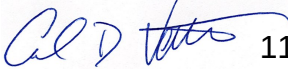


HT#M17D001 received
11/24/2020

MEMORANDUM

DATE: November 22, 2020

TO: Matt Grush, City of Albuquerque
Thunderbird Kirtland Development, LLC

FROM: Carl Vermillion, BHI  11/24/2020

SUBJECT: **REVISED Kirtland Air Force Base Enhanced Use Lease / Max Q Traffic Impact Analysis Update**

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335
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voice: 505.823.1000
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toll free: 800.877.5332

This memo outlines additional phasing that will take place for the construction of the Kirtland Air Force Base (KAFB) Enhanced Use Leasing (EUL). This memo adds an additional analysis year and corrections to previously analyzed results from the Traffic Impact Analysis dated July 16, 2020.

As part of a phased approach to construction this memo outlines the development that is expected to be completed during the first phase of construction, which will be completed by 2025. The previous study submitted in July evaluated existing and 2030 conditions and the complete development area, while this analysis considers the Phase 1A development. This is the development which has current interest. The intersection evaluations outlined in the original Traffic Impact Analysis were included in analysis for the AM and PM peak hours to the following traffic conditions:

- Updated Existing traffic (2019)
- 2025 No Build (traffic without proposed development or future road network)
- 2025 Build (traffic with proposed development and future road network)
- Updated 2030 No Build (traffic without proposed development or future road network)
- Updated 2030 Build (traffic with proposed development and future road network)

I. ANALYSIS OF EXISTING CONDITIONS

Existing intersection traffic volumes were analyzed as discussed in the Traffic Impact Analysis dated July 16, 2020. Results differ for signalized intersections only. This is due to the coordination along the Gibson corridor. Coordination along Gibson signalized intersections was adjusted, and updated results are included in Appendix A.

The results of signalized intersections are summarized in Table 1.

Results indicate the signalized intersections operate at an overall acceptable LOS in the AM, though some movements at San Mateo operate at LOS E and some movements at Maxwell operate at LOS E. In the PM, all intersections except for Truman and Gibson operate at overall acceptable LOS. The intersections of Carlisle and Truman along Gibson have movements of LOS F and Maxwell and San Mateo have movements of LOS E. Generally, eastbound movements perform worse in the AM and westbound movements perform worse in the PM. This is due to KAFB employees traveling eastbound in the AM and westbound in the PM.

Table 1 – 2019 Existing Signalized Intersection Capacity Analysis Results						
	2019 AM Peak			2019 PM Peak		
Signalized Intersections	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	11.5	0.54	B	32.6	1.38	C**
Gibson & Maxwell	5.1	0.80	A**	5.0	0.58	A*
Gibson & Truman	14.0	0.93	B	134.8	2.66	F**
Gibson & San Mateo	18.9	0.85	B*	35.5	0.92	D*
*-movement LOS E **-movement LOS F						

II. PROJECTED TRAFFIC

A. SITE TRAFFIC FORECASTING

1. TRIP GENERATION

In the first phase of construction which is shown in 2025 Build, a portion of the site will be constructed, which includes several restaurants, and offices. *The Institute of Transportation Engineers Trip Generation Manual, 10th Edition* was used to estimate the trips generated by the site, which has been updated from the original TIA for this phase of work. Table 2 shows the raw information calculated from the Trip Generation manual, for all uses, prior to any trip reductions.

A more detailed trip generation for the site is included in Appendix B.

Table 2 – Trip Generation (2025)						
Land Use	Size	ITE Land Use Type Assumed	AM Enter	AM Exit	PM Enter	PM Exit
Retail #932	7,166	High Turnover Restaurant	39	32	43	26
Retail #934	7,821	Fast Food with Drive-Thru	160	154	133	122
Employment	128,000	Office #710	126	21	23	121
Trip Generation			325	207	199	269

This raw information shown above was decreased by 2% for multi-modal users and calculated as shown in Table 3. All movements were decreased by less than 5 vehicles in either entering or exiting peak hours.

Table 3 – Trip Generation with Multi Modal Adjustment (2025)						
Land Use	Size	ITE Land Use Type Assumed	AM Enter	AM Exit	PM Enter	PM Exit
Retail	7,166	High Turnover Restaurant	38	31	42	25
Retail	7,821	Fast Food with Drive-Thru	157	154	130	120
Employment	128,000	Office	123	21	23	119
Trip Generation with Multi Modal Adjustment			318	206	195	264

Pass By trips included in the trip generation includes 49% for both entering and exiting during the AM peak period. The PM peak period includes 43% for the High-turnover restaurant and 50% for the Fast-Food Restaurant land uses. The pass by trips are included in Table 4. Pass by Trips were assigned per driveway with assignments shown in Figure 5 and Figure 6.

