





LSC TRANSPORTATION CONSULTANTS, INC.
 545 East Pikes Peak Avenue, Suite 210
 Colorado Springs, CO 80903
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 FAX (719) 633-5430
 E-mail: lsc@lsctrans.com
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Academy Village Filing No. 3
 Transportation Memorandum
 (LSC #174790)
 November 14, 2017

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.


 Jeffrey C. Hodsdon, P.E., #31684  11-14-17
 Date

Developer's Statement

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

what is the dollar amount contribution for the Struthers /Gleneagle round-a-bout for the added trips for the proposed lot? This may will be a condition of approval.


 _____ 11-14-17
 Date



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November 7, 2017

Mr. Ron Covington
Covington Homes
13725 Struthers Road, Suite 201
Colorado Springs, CO 80921

RE: Academy Village Filing No. 3
El Paso County, CO
Transportation Memorandum
LSC #174790

Dear Mr. Covington:

In response to your request, LSC Transportation Consultants, Inc. has prepared this transportation memorandum regarding the proposed office building development for Academy Village Filing No. 3. As shown on Figure 1, the site is located east of Struthers Road and north of Gleneagle Drive in El Paso County, Colorado.

REPORT CONTENTS

The report contains the following:

- The existing street and traffic conditions adjacent to the site including the intersection lane geometries, traffic controls, posted speed limits, street classifications, etc.
- Existing traffic volumes at the intersection of Struthers Road/Gleneagle Drive and the existing Academy Village site access points.
- Estimates of future background traffic volumes.
- The projected average weekday and peak-hour vehicle-trips to be generated by the site.
- The assignment of the projected trips to the intersection of Struthers Road/Gleneagle Drive and the site access points.
- The resulting total traffic volumes.
- The resulting traffic impacts. The traffic impacts have been quantified by determining the future levels of service at the intersection of Struthers Road/Gleneagle Drive and the site access points.

LAND USE AND ACCESS

The 2.935-acre site is located east of Struthers Road and north of Gleneagle Drive. Lot 1, located on the south end of the site, contains an existing 7,379-square-foot bank. A 4,238-square-foot office building is proposed for Lot 2 located on the north end of the site. The site has an existing full-movement access point to Gleneagle Drive about 240 feet northeast of the

intersection of Struthers/Gleneagle aligning with Paloma Heights. The site also has a right-in/right-out-only access to Struthers Road about 500 feet northwest of the intersection of Struthers/Gleneagle. No additional access is proposed.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

In addition to Interstate 25 to the west, the major roadways in the vicinity of the site are shown on Figure 1 and are described below.

- **Struthers Road** is a four-lane, median-divided road that extends north from North Gate Boulevard to the intersection of Baptist Road and Jackson Creek Parkway. The street continues to the north as Jackson Creek Parkway in the Town of Monument. Struthers Road is classified as a four-lane Urban Minor Arterial on the El Paso County *Major Transportation Corridors Plan* and has a speed limit of 40 miles per hour (mph).
- **Gleneagle Drive** is a two-lane Major Collector extending north from Struthers Road to Baptist Road. The posted speed limit on Gleneagle Drive is 30 mph. The intersection of Struthers Road and Gleneagle Drive is currently all-way Stop-sign controlled. It is our understanding that the County is proceeding with the roundabout intersection control option for this intersection from the *Memorandum Regarding Re-Evaluation of the Intersection Improvement Alternatives for Struthers Road at Gleneagle Drive* prepared by Wilson & Company dated February 2, 2017

Existing Traffic Volumes

Figure 2 shows the results of morning and afternoon peak-hour traffic volume counts at the intersection of Struthers/Gleneagle and the site access points. The traffic volumes are from the attached raw peak-hour traffic counts conducted by LSC in October 2017.

Existing Level of Service

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

| Table 1 | | | |
|--|--|--------------------------|--|
| Intersection Levels of Service Delay Ranges | | | |
| Level of Service | Signalized Intersections | | Unsignalized Intersections |
| | Average Control Delay (seconds per vehicle) | V/C⁽¹⁾ | Average Control Delay (seconds per vehicle)⁽²⁾ |
| A | 10.0 sec or less | less than 0.60 | 10.0 sec or less |
| B | 10.1-20.0 sec | 0.60-0.69 | 10.1-15.0 sec |
| C | 20.1-35.0 sec | 0.70-0.79 | 15.1-25.0 sec |
| D | 35.1-55.0 sec | 0.80-0.89 | 25.1-35.0 sec |
| E | 55.1-80.0 sec | 0.90-0.99 | 35.1-50.0 sec |
| F | 80.1 sec or more | 1.00 and greater | 50.1 sec or more |

(1) Source: *Transportation Research Circular 212*
 (2) For unsignalized intersections if V/C ratio is greater than 1.0 the level of service is LOS F regardless of the projected average control delay per vehicle.

The intersection of Struthers/Gleneagle and the site access points were analyzed based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The results of the analysis are shown in Figure 2. The level of service reports are attached.

The intersection of Struthers/Gleneagle is currently all-way stop-sign controlled. The southwest left-turn lane is currently operating at LOS F during the morning peak hour and the northwest shared through and right-turn lane is operating at LOS F during the afternoon peak hour.

All movements at the full-movement access to Gleneagle and the right-in/right-out access to Struthers are currently operating at level of service B or better during the peak hours.

BACKGROUND TRAFFIC

Figure 3 shows the projected 2040 background traffic volumes. Background traffic is the traffic projected to be on the adjacent roadways and intersections without consideration of the proposed development. The background traffic volumes include increases in through traffic and traffic generated by other area developments, but assume that zero traffic is generated by the site. The background traffic volumes were developed using the most recent traffic count data and previous work completed in the area by LSC, the most recent being the *Academy Gateway Updated Traffic Impact Study*.

TRIP GENERATION

Estimates of the vehicle-trips to be generated by the site have been estimated using trip generation rates from *Trip Generation, 9th Edition, 2012* by the Institute of Transportation Engineers (ITE) and a trip generation study by LSC. Table 2 shows the average weekday and peak-hour trip generation estimates.

The site is projected to generate about 119 new vehicle-trips on the average weekday with about half entering and half exiting the site. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 13 vehicles would enter and two vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about two vehicles would enter and 12 vehicles would exit the site.

TRIP DISTRIBUTION AND ASSIGNMENT

The estimated directional distribution of the site-generated vehicle-trips is an important factor in determining the site's traffic impacts. Figure 4 shows the directional distribution estimates for the site-generated traffic volumes. The estimates represent the percentages of the site-generated vehicle-trips projected to be oriented to and from the site's major approaches. The directional distribution estimates were based on the following factors: existing area development, the area roadway system, the site's proposed land use, and the existing traffic counts.

SITE-GENERATED TRAFFIC

When the directional distribution percentages (from Figure 3) were applied to the trip generation estimates (from Table 2), the resulting site-generated traffic volumes were determined. Figure 5 shows the short-term site-generated traffic volumes. Figure 6 shows the long-term site-generated traffic volumes. The long-term estimate assumes the intersection of Struthers/Gleneagle has been reconstructed as a two-lane modern roundabout which will allow for easier U-turn movements at this intersection.

EXISTING PLUS PHASE 1 SITE-GENERATED TRAFFIC

Figure 7 shows the sum of the short-term site-generated traffic volumes (from Figure 4) and the existing traffic volumes (from Figure 2). These volumes represent the short-term impacts of the development.

2040 TOTAL TRAFFIC

Figure 8 shows the total traffic volumes for the year 2040. The 2040 total traffic volumes are the sum of the long-term site-generated traffic volumes (from Figure 5) and the 2040 background traffic volumes (from Figure 3).

PROJECTED LEVELS OF SERVICE

The intersection of Struthers/Gleneagle and the site access points were analyzed to determine the projected levels of service based on existing plus site-generated, 2040 background, and 2040 total traffic volumes. The results of the analysis are shown in Figures 3, 7, and 8. The level of service reports are attached.

The intersection of Struthers/Gleneagle is currently all-way stop-sign controlled. The southwest left-turn lane is projected to continue to operate at LOS F during the morning peak hour and the northwest shared through and right-turn lane is projected to continue to operate at LOS F during the afternoon peak hour with the addition of site-generated traffic. By 2040 it was assumed that this intersection would be reconstructed a modern two-lane roundabout. All movements at this intersection are projected to operate at LOS D or better based on the projected 2040 total traffic volumes.

CONCLUSIONS AND RECOMMENDATIONS

1. The site is projected to generate about 119 new vehicle-trips on the average weekday with about half entering and half exiting the site. During the morning peak hour about 13 vehicles would enter and two vehicles would exit the site. During the afternoon peak hour about two vehicles would enter and 12 vehicles would exit the site.
2. The site access points to Gleneagle Drive and Struthers Road are projected to continue to operate at a satisfactory level of service as stop-sign-controlled intersections based on the projected 2040 total traffic volumes.
3. The all-way stop-sign-controlled intersection of Struthers/Gleneagle is currently operating at LOS F for the southwest-bound left-turn movement during the morning peak hour and the northeast-bound through and right-turn movements during the afternoon peak hour. It is our understanding that the County plans to reconstruct this intersection as a modern two-lane roundabout. Following this reconstruction all approaches are projected to operate at a satisfactory level of service.
4. There is an existing 250-foot northbound right-turn deceleration lane (including taper) on Struthers Road approaching the site access. The ECM prescribed deceleration length including taper for a 40-mph design speed is 315 feet. Although the existing lane is just short of this length by 65 feet, based on the ECM turn-lane threshold criteria of 50 vehicles per hour for Minor Arterial roadways, a deceleration is not even required based on the projected turning volume. The existing lane will be adequate.
5. Based on the projected 2040 total traffic volumes a southbound right-turn deceleration lane would not be required on Gleneagle Drive approaching the existing bank (south lot).
6. Based on the projected 2040 total traffic volumes and the turning movement volume threshold in the ECM, a northbound left-turn lane would not be required on Gleneagle Drive approaching the existing bank (south lot) access; however, it is our understanding that this left turn will be accommodated as part of the roundabout design.
7. This development will be subject to participation in the El Paso County Roadway Improvement Fee Program. The applicant intends to opt out of the PID options and pay the

total fee prior to issuance of a building permit. The fee rate is \$2,933 per each 1,000 square feet. Based on a 4,238-square-foot office building, the fee amount will be **\$12,430.** ●

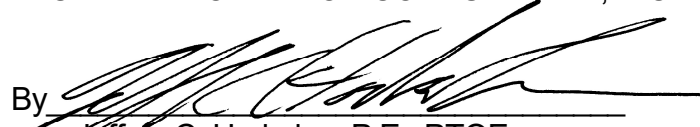
- 8. The county may require pro-rata-share participation by this development in the cost of the roundabout construction at the Gleneagle/Struthers intersection.

* * * * *

Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH:KDF:bjwb

- Enclosures: Table 2
 Figures 1-8
 Site Plan
 Traffic Count Reports
 Levels of Service Reports

Address percentage of new site traffic that will use the intersection. Provide calculation for fair share as per Academy Gateway (copied below).

- **\$268,125.84 based on twenty percent of the estimated total cost of \$1,340,629.20 as shown on the attached cost estimate for the roundabout intersection.**
- **Twenty percent represents the site buildout traffic percentage of the projected total existing-plus-site morning plus afternoon peak hour intersection approach volumes (all approaches) from Figures 3 and 7 of the TIS. The sum of the existing intersection turning movements (AM plus PM) shown in Figure 3 is 2,624 trips and the sum of the projected buildout site generated turning movements in Figure 7 is 642 trips. Six hundred forty-two divided by 3,266 (the sum of 2,624 and 642) is 0.2 or 20 percent.**

* * * * *

**Table 2
Trip Generation Estimate
Academy Village Fil 3**

| Land Use Code | Land Use Description | Trip Generation Units | Trip Generation Rates ⁽¹⁾ | | | | | | Total Trips Generated | | | |
|---------------|-------------------------|-----------------------|--------------------------------------|-------------------|------|---------------------|------|-------------------------|-----------------------|-----|---------------------|-----|
| | | | Average Weekday Traffic | Morning Peak Hour | | Afternoon Peak Hour | | Average Weekday Traffic | Morning Peak Hour | | Afternoon Peak Hour | |
| | | | | In | Out | In | Out | | In | Out | In | Out |
| 710 | General Office Building | 4.238 KSF | 28.03 | 3.17 | 0.43 | 0.58 | 2.85 | 119 | 13 | 2 | 2 | 12 |

Notes:
(1) Source: "Trip Generation, 9th Edition, 2012" by the Institute of Transportation Engineers (ITE)
(2) KSF = one thousand square feet of floor space

Source: LSC Transportation Consultants, Inc.



