From V			
		From I	North_			From	East			From S	outn			1 IOIII V			Int.
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Total
		4.0	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	
Factor	1.0	1.0			0	0	0	0	0	2	2	0	4	0	0	0	22
04:00 PM	14	0	0	0	· ·	•	0	0	0	1	2	0	16	0	0	0	40
04:15 PM	21	0	0	0	0	0		0	0	'n	3	0	1	0	0	0	22
04:30 PM	18	0	0	0	0	0	0	0	Ĭ	1	8	0	9	0	0	0	33
04:45 PM	15	0	0	0	0	0	0	0	0	-		0	30	0	0	0	117
Total	68	0	0	0	0	0	0	0	0	4	15	U	1 30	U	Ū		
			0	0	1 0	0	0	0	Ιo	0	5	0	7	0	0	0	36
05:00 PM	24	0	0	-		0	0	0	ا ا	0	2	0	5	0	0	0	30
05:15 PM	23	0	0	0	0	_	-	0	٥	0	3	0	2	0	0	0	35
05:30 PM	30	0	0	0	0	0	0	_	١٥	0	4	0	9	0	0	0	32
05:45 PM	19	0	0	0	0	0	0	0	_	0	14	0	23	0	0	0	133
Total	96	0	0	0	0	0	0	0	0	0	14	U	23	Ū	·	Ů	
Grand Total	164	0	0	0	1 0	0	0	0	0	4	29	0		0	0	0	250
Approh %	100.	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	
Total %	U	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	I

Counts by LSC

File Name : Hwy 85 - Southmoor Dr PM

Site Code : 00184140 Start Date : 02/14/2018

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																					=37
			Hwy 8										Hwy					outhme		•	
Start	Dia		om No		App.	Rig	Thr	rom E	ast Pe	App.	Rig	Thr	rom S Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Int.
Time	Rig ht	u	t	ds	Total	ht	u	t	ds	Total	ht	ų	t	ds	Total	ht	u	t	ds	Total	Total
Peak Hour F	rom (04:00	PM to	05:45	PM - F	eak 1	of 1				1					r.					1
Intersecti	04:45	5 PM																			1
on Volume	92	0	0	0	92	0	0	0	0	0	0	1	18	0	19	23	0	0	0	23	134
	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		
Percent	0.0	0.0	0.0	0.0		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						ì					1									,	0.931
Factor											1	IE DM				04:	45 PN	1			
High Int.		MQ C	0	0	30	3:45 0	:00 PI 0	VI O	0	0	04:2 0	15 PM 1	8	0	9	9	45 FIV	0	0	9	. ₹9
Volume Peak	30	0	U	U	0.76	ľ	Ü	·	Ū	Ū	١	·			0.52					0.63	
Factor					7										8					9	li,
										Out	Hwy	Lan _	Total								
											\Box	92	93								
			1						١,	92	0	ol	a	.							
			1						,		Thru	Left	Peds	·							
										4	+	4									
			1																		
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			Total															Right		[£	
			ŏ,	_	o 5						Nor	th					+	_TT	-	N N	
			Southmoor Di	23	F						8 4:45.0							F	H_{\perp}	l Named	
			la l	_	Right 23					2/14/20	18 5:30:0	OPM					1	Left C		ned	
			Out	릴						Unshift	ed							P		Total	
			"	<u> </u>	Peds													Peds		기 _교	
					_																
			-						7												
											•	20									
										Left	That	Picht	Devle								
										18	mru 1	right 0	reus	0							
												_									

LSC Transportation Consultants, Inc.

File Name : Southmoor Dr - Security Shopping Access AM Site Code : 00184140

Start Date : 02/15/2018

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Groups Printed- Bank 1

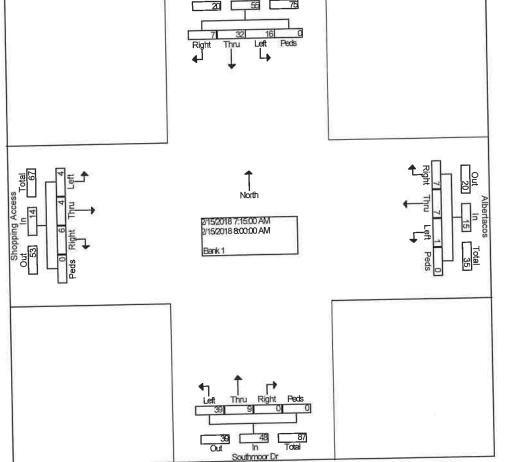
	:	Southm From I			Albertacos From East					From S				From V			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	2	12	2	0	0	0	0	0	0	4	10	0	2	0	0	0	32
06:45 AM	2	17	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 1	4	0	0	0	0	0	0	0	1	0	0	16
07:15 AM	3	10	5	ő	2	3	0	0	0	1	16	0	1	2	0	0	43
07:13 AM	1	5	3	Ö	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	1 2	1	0	0	0	3	6	0	0	2	2	0	
08:15 AM	1	9	1	ō	_ 2	4	1	0	0	1	5	0	0	0	0	0	24
Grand Total	15	74	24	Ō	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	1

File Name : Southmoor Dr - Security Shopping Access AM

Site Code : 00184140 Start Date : 02/15/2018

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										Pag	je No	• :	2								
																_	Cha	pping	٨٥٥٥	66	1
		Sou	thmo	or Dr			Α	berta	cos		1		uthmo					rom \		55	
		Fre	om No	orth			F	rom E	ast		L.,		om S		A I	Die I		Lef	Pe	App.	Int
Start	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Rig	Thr	Let	Pe	App.	Rig	Thr	Lei	ds		Tota
Time	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u j	- 1	us	Total	1010
Peak Hour I	From (06:30	AM to	08:1	5 AM -	Peak	of 1				1					1					Ĺ
Intersecti		5 AM														1					
on	07.1	O AIVI					_		^	45	1	9	39	0	48	6	4	4	0	14	132
Volume	7	32	16	0	55	7	7	1	0	15	0		81.	_	70	42.	28.	28.			
Percent	12.	58.	29.	0.0		46.	46	6.7	0.0		0.0	18. 8	3	0.0		9	6	6	0.0		
	7	2	1	0.0		7	1					0						•	_	ار	43
07:15	3	10	5	0	18	2	3	0	0	5	0	1	16	0	17	1	2	0	0	3	4.
Volume	·					կ					1					1					0.7
Peak																Į.					1
Factor	0= 4					07:1	5 AN	1			07:	30 AN	1			07:	45 A	VI.			1
High Int.		5 AM	5	^	18	1 2	3	0	0	5	1 0	4	14	0	18	4	0	2	0	6	
Volume	3	10	5	0	0.76	_	J	·	·	0.75					0.66					0.58	
Peak					4					0					7					3	
Factor					4	1				_	2					•					
											Southm	oor Or	-						_		
										Out	lr	l	Total								
			1						1	20		笠									
			1							Right	32 Thru	16 Left	Peds							- 1	
			1							Right	I	Ĺ,	100								
										•	+	-7									
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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

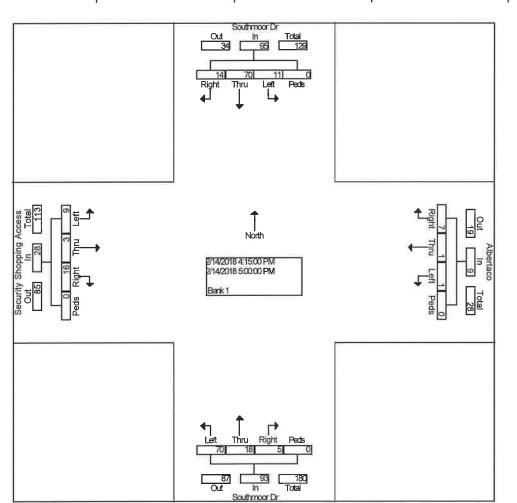
		Southm From				Alber From			\$	Southme From S			Sed	curity Sh Acce From V	ss		
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	2	10	4	0	0	0	0	0	0	2	22	0	7	0	0	0	47
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	

File Name : Southmoor Dr - Security Shopping Access PM

Site Code : 00184140 Start Date : 02/14/2018

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			uthmo				Albertaco From East						uthmo			Se				Access	
		. Fr	rom No	orth			F	rom E	ast			F	rom S	outh		L		rom '	West		
Start	Rig	Thr	Lef	Pe	Арр.	Rig	Thr	Lef	Pe	Арр.	Rig	Thr	Lef	Pe	App.	Rig	Thr	Lef	Pe	App.	Int.
Time	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	ht	u	t	ds	Total	Total
Peak Hour I	rom (04:00	PM to	05:45	PM - F	eak 1	of 1				.53										71
Intersecti on	04:15	5 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. 7	73. 7	11. 6	0.0		77. 8	11. 1	11. 1	0.0		5.4	19. 4	75. 3	0.0		57. 1	10. 7	32. 1	0.0		
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 Factor																					0.815
High Int.	05:00	PM (04:1	5 PM			0	04.1	5 PM				04.4	15 PM			-	
Volume	5	20	4	0	29	5	0	1	0	6	1	9	26	0	36	8	1	4	0	13	
Peak					0.81					0.37					0.64					0.53	
Factor					9					5					6					8	