ITE Land Use Code 932 High Turnover Restaurant does not have AM pass-by information. How was this determined? Pass-by information is applicable to the use of the roadway and intersections not the development driveway activity.

Table 4 – Pass By Trips (2025)						
Land Use	Size	ITE Land Use Type Assumed	AM Enter	AM Exit	PM Enter	PM Exit
Retail	7,166	High Turnover Restaurant	17	13	18	11
Retail	7,821	Fast Food with Drive-Thru	74	71	65	59
Employment	128,000	Office	0	0	0	0
Trip Generation with Multi Modal and Pass-By Adjustment			91	84	83	70

Internal Capture for the site was also determined as part of the analysis. This included 11% entering and 16% exiting for the high turnover restaurants, 4% entering and 6% exiting for fast food restaurants, and 11% entering and 48% exiting for office buildings for the AM peak period. It also included PM peak period percentages of 1% entering and 2% exiting for fast food restaurants, and 9% entering and 1% exiting for office buildings. Vehicle internal trips are shown in Table 5.

Table 5 – Internal Capture of Site (2025)						
Land Use	Size	ITE Land Use Type Assumed	AM Enter	AM Exit	PM Enter	PM Exit
Retail	7,166	High Turnover Restaurant	4	5	0	0
Retail	7,821	Fast Food with Drive-Thru	6	9	1	2
Employment	128,000	Office	14	10	2	1
Trip Generation			24	24	3	3

The final adjusted trip generation for the site subtracted pass by trips in Table 4, and internal capture in Table 5 from the trip generation values for multi-modal adjustments shown in Table 3. The final adjusted trip generation values are shown in Table 6.

Table 6 – Final Adjusted Trip Generation (2025)						
Land Use	Size	ITE Land Use Type Assumed	AM Enter	AM Exit	PM Enter	PM Exit
Retail	7,166	High Turnover Restaurant	17	13	24	14
Retail	7,821	Fast Food with Drive-Thru	77	74	64	59
Employment	128,000	Office	109	11	21	118
Trip Generation – New Trips to the Site			203	98	109	191
			294	182	192	261