Approximate Scale
Scale: 1" = 600'

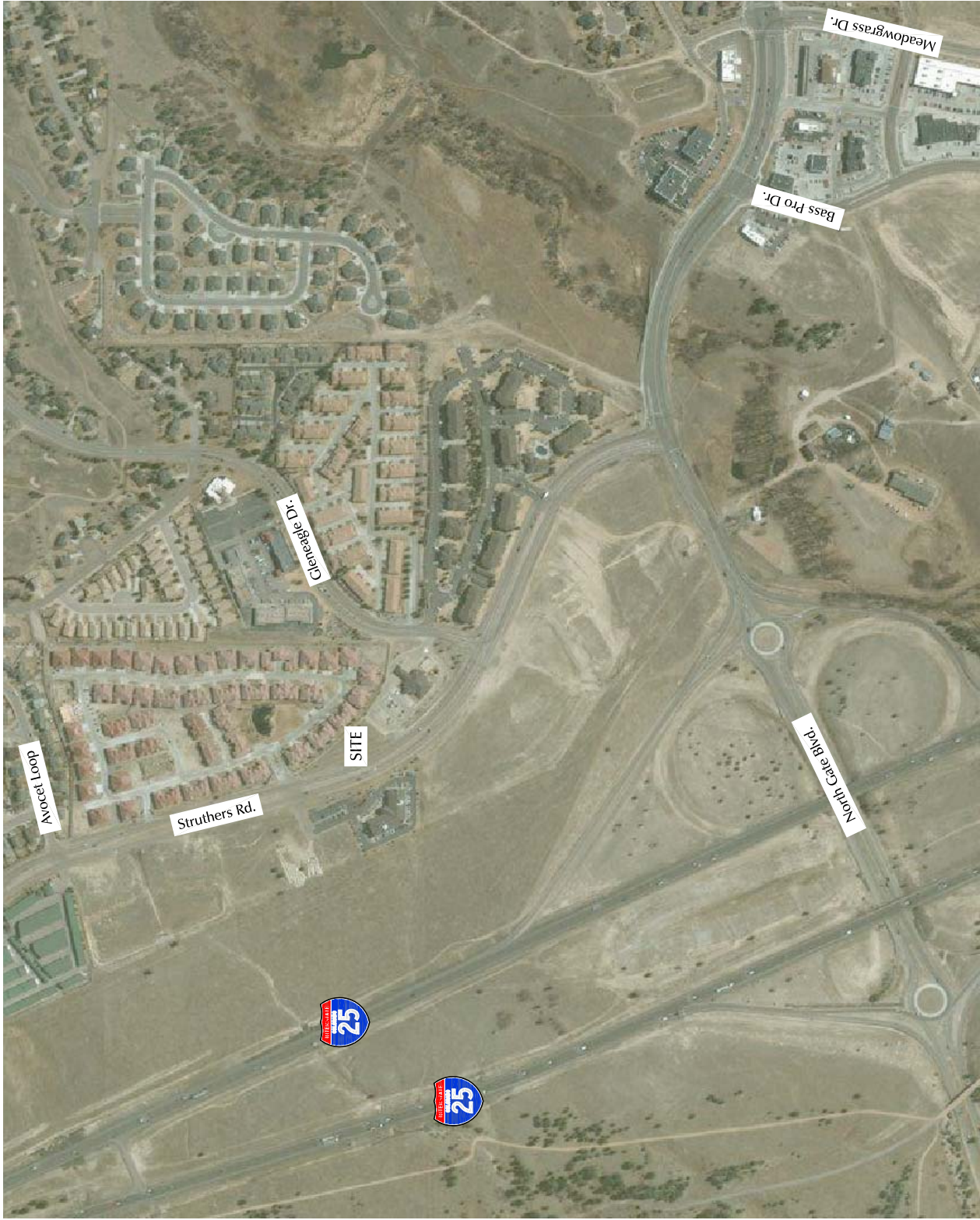
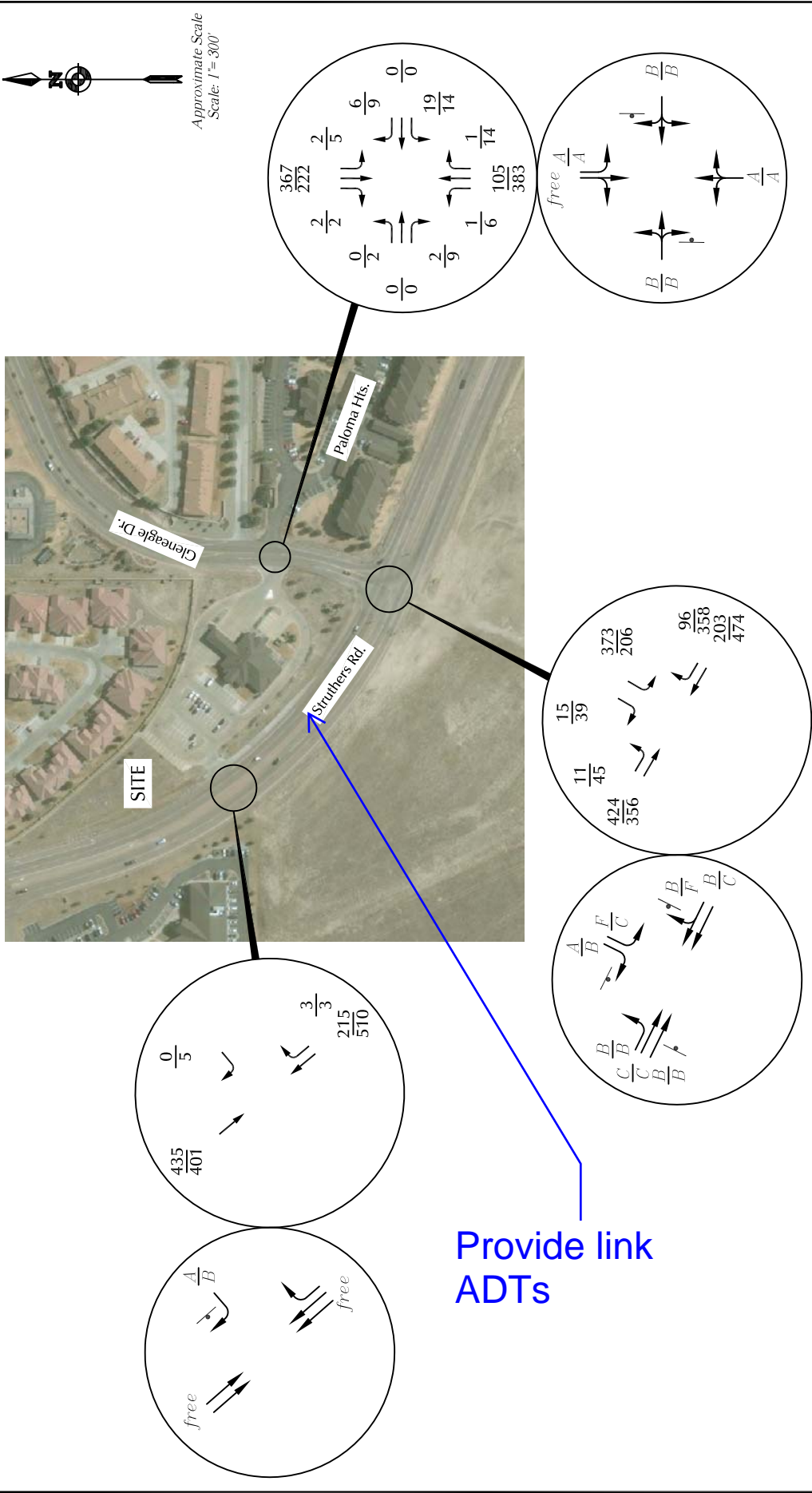
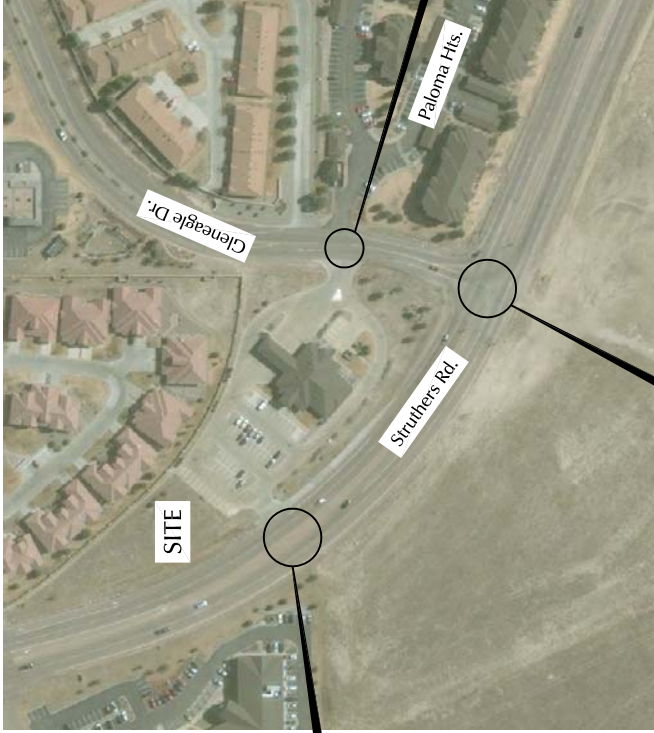


Figure 1

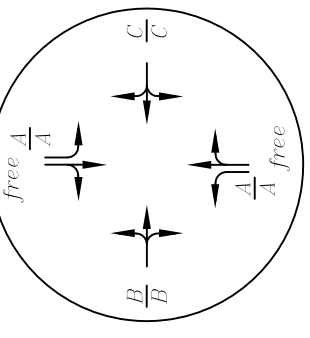
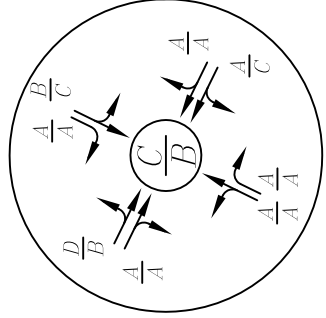
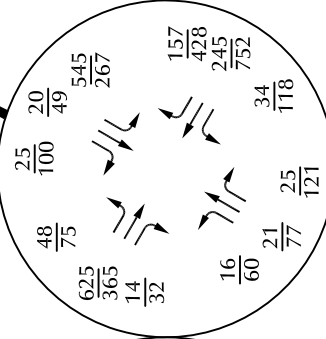
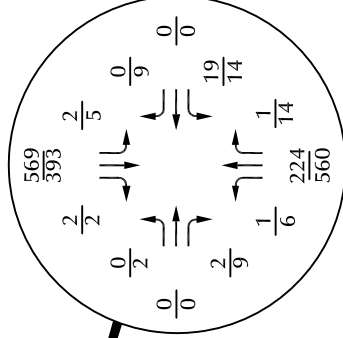
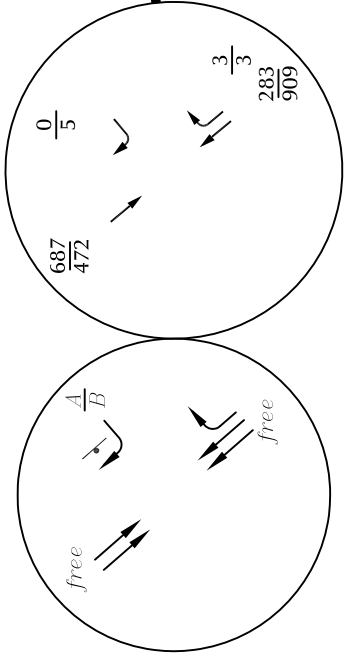
Vicinity Map

Academy Village Filing 3 (LSC #174790)





Approximate Scale
Scale: 1" = 300'



LEGEND:

- = Stop Sign
- = Roundabout
- $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{A}{A}$ = AM Individual Movement Peak-Hour Level of Service
- $\frac{B}{B}$ = PM Individual Movement Peak-Hour Level of Service
- $\frac{C}{C}$ = AM Entire Intersection Peak-Hour Level of Service
- $\frac{D}{D}$ = PM Entire Intersection Peak-Hour Level of Service

Figure 3

Year 2040 Background Traffic, Lane Geometry, Traffic Control and Levels of Service

Academy Village Filing 3 (LSC #174790)





Approximate Scale
Scale: 1" = 300'



LEGEND:



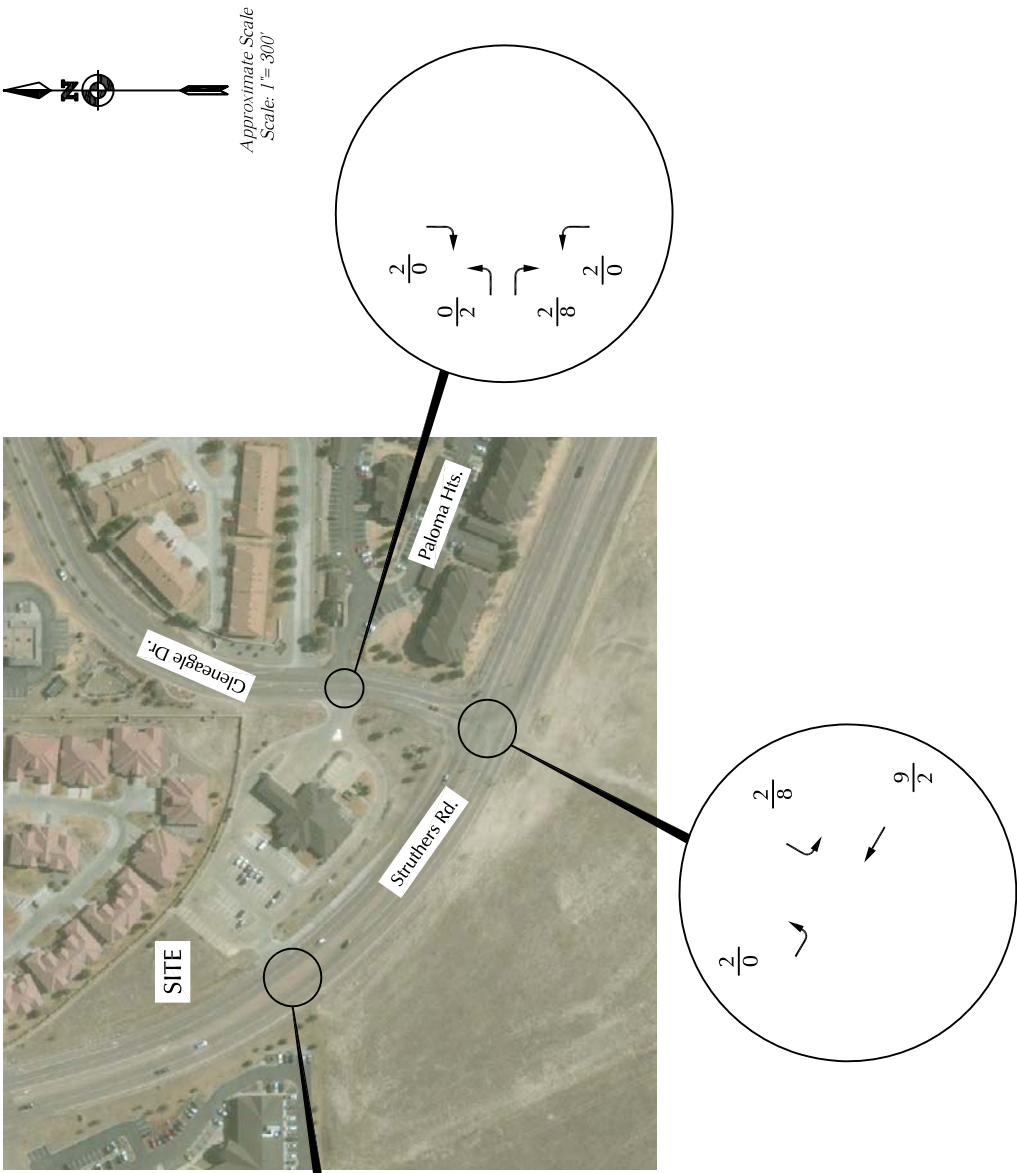
XX% = Percent Directional Distribution



Figure 4

Directional Distribution of Site-Generated Traffic

Academy Village Filing 3 (LSC #174790)



Approximate Scale
Scale: 1" = 300'

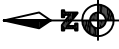


Figure 5
**Short-Term Assignment
of Site-Generated Traffic**

Academy Village Filing 3 (LSC #174790)

LEGEND:
 XX = AM Weekday Peak-Hour Traffic (vehicles per hour)
 XX = PM Weekday Peak-Hour Traffic (vehicles per hour)