Levels of Service



Timings 1: US Highway 85 & Main St

Existing Traffic AM Peak Hour

	1	-	*	1	←	*	4	1	-	-	. ↓	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7		7	1/1/	^	To the same	7	^	7	14/4	**	7
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	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)	14.0	13.0	13.0	21.0	20.0		17.0	39.0	39.0	17.0	39.0	39.0
Total Split (%)	15.6%	14.4%	14.4%	23.3%	22.2%		18.9%	43.3%	43.3%	18.9%	43.3%	43.3%
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 Effct Green (s)	8.7	7.0	7.0	12.4	10.7	90.0	49.1	43.2	43.2	9.8	54.0	54.0
Actuated g/C Ratio	0.10	0.08	0.08	0.14	0.12	1.00	0.55	0.48	0.48	0.11	0.60	0.60
v/c Ratio	0.41	0.24	0.08	0.58	0.15	0.43	0.03	0.73	0.29	0.50	0.18	0.01
Control Delay	45.5	42.7	0.5	41.0	35.7	0.9	9.0	24.7	3.6	42.4	11.3	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	45.5	42.7	0.5	41.0	35.7	0.9	9.0	24.7	3.6	42.4	11.3	0.0
LOS	D	D	Α	D	D	Α	Α	C	Α	D	В	Α
Approach Delay		35.7			13.1			21.0			21.4	
Approach LOS		D			В			С			С	

Intersection Summary

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: 0.73

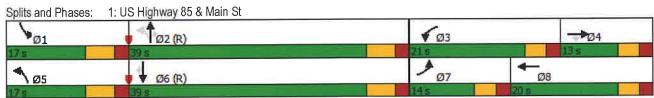
Intersection Signal Delay: 19.2

Intersection Capacity Utilization 59.1%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service B



Existing Traffic AM Peak Hour

Timings

1: US Highway 85 & Main St

Existing Traffic
PM Peak Hour

	*	\rightarrow	*	1	+	•	1	- 1		-	¥	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7"	1/1/	1	7	ሻ	^	7	77	44	7
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	12.0	12.0	22.0	17.0		25.0	31.0	31.0	25.0	31.0	31.0
Total Split (%)	18.9%	13.3%	13.3%	24.4%	18.9%		27.8%	34.4%	34.4%	27.8%	34.4%	34.4%
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 Effct Green (s)	11.5	6.7	6.7	14.5	12.1	90.0	39.7	33.7	33.7	17.5	52.1	52.1
Actuated g/C Ratio	0.13	0.07	0.07	0.16	0.13	1.00	0.44	0.37	0.37	0.19	0.58	0.58
v/c Ratio	0.18	0.27	0.09	0.67	0.12	0.16	0.08	0.43	0.54	0.78	0.52	0.02
Control Delay	36.8	44.2	0.7	41.6	34.8	0.2	11.2	24.7	5.3	43.2	15.8	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	36.8	44.2	0.7	41.6	34.8	0.2	11.2	24.7	5.3	43.2	15.8	0.0
LOS	D	D	Α	D	C	Α	В	С	Α	D	В	Α
Approach Delay		30.4			25.1			15.8			24.4	
Approach LOS		С			С			В			С	

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: 0.78
Intersection Signal Delay: 22.1
Intersection Capacity Utilization 63.8%
Analysis Period (min) 15

Intersection LOS: C ICU Level of Service B



Existing Traffic PM Peak Hour

Timings 1: US Highway 85 & Community Collector/Main St Short-Term Background Traffic

AM Peak Hour

	*	→	1	←	•	4	†	1	1	↓	4
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተ ተ	77	†	ř	4	44	7	14 14	^ ^	7
Traffic Volume (vph)	32	18	227	11	570	7	962	199	182	361	2
Future Volume (vph)	32	18	227	11	570	7	962	199	182	361	2
Turn Type	pm+pt	NA	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	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	32.0	10.0	32.0		11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	21.0	32.0	21.0	32.0		11.0	32.0	32.0	15.0	36.0	36.0
Total Split (%)	21.0%	32.0%	21.0%	32.0%		11.0%	32.0%	32.0%	15.0%	36.0%	36.0%
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 Effct Green (s)	13.4	6.1	13.0	9.6	100.0	60.2	54.5	54.5	10.8	68.8	68.8
Actuated g/C Ratio	0.13	0.06	0.13	0.10	1.00	0.60	0.54	0.54	0.11	0.69	0.69
v/c Ratio	0.15	0.10	0.61	0.07	0.43	0.01	0.64	0.27	0.51	0.15	0.00
Control Delay	32.9	45.0	46.8	41.5	0.9	7.6	20.1	4.8	46.7	7.6	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
Total Delay	32.9	45.0	46.8	41.5	0.9	7.6	20.1	4.8	46.7	7.6	0.0
LOS	С	D	D	D	Α	Α	C	Α	D	Α	Α
Approach Delay		37.3		14.3			17.4			20.7	
Approach LOS		D		В			В			С	

Cycle Length: 100

Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

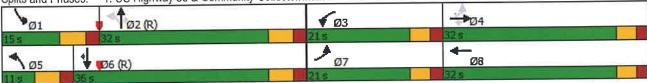
Natural Cycle: 90

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64

Intersection Signal Delay: 17.4
Intersection Capacity Utilization 59.1%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service B

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



Short-Term Background Traffic AM Peak Hour

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		7	ሻ	ተ			个 个				_
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	- 5		None	-	-	
Storage Length	-	0	400	_	400	1.7	-50	ā	ě,	-	
Veh in Median Storage,	# 0	-	-	0	-	- 17	0	9	16974		
Grade, %	0	-	72	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	
Mymt Flow	0	21	11	1476	0	0	604	35	0	0	
Major/Minor M	linor2	1	Vajor1		1	Major2			15		3
Conflicting Flow All	IIIIOIZ	320	639	0		viajoiz	-	0			
Stage 1	75	-	000	-	-	-	_				
Stage 2	15		3		- 3		2	- E			
Critical Hdwy		6.94	4.14		3		- 2	2			
Critical Hdwy Stg 1		0.54	7.14	-		-	-	3			
Critical Hdwy Stg 2	-			- 30		-	- 1	3			
Follow-up Hdwy		3.32	2.22			_					
Pot Cap-1 Maneuver	0	676	941	- 50	0	0		2			
Stage 1	0	0/0	941	-	0	0	-	2			
Stage 1	0	7	7	:30 (34	0	0		2			
Platoon blocked, %	U		- 3		U	U		3			
Mov Cap-1 Maneuver		676	941	19	-	- 1		- 2			
			941	-	- 5	- 1		2			
Mov Cap-2 Maneuver	=27)	-						2			
Stage 1	9.5	=	2	150				2			
Stage 2	1.5		7.		8	5		-			
			1.00			ran .					
Approach	EB		NB			SB	4.3		- 1		
HCM Control Delay, s	10.5		0.1			0					
HCM LOS	В										
Minor Lane/Major Mvmt		NBL	NBT	EBLn1	SBT	SBR					
Capacity (veh/h)		941	=		2	*					
HCM Lane V/C Ratio		0.012	2	0.031	- 12	===					
HCM Control Delay (s)		8.9	2	10.5	2	-					
HCM Lane LOS		Α	25	В	12	Ψ.					
HCM 95th %tile Q(veh)		0	2	0.1	4	1					

Short-Term Background Traffic AM Peak Hour

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

Short-Term Background Traffic
PM Peak Hour

	*	-	1	•	1	4	†	1	-	ţ	4	
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	7	44	ሻሻ	1	7	*	44	7	44	个个	ř	
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	pm+pt	NA	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	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	32.0	10.0	32.0		11.0	25.0	25.0	11.0	25.0	25.0	
Total Split (s)	21.0	32.0	21.0	32.0		11.0	32.0	32.0	15.0	36.0	36.0	
Total Split (%)	21.0%	32.0%	21.0%	32.0%		11.0%	32.0%	32.0%	15.0%	36.0%	36.0%	
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	
	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	
Lead-Lag Optimize?	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max	
Recall Mode	13.7	6.3	14.8	12.5	100.0	36.9	31.2	31.2	30.1	64.8	64.8	
Act Effet Green (s)	0.14	0.06	0.15	0.12	1.00	0.37	0.31	0.31	0.30	0.65	0.65	
Actuated g/C Ratio	0.14	0.00	0.73	0.08	0.16	0.03	0.52	0.58	0.50	0.46	0.01	
v/c Ratio	29.9	45.1	49.6	38.9	0.10	11.0	30.4	5.7	32.7	11.7	0.0	
Control Delay			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Queue Delay	0.0	0.0		38.9	0.0	11.0	30.4	5.7	32.7	11.7	0.0	
Total Delay	29.9	45.1	49.6	30.9 D	Α	11.0 B	C	Α	C	В	A	
LOS	С	D	D		A	Ь	19.1		U	18.5		
Approach Delay		37.3		29.7			19.1			В		
Approach LOS		D		С			Ь			D		
Intersection Summary												
Cycle Length: 100												
Actuated Cycle Length: 10	00		10000	01 1 1								
Offset: 0 (0%), Reference	d to phase 2	::NB1L ar	id 6:SB1,	Start of C	-reen							
Natural Cycle: 90												
Control Type: Actuated-C	oordinated											
Maximum v/c Ratio: 0.73						100.0						
Intersection Signal Delay:						on LOS: C						
Intersection Capacity Utili	zation 63.8%	6		l'	CU Level	of Service	e B					
Analysis Period (min) 15												
Splits and Phases: 1: L	JS Highway	85 & Con	nmunity C	ollector/N	lain St							
	1				√ Ø3			→ D	4			
15 s 32 s	Ø2 (R)				▼ ₩3			32's				
					*			4	×			