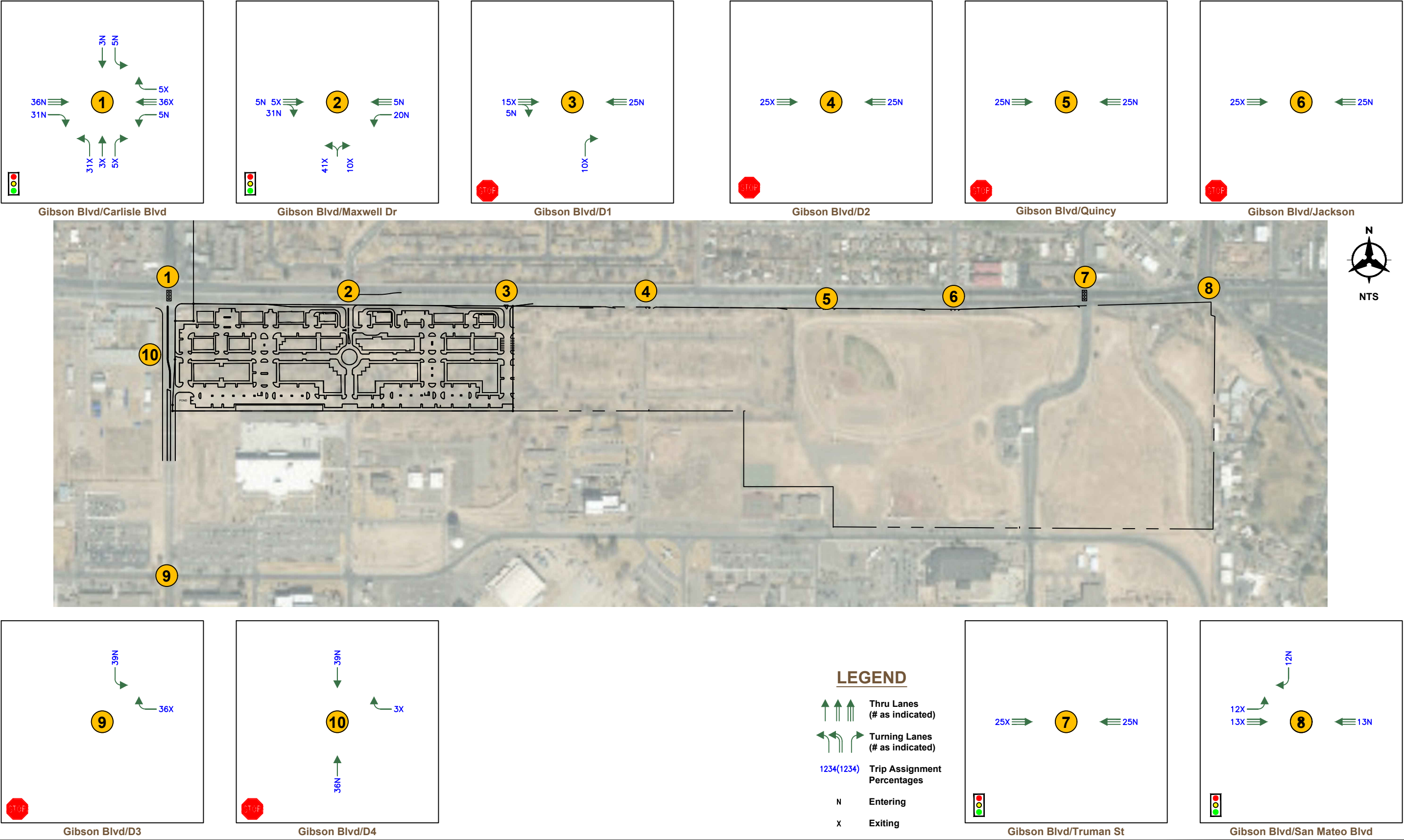
For the completed 2030 Build analysis, trip generation will remain as discussed in the Traffic Impact Analysis dated July 16, 2020.

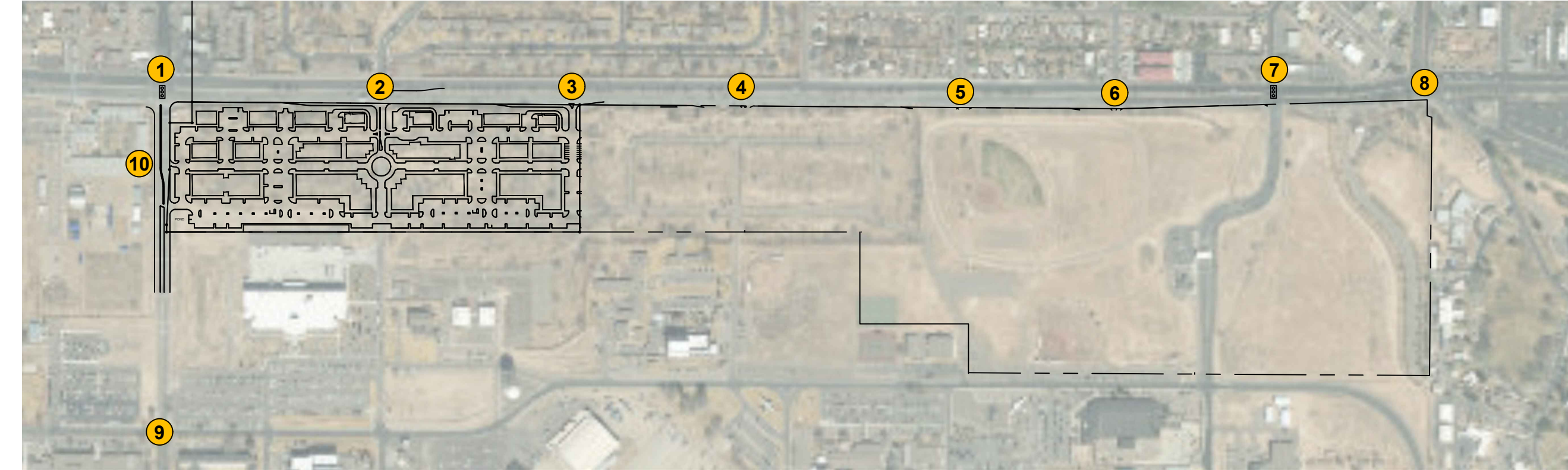