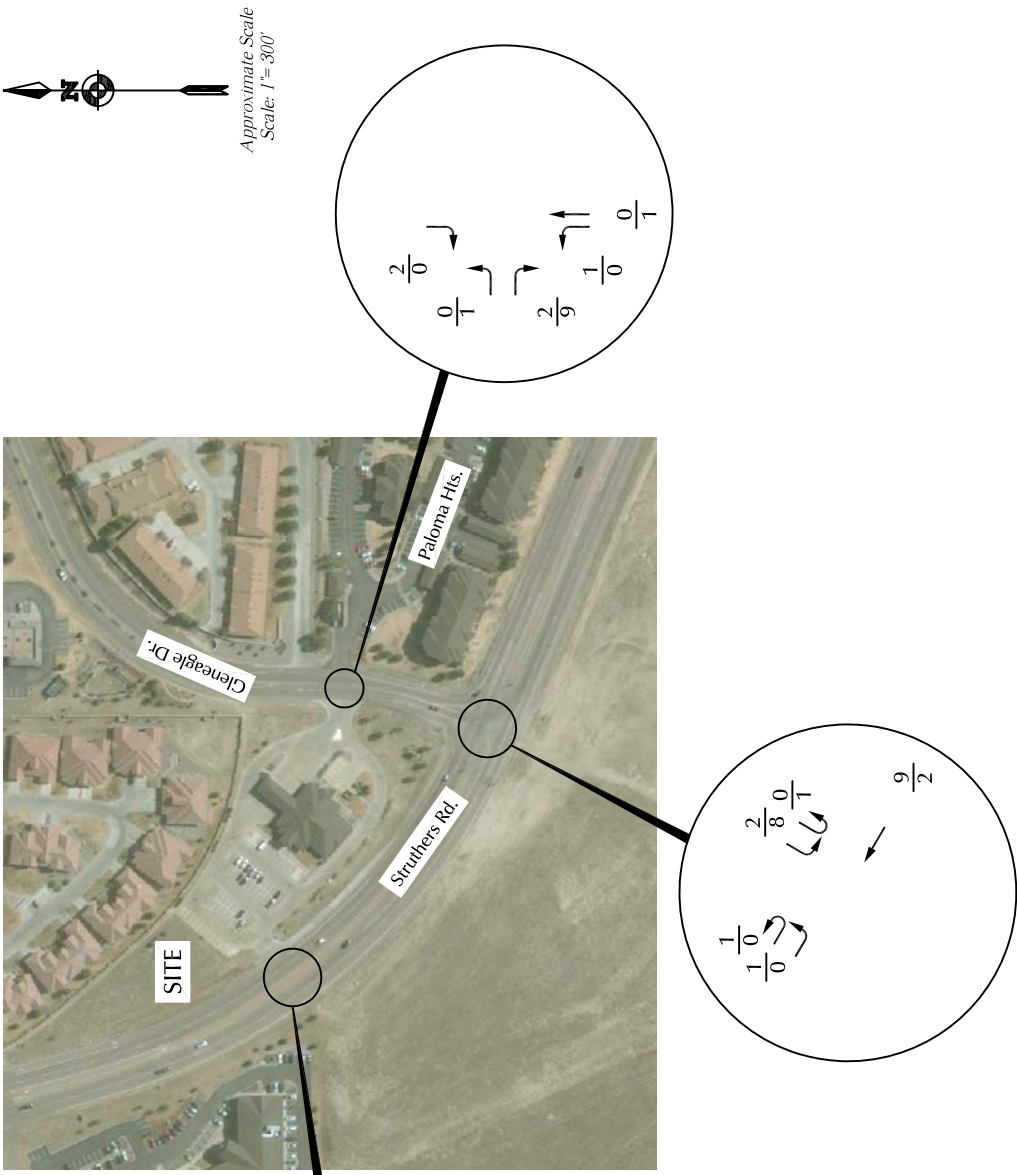
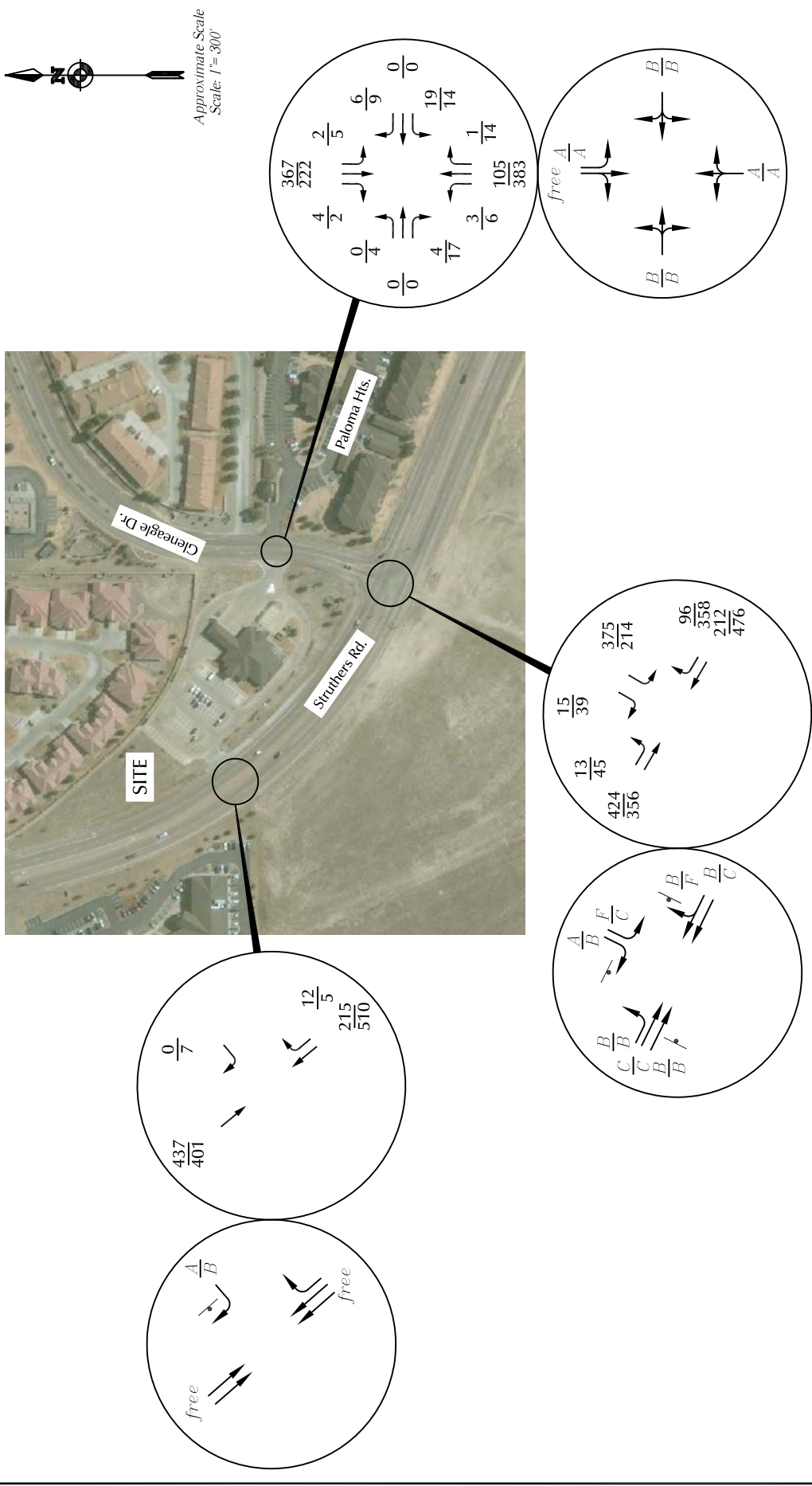
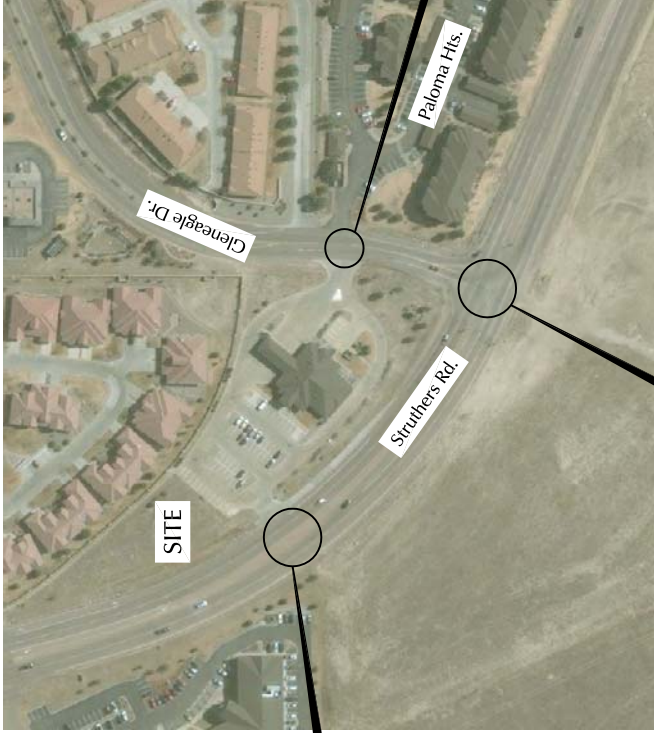


Figure 6
**Long-Term Assignment
 of Site-Generated Traffic**
 Academy Village Filing 3 (LSC #174790)

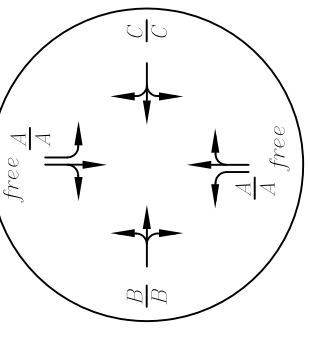
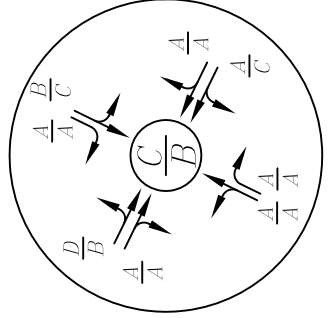
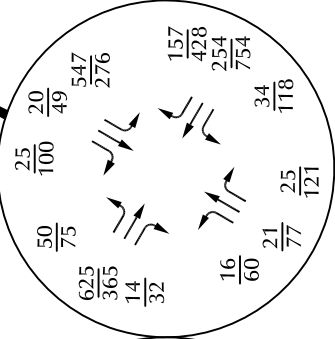
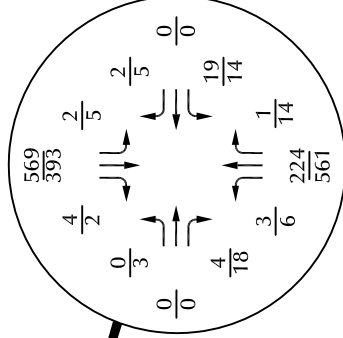
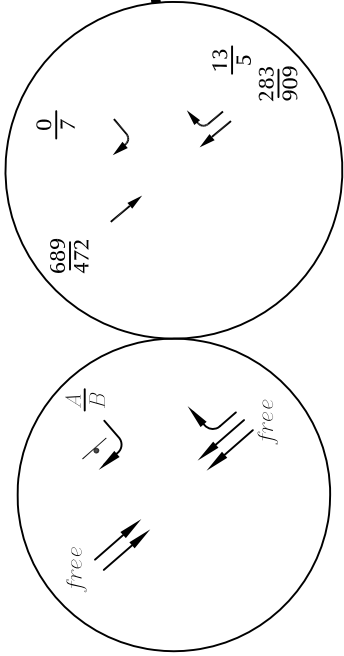
LEGEND:
 XX = AM Weekday Peak-Hour Traffic (vehicles per hour)
 XX = PM Weekday Peak-Hour Traffic (vehicles per hour)







Approximate Scale
Scale: 1" = 300'



LEGEND:

- ↑ = Stop Sign
- = Roundabout
- $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{A}{A}$ = AM Individual Movement Peak-Hour Level of Service
- $\frac{B}{B}$ = PM Individual Movement Peak-Hour Level of Service
- $\frac{C}{C}$ = AM Entire Intersection Peak-Hour Level of Service
- $\frac{D}{D}$ = PM Entire Intersection Peak-Hour Level of Service