Short-Term Background Traffic PM Peak Hour

Short-Term	Background	Traffic
	PM F	Peak Hour

HCM 6th TWS0	j
2: US Highway	85 & Southmoor Di

						_				
Intersection		- 1								-
Int Delay, s/veh	0.1									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations	10.00	7	ኻ	ተተተ			朴			
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	1100	-	None	Otop	-
Storage Length	-	0	400	-	400	-	_	-	- :	
Veh in Median Storage		-	-100	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
MIAUITI IOM	J	20	J	1010		U	,012	00	J	J
11 - AN	Aller and Co.		Antoud			Pagina		= 1 =		
	Minor2		Major1	^		Major2		^		
Conflicting Flow All	-	703	1405	0	-			0		
Stage 1	- 5		2	-	*		16	72		
Stage 2	- 2			7			12	- 2		
Critical Hdwy		6.94	4.14	-			- 12	7		
Critical Hdwy Stg 1	Ť.		= =	7.	150	- 8	ě	-		
Critical Hdwy Stg 2	-	150	-		-			3		
Follow-up Hdwy	-	3.32	2.22	-	-	-	2	*		
Pot Cap-1 Maneuver	0	380	482	•	0	0		•		
Stage 1	0			-	0	0	-			
Stage 2	0	-			0	0		•		
Platoon blocked, %				-			- 2	•		
Mov Cap-1 Maneuver		380	482	11 - 70						
Mov Cap-2 Maneuver	Ħ	33			97.0	8		•		
Stage 1	=	:=:			55	- 7	*			
Stage 2	Ħ				:7.1	5	-			
Approach	EB		NB			SB				والبروا
HCM Control Delay, s	15.1		0			0				
HCM LOS	С									
Minor Lane/Major Mvm	t	NBL	NRT	EBLn1	SBT	SBR				
		482	NOT		-	ODIN				
Capacity (veh/h) HCM Lane V/C Ratio		0.007		0.062	-	-				
		12.5	- 2			-				
HCM Lang LOS			-	_	-	2				
HCM Deth % tile O(voh)		B 0	-			-				
HCM 95th %tile Q(veh)		U	_	U.Z	-					

Short-Term Background Traffic PM Peak Hour

Timings

1: US Highway 85 & Community Collector/Main St

2040 Background Traffic AM Peak Hour

	1	→	•	←	*	4	†	1	1	ţ	1	
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations) j	ተተ	27.37	*	7	ሻ	^	r.	14.54	44	7	
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	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)	25.0	20.0	20.0	15.0		11.0	30.0	30.0	20.0	39.0	39.0	
Total Split (%)	27.8%	22.2%	22.2%	16.7%		12.2%	33.3%	33.3%	22.2%	43.3%	43.3%	
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 Effct Green (s)	11.9	6.0	12.6	9.1	90.0	49.8	44.2	44.2	11.6	59.4	59.4	
Actuated g/C Ratio	0.13	0.07	0.14	0.10	1.00	0.55	0.49	0.49	0.13	0.66	0.66	
v/c Ratio	0.15	0.08	0.61	0.06	0.46	0.01	0.71	0.29	0.55	0.20	0.00	
Control Delay	34.3	39.8	41.8	37.3	1.0	8.4	23.8	4.5	41.1	8.4	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	34.3	39.8	41.8	37.3	1.0	8.4	23.8	4.5	41.1	8.4	0.0	
LOS	С	D	D	D	Α	Α	C	Α	D	Α	Α	
Approach Delay		36.3		12.9			20.4			19.5		
Approach LOS		D		В			С			В		

Intersection Summary Cycle Length: 90

Actuated Cycle Length: 90
Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

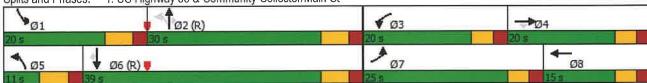
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71

Intersection Signal Delay: 18.1
Intersection Capacity Utilization 67.7%
Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service C

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



2040 Background Traffic AM Peak Hour

2040 Background Traffic
AM Peak Hour

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

Intersection										
Int Delay, s/veh	0.1									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations	See Sec em	7	Ť	ተተተ	Homeone	A STATE OF THE STA	个个			
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	1100	-	None		-	None		2
Storage Length		0	400		400	-	-	-	-	2
Veh in Median Storage		-	100	0	-		0		16974	2
Grade, %	0		(e:	0	-	-5	0	-	0	- 5
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
IVIVIIIL FIOW	U	14	- 11	1700	U	U	, 20	0.	,	J
	Minor2		Vajor1		N	Najor2				
Conflicting Flow All	:*:	379	757	0	ē		2	0		
Stage 1	-	-		27/1			2	-		
Stage 2	-	-	18	27	5	-	22	-		
Critical Hdwy	-	6.94	4.14	55)	-	-		-		
Critical Hdwy Stg 1	-	-		1.50	177	-	-	-		
Critical Hdwy Stg 2	-	-		120	:0	-	- 2	-		
Follow-up Hdwy	-	3.32	2.22	1.7	-	-	=	21		
Pot Cap-1 Maneuver	0	619	850		0	0	-			
Stage 1	0	-	*		0	0				
Stage 2	0				0	0		2		
Platoon blocked, %				:=:				-		
Mov Cap-1 Maneuver	100	619	850	1.5		•		2		
Mov Cap-2 Maneuver	200		- 5		977	Ē	ě	- 2		
Stage 1	17		_ =	(2)	37.0		6	12		
Stage 2	/-	150		::	570	ŝ	1	12		
Approach	EB		NB	_	-	SB				
Approach	1 14 14 14 14	_	0.1			0		_	_	
HCM Control Delay, s	10.9		0.1			U				
HCM LOS	В									
		- A PARTATA		TITLE SALES THE PARTY.	No. of the last of					
Minor Lane/Major Mvn	nt	NBL	NBT	EBLn1	SBT	SBR	AL SU	سين		
Capacity (veh/h)		850	-	619	-	-				
HCM Lane V/C Ratio		0.012	- 5	0.022	4	12				
HCM Control Delay (s))	9.3	-	10.9		12				
HCM Lane LOS		Α	- 2		-	-				
HCM 95th %tile Q(veh	1)	0	-	0.1	-	2				
,										

2040 Background Traffic Synchro 10 Report
AM Peak Hour Page 2

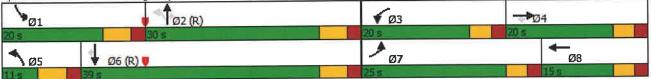


Timings
1: US Highway 85 & Community Collector/Main St

2040 Background Traffic PM Peak Hour

	≯	-	1	4-	*	1	†	-	-	+	1	
ane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
ane Configurations	7	个 个	77	1	7	Ť	**	7	14	44	7	
Fraffic Volume (vph)	29	27	450	19	311	6	639	530	618	1244	11	
uture 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	
Fotal Split (s)	25.0	20.0	20.0	15.0		11.0	30.0	30.0	20.0	39.0	39.0	
Total Split (%)	27.8%	22.2%	22.2%	16.7%		12.2%	33.3%	33.3%	22.2%	43.3%	43.3%	
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	
_ost 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	
_ead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	
_ead-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 Effct Green (s)	8.7	6.2	14.7	12.3	90.0	32.8	27.1	27.1	26.4	57.1	57.1	
Actuated g/C Ratio	0.10	0.07	0.16	0.14	1.00	0.36	0.30	0.30	0.29	0.63	0.63	
v/c Ratio	0.18	0.11	0.85	0.08	0.21	0.03	0.63	0.64	0.65	0.58	0.01	
Control Delay	39.4	40.0	51.9	35.1	0.3	10.8	30.7	6.4	32.5	13.3	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	39.4	40.0	51.9	35.1	0.3	10.8	30.7	6.4	32.5	13.3	0.0	
LOS	D	D	D	D	Α	В	C	Α	С	В	Α	
Approach Delay		39.7		30.9			19.6			19.5		
Approach LOS		D		С			В			В		
Intersection Summary	17		- 35									
Cycle Length: 90												
Actuated Cycle Length: 90												
Offset: 66 (73%), Reference	ed to phase	2:NBTL	and 6:SB	T, Start o	f Green							
Natural Cycle: 110	•											
Control Type: Actuated-Coc	rdinated											
Maximum v/c Ratio: 0.85												
Intersection Signal Delay: 2	2.1			ir	tersection	n LOS: C						
Intersection Capacity Utiliza		5		10	CU Level	of Servic	e C					
Analysis Period (min) 15												

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



2040 Background Traffic PM Peak Hour

								_		
Intersection				11						
Int Delay, s/veh	0.1									
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations	LUL	7	TADE.	ተተተ	Caleria	- Control of	44		NAME OF	
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	1100	_	None	-	-	None		-
Storage Length	_	0	400	-	400	æ7	-	8	157	Ē
Veh in Median Storage,	# 0	141	-	0		27	0	-	16974	-
Grade, %	0	÷	-	0	- 196	· ·	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 N	/linor2	1	Vajor1		N	Najor2				
Conflicting Flow All	minor z	892	1783	0	-			0		
Stage 1	-41	-	17.00		-	200	-	-		
Stage 2		-	-	-	Б.	250	-			
Critical Hdwy	(4)	6.94	4.14		- -		-5			
Critical Hdwy Stg 1	141	-	-	:	-	3.50	-			
Critical Hdwy Stg 2	:40	=			-	17				
Follow-up Hdwy		3.32	2.22	(=)	_	-				
Pot Cap-1 Maneuver	0	285	344	(*)	0	0				
Stage 1	0	8	-	·*:	0	0	-	T.		
Stage 2	0			:*	0	0	-			
Platoon blocked, %				:•				- 27		
Mov Cap-1 Maneuver	14	285	344		=					
Mov Cap-2 Maneuver	194	-	. #	:*:		Ti.	i.e			
Stage 1	92	-				7	1.5	- 3		
Stage 2	se.		¥		<u>:</u> **)	*	-			
Approach	EB		NB			SB				
HCM Control Delay, s	18.5		0			0				
HCM LOS	С									
Minor Lane/Major Mvm	it	NBL	NBT	EBLn1	SBT	SBR				
Capacity (veh/h)		344		285						
HCM Lane V/C Ratio		0.009		0.063		5				
HCM Control Delay (s)		15.6		18.5		2				
HCM Lane LOS		13.0 C		C		-				
HCM 95th %tile Q(veh	١	0		0.2						
HOM SOUL WINE OF ALL	1	U		ULL						

2040 Background Traffic PM Peak Hour

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

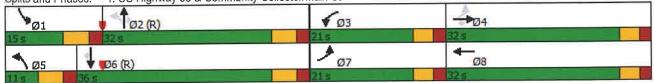
Short-Term Total Traffic AM Peak Hour

	Þ	→	*	1	-	*	1	†	1	-	↓	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	77	†	7	7	个个	7	1,14	个个	ř
Traffic Volume (vph)	165	87	56	221	90	548	77	925	191	175	361	62
Future Volume (vph)	165	87	56	221	90	548	77	925	191	175	361	62
Turn Type	pm+pt	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		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	32.0	32.0	10.0	32.0		11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	21.0	32.0	32.0	21.0	32.0		11.0	32.0	32.0	15.0	36.0	36.0
Total Split (%)	21.0%	32.0%	32.0%	21.0%	32.0%		11.0%	32.0%	32.0%	15.0%	36.0%	36.0%
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 Effct Green (s)	25.6	11.9	11.9	12.9	11.1	100.0	50.8	42.7	42.7	10.5	47.5	47.5
Actuated g/C Ratio	0.26	0.12	0.12	0.13	0.11	1.00	0.51	0.43	0.43	0.10	0.48	0.48
v/c Ratio	0.51	0.24	0.20	0.60	0.52	0.42	0.18	0.78	0.31	0.50	0.22	0.08
Control Delay	31.6	40.1	1.4	46.8	50.3	8.0	11.5	31.3	6.1	46.8	18.3	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	31.6	40.1	1.4	46.8	50.3	8.0	11.5	31.3	6.1	46.8	18.3	0.2
LOS	С	D	Α	D	D	Α	В	С	Α	D	В	A
Approach Delay		28.5			17.8			26.0			24.7	
Approach LOS		С			В			С			С	
Intersection Summary				14.15							1.5	
Cycle Length: 100 Actuated Cycle Length: 10 Offset: 0 (0%), Referenced Natural Cycle: 90	0 I to phase 2	:NBTL ar	nd 6:SBT,	Start of (Green							

Intersection LOS: C ICU Level of Service B

Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 23.6
Intersection Capacity Utilization 60.5%
Analysis Period (min) 15

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



Short-Term Total Traffic AM Peak Hour

						_					-
Intersection		1						- 5			
nt Delay, s/veh	0.4										
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	ī
Lane Configurations		7	ሻ	<u></u>			44				
Traffic Vol, veh/h	0	34	29	1193	0	0	590	49	0	0	
Future Vol, veh/h	0	34	29	1193	0	0	590	49	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	(4)	_	None		-	None		-	
Storage Length	-	0	400	-	400		-	ħi.	-	-	
Veh in Median Storage	,# 0	-	-	0	-	-	0	5	16974	- 5	
Grade, %	0	유	2.0	0	-	-	0	-	0	- E	
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	
Mymt Flow	0	59	37	1510	0	0	641	53	0	0	
Major/Minor N	Vinor2		Major1	15 /	N	Major2					
Conflicting Flow All	***************************************	347	694	0		7	250	0			
Stage 1		-	-	- 1	-)5/	3			
Stage 2	-	-	*	:=			-	- 3			
Critical Hdwy	(4)	6.94	4.14		-		15	-			
Critical Hdwy Stg 1	172	0.01	*		_	F	77.	7			
Critical Hdwy Stg 2	72			-	_	-	(2	- 5			
Follow-up Hdwy		3.32	2.22	3.70	-	-		-			
Pot Cap-1 Maneuver	0	649	897	1.6	0	0	-				
Stage 1	0		-	-	0	0		-			
Stage 2	0	-	+	-	0	0	-	-			
Platoon blocked, %	J			/*			1.5	-			
Mov Cap-1 Maneuver	-	649	897				-	-			
Mov Cap-1 Maneuver	-		001	-		-	-	-			
Stage 1		-									
Stage 2	_					-		-			
Staye 2											
Approach	EB		NB			SB		771			
HCM Control Delay, s	11.1		0.2			0					
	В		0.2			v					
HCM LOS	Б										
VIV.		MIDI	NDT	EDI ed	SBT	SBR	0				
Minor Lane/Major Mvn	11	NBL		EBLn1		SDIN					
Capacity (veh/h)		897		649							
HCM Lane V/C Ratio		0.041		0.09		-					
HCM Control Delay (s))	9.2		11.1							
HCM Lane LOS	,	A									
HCM 95th %tile Q(veh	1)	0.1		0.3	•						

Short-Term Total Traffic AM Peak Hour

4: Southmoor Dr & Site Access

Short-Term Total Traffic AM Peak Hour

Y=====================================						
Intersection		T H				
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W	LUIN	NUC	1	1	ODIN
Traffic Vol, veh/h	11	9	36	20	42	33
Future Vol, veh/h	11	9	36	20	42	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	Stop -	None	riee		riee	None
		Mone	200	110116	-	NOISE
Storage Length	0	-	200		-	
Veh in Median Storage				0	0	
Grade, %	0	- 00	-	0	0	- 00
Peak Hour Factor	92	92	92	57	67	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	10	39	35	63	36
Major/Minor	Minor2		Major1	1	Major2	
Conflicting Flow All	194	81	99	0	-	0
Stage 1	81	-	-		2	140
Stage 2	113	-	-	-	4	
Critical Hdwy	6.42	6.22	4.12	180	_	7.0
	5.42	0.22		-		-
Critical Hdwy Stg 1			-		*	
Critical Hdwy Stg 2	5.42	0.040	0.040	100	-	120
Follow-up Hdwy	3.518			100	*	.040
Pot Cap-1 Maneuver	795	979	1494	1=1		020
Stage 1	942	12	-	7=3	*	.0=0
Stage 2	912	-	12	520	-	36
Platoon blocked, %				140	-	.04
Mov Cap-1 Maneuver	774	979	1494	-	=	781
Mov Cap-2 Maneuver	760	2	-	140	-	040
Stage 1	918	2	- 4	-		181
Stage 2	912	2	20	1987	12	243
otago 2	0.2					
a total control of the	(per pag)		NIN		0.0	
Approach	EB		NB		SB	
HCM Control Delay, s	9.4		3.9		0	
HCM LOS	Α					
Minor Lane/Major Mvn	160	NBL	MRT	EBLn1	SBT	SBR
	IE				ODI	ODIV
Capacity (veh/h)		1494	*		-	
HCM Lane V/C Ratio		0.026	*	0.026	æ	· ·
HCM Control Delay (s)		7.5		9.4		H.
HCM Lane LOS		Α	*		×	#.
HCM 95th %tile Q(veh)	0.1		0.1		
•						

Short-Term Total Traffic AM Peak Hour



HCM 6th TWSC

		CHRCC-1	
E O (I	& Residential Access	/Dluc Clay Mahila	Hama Dark
5' Southmoor Dr	X Residential Access	/Bine sky woone	Dome Park
J. COULINIOUS DI	a residential / tooobo	Dido ony mobile	1 101110 1 0111