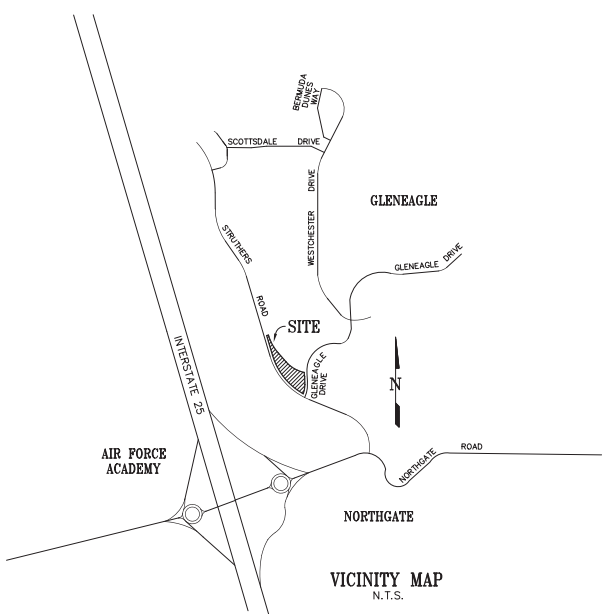
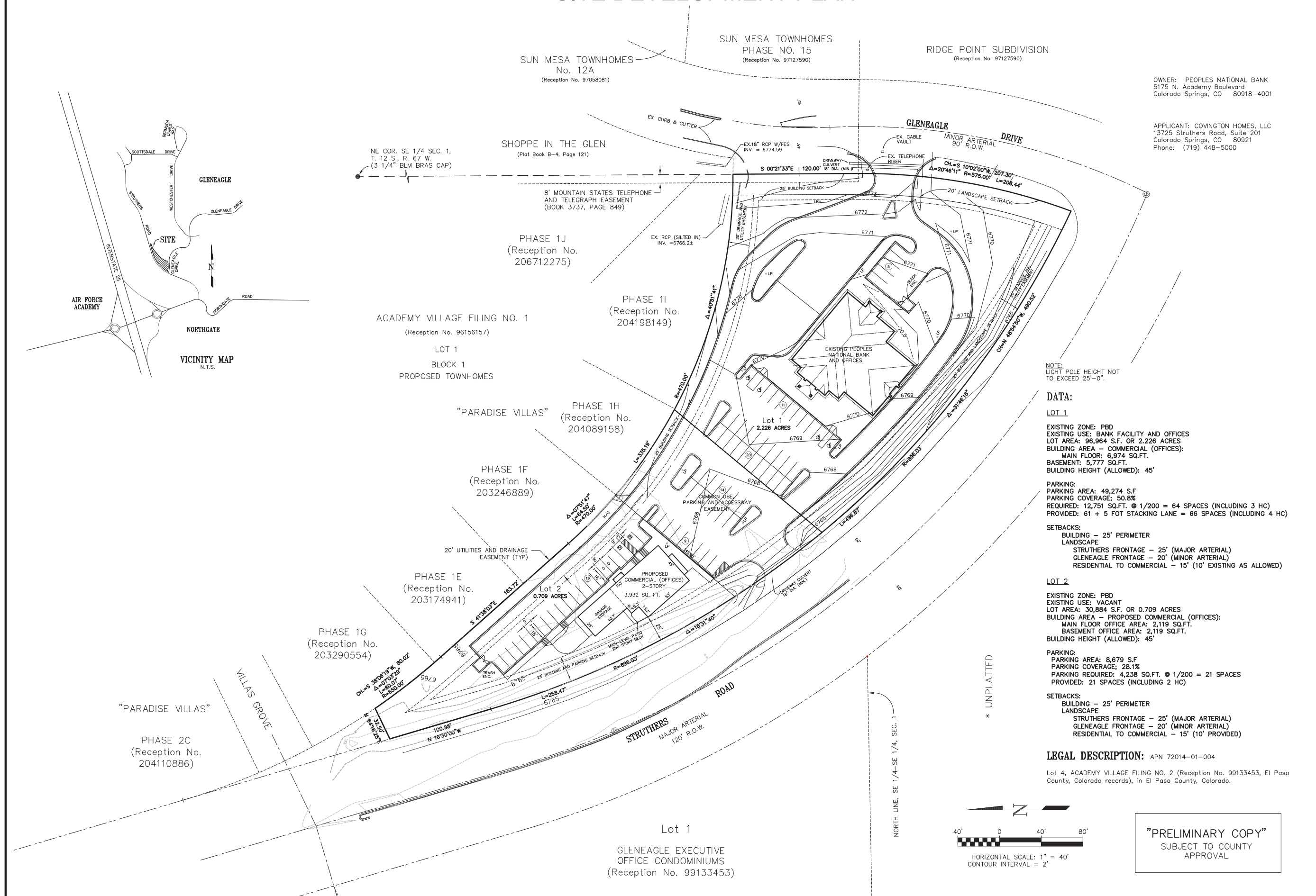


Figure 8

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

Academy Village Filing 3 (LSC #174790)

SITE DEVELOPMENT PLAN



OWNER: PEOPLES NATIONAL BANK
5175 N. Academy Boulevard
Colorado Springs, CO 80918-4001

APPLICANT: COWINGTON HOMES, LLC
13725 Struthers Road, Suite 201
Colorado Springs, CO 80921
Phone: (719) 448-5000

CALL BEFORE YOU DIG ...
811
DIAL 811
48 HOURS BEFORE YOU DIG. CALL UTILITY COMPANIES FOR LOCATING AND MARKING GAS, ELECTRIC, WATER AND WASTEWATER.

| REVISIONS | | Date |
|-----------|----------------------------|----------|
| No. | Description | |
| 1 | DATA CLARIFICATION | 08/21/17 |
| 2 | BUILDING FOOTPRINT/PARKING | 08/16/17 |

| | |
|--------------|----------|
| H Scale: | 1" = 40' |
| V Scale: | N/A |
| Designed By: | N/A |
| Drawn By: | SLG |
| Checked By: | DVH |
| Date: | 04/11/17 |

NOTE: LIGHT POLE HEIGHT NOT TO EXCEED 25'-0".

DATA:

LOT 1
EXISTING ZONE: PBD
EXISTING USE: BANK FACILITY AND OFFICES
LOT AREA: 96,964 S.F. OR 2.226 ACRES
BUILDING AREA - COMMERCIAL (OFFICES):
MAIN FLOOR: 6,974 SQ.FT.
BASEMENT: 5,777 SQ.FT.
BUILDING HEIGHT (ALLOWED): 45'

PARKING:
PARKING AREA: 49,274 S.F.
PARKING COVERAGE: 50.8%
REQUIRED: 12,751 SQ.FT. @ 1/200 = 64 SPACES (INCLUDING 3 HC)
PROVIDED: 61 + 5 FOT STACKING LANE = 66 SPACES (INCLUDING 4 HC)

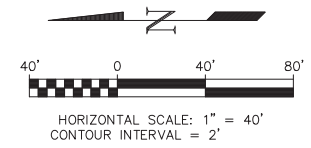
SETBACKS:
BUILDING - 25' PERIMETER
LANDSCAPE
STRUTHERS FRONTAGE - 25' (MAJOR ARTERIAL)
GLENEAGLE FRONTAGE - 20' (MINOR ARTERIAL)
RESIDENTIAL TO COMMERCIAL - 15' (10' EXISTING AS ALLOWED)

LOT 2
EXISTING ZONE: PBD
EXISTING USE: VACANT
LOT AREA: 30,884 S.F. OR 0.709 ACRES
BUILDING AREA - PROPOSED COMMERCIAL (OFFICES):
MAIN FLOOR OFFICE AREA: 2,119 SQ.FT.
BASEMENT OFFICE AREA: 2,119 SQ.FT.
BUILDING HEIGHT (ALLOWED): 45'

PARKING:
PARKING AREA: 8,679 S.F.
PARKING COVERAGE: 28.1%
PARKING REQUIRED: 4,238 SQ.FT. @ 1/200 = 21 SPACES
PROVIDED: 21 SPACES (INCLUDING 2 HC)

SETBACKS:
BUILDING - 25' PERIMETER
LANDSCAPE
STRUTHERS FRONTAGE - 25' (MAJOR ARTERIAL)
GLENEAGLE FRONTAGE - 20' (MINOR ARTERIAL)
RESIDENTIAL TO COMMERCIAL - 15' (10' PROVIDED)

LEGAL DESCRIPTION: APN 72014-01-004
Lot 4, ACADEMY VILLAGE FILING NO. 2 (Reception No. 99133453, El Paso County, Colorado records), in El Paso County, Colorado.



"PRELIMINARY COPY"
SUBJECT TO COUNTY
APPROVAL

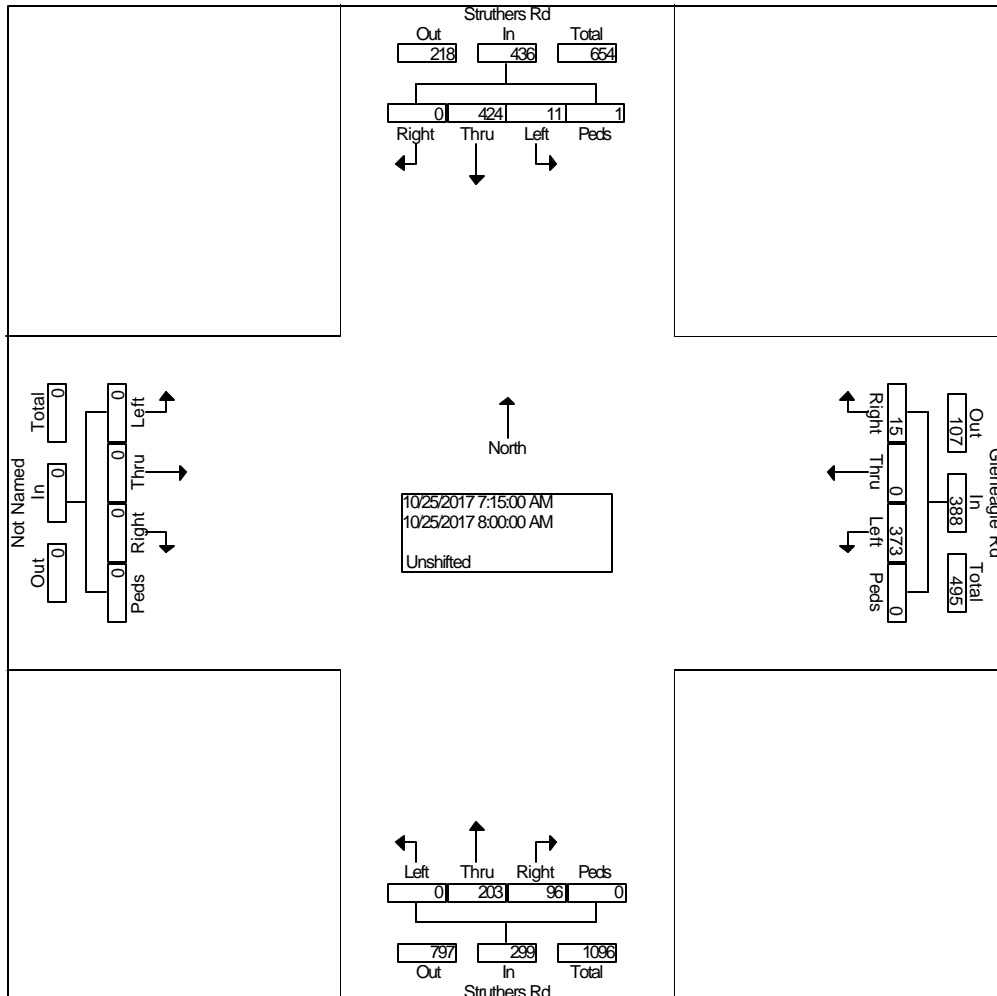
Land Development Consultants, Inc.
PLANNING · SURVEYING
www.ldc-inc.com TEL: (719) 528-6133 FAX: (719) 528-6848
3868 MAZELAND ROAD COLORADO SPRINGS, CO 80909

ACADEMY VILLAGE FILING NO. 3 SITE DEVELOPMENT PLAN

Counts by LSC

File Name : Struthers Rd - Gleneagle AM
 Site Code : 00174790
 Start Date : 10/25/2017
 Page No : 2

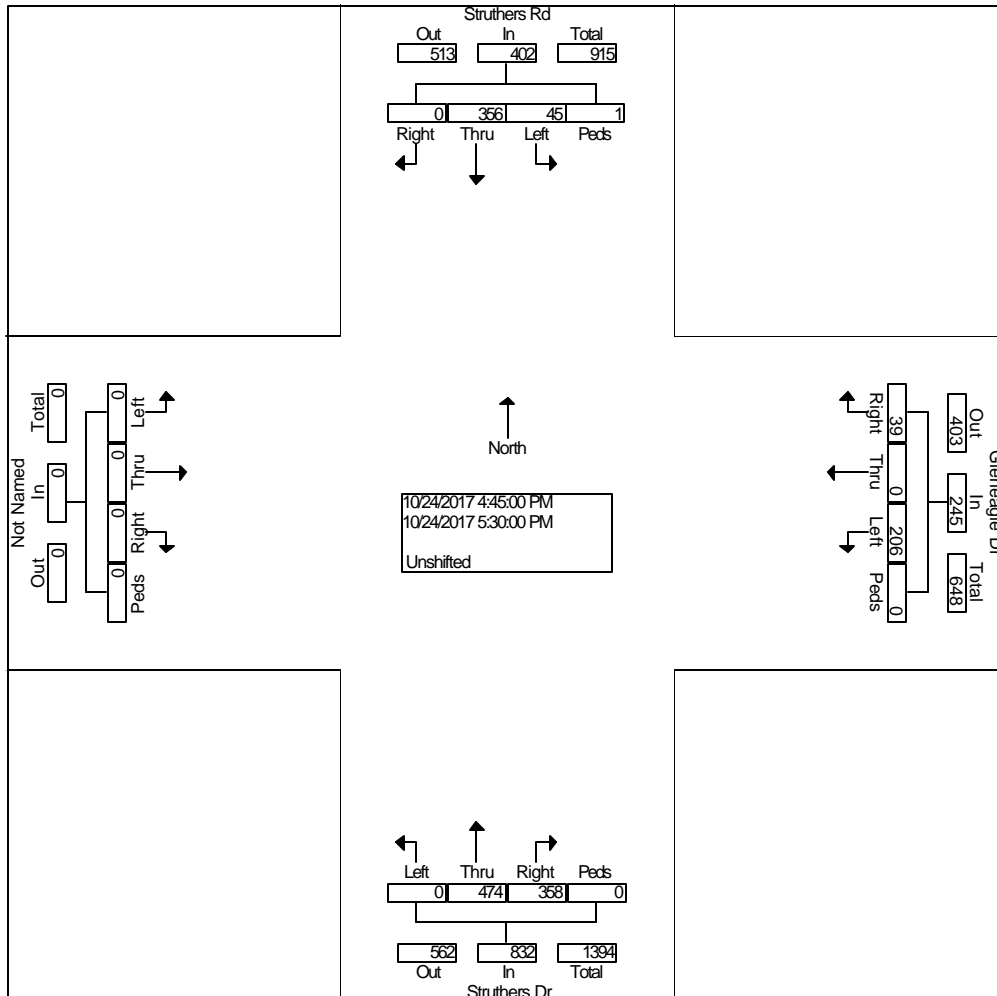
| Start Time | Struthers Rd From North | | | | | Gleneagle Rd From East | | | | | Struthers Rd From South | | | | | From West | | | | | Int. Total |
|---|-------------------------|-------|-------|-------|------------|------------------------|-------|-------|-------|------------|-------------------------|-------|-------|-------|------------|------------|-------|-------|-------|------------|------------|
| | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | |
| Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 07:15 AM | | | | | | | | | | | | | | | | | | | | |
| Volume | 0 | 42 | 11 | 1 | 436 | 15 | 0 | 37 | 0 | 388 | 96 | 20 | 0 | 0 | 299 | 0 | 0 | 0 | 0 | 0 | 1123 |
| Percent | 0.0 | 97.2 | 2.5 | 0.2 | | 3.9 | 0.0 | 96.1 | 0.0 | | 32.1 | 67.9 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | |
| 07:15 Volume | 0 | 14 | 4 | 1 | 152 | 8 | 0 | 11 | 0 | 126 | 9 | 28 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 315 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | |
| High Int. | 07:15 AM | | | | | 07:15 AM | | | | | 08:00 AM | | | | | 6:15:00 AM | | | | | |
| Volume | 0 | 14 | 4 | 1 | 152 | 8 | 0 | 11 | 0 | 126 | 30 | 68 | 0 | 0 | 98 | | | | | | |
| Peak Factor | 0.71 | | | | | 0.77 | | | | | 0.76 | | | | | | | | | | |