Short-Term	Total	Traffic
	AM F	eak Hour

Intersection						-	1					
Int Delay, s/veh	2,3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	A PARTY LIVE	NA ALTERNATION OF THE PARTY OF	4		ሻ	₽		7	1 >	
Traffic Vol, veh/h	14	0	1	0	0	10	0	32	0	4	33	14
Future Vol, veh/h	14	0	1	0	0	10	0	32	0	4	33	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	4	None
Storage Length	_		110110		-	7,0110	100		-	100	-	2
Veh in Median Storage	.# -	0			0	-		0			0	2
Grade, %	·, ··	0	_		0			0	-		0	2
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	1	0	0	11	0	34	0	4	35	15
INIATURE L SOAA	10	U		J	J		v	01	J		- 00	10
Major/Minor I	Minor2			Minor1		1	Major1	-	1	Major2		
Conflicting Flow All	91	85	43	85	92	34	50	0	0	34	0	0
Stage 1	51	51	-	34	34	-	-		13	1		
Stage 2	40	34		51	58	2	12	-	2	324	í.	2
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12		-	4.12	12	2
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	- ::-	- 20	2	127	4	2
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	72	121	2	229	-	2
Follow-up Hdwy	3.518	4.018		3.518	4.018	3.318	2.218	121	-	2.218	4	- 2
Pot Cap-1 Maneuver	893	805	1027	901	798	1039	1557	20		1578	ů.	2
Stage 1	962	852	-	982	867	3	72		2	(a)	-	7
Stage 2	975	867	-	962	847		-	20	2	(4)	- 3	12
Platoon blocked, %	010	001		UUL	011			20	- 2		- 2	2
Mov Cap-1 Maneuver	882	803	1027	898	796	1039	1557	20	-	1578	- 1	-
Mov Cap-1 Maneuver	882	803	1021	898	796	-	-	2	¥	.5.5	- 4	2
Stage 1	962	849		982	867	_	_	120	2	721	- 6	2
Stage 2	965	867		959	844		-	-	- 2	120		9
Olage Z	500	501	in .	500	311							
Approach	EB			WB		Local	NB			SB		
HCM Control Delay, s	9.1			8.5			0			0.6		
HCM LOS	A			A						2.3		
	, ,			, ,								
Minor Lane/Major Mvn	nt	NBL	NBT	NBR	EBLn1\	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)		1557	-	-	890	1039	1578	:=:	*			
1 / /		-	4	_	0.018		0.003	190	12			
HCM Lane V/C Ratio												
HCM Lane V/C Ratio HCM Control Delay (s)			3	-	9.1	8.5	7.3		-			
HCM Lane V/C Ratio HCM Control Delay (s) HCM Lane LOS		0 A	3			8.5 A	7.3 A	*	¥			

Short-Term Total Traffic AM Peak Hour

Timings

1: US Highway 85 & Community Collector/Main St

Short-Term Total Traffic PM Peak Hour

	*	→	*	1	←	*	4	†	1	-	Ţ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ř	44	7	14.14	†	7	7	44	7*	77	- 十十	7
Traffic Volume (vph)	119	108	61	371	99	248	70	509	424	488	1029	111
Future Volume (vph)	119	108	61	371	99	248	70	509	424	488	1029	111
Turn Type	pm+pt	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		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	32.0	32.0	10.0	32.0		11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	21.0	32.0	32.0	21.0	32.0		11.0	32.0	32.0	15.0	36.0	36.0
Total Split (%)	21.0%	32.0%	32.0%	21.0%	32.0%		11.0%	32.0%	32.0%	15.0%	36.0%	36.0%
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 Effct Green (s)	21.4	8.9	8.9	14.8	12.2	100.0	34.4	27.0	27.0	27.3	49.3	49.3
Actuated g/C Ratio	0.21	0.09	0.09	0.15	0.12	1.00	0.34	0.27	0.27	0.27	0.49	0.49
v/c Ratio	0.35	0.34	0.22	0.73	0.44	0.16	0.29	0.59	0.61	0.54	0.61	0.14
Control Delay	29.6	45.1	1.8	49.7	46.2	0.2	15.4	34.6	6.6	34.6	22.3	2.4
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	29.6	45.1	1.8	49.7	46.2	0.2	15.4	34.6	6.6	34.6	22.3	2.4
LOS	C	D	Α	D	D	Α	В	С	Α	C	С	Α
Approach Delay		29.5			32.1			21.4			24.6	
Approach LOS		С			С			C			С	
Intersection Summary									T			
Cycle Length: 100												

Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90

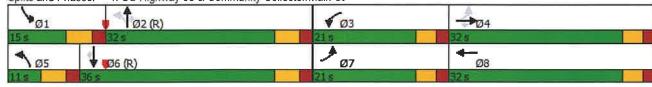
Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.73

Intersection Signal Delay: 25.5
Intersection Capacity Utilization 64.0%
Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service C

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



Short-Term Total Traffic PM Peak Hour

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

Short-Term Total Traffic PM Peak Hour

Intersection	П	15.11								
Int Delay, s/veh	0.7									
	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	CYA/I	SWR
Movement	EDL				NDIX	ODL		ODIX	SVVL	SWIT
Lane Configurations	^	7"	*	444	0	0	4000	404	0	0
Traffic Vol, veh/h	0	44	36	1003	0	0	1326	134	0	0
Future Vol, veh/h	0	44	36	1003	0	0	1326	134	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	2	-	12	2	- 20
Veh in Median Storage	,# 0		-	0	-	2	0	-	16974	-
Grade, %	0	-	- 2	0	-	ù.	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	69	40	1114	0	0	1339	135	0	0
Matan Million	Aliana O	- 3	(data et			Contak		IC I	27	
	Minor2		Major1			/lajor2				
Conflicting Flow All	-	737	1474	0	2	-	-	0		
Stage 1	-	-	-	:27	2	2		12		
Stage 2	-	42	2	3.50	2	4	-	2		
Critical Hdwy	-	6.94	4.14	120	2	-	-	_		
Critical Hdwy Stg 1	-	22	20	:2/	2	-	-	2		
Critical Hdwy Stg 2	-	-	2	12/	1	-	100	2		
Follow-up Hdwy	-	3.32	2.22	12/	U	-	-	2		
Pot Cap-1 Maneuver	0	361	453	2	0	0		-		
Stage 1	0	-	20	2	0	0	-	2		
Stage 2	0	2	2	2	0	0		2		
Platoon blocked, %				6 5			-	2		
Mov Cap-1 Maneuver	-	361	453	4/	2			2		
Mov Cap-2 Maneuver	-	2	-	120	<u> </u>	2	12	2		
Stage 1	-	0	- 2	720	2	2	12	2		
Stage 2	-	2	2	~	2	ž.	4	2		
Olugo Z										
transcore and a second	11					jarrete.				
Approach	EB		NB			SB		LU.W		
HCM Control Delay, s	17.3		0.5			0				
HCM LOS	C									
Minor Langit Asiar Mum	F.	NBL	MOTI	EBLn1	SBT	SBR				
Minor Lane/Major Mvm	U									
Capacity (veh/h)		453	*		-	-				
HCM Lane V/C Ratio		0.088	¥	0.19	#					
HCM Control Delay (s)		13.7		17.3	*					
HCM Lane LOS		В	×	С	#	*				
HCM 95th %tile Q(veh)		0.3	- 5	0.7	*	×				

Short-Term Total Traffic PM Peak Hour

					_	
Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
HISTORY PARTY IN	*VF	FDIA				ODIN
Lane Configurations		97	10	^	105	24
Traffic Vol, veh/h	23	27	48	23	125	34
Future Vol, veh/h	23	27	48	23	125	34
Conflicting Peds, #/hr	0	0	0	0	0	_ 0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-			None
Storage Length	0	-	200		277	5
Veh in Median Storage		-		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	25	29	52	30	132	37
Major/Minor	Capail		Majort		Anior0	
	Minor2		Major1		Major2	0
Conflicting Flow All	285	151	169	0	- 5	0
Stage 1	151	-	- 5	176		-
Stage 2	134	UT.		170	ī	-
Critical Hdwy	6.42	6.22	4.12		ıπ	-
Critical Hdwy Stg 1	5.42		73	180	17	-
Critical Hdwy Stg 2	5.42	-	-	181		-
Follow-up Hdwy	3.518	3.318	2.218	1.70	Ø.	-
Pot Cap-1 Maneuver	705	895	1409	201	.71	-
Stage 1	877	-	17/	320		J.E.
Stage 2	892	-		:=1	-	
Platoon blocked, %				17	А	
Mov Cap-1 Maneuver	679	895	1409	-		
Mov Cap-2 Maneuver	695			:3/(
			1,24	9/	A	が無い
Stage 1	845		7.7	(E)\	.=.	1993
Stage 2	892	Ā	1/5/	2	ā	(# <u>#</u>)
Approach	EB		NB		SB	
HCM Control Delay, s	9.9		4.8		0	
HCM LOS	A		1,0			
170111 200	,,					
	or to	HAVESINE	THE RESIDENCE OF	Here and	To the same of the	VIDATE NAME OF
Minor Lane/Major Mvm	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		1409	// a ;	790	-	727
HCM Lane V/C Ratio		0.037	329	0.069	20	120
HCM Control Delay (s)		7.7	12	9.9	<u>u</u>	
HCM Lane LOS		Α	- 2	A	- 26	- 2
HCM 95th %tile Q(veh	1	0.1	720	0.2	2	-
LICINI DOLLI VILLIE OCCACILI	/	U. I	_	0.2		