Counts by LSC

File Name : Struthers Rd - Gleneagle PM
 Site Code : 00174790
 Start Date : 10/24/2017
 Page No : 2

| Start Time | Struthers Rd From North | | | | | Gleneagle Dr From East | | | | | Struthers Dr From South | | | | | From West | | | | | Int. Total |
|---|-------------------------|-------|-------|-------|------------|------------------------|-------|-------|-------|------------|-------------------------|-------|-------|-------|------------|------------|-------|-------|-------|------------|------------|
| | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 04:45 PM | | | | | | | | | | | | | | | | | | | | |
| Volume | 0 | 356 | 45 | 1 | 402 | 39 | 0 | 206 | 0 | 245 | 35 | 478 | 0 | 0 | 832 | 0 | 0 | 0 | 0 | 0 | 1479 |
| Percent | 0.0 | 88.6 | 11.2 | 0.2 | | 15.9 | 0.0 | 84.1 | 0.0 | | 43.0 | 57.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | |
| 05:15 Volume | 0 | 77 | 10 | 0 | 87 | 10 | 0 | 54 | 0 | 64 | 11 | 12 | 0 | 0 | 231 | 0 | 0 | 0 | 0 | 0 | 382 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | |
| High Int. | 05:30 PM | | | | | 05:00 PM | | | | | 05:15 PM | | | | | 3:45:00 PM | | | | | |
| Volume | 0 | 102 | 13 | 0 | 115 | 10 | 0 | 57 | 0 | 67 | 11 | 12 | 0 | 0 | 231 | | | | | | |
| Peak Factor | 0.874 | | | | | 0.914 | | | | | 0.900 | | | | | | | | | | |



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Peoples Bank South Access - Gleneagle AM

Site Code : 00174790

Start Date : 10/25/2017

Page No : 1

Groups Printed- Bank 1

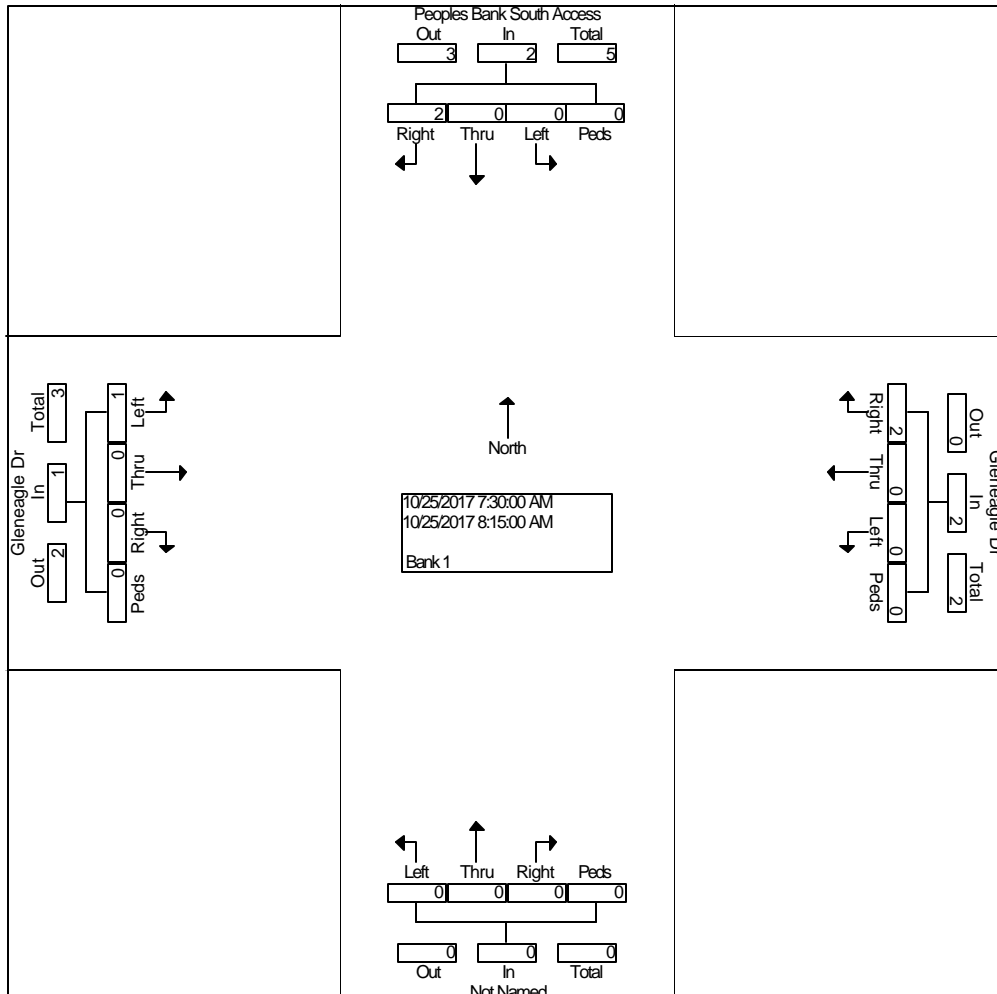
| Start Time | Peoples Bank South Access From North | | | | Gleneagle Dr From East | | | | From South | | | | Gleneagle Dr From West | | | | Int. Total |
|------------|--------------------------------------|------|------|------|------------------------|------|------|------|------------|------|------|------|------------------------|------|------|------|------------|
| | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

| | | | | | | | | | | | | | | | | | | |
|-------------|-------|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|---|
| 07:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 08:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| Apprch % | 100.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | |
| Total % | 40.0 | 0.0 | 0.0 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | |

Counts by LSC

File Name : Peoples Bank South Access - Gleneagle AM
 Site Code : 00174790
 Start Date : 10/25/2017
 Page No : 2

| Start Time | Peoples Bank South Access From North | | | | | Gleneagle Dr From East | | | | | From South | | | | | Gleneagle Dr From West | | | | | Int. Total |
|------------------|---|-------|-------|-------|------------|------------------------|-------|-------|-------|------------|------------|-------|-------|-------|------------|------------------------|-------|-------|-------|------------|------------|
| | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | |
| Peak Hour | From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Intersection | 07:30 AM | | | | | | | | | | | | | | | | | | | | |
| Volume | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 5 |
| Percent | 10 | 0.0 | 0.0 | 0.0 | | 10 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 10 | 0.0 | | |
| 08:00 Volume | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | |
| High Int. Volume | 07:45 AM | | | | | 07:30 AM | | | | | 6:15:00 AM | | | | | 08:00 AM | | | | | |
| Peak Factor | 0.50 | | | | | 0.50 | | | | | 0.25 | | | | | 0 | | | | | |



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Peoples Bank South Access - Gleneagle PM

Site Code : 00174790

Start Date : 10/24/2017

Page No : 1

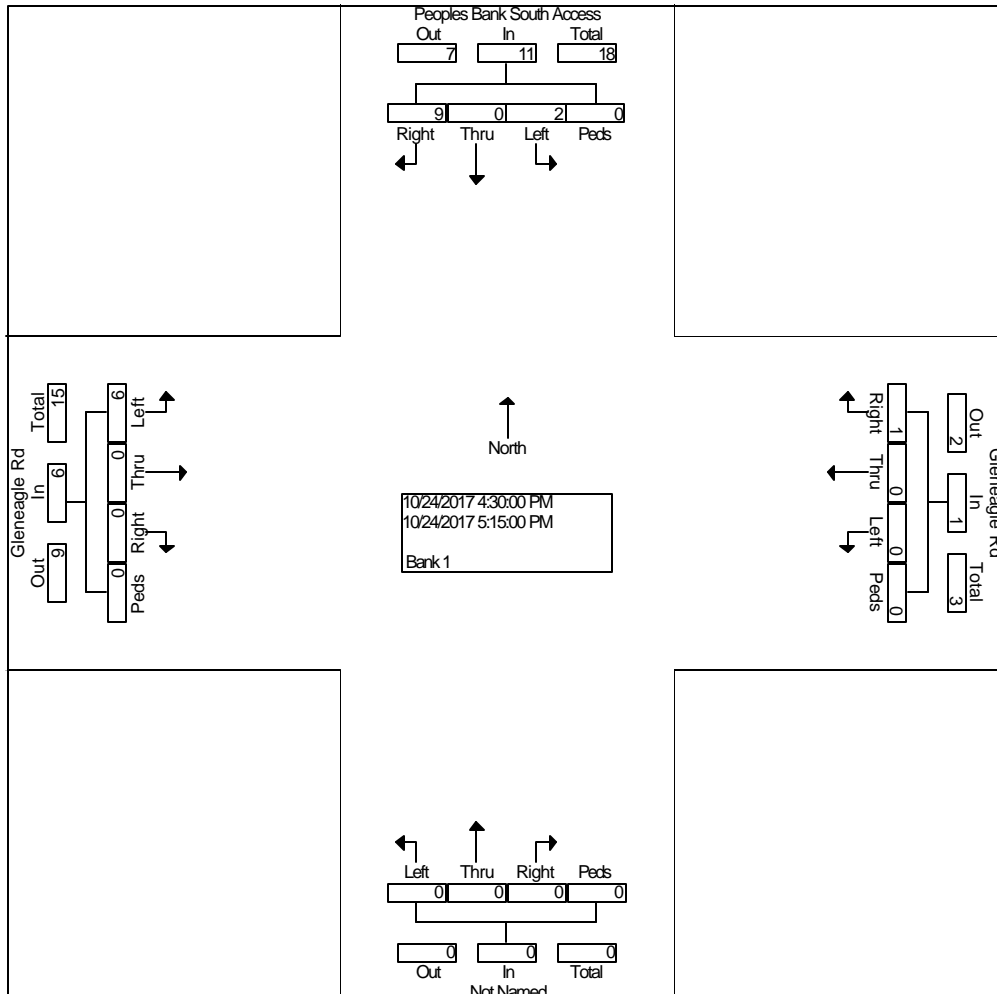
Groups Printed- Bank 1

| Start Time | Peoples Bank South Access From North | | | | Gleneagle Rd From East | | | | From South | | | | Gleneagle Rd From West | | | | Int. Total | |
|-------------|--------------------------------------|------|------|------|------------------------|------|------|------|------------|------|------|------|------------------------|------|-------|------|------------|----|
| | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | | |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 04:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:15 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 04:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 04:45 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| 05:00 PM | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| 05:15 PM | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 |
| 05:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 14 |
| Grand Total | 12 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 23 |
| Apprch % | 80.0 | 0.0 | 20.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | |
| Total % | 52.2 | 0.0 | 13.0 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 30.4 | 0.0 | 0.0 | |

Counts by LSC

File Name : Peoples Bank South Access - Gleneagle PM
 Site Code : 00174790
 Start Date : 10/24/2017
 Page No : 2

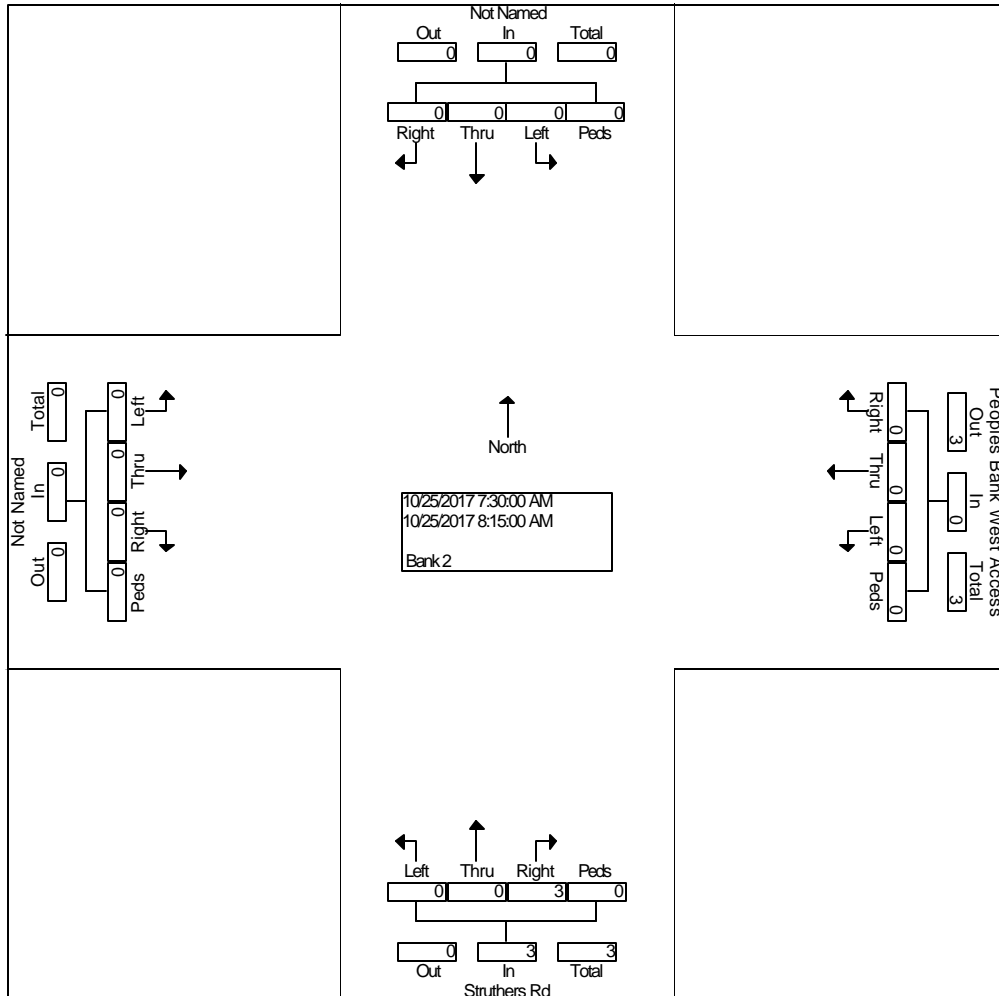
| Start Time | Peoples Bank South Access From North | | | | | Gleneagle Rd From East | | | | | From South | | | | | Gleneagle Rd From West | | | | | Int. Total |
|---|--------------------------------------|-------|-------|-------|------------|------------------------|-------|-------|-------|------------|------------|-------|-------|-------|------------|------------------------|-------|-------|-------|------------|------------|
| | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 04:30 PM | | | | | | | | | | | | | | | | | | | | |
| Volume | 9 | 0 | 2 | 0 | 11 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 18 |
| Percent | 81.8 | 0.0 | 18.2 | 0.0 | | 10.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 10.0 | 0.0 | | |
| 05:15 Volume | 4 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 8 |
| Peak Factor | 0.563 | | | | | | | | | | | | | | | | | | | | |
| High Int. Volume | 05:15 PM | | | | | 04:45 PM | | | | | 3:45:00 PM | | | | | 05:15 PM | | | | | |
| Peak Factor | 0.55 | | | | | 0.25 | | | | | 0.50 | | | | | 0 | | | | | |