Short-Term Total Traffic PM Peak Hour

HCM 6th TWSC

5: Southmoor Dr & Residential Access/Blue Sky Mobile Home Park

Short-Term Total Traffic PM Peak Hour

listayanalina
Intersection Int Delay, s/veh 1.3
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SE
Lane Configurations 💠 🐧 🦒 🏌
Traffic Vol, veh/h 9 0 1 0 0 9 1 53 0 15 91
Future Vol, veh/h 9 0 1 0 0 9 1 53 0 15 91
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0
Sign Control Stop Stop Stop Stop Stop Free Free Free Free Free Free
RT Channelized None None None None
Storage Length 100 - 100 -
Veh in Median Storage, # - 0 - 0 0
Grade, % - 0 0 0
Peak Hour Factor 95 95 95 95 95 95 95 95 95 95 95 95
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2
Mymt Flow 9 0 1 0 0 9 1 56 0 16 96 4
With low 3 0 1 0 0 3 1 50 0 10 30 1
Major/Minor Minor2 Minor1 Major1 Major2
Conflicting Flow All 215 210 120 211 234 56 144 0 0 56 0
Stage 1 152 152 - 58 58
Stage 2 63 58 - 153 176
Critical Hdwy 7.12 6.52 6.22 7.12 6.52 6.22 4.12 - 4.12 -
Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52
Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52
Follow-up Hdwy 3.518 4.018 3.318 3.518 4.018 3.318 2.218 2.218
Pot Cap-1 Maneuver 742 687 931 746 666 1011 1438 1549 -
Stage 1 850 772 - 954 847
Stage 2 948 847 - 849 753
Platoon blocked, %
Mov Cap-1 Maneuver 729 679 931 739 659 1011 1438 1549
Mov Cap-2 Maneuver 729 679 - 739 659
Stage 1 849 764 - 953 846
Stage 2 938 846 - 839 745
34g0 2 000 010 300 710
Approach EB WB NB SB
HCM Control Delay, s 9.9 8.6 0.1 0.7
HCM LOS A A
Minor Lane/Major Mvmt NBL NBT NBR EBLn1WBLn1 SBL SBT SBR
Capacity (veh/h) 1438 745 1011 1549
UCM Long V/C Datio 0.001 0.014 0.000 0.01
HCM Lane V/C Ratio 0.001 0.014 0.009 0.01
HCM Control Delay (s) 7.5 - 9.9 8.6 7.3

Short-Term Total Traffic PM Peak Hour

Timings 1: US Highway 85 & Community Collector/Main St 2040 Total Traffic AM Peak Hour

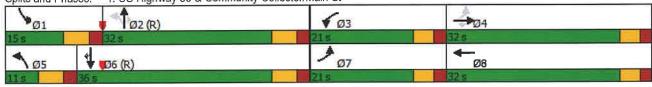
	<i>•</i>	\rightarrow	7	1	←	*	1	†	1	1	Į.	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	ሻ	ተተ	7	1,1	†	7	7	十十	7	1/1/1	44	ř
Traffic Volume (vph)	165	87	56	271	90	674	77	1138	235	222	442	62
Future Volume (vph)	165	87	56	271	90	674	77	1138	235	222	442	62
Turn Type	pm+pt	NA	Perm	Prot	NA	Free	pm+pt	NA	Perm	Prot	NA	Pem
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		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	32.0	32.0	10.0	32.0		11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	21.0	32.0	32.0	21.0	32.0		11.0	32.0	32.0	15.0	36.0	36.0
Total Split (%)	21.0%	32.0%	32.0%	21.0%	32.0%		11.0%	32.0%	32.0%	15.0%	36.0%	36.0%
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 Effct Green (s)	22.4	10.3	10.3	13.3	10.4	100.0	51.9	44.3	44.3	12.3	51.4	51.4
Actuated g/C Ratio	0.22	0.10	0.10	0.13	0.10	1.00	0.52	0.44	0.44	0.12	0.51	0.51
v/c Ratio	0.49	0.25	0.20	0.63	0.49	0.45	0.15	0.76	0.30	0.56	0.26	0.07
Control Delay	33.0	41.8	1.5	47.1	50.1	0.9	11.0	30.4	6.3	46.1	17.1	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	33.0	41.8	1.5	47.1	50.1	0.9	11.0	30.4	6.3	46.1	17.1	0.2
LOS	C	D	Α	D	D	Α	В	С	Α	D	В	F
Approach Delay		29.8			17.3			25.5			24.5	
Approach LOS		C			В			С			С	
Intersection Summary												
Cycle Length: 100												
Actuated Cycle Length: 100												
Offset: 0 (0%), Referenced	to phase 2	:NBTL an	d 6:SBT,	Start of C	Green							
Natural Cycle: 90												

Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.76

Intersection Signal Delay: 23.2
Intersection Capacity Utilization 67.8%
Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service C

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



2040 Total Traffic AM Peak Hour

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

2040 Total Traffic AM Peak Hour

											_
Intersection											
nt Delay, s/veh	0.3										
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	
Lane Configurations		7	ሻ	***			^				
Traffic Vol, veh/h	0	35	30	1450	0	0	718	52	0	0	
Future Vol, veh/h	0	35	30	1450	0	0	718	52	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	-	12	None	(#1	*	None	-		
Storage Length	-	0	400	-	400		-	(*)	**	_ #	
Veh in Median Storage,	# 0	-	-	0	2		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	37	32	1526	0	0	756	55	0	0	
Major/Minor N	/inor2	1	Major1		N	Najor2					
Conflicting Flow All	-	406	811	0	ж	260	- 3	0			
Stage 1	12		-	-	-	Set	2				
Stage 2	120	_		-	-	290					
Critical Hdwy	-	6.94	4.14	-	-	-		7			
Critical Hdwy Stg 1	-	=	140	(4)	-	-	9				
Critical Hdwy Stg 2		- '-	-		-	-	18				
Follow-up Hdwy	-	3.32	2.22	340	-	-	*				
Pot Cap-1 Maneuver	0	594	811	: 40	0	0					
Stage 1	0	-	-		0	0	: =:	: #			
Stage 2	0	- 3		-	0	0					
Platoon blocked, %				-			<u>;</u> €	i 17			
Mov Cap-1 Maneuver		594	811		- 14	*	26				
Mov Cap-2 Maneuver	- 2		_	3#	(e	÷	Q#	- 15			
Stage 1	:2	- 2		· *		*					
Stage 2	-			(4)	-		35				
Approach	EB		NB			SB	1				
HCM Control Delay, s	11.5		0.2			0					
HCM LOS	В										
Minor Lane/Major Mvm	it	NBL	NBT	EBLn1	SBT	SBR				X.	
Capacity (veh/h)		811				-					
HCM Lane V/C Ratio		0.039	-	0.062		-					
HCM Control Delay (s)		9.6	-								
HCM Lane LOS		А	-	_		-					
HCM 95th %tile Q(veh))	0.1									
LIOINI SOUL VOUID ON A CALL	/	0.1		0.2							

2040 Total Traffic AM Peak Hour

HCM 6th TWSC 4: Southmoor Dr & Site Access

2040 Total Traffic AM Peak Hour

Intersection	0.7					
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N.		7	↑	ĵ»	
Traffic Vol, veh/h	11	9	36	24	57	33
Future Vol., veh/h	11	9	36	24	57	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None	-		-	None
Storage Length	0	-	200	-	. 	*
Veh in Median Storage		120		0	0	-
Grade, %	0	:40	_	0	0	
Peak Hour Factor	95	95	95	95	95	95
	2	2	2	2	2	2
Heavy Vehicles, %	12	9	38	25	60	35
Mvmt Flow	12	9	30	20	00	33
Major/Minor 1	Minor2	1	Major1	1	Najor2	
Conflicting Flow All	179	78	95	0	-	0
Stage 1	78					
Stage 2	101	-	*	+:	; ;	i d
Critical Hdwy	6.42	6.22	4.12	+	-	-
Critical Hdwy Stg 1	5.42	0122				
Critical Hdwy Stg 2	5.42				140	-
		3.318	2 212	-		97
Follow-up Hdwy		983	1499		-	-
Pot Cap-1 Maneuver	811					
Stage 1	945	i és	-	2 ¥	() -	(#Y)
Stage 2	923	(SE	(4)	× _ =		97
Platoon blocked, %				×		(#X)
Mov Cap-1 Maneuver	791	983	1499	-		*
Mov Cap-2 Maneuver	772	-	-	*	:•	
Stage 1	921	_	-	-		100
Stage 2	923	-	_	=	×	(₩)
N COLUMN	mm		NIC	I.	0.0	
Approach	EB		NB		SB	
HCM Control Delay, s	9.3		4.5		0	
HCM LOS	Α					
					-	con
Minor Lane/Major Myn	nt	NRI	NRT	EBI n1	SBT	DIDITION
Minor Lane/Major Mvn	nt	NBL 1400		EBLn1	SBT	SBR
Capacity (veh/h)	nt	1499	67	855		(57)
Capacity (veh/h) HCM Lane V/C Ratio		1499 0.025	i e	8 55 0.025		(5)
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1499 0.025 7.5	10	855 0.025 9.3		(7) (7) (8)
Capacity (veh/h) HCM Lane V/C Ratio)	1499 0.025	10	855 0.025 9.3 A		(5)