Counts by LSC

File Name : Peoples Bank West Access - Struthers Rd AM
 Site Code : 00174790
 Start Date : 10/25/2017
 Page No : 2

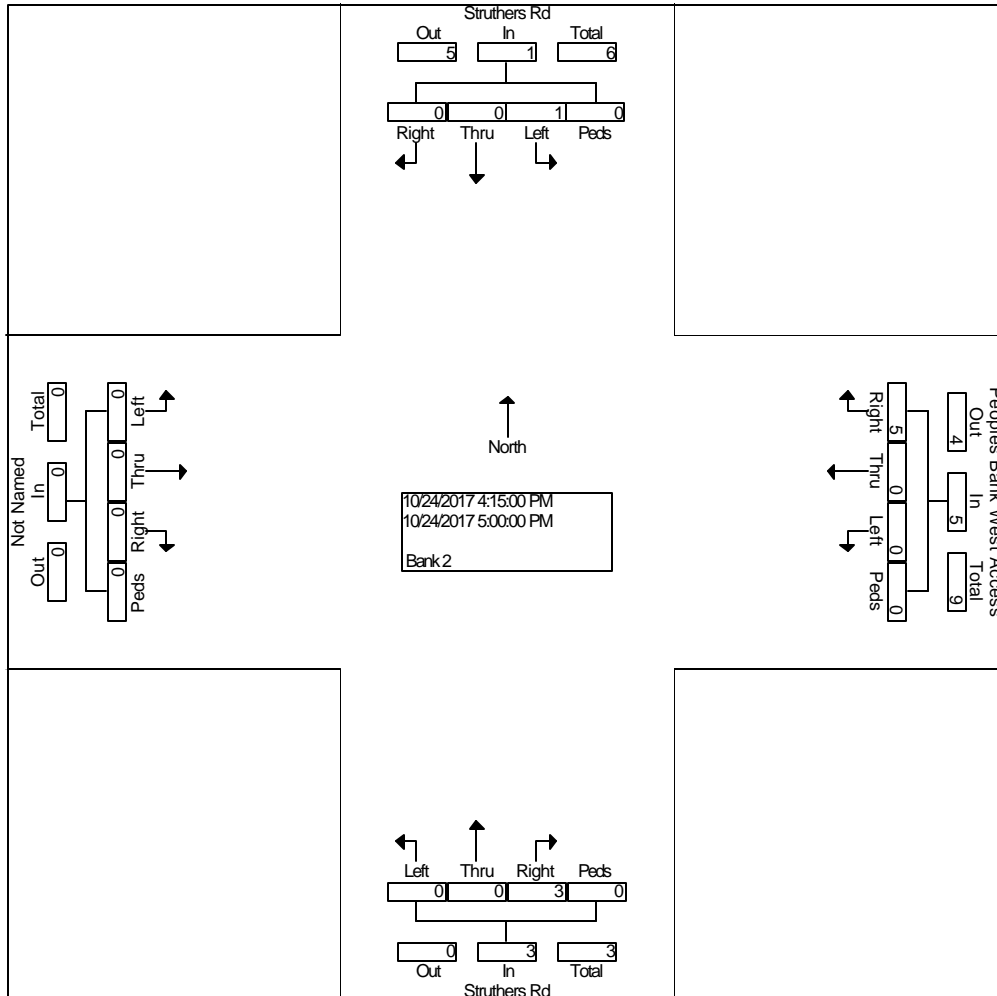
| Start Time | From North | | | | | Peoples Bank West Access From East | | | | | Struthers Rd From South | | | | | From West | | | | | Int. Total |
|---|------------|-------|-------|-------|------------|------------------------------------|-------|-------|-------|------------|-------------------------|-------|-------|-------|------------|------------|-------|-------|-------|------------|------------|
| | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | |
| Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 07:30 AM | | | | | | | | | | | | | | | | | | | | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Percent | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 10 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | |
| 08:15 Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | |
| High Int. | 6:15:00 AM | | | | | 6:15:00 AM | | | | | 07:30 AM | | | | | 6:15:00 AM | | | | | 0.750 |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | | | | | | 1 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | |



Counts by LSC

File Name : Peoples Bank West Access - Struthers Rd PM
 Site Code : 00174790
 Start Date : 10/24/2017
 Page No : 2

| Start Time | Struthers Rd From North | | | | | Peoples Bank West Access From East | | | | | Struthers Rd From South | | | | | From West | | | | | Int. Total |
|---|-------------------------|-------|-------|-------|------------|------------------------------------|-------|-------|-------|------------|-------------------------|-------|-------|-------|------------|------------|-------|-------|-------|------------|------------|
| | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 04:15 PM | | | | | | | | | | | | | | | | | | | | |
| Volume | 0 | 0 | 1 | 0 | 1 | 5 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 9 |
| Percent | 0.0 | 0.0 | 10.0 | 0.0 | | 10.0 | 0.0 | 0.0 | 0.0 | | 10.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | |
| 05:00 Volume | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | |
| High Int. | 05:00 PM | | | | | 04:30 PM | | | | | 04:15 PM | | | | | 3:45:00 PM | | | | | |
| Volume | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | | | | | | |
| Peak Factor | 0.25 | | | | | 0.62 | | | | | 0.75 | | | | | | | | | | |
| Factor | 0 | | | | | 5 | | | | | 0 | | | | | | | | | | |



HCM 6th TWSC
1: Struthers Rd & Existing Access

Existing Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 0

Movement SEL SET NWT NWR SWL SWR

| | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 435 | 215 | 3 | 0 | 0 |
| Future Vol, veh/h | 0 | 435 | 215 | 3 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 72 | 72 | 100 | 100 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 604 | 215 | 3 | 0 | 0 |

Major/Minor Major1 Major2 Minor2

| | | | | | | |
|----------------------|---|---|---|---|---|------|
| Conflicting Flow All | - | 0 | - | 0 | - | 108 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 925 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 925 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

Approach SE NW SW

| | | | |
|----------------------|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

Minor Lane/Major Mvmt NWT NWR SETSWLn1

| | | | | |
|-----------------------|---|---|---|---|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | - | - | - | 0 |
| HCM Lane LOS | - | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - | - |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 41.9 |
| Intersection LOS | E |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 11 | 424 | 203 | 96 | 373 | 15 |
| Future Vol, veh/h | 11 | 424 | 203 | 96 | 373 | 15 |
| Peak Hour Factor | 0.72 | 0.72 | 1.00 | 1.00 | 0.77 | 0.77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 589 | 203 | 96 | 484 | 19 |
| Number of Lanes | 1 | 2 | 2 | 0 | 1 | 1 |

| Approach | EB | WB | SB |
|----------------------------|------|------|------|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 3 | 0 |
| Conflicting Approach Left | SB | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right | | SB | EB |
| Conflicting Lanes Right | 0 | 2 | 3 |
| HCM Control Delay | 18.1 | 14.8 | 86.4 |
| HCM LOS | C | B | F |

| Lane | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 0% | 0% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 100% | 100% | 100% | 41% | 0% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 59% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 11 | 212 | 212 | 135 | 164 | 373 | 15 |
| LT Vol | 11 | 0 | 0 | 0 | 0 | 373 | 0 |
| Through Vol | 0 | 212 | 212 | 135 | 68 | 0 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 96 | 0 | 15 |
| Lane Flow Rate | 15 | 294 | 294 | 135 | 164 | 484 | 19 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.034 | 0.622 | 0.476 | 0.302 | 0.347 | 1.068 | 0.036 |
| Departure Headway (Hd) | 8.326 | 7.811 | 6.025 | 8.407 | 7.979 | 7.937 | 6.722 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 433 | 465 | 601 | 430 | 453 | 460 | 537 |
| Service Time | 6.026 | 5.511 | 3.725 | 6.107 | 5.679 | 5.623 | 4.409 |
| HCM Lane V/C Ratio | 0.035 | 0.632 | 0.489 | 0.314 | 0.362 | 1.052 | 0.035 |
| HCM Control Delay | 11.3 | 22.5 | 14.1 | 14.7 | 14.9 | 89.5 | 9.7 |
| HCM Lane LOS | B | C | B | B | B | F | A |
| HCM 95th-tile Q | 0.1 | 4.1 | 2.6 | 1.3 | 1.5 | 15.6 | 0.1 |

HCM 6th TWSC
3: Gleneagle Dr & Existing Access

Existing Traffic
AM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 2 | 19 | 0 | 6 | 1 | 105 | 1 | 2 | 367 | 2 |
| Future Vol, veh/h | 0 | 0 | 2 | 19 | 0 | 6 | 1 | 105 | 1 | 2 | 367 | 2 |
| 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 | - | - | - | - | - | - | - | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 100 | 100 | 92 | 92 | 76 | 76 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 2 | 21 | 0 | 7 | 1 | 105 | 1 | 2 | 483 | 3 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 600 | 597 | 485 | 598 | 598 | 106 | 486 | 0 | 0 | 106 | 0 | 0 |
| Stage 1 | 489 | 489 | - | 108 | 108 | - | - | - | - | - | - | - |
| Stage 2 | 111 | 108 | - | 490 | 490 | - | - | - | - | - | - | - |
| 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 | 413 | 416 | 582 | 414 | 416 | 948 | 1077 | - | - | 1485 | - | - |
| Stage 1 | 561 | 549 | - | 897 | 806 | - | - | - | - | - | - | - |
| Stage 2 | 894 | 806 | - | 560 | 549 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 409 | 415 | 582 | 412 | 415 | 948 | 1077 | - | - | 1485 | - | - |
| Mov Cap-2 Maneuver | 409 | 415 | - | 412 | 415 | - | - | - | - | - | - | - |
| Stage 1 | 560 | 548 | - | 896 | 805 | - | - | - | - | - | - | - |
| Stage 2 | 887 | 805 | - | 557 | 548 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|----|--|-----|--|----|--|
| HCM Control Delay, s | 11.2 | | 13 | | 0.1 | | 0 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1077 | - | - | 582 | 477 | 1485 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.004 | 0.057 | 0.001 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | - | 11.2 | 13 | 7.4 | - | - |
| HCM Lane LOS | A | A | - | B | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.2 | 0 | - | - |

HCM 6th TWSC
1: Struthers Rd & Existing Access

Existing Traffic
PM Peak Hour

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | SEL | SET | NWT | NWR | SWL | SWR |
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 401 | 510 | 3 | 0 | 5 |
| Future Vol, veh/h | 0 | 401 | 510 | 3 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 401 | 554 | 3 | 0 | 5 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | - | 0 | - | 0 | 277 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 720 |
| Stage 1 | 0 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 720 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | SE | NW | SW |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NWT | NWR | SETSWLn1 |
|-----------------------|-----|-----|----------|
| Capacity (veh/h) | - | - | 720 |
| HCM Lane V/C Ratio | - | - | 0.008 |
| HCM Control Delay (s) | - | - | 10 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 34.7 |
| Intersection LOS | D |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 45 | 356 | 474 | 358 | 206 | 39 |
| Future Vol, veh/h | 45 | 356 | 474 | 358 | 206 | 39 |
| Peak Hour Factor | 1.00 | 1.00 | 0.90 | 0.90 | 0.96 | 0.96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 45 | 356 | 527 | 398 | 215 | 41 |
| Number of Lanes | 1 | 2 | 2 | 0 | 1 | 1 |

| Approach | EB | WB | SB |
|----------------------------|------|------|------|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 3 | 0 |
| Conflicting Approach Left | SB | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right | | SB | EB |
| Conflicting Lanes Right | 0 | 2 | 3 |
| HCM Control Delay | 13.1 | 48.5 | 18.8 |
| HCM LOS | B | E | C |

| Lane | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 0% | 0% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 100% | 100% | 100% | 31% | 0% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 69% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 45 | 178 | 178 | 316 | 516 | 206 | 39 |
| LT Vol | 45 | 0 | 0 | 0 | 0 | 206 | 0 |
| Through Vol | 0 | 178 | 178 | 316 | 158 | 0 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 358 | 0 | 39 |
| Lane Flow Rate | 45 | 178 | 178 | 351 | 573 | 215 | 41 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.103 | 0.384 | 0.296 | 0.665 | 1.008 | 0.515 | 0.084 |
| Departure Headway (Hd) | 8.277 | 7.765 | 5.992 | 6.823 | 6.328 | 8.646 | 7.426 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 433 | 465 | 600 | 530 | 573 | 418 | 483 |
| Service Time | 6.018 | 5.506 | 3.732 | 4.556 | 4.061 | 6.389 | 5.168 |
| HCM Lane V/C Ratio | 0.104 | 0.383 | 0.297 | 0.662 | 1 | 0.514 | 0.085 |
| HCM Control Delay | 12 | 15.3 | 11.2 | 22.1 | 64.6 | 20.3 | 10.9 |
| HCM Lane LOS | B | C | B | C | F | C | B |
| HCM 95th-tile Q | 0.3 | 1.8 | 1.2 | 4.9 | 14.9 | 2.9 | 0.3 |