2040 Total Traffic AM Peak Hour

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4		1			7	1		
Traffic Vol, veh/h	14	0	1	0	0	10	0	36	0	4	48	14	
Future Vol, veh/h	14	0	1	0	0	10	0	36	0	4	48	14	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized			None	-		None	-	-	None	-		None	
Storage Length	-	Œ.	æ		:::::::::::::::::::::::::::::::::::::::	55	100	-	-	100		- 3	
Veh in Median Storage	,# -	0	-	-	0		-	0		-	0		
Grade, %	-	0	-	-	0	洒	-	0	-	-	0	9	
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	15	0	1	0	0	11	0	38	0	4	51	15	
Major/Minor 1	Vinor2			Minor1			Major1			Major2			
Conflicting Flow All	111	105	59	105	112	38	66	0	0	38	0	0	
Stage 1	67	67		38	38		- 5	-	-	8	-	-	
Stage 2	44	38	-	67	74		Ŧ		-	-	-		
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12		-	4.12	-		
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	7	B			-	-	12.	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52			5	3		-	2	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218		-	2.218	-	2.	
Pot Cap-1 Maneuver	867	785	1007	875	778	1034	1536		-	1572	-	2.	
Stage 1	943	839	-	977	863	.7	_ 5	120		- 1	-	2.	
Stage 2	970	863	-	943	833	-	-		3	•	2	-	
Platoon blocked, %								275			-	20	
Mov Cap-1 Maneuver	857	783	1007	872	776	1034	1536		-	1572	-	-	
Mov Cap-2 Maneuver	857	783	5 € 7	872	776	-	-	1/2	-		-	220	
Stage 1	943	836			863		-	1.7		•		-	
Stage 2	960	863	\$ \$ \$	940	831	-	-	1,50	-		-	20	
Approach	EB			WB			NB	-"=		SB	- 15		
HCM Control Delay, s	9.2			8.5			0			0.4			
HCM LOS	Α			Α									
Minor Lane/Major Mvm	nt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)		1536			866	1034	1572	2					
HCM Lane V/C Ratio		-	-		0.018	0.01	0.003	2	-				
HCM Control Delay (s)		0			9.2	8.5	7.3	12	-				
HCM Lane LOS		Α	· ·		Α	Α	Α	2	-				
HCM 95th %tile Q(veh)	0	-		0.1	0	0	-	-				
•													

	•	→	7	•	←	4	4	1	~	-	ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	ተተ	7	77	1	7	4	ተ ተ	7	ሻሻ	ተተ	7
Traffic Volume (vph)	119	108	61	452	99	304	70	625	520	606	1251	111
Future Volume (vph)	119	108	61	452	99	304	70	625	520	606	1251	111
Turn Type	pm+pt	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		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	32.0	32.0	10.0	32.0		11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	23.0	32.0	32.0	23.0	32.0		11.0	30.0	30.0	15.0	34.0	34.0
Total Split (%)	23.0%	32.0%	32.0%	23.0%	32.0%		11.0%	30.0%	30.0%	15.0%	34.0%	34.0%
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 Effct Green (s)	19.4	8.7	8.7	17.1	15.1	100.0	31.4	24.0	24.0	28.2	47.2	47.2
Actuated g/C Ratio	0.19	0.09	0.09	0.17	0.15	1.00	0.31	0.24	0.24	0.28	0.47	0.47
v/c Ratio	0.42	0.37	0.23	0.81	0.37	0.20	0.36	0.78	0.69	0.66	0.79	0.14
Control Delay	30.1	46.1	2.0	51.7	42.4	0.3	19.4	42.7	8.0	36.2	28.6	2.5
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	30.1	46.1	2.0	51.7	42.4	0.3	19.4	42.7	8.0	36.2	28.6	2.5
LOS	C	D	Α	D	D	Α	В	D	Α	D	C	Α
Approach Delay		30.2			32.3			26.5			29.5	
Approach LOS		С			С			С			С	

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: 100

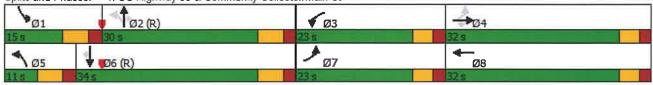
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81 Intersection Signal Delay: 29.2 Intersection Capacity Utilization 72.5%

Intersection LOS: C
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	0.5											
Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR		
Lane Configurations		7	ħ	^ ^	man sans	NO PORTON	44					
Traffic Vol, veh/h	0	46	36	1215	0	0	1619	144	0	0		
Future Vol, veh/h	0	46	36	1215	0	0	1619	144	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	1100	1100	None	-	Оюр		
Storage Length	_	0	400	150	400	*	_	-		-		
Veh in Median Storage	,# 0		-	0	-		0		16974	197		
Grade, %	0		170	0	-	_	0	- 8	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	48	38	1279	0	0	1704	152	0	0		
		-10	00	1210	U	U	1704	102	U	U		
Major/Minor N	Minor2		Major1		, A	Najor2						
Conflicting Flow All		928	1856	0	17	iajuiz	-	0				
Stage 1	-	020	1000	-	1.5	1200 1200		0				
Stage 2		- 12		-	1/5	282		79				
Critical Hdwy		6.94	4.14	- ê	(5)	-						
Critical Hdwy Stg 1	Ε.	0.04	T. 1-T	-			•	(*)				
Critical Hdwy Stg 2	12	- 55	- 150			- 550	8	:±:				
Follow-up Hdwy	-	3.32	2.22				Ħ					
Pot Cap-1 Maneuver	0	270	322	77	0	0	*	·				
Stage 1	0	-	JZZ	=	0		- 5					
Stage 2	0		_	7.0		0	- 5	;#3				
Platoon blocked, %	U		1 3		0	0	1.5	(#3				
Mov Cap-1 Maneuver	72	270	322	100			7.52	-				
Mov Cap-1 Maneuver				7.5		-	- 125	*				
Stage 1	7 <u>2</u> 1	(a)	- 5)=	(2 5)	ň	15 9 23	;*)				
Stage 2	2.5	*					3,66					
Olaye Z		9	- 5	958		fi	⊘	Ħ				
pproach	EB		NB			on						
ICM Control Delay, s						SB						
CM LOS	21.2 C		0.5			0						
10.11, 200	U											
Ainor Lane/Major Mvmt		NBL	NBTE	Bl n1	SBT	SBR						
apacity (veh/h)		322	-	270	001	COIL						
ICM Lane V/C Ratio		0.118).179	- 2	-						
ICM Control Delay (s)		17.7		21.2	2							
ICM Lane LOS		C		C C								
ICM 95th %tile Q(veh)		0.4	-	0.6		(2)						
Om John Johne (MACH)		0.4		0.0	Ě	•						

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	*	7	ODIV
Traffic Vol, veh/h	23		48	27	139	34
Future Vol, veh/h	23		48	27	139	34
Conflicting Peds, #/hr			0	0	0	0
Sign Control	Stop		Free	Free	Free	Free
RT Channelized	Slop -		riee		riee -	None
Storage Length	0	None		None -		
Veh in Median Storag				0	0	(40)
Grade, %						**
Peak Hour Factor	0	- 05	-	0	0	-
	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	28	51	28	146	36
Major/Minor	Minor2	-	Major1	٨	/lajor2	
Conflicting Flow All	294	164	182	0		0
Stage 1	164	-	-		-	_
Stage 2	130	_	-			_
Critical Hdwy	6.42	6.22	4.12	1,52.1	-	
Critical Hdwy Stg 1	5.42	0.22	7.12	553		
Critical Hdwy Stg 2	5.42	- 3		-		- 5
Follow-up Hdwy		3.318	2 210	-		*
Pot Cap-1 Maneuver	697	881		(#)	-	*
			1393	- 2	.73	5
Stage 1	865	=	7.5	13 3	-	+:
Stage 2	896	-	1/5		_ =	1.5
Platoon blocked, %	071	201		1 2 1	-	5 9 :
Mov Cap-1 Maneuver	671	881	1393		*	180
Mov Cap-2 Maneuver	689	5	75	Ħ	Th.	1050
Stage 1	833	T:			ŧ	
Stage 2	896	775	1.00	=	-	
Approach	EB	-	NB		SB	_
				_	100000	
HCM Control Delay, s	9.9		4.9		0	
HCM LOS	Α					
Minor Lane/Major Mvm	it	NBL	NBTE	BLn1	SBT	SBR
Capacity (veh/h)		1393	-	781	-	-
HCM Lane V/C Ratio		0.036		0.067		
HCM Control Delay (s)		7.7	2	9.9		39
HCM Lane LOS					•	-
HCM 95th %tile Q(veh)		A 0.1	2.7	A	•	37.1
TOM SOUL WILL WILLE		0.1	_	0.2		- 5

Int Delay, s/veh
Traffic Vol, veh/h
Traffic Vol, veh/h
Traffic Vol, veh/h 9 0 1 0 0 0 9 1 57 0 15 105 46 Future Vol, veh/h 9 0 1 0 0 0 9 1 57 0 15 105 46 Future Vol, veh/h 9 0 1 0 0 0 9 1 57 0 15 105 46 Conflicting Peds, #hr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Future Vol, veh/h Conflicting Peds, #/hr O O O O O O O O O O O O O O O O O O O
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Sign Control Stop Stop Stop Stop Stop Stop Free None - A Grade, % - <td< td=""></td<>
RT Channelized None None None None Storage Length
Storage Length
Veh in Median Storage, # - 0 - 0 - - 0 - 0 - - 1 4 4 4 4 4 4 4 4 4 1 4 1 4 1 1 4 1 1
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 0 - - 0 0 - - 0 0 - 9 95
Peak Hour Factor 95 96 96
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2
Mymt Flow 9 0 1 0 0 9 1 60 0 16 111 48 Major/Minor Minor2 Minor1 Major1 Major2 Conflicting Flow All 234 229 135 230 253 60 159 0 0 60 0 0 Stage 1 167 167 - 62 62 - <
Major/Minor Minor2 Minor1 Major1 Major2 Conflicting Flow All 234 229 135 230 253 60 159 0 0 60 0 0 Stage 1 167 167 - 62 62 -
Conflicting Flow All 234 229 135 230 253 60 159 0 0 60 0 0 Stage 1 167 167 - 62 62
Conflicting Flow All 234 229 135 230 253 60 159 0 0 60 0 0 Stage 1 167 167 - 62 62
Stage 1 167 167 - 62 62
Stage 2 67 62 - 168 191 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Critical Hdwy 7.12 6.52 6.22 7.12 6.52 6.22 4.12 - 4.12 - Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52
Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 -
Follow-up Hdwy 3.518 4.018 3.318 3.518 4.018 3.318 2.218 - 2.218 - 2.218 Pot Cap-1 Maneuver 721 671 914 725 650 1005 1420 - 1544 - 54 54 54 54 54 54 54 54 54 54 54 54 54
Pot Cap-1 Maneuver 721 671 914 725 650 1005 1420 - - 1544 - Stage 1 835 760 - 949 843 -
Stage 1 835 760 - 949 843 -
Stage 2 943 843 - 834 742 -
Platoon blocked, % Mov Cap-1 Maneuver
Mov Cap-1 Maneuver 708 664 914 718 643 1005 1420 - - 1544 - Mov Cap-2 Maneuver 708 664 - 718 643 - - - - - - Stage 1 834 752 - 948 842 - - - - - - Stage 2 933 842 - 824 735 - - - - - - Approach EB WB NB SB
Mov Cap-2 Maneuver 708 664 - 718 643 -
Stage 1 834 752 - 948 842 -
Stage 2 933 842 - 824 735
Approach EB WB NB SB
The state of the s
TOTAL CHARLES
Total Control of the
HCM LOS B A
Minor Lane/Major Mvmt NBL NBT NBR EBLn1WBLn1 SBL SBT SBR
Capacity (veh/h) 1420 - 724 1005 1544 -
HCM Lang V/C Batta 0.001
LCM Control Polary (a) 7.5
JCM Leng LOC
HCM 95th %tile Q(veh) 0 0 0 0
0 0 0

Queuing Reports



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

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	Т	R	L	L	T	L	T	Т	R	
Maximum Queue (ft)	143	69	73	48	245	288	137	262	466	450	111	161
Average Queue (ft)	78	28	30	18	98	172	65	44	285	257	16	51
95th Queue (ft)	135	59	65	40	229	258	118	139	418	401	65	129
Link Distance (ft)		190	190			380	380		484	484	484	120
Upstream Blk Time (%)									1	1	101	
Queuing Penalty (veh)									3	3		
Storage Bay Dist (ft)	130			130	230			335				775
Storage Blk Time (%)	2				0	2			5			, 10
Queuing Penalty (veh)	1				0	3			4			

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

Movement	SB	SB	SB	SB
Directions Served	L	Т	T	R
Maximum Queue (ft)	180	197	151	36
Average Queue (ft)	112	76	56	11
95th Queue (ft)	167	150	113	31
Link Distance (ft)		1067	1067	1067
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	775			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: US Highway 85 & Southmoor Dr

Movement	EB	NB	NB	NB
Directions Served	R	L	T	Т
Maximum Queue (ft)	43	21	50	21
Average Queue (ft)	19	9	2	1
95th Queue (ft)	44	24	23	10
Link Distance (ft)	117		813	813
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		400		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Southmoor Dr & Site Access

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	30	41
Average Queue (ft)	12	4
95th Queue (ft)	36	22
Link Distance (ft)	86	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Southmoor Dr & Residential Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	13
95th Queue (ft)	37
Link Distance (ft)	201
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 14

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

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	Т	R	L	L	T		Т	Т	R	1
Maximum Queue (ft)	131	104	111	73	315	384	302	109	261	236	304	280
Average Queue (ft)	65	36	36	25	208	266	85	46	166	139	134	170
95th Queue (ft)	116	75	77	58	304	376	208	88	237	208	254	257
Link Distance (ft)		190	190			380	380	00	484	484	484	231
Upstream Bik Time (%)						2	0		707	707	404	-
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	130			130	230			335				775
Storage Blk Time (%)	1		0		1	21		000				775
Queuing Penalty (veh)	1		0		3	47						

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

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	313	403	462	69
Average Queue (ft)	209	222	247	24
95th Queue (ft)	276	358	390	49
Link Distance (ft)		1067	1067	1067
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	775			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: US Highway 85 & Southmoor Dr

Movement	EB	NB	SB	SB
Directions Served	R	L	Т	TR
Maximum Queue (ft)	68	63	20	21
Average Queue (ft)	27	19	1	1
95th Queue (ft)	52	48	11	10
Link Distance (ft)	117		484	484
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		400		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Southmoor Dr & Site Access

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	54	39
Average Queue (ft)	26	9
95th Queue (ft)	51	34
Link Distance (ft)	86	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Southmoor Dr & Residential Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	8
95th Queue (ft)	30
Link Distance (ft)	201
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 51

Intersection: 1: US Highway 85 & Main St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	Т	T	R	L	L	Т	R	L	Т	T	R
Maximum Queue (ft)	150	157	50	26	76	74	117	65	82	271	231	104
Average Queue (ft)	112	73	17	18	69	54	83	59	45	188	159	47
95th Queue (ft)	173	163	55	32	93	98	125	67	96	298	267	132
Link Distance (ft)		282	282		68	68	68			483	483	483
Upstream Blk Time (%)					53	14	14	2				
Queuing Penalty (veh)					181	50	50	0				
Storage Bay Dist (ft)	130			130				230	335			
Storage Blk Time (%)	9						14	2				
Queuing Penalty (veh)	4						97	1				

Intersection: 1: US Highway 85 & Main St

Movement	SB	SB	SB	SB	SB	
Directions Served	L	L	T	T	R	
Maximum Queue (ft)	173	198	123	109	18	
Average Queue (ft)	144	170	60	58	8	
95th Queue (ft)	224	223	131	122	22	
Link Distance (ft)			1066	1066	1066	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	775	775				
Storage Blk Time (%)						
Queuing Penalty (veh)						

With Train Crossing

Intersection: 1: US Highway 85 & Main St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	Т	R	I	11112	Т	R	19.78.64	Т	T	
Maximum Queue (ft)	130	152	117	78	99	78	122	68	110	245	040	R
Average Queue (ft)	90	89	44	31	86	74	74	47	53		210	521
95th Queue (ft)	138	160	106	75	102	82	117	87		132	109	380
Link Distance (ft)		282	282	10	68	68	68	0/	115	230	194	645
Upstream Blk Time (%)		202	LUL		88	63	23	4		483	483	483
Queuing Penalty (veh)					251	179		1				8
Storage Bay Dist (ft)	130			130	201	179	65	000	005			34
Storage Blk Time (%)	4	4	0	130			00	230	335			
Queuing Penalty (veh)	2	5	0				23	7				
quoting i onaity (ton)		J	U				69	1				

Intersection: 1: US Highway 85 & Main St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	Т	T	R
Maximum Queue (ft)	825	872	1081	1036	64
Average Queue (ft)	691	733	498	405	27
95th Queue (ft)	944	985	1131	940	58
Link Distance (ft)			1066	1066	1066
Upstream Blk Time (%)			13		1000
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)	775	775			
Storage Blk Time (%)	23	31			
Queuing Penalty (veh)	142	193			