HCM 6th TWSC
3: Gleneagle Dr & Existing Access

Existing Traffic
PM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 2 | 0 | 9 | 14 | 0 | 9 | 6 | 383 | 14 | 5 | 222 | 2 |
| Future Vol, veh/h | 2 | 0 | 9 | 14 | 0 | 9 | 6 | 383 | 14 | 5 | 222 | 2 |
| 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 | - | - | - | - | - | - | - | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 69 | 92 | 69 | 92 | 92 | 92 | 84 | 84 | 92 | 92 | 98 | 98 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 0 | 13 | 15 | 0 | 10 | 7 | 456 | 15 | 5 | 227 | 2 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 721 | 723 | 228 | 723 | 717 | 464 | 229 | 0 | 0 | 471 | 0 | 0 |
| Stage 1 | 238 | 238 | - | 478 | 478 | - | - | - | - | - | - | - |
| Stage 2 | 483 | 485 | - | 245 | 239 | - | - | - | - | - | - | - |
| 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 | 343 | 352 | 811 | 342 | 355 | 598 | 1339 | - | - | 1091 | - | - |
| Stage 1 | 765 | 708 | - | 568 | 556 | - | - | - | - | - | - | - |
| Stage 2 | 565 | 552 | - | 759 | 708 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 334 | 348 | 811 | 333 | 351 | 598 | 1339 | - | - | 1091 | - | - |
| Mov Cap-2 Maneuver | 334 | 348 | - | 333 | 351 | - | - | - | - | - | - | - |
| Stage 1 | 760 | 704 | - | 564 | 552 | - | - | - | - | - | - | - |
| Stage 2 | 552 | 548 | - | 743 | 704 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 10.7 | | 14.5 | | 0.1 | | 0.2 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1339 | - | - | 644 | 403 | 1091 | - | - |
| HCM Lane V/C Ratio | 0.005 | - | - | 0.025 | 0.062 | 0.005 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | - | 10.7 | 14.5 | 8.3 | - | - |
| HCM Lane LOS | A | A | - | B | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.2 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | SEL | SET | NWT | NWR | SWL | SWR |
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 687 | 283 | 3 | 0 | 0 |
| Future Vol, veh/h | 0 | 687 | 283 | 3 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 723 | 298 | 3 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | - | 0 | - | 0 | 149 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 871 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | 871 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | SE | NW | SW |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NWT | NWR | SETSWLn1 |
|-----------------------|-----|-----|----------|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 17.6 | | | | | | | | |
| Intersection LOS | C | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 704 | | 459 | | 65 | | 621 | | |
| Demand Flow Rate, veh/h | 718 | | 468 | | 66 | | 633 | | |
| Vehicles Circulating, veh/h | 643 | | 91 | | 1288 | | 317 | | |
| Vehicles Exiting, veh/h | 307 | | 1263 | | 73 | | 242 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 33.3 | | 4.5 | | 9.5 | | 10.5 | | |
| Approach LOS | D | | A | | A | | B | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | R | LT | R | LT | R | LT | R | |
| Assumed Moves | LT | R | LT | R | LT | R | LT | R | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.979 | 0.021 | 0.641 | 0.359 | 0.591 | 0.409 | 0.957 | 0.043 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 703 | 15 | 300 | 168 | 39 | 27 | 606 | 27 | |
| Cap Entry Lane, veh/h | 791 | 791 | 1307 | 1307 | 440 | 440 | 1064 | 1064 | |
| Entry HV Adj Factor | 0.980 | 1.000 | 0.979 | 0.982 | 0.989 | 0.963 | 0.981 | 0.963 | |
| Flow Entry, veh/h | 689 | 15 | 294 | 165 | 39 | 26 | 595 | 26 | |
| Cap Entry, veh/h | 775 | 791 | 1280 | 1284 | 435 | 423 | 1044 | 1025 | |
| V/C Ratio | 0.889 | 0.019 | 0.229 | 0.129 | 0.089 | 0.061 | 0.569 | 0.025 | |
| Control Delay, s/veh | 33.9 | 4.7 | 4.8 | 3.9 | 9.5 | 9.4 | 10.8 | 3.7 | |
| LOS | D | A | A | A | A | A | B | A | |
| 95th %tile Queue, veh | 12 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 2 | 19 | 0 | 6 | 1 | 224 | 1 | 2 | 569 | 2 |
| Future Vol, veh/h | 0 | 0 | 2 | 19 | 0 | 6 | 1 | 224 | 1 | 2 | 569 | 2 |
| 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 | - | - | - | - | - | - | 50 | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 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 |
| Mvmt Flow | 0 | 0 | 2 | 20 | 0 | 6 | 1 | 236 | 1 | 2 | 599 | 2 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 846 | 843 | 600 | 844 | 844 | 237 | 601 | 0 | 0 | 237 | 0 | 0 |
| Stage 1 | 604 | 604 | - | 239 | 239 | - | - | - | - | - | - | - |
| Stage 2 | 242 | 239 | - | 605 | 605 | - | - | - | - | - | - | - |
| 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 | 282 | 300 | 501 | 283 | 300 | 802 | 976 | - | - | 1330 | - | - |
| Stage 1 | 485 | 488 | - | 764 | 708 | - | - | - | - | - | - | - |
| Stage 2 | 762 | 708 | - | 485 | 487 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 279 | 299 | 501 | 281 | 299 | 802 | 976 | - | - | 1330 | - | - |
| Mov Cap-2 Maneuver | 279 | 299 | - | 281 | 299 | - | - | - | - | - | - | - |
| Stage 1 | 485 | 487 | - | 763 | 707 | - | - | - | - | - | - | - |
| Stage 2 | 755 | 707 | - | 482 | 486 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|----|--|----|--|
| HCM Control Delay, s | 12.2 | | 16.7 | | 0 | | 0 | |
| HCM LOS | B | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 976 | - | - | 501 | 333 | 1330 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.004 | 0.079 | 0.002 | - | - |
| HCM Control Delay (s) | 8.7 | - | - | 12.2 | 16.7 | 7.7 | - | - |
| HCM Lane LOS | A | - | - | B | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.3 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | SEL | SET | NWT | NWR | SWL | SWR |
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 472 | 909 | 3 | 0 | 5 |
| Future Vol, veh/h | 0 | 472 | 909 | 3 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 497 | 957 | 3 | 0 | 5 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | - | 0 | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | - |
| Pot Cap-1 Maneuver | 0 | - | - |
| Stage 1 | 0 | - | - |
| Stage 2 | 0 | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | SE | NW | SW |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 11.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NWT | NWR | SETSWLn1 |
|-----------------------|-----|-----|----------|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s) | - | - | - |
| HCM Lane LOS | - | - | - |
| HCM 95th %tile Q(veh) | - | - | - |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 13.5 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 497 | | 1363 | | 271 | | 438 | | |
| Demand Flow Rate, veh/h | 508 | | 1390 | | 277 | | 447 | | |
| Vehicles Circulating, veh/h | 466 | | 228 | | 760 | | 998 | | |
| Vehicles Exiting, veh/h | 979 | | 809 | | 214 | | 620 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 10.1 | | 15.2 | | 7.4 | | 16.1 | | |
| Approach LOS | B | | C | | A | | C | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | R | LT | R | LT | R | LT | R | |
| Assumed Moves | LT | R | LT | R | LT | R | LT | R | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.931 | 0.069 | 0.672 | 0.328 | 0.531 | 0.469 | 0.761 | 0.239 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 473 | 35 | 934 | 456 | 147 | 130 | 340 | 107 | |
| Cap Entry Lane, veh/h | 929 | 929 | 1154 | 1154 | 711 | 711 | 573 | 573 | |
| Entry HV Adj Factor | 0.980 | 0.971 | 0.981 | 0.980 | 0.982 | 0.977 | 0.979 | 0.981 | |
| Flow Entry, veh/h | 463 | 34 | 916 | 447 | 144 | 127 | 333 | 105 | |
| Cap Entry, veh/h | 910 | 903 | 1132 | 1131 | 698 | 695 | 561 | 562 | |
| V/C Ratio | 0.509 | 0.038 | 0.809 | 0.395 | 0.207 | 0.183 | 0.594 | 0.187 | |
| Control Delay, s/veh | 10.5 | 4.3 | 19.1 | 7.2 | 7.5 | 7.3 | 18.3 | 8.8 | |
| LOS | B | A | C | A | A | A | C | A | |
| 95th %tile Queue, veh | 3 | 0 | 9 | 2 | 1 | 1 | 4 | 1 | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 2 | 0 | 9 | 14 | 0 | 9 | 6 | 560 | 14 | 5 | 393 | 2 |
| Future Vol, veh/h | 2 | 0 | 9 | 14 | 0 | 9 | 6 | 560 | 14 | 5 | 393 | 2 |
| 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 | - | - | - | - | - | - | 50 | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 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 |
| Mvmt Flow | 2 | 0 | 9 | 15 | 0 | 9 | 6 | 589 | 15 | 5 | 414 | 2 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1038 | 1041 | 415 | 1039 | 1035 | 597 | 416 | 0 | 0 | 604 | 0 | 0 |
| Stage 1 | 425 | 425 | - | 609 | 609 | - | - | - | - | - | - | - |
| Stage 2 | 613 | 616 | - | 430 | 426 | - | - | - | - | - | - | - |
| 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 | 209 | 230 | 637 | 209 | 232 | 503 | 1143 | - | - | 974 | - | - |
| Stage 1 | 607 | 586 | - | 482 | 485 | - | - | - | - | - | - | - |
| Stage 2 | 480 | 482 | - | 603 | 586 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 203 | 228 | 637 | 204 | 230 | 503 | 1143 | - | - | 974 | - | - |
| Mov Cap-2 Maneuver | 203 | 228 | - | 204 | 230 | - | - | - | - | - | - | - |
| Stage 1 | 604 | 583 | - | 480 | 483 | - | - | - | - | - | - | - |
| Stage 2 | 468 | 480 | - | 591 | 583 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|----|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 13 | | 19.9 | | 0.1 | | 0.1 | |
| HCM LOS | B | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 1143 | - | - | 459 | 266 | 974 | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.025 | 0.091 | 0.005 | - |
| HCM Control Delay (s) | 8.2 | - | - | 13 | 19.9 | 8.7 | - |
| HCM Lane LOS | A | - | - | B | C | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.3 | 0 | - |

HCM 6th TWSC
 1: Struthers Rd & Existing Access

Existing + Site-Generated Traffic
 AM Peak Hour

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | SEL | SET | NWT | NWR | SWL | SWR |
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 437 | 215 | 12 | 0 | 0 |
| Future Vol, veh/h | 0 | 437 | 215 | 12 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 72 | 72 | 100 | 100 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 607 | 215 | 12 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|--------|
| Conflicting Flow All | - | 0 | - | 0 | - 108 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 925 |
| Stage 1 | 0 | - | - | - | 0 - |
| Stage 2 | 0 | - | - | - | 0 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - 925 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | SE | NW | SW |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NWT | NWR | SETSWLn1 |
|-----------------------|-----|-----|----------|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 43.1 |
| Intersection LOS | E |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 13 | 424 | 212 | 96 | 375 | 15 |
| Future Vol, veh/h | 13 | 424 | 212 | 96 | 375 | 15 |
| Peak Hour Factor | 0.72 | 0.72 | 1.00 | 1.00 | 0.77 | 0.77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 18 | 589 | 212 | 96 | 487 | 19 |
| Number of Lanes | 1 | 2 | 2 | 0 | 1 | 1 |

| Approach | EB | WB | SB |
|----------------------------|------|----|------|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 3 | 0 |
| Conflicting Approach Left | SB | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right | | SB | EB |
| Conflicting Lanes Right | 0 | 2 | 3 |
| HCM Control Delay | 18.1 | 15 | 90.2 |
| HCM LOS | C | B | F |

| Lane | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 0% | 0% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 100% | 100% | 100% | 42% | 0% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 58% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 13 | 212 | 212 | 141 | 167 | 375 | 15 |
| LT Vol | 13 | 0 | 0 | 0 | 0 | 375 | 0 |
| Through Vol | 0 | 212 | 212 | 141 | 71 | 0 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 96 | 0 | 15 |
| Lane Flow Rate | 18 | 294 | 294 | 141 | 167 | 487 | 19 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.04 | 0.617 | 0.48 | 0.316 | 0.354 | 1.08 | 0.037 |
| Departure Headway (Hd) | 8.379 | 7.864 | 6.077 | 8.438 | 8.017 | 7.985 | 6.77 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 430 | 462 | 598 | 428 | 452 | 458 | 534 |
| Service Time | 6.079 | 5.564 | 3.777 | 6.138 | 5.717 | 5.656 | 4.441 |
| HCM Lane V/C Ratio | 0.042 | 0.636 | 0.492 | 0.329 | 0.369 | 1.063 | 0.036 |
| HCM Control Delay | 11.4 | 22.4 | 14.3 | 15 | 15 | 93.4 | 9.7 |
| HCM Lane LOS | B | C | B | B | B | F | A |
| HCM 95th-tile Q | 0.1 | 4.1 | 2.6 | 1.3 | 1.6 | 16 | 0.1 |

HCM 6th TWSC
3: Gleneagle Dr & Existing Access

Existing + Site-Generated Traffic
AM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 4 | 19 | 0 | 6 | 3 | 105 | 1 | 2 | 367 | 4 |
| Future Vol, veh/h | 0 | 0 | 4 | 19 | 0 | 6 | 3 | 105 | 1 | 2 | 367 | 4 |
| 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 | - | - | - | - | - | - | - | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 100 | 100 | 92 | 92 | 76 | 76 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 4 | 21 | 0 | 7 | 3 | 105 | 1 | 2 | 483 | 5 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 605 | 602 | 486 | 604 | 604 | 106 | 488 | 0 | 0 | 106 | 0 | 0 |
| Stage 1 | 490 | 490 | - | 112 | 112 | - | - | - | - | - | - | - |
| Stage 2 | 115 | 112 | - | 492 | 492 | - | - | - | - | - | - | - |
| 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 | 410 | 414 | 581 | 410 | 412 | 948 | 1075 | - | - | 1485 | - | - |
| Stage 1 | 560 | 549 | - | 893 | 803 | - | - | - | - | - | - | - |
| Stage 2 | 890 | 803 | - | 558 | 548 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 406 | 412 | 581 | 405 | 410 | 948 | 1075 | - | - | 1485 | - | - |
| Mov Cap-2 Maneuver | 406 | 412 | - | 405 | 410 | - | - | - | - | - | - | - |
| Stage 1 | 558 | 548 | - | 890 | 801 | - | - | - | - | - | - | - |
| Stage 2 | 881 | 801 | - | 553 | 547 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|----|--|
| HCM Control Delay, s | 11.2 | | 13.1 | | 0.2 | | 0 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 1075 | - | - | 581 | 470 | 1485 | - |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.007 | 0.058 | 0.001 | - |
| HCM Control Delay (s) | 8.4 | 0 | - | 11.2 | 13.1 | 7.4 | - |
| HCM Lane LOS | A | A | - | B | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.2 | 0 | - |

HCM 6th TWSC
 1: Struthers Rd & Existing Access

Existing + Site Generated Traffic
 PM Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement SEL SET NWT NWR SWL SWR

| | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 401 | 510 | 3 | 0 | 5 |
| Future Vol, veh/h | 0 | 401 | 510 | 3 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 401 | 554 | 3 | 0 | 5 |

Major/Minor Major1 Major2 Minor2

| | | | | | | |
|----------------------|---|---|---|---|---|------|
| Conflicting Flow All | - | 0 | - | 0 | - | 277 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 720 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 720 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

Approach SE NW SW

| | | | |
|----------------------|---|---|----|
| HCM Control Delay, s | 0 | 0 | 10 |
| HCM LOS | | | B |

Minor Lane/Major Mvmt NWT NWR SETSWLn1

| | | | | |
|-----------------------|---|---|---|-------|
| Capacity (veh/h) | - | - | - | 720 |
| HCM Lane V/C Ratio | - | - | - | 0.008 |
| HCM Control Delay (s) | - | - | - | 10 |
| HCM Lane LOS | - | - | - | B |
| HCM 95th %tile Q(veh) | - | - | - | 0 |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 35.8 |
| Intersection LOS | E |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 45 | 356 | 476 | 358 | 214 | 39 |
| Future Vol, veh/h | 45 | 356 | 476 | 358 | 214 | 39 |
| Peak Hour Factor | 1.00 | 1.00 | 0.90 | 0.90 | 0.96 | 0.96 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 45 | 356 | 529 | 398 | 223 | 41 |
| Number of Lanes | 1 | 2 | 2 | 0 | 1 | 1 |

| Approach | EB | WB | SB |
|----------------------------|------|------|------|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 3 | 0 |
| Conflicting Approach Left | SB | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right | | SB | EB |
| Conflicting Lanes Right | 0 | 2 | 3 |
| HCM Control Delay | 13.2 | 50.3 | 19.3 |
| HCM LOS | B | F | C |

| Lane | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 0% | 0% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 100% | 100% | 100% | 31% | 0% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 69% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 45 | 178 | 178 | 317 | 517 | 214 | 39 |
| LT Vol | 45 | 0 | 0 | 0 | 0 | 214 | 0 |
| Through Vol | 0 | 178 | 178 | 317 | 159 | 0 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 358 | 0 | 39 |
| Lane Flow Rate | 45 | 178 | 178 | 353 | 574 | 223 | 41 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.103 | 0.38 | 0.293 | 0.673 | 1.018 | 0.529 | 0.083 |
| Departure Headway (Hd) | 8.36 | 7.848 | 6.073 | 6.876 | 6.381 | 8.696 | 7.475 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 431 | 461 | 596 | 529 | 574 | 417 | 482 |
| Service Time | 6.06 | 5.548 | 3.773 | 4.576 | 4.081 | 6.396 | 5.175 |
| HCM Lane V/C Ratio | 0.104 | 0.386 | 0.299 | 0.667 | 1 | 0.535 | 0.085 |
| HCM Control Delay | 12 | 15.3 | 11.3 | 22.6 | 67.3 | 20.8 | 10.9 |
| HCM Lane LOS | B | C | B | C | F | C | B |
| HCM 95th-tile Q | 0.3 | 1.8 | 1.2 | 5 | 15.3 | 3 | 0.3 |

HCM 6th TWSC
3: Gleneagle Dr & Existing Access

Existing + Site Generated Traffic
PM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 4 | 0 | 17 | 14 | 0 | 9 | 6 | 383 | 14 | 5 | 222 | 2 |
| Future Vol, veh/h | 4 | 0 | 17 | 14 | 0 | 9 | 6 | 383 | 14 | 5 | 222 | 2 |
| 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 | - | - | - | - | - | - | - | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 69 | 92 | 69 | 92 | 92 | 92 | 84 | 84 | 92 | 92 | 98 | 98 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 0 | 25 | 15 | 0 | 10 | 7 | 456 | 15 | 5 | 227 | 2 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 721 | 723 | 228 | 729 | 717 | 464 | 229 | 0 | 0 | 471 | 0 | 0 |
| Stage 1 | 238 | 238 | - | 478 | 478 | - | - | - | - | - | - | - |
| Stage 2 | 483 | 485 | - | 251 | 239 | - | - | - | - | - | - | - |
| 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 | 343 | 352 | 811 | 338 | 355 | 598 | 1339 | - | - | 1091 | - | - |
| Stage 1 | 765 | 708 | - | 568 | 556 | - | - | - | - | - | - | - |
| Stage 2 | 565 | 552 | - | 753 | 708 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 334 | 348 | 811 | 325 | 351 | 598 | 1339 | - | - | 1091 | - | - |
| Mov Cap-2 Maneuver | 334 | 348 | - | 325 | 351 | - | - | - | - | - | - | - |
| Stage 1 | 760 | 704 | - | 564 | 552 | - | - | - | - | - | - | - |
| Stage 2 | 552 | 548 | - | 727 | 704 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 10.9 | | 14.7 | | 0.1 | | 0.2 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 1339 | - | - | 638 | 396 | 1091 | - |
| HCM Lane V/C Ratio | 0.005 | - | - | 0.048 | 0.063 | 0.005 | - |
| HCM Control Delay (s) | 7.7 | 0 | - | 10.9 | 14.7 | 8.3 | - |
| HCM Lane LOS | A | A | - | B | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.2 | 0 | - |

HCM 6th TWSC
 1: Struthers Rd & Existing Access

2040 Total Traffic
 AM Peak Hour

Intersection

Int Delay, s/veh 0

Movement SEL SET NWT NWR SWL SWR

| | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 689 | 283 | 13 | 0 | 0 |
| Future Vol, veh/h | 0 | 689 | 283 | 13 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 725 | 298 | 14 | 0 | 0 |

Major/Minor Major1 Major2 Minor2

| | | | | | | |
|----------------------|---|---|---|---|---|------|
| Conflicting Flow All | - | 0 | - | 0 | - | 149 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 871 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 871 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

Approach SE NW SW

| | | | |
|----------------------|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

Minor Lane/Major Mvmt NWT NWR SETSWLn1

| | | | | |
|-----------------------|---|---|---|---|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | - | - | - | 0 |
| HCM Lane LOS | - | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - | - |

HCM 6th Roundabout
2: Struthers Rd & Gleneagle Dr

2040 Total Traffic
AM Peak Hour

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 18.0 | | | | | | | | |
| Intersection LOS | C | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 706 | | 468 | | 65 | | 623 | | |
| Demand Flow Rate, veh/h | 720 | | 477 | | 66 | | 636 | | |
| Vehicles Circulating, veh/h | 646 | | 93 | | 1293 | | 326 | | |
| Vehicles Exiting, veh/h | 316 | | 1266 | | 73 | | 244 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 34.0 | | 4.5 | | 9.5 | | 10.7 | | |
| Approach LOS | D | | A | | A | | B | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | R | LT | R | LT | R | LT | R | |
| Assumed Moves | LT | R | LT | R | LT | R | LT | R | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.979 | 0.021 | 0.648 | 0.352 | 0.591 | 0.409 | 0.958 | 0.042 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 705 | 15 | 309 | 168 | 39 | 27 | 609 | 27 | |
| Cap Entry Lane, veh/h | 789 | 789 | 1305 | 1305 | 438 | 438 | 1056 | 1056 | |
| Entry HV Adj Factor | 0.980 | 1.000 | 0.980 | 0.982 | 0.989 | 0.963 | 0.980 | 0.963 | |
| Flow Entry, veh/h | 691 | 15 | 303 | 165 | 39 | 26 | 597 | 26 | |
| Cap Entry, veh/h | 773 | 789 | 1278 | 1282 | 433 | 422 | 1034 | 1016 | |
| V/C Ratio | 0.894 | 0.019 | 0.237 | 0.129 | 0.089 | 0.062 | 0.577 | 0.026 | |
| Control Delay, s/veh | 34.6 | 4.7 | 4.9 | 3.9 | 9.6 | 9.4 | 11.0 | 3.8 | |
| LOS | D | A | A | A | A | A | B | A | |
| 95th %tile Queue, veh | 12 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | |

HCM 6th TWSC
3: Gleneagle Dr & Existing Access

2040 Total Traffic
AM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 0 | 0 | 4 | 19 | 0 | 2 | 3 | 224 | 1 | 2 | 569 | 4 |
| Future Vol, veh/h | 0 | 0 | 4 | 19 | 0 | 2 | 3 | 224 | 1 | 2 | 569 | 4 |
| 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 | - | - | - | - | - | - | 50 | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 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 |
| Mvmt Flow | 0 | 0 | 4 | 20 | 0 | 2 | 3 | 236 | 1 | 2 | 599 | 4 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 849 | 848 | 601 | 850 | 850 | 237 | 603 | 0 | 0 | 237 | 0 | 0 |
| Stage 1 | 605 | 605 | - | 243 | 243 | - | - | - | - | - | - | - |
| Stage 2 | 244 | 243 | - | 607 | 607 | - | - | - | - | - | - | - |
| 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 | 281 | 298 | 500 | 280 | 298 | 802 | 975 | - | - | 1330 | - | - |
| Stage 1 | 485 | 487 | - | 761 | 705 | - | - | - | - | - | - | - |
| Stage 2 | 760 | 705 | - | 483 | 486 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 279 | 297 | 500 | 277 | 297 | 802 | 975 | - | - | 1330 | - | - |
| Mov Cap-2 Maneuver | 279 | 297 | - | 277 | 297 | - | - | - | - | - | - | - |
| Stage 1 | 484 | 486 | - | 759 | 703 | - | - | - | - | - | - | - |
| Stage 2 | 756 | 703 | - | 478 | 485 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|----|--|
| HCM Control Delay, s | 12.3 | | 18.2 | | 0.1 | | 0 | |
| HCM LOS | B | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h) | 975 | - | - | 500 | 295 | 1330 | - |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.008 | 0.075 | 0.002 | - |
| HCM Control Delay (s) | 8.7 | - | - | 12.3 | 18.2 | 7.7 | - |
| HCM Lane LOS | A | - | - | B | C | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.2 | 0 | - |

HCM 6th TWSC
1: Struthers Rd & Existing Access

2040 Total Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement SEL SET NWT NWR SWL SWR

| | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 472 | 909 | 5 | 0 | 7 |
| Future Vol, veh/h | 0 | 472 | 909 | 5 | 0 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 497 | 957 | 5 | 0 | 7 |

Major/Minor Major1 Major2 Minor2

| | | | | | | |
|----------------------|---|---|---|---|---|------|
| Conflicting Flow All | - | 0 | - | 0 | - | 479 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 533 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 533 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

Approach SE NW SW

| | | | |
|----------------------|---|---|------|
| HCM Control Delay, s | 0 | 0 | 11.8 |
| HCM LOS | | | B |

Minor Lane/Major Mvmt NWT NWR SETSWLn1

| | | | | |
|-----------------------|---|---|---|-------|
| Capacity (veh/h) | - | - | - | 533 |
| HCM Lane V/C Ratio | - | - | - | 0.014 |
| HCM Control Delay (s) | - | - | - | 11.8 |
| HCM Lane LOS | - | - | - | B |
| HCM 95th %tile Q(veh) | - | - | - | 0 |

HCM 6th Roundabout
2: Struthers Rd & Gleneagle Dr

2040 Total Traffic
PM Peak Hour

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 13.7 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 497 | | 1369 | | 271 | | 448 | | |
| Demand Flow Rate, veh/h | 508 | | 1396 | | 277 | | 457 | | |
| Vehicles Circulating, veh/h | 476 | | 228 | | 770 | | 1000 | | |
| Vehicles Exiting, veh/h | 981 | | 819 | | 214 | | 624 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 10.3 | | 15.3 | | 7.5 | | 16.7 | | |
| Approach LOS | B | | C | | A | | C | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | R | LT | R | LT | R | LT | R | |
| Assumed Moves | LT | R | LT | R | LT | R | LT | R | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.931 | 0.069 | 0.670 | 0.330 | 0.531 | 0.469 | 0.766 | 0.234 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 473 | 35 | 936 | 460 | 147 | 130 | 350 | 107 | |
| Cap Entry Lane, veh/h | 921 | 921 | 1154 | 1154 | 705 | 705 | 572 | 572 | |
| Entry HV Adj Factor | 0.980 | 0.971 | 0.981 | 0.980 | 0.982 | 0.977 | 0.980 | 0.981 | |
| Flow Entry, veh/h | 463 | 34 | 918 | 451 | 144 | 127 | 343 | 105 | |
| Cap Entry, veh/h | 902 | 895 | 1132 | 1131 | 692 | 688 | 560 | 561 | |
| V/C Ratio | 0.514 | 0.038 | 0.811 | 0.399 | 0.209 | 0.184 | 0.612 | 0.187 | |
| Control Delay, s/veh | 10.7 | 4.4 | 19.2 | 7.3 | 7.6 | 7.3 | 19.1 | 8.8 | |
| LOS | B | A | C | A | A | A | C | A | |
| 95th %tile Queue, veh | 3 | 0 | 10 | 2 | 1 | 1 | 4 | 1 | |

HCM 6th TWSC
3: Gleneagle Dr & Existing Access

2040 Total Traffic
PM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 3 | 0 | 18 | 14 | 0 | 5 | 6 | 561 | 14 | 5 | 393 | 2 |
| Future Vol, veh/h | 3 | 0 | 18 | 14 | 0 | 5 | 6 | 561 | 14 | 5 | 393 | 2 |
| 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 | - | - | - | - | - | - | 50 | - | - | 65 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 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 |
| Mvmt Flow | 3 | 0 | 19 | 15 | 0 | 5 | 6 | 591 | 15 | 5 | 414 | 2 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1038 | 1043 | 415 | 1046 | 1037 | 599 | 416 | 0 | 0 | 606 | 0 | 0 |
| Stage 1 | 425 | 425 | - | 611 | 611 | - | - | - | - | - | - | - |
| Stage 2 | 613 | 618 | - | 435 | 426 | - | - | - | - | - | - | - |
| 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 | 209 | 229 | 637 | 206 | 231 | 502 | 1143 | - | - | 972 | - | - |
| Stage 1 | 607 | 586 | - | 481 | 484 | - | - | - | - | - | - | - |
| Stage 2 | 480 | 481 | - | 600 | 586 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 205 | 227 | 637 | 198 | 229 | 502 | 1143 | - | - | 972 | - | - |
| Mov Cap-2 Maneuver | 205 | 227 | - | 198 | 229 | - | - | - | - | - | - | - |
| Stage 1 | 604 | 583 | - | 479 | 482 | - | - | - | - | - | - | - |
| Stage 2 | 472 | 479 | - | 579 | 583 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 12.7 | | 21.7 | | 0.1 | | 0.1 | |
| HCM LOS | B | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1143 | - | - | 490 | 236 | 972 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.045 | 0.085 | 0.005 | - | - |
| HCM Control Delay (s) | 8.2 | - | - | 12.7 | 21.7 | 8.7 | - | - |
| HCM Lane LOS | A | - | - | B | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.3 | 0 | - | - |

Markup Summary

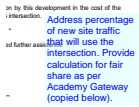
dsdparsons (1)



Subject: Callout
Page Label: 1
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdparsons
Date: 12/4/2017 3:17:20 PM
Color: ■

what is the dollar amount contribution for the Struthers /Gleneagle round-a-bout for the added trips for the proposed lot? This may will be a condition of approval.

dsdrice (4)



Subject: Text Box
Page Label: 7
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 12/8/2017 1:27:31 PM
Color: ■

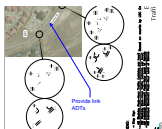
Address percentage of new site traffic that will use the intersection. Provide calculation for fair share as per Academy Gateway (copied below).



Subject: Image
Page Label: 7
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 12/8/2017 1:26:14 PM
Color: ■

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30. ●

Subject: Highlight
Page Label: 7
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 12/8/2017 11:48:16 AM
Color: ■



Subject: Callout
Page Label: 10
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 12/8/2017 11:49:20 AM
Color: ■

Provide link ADTs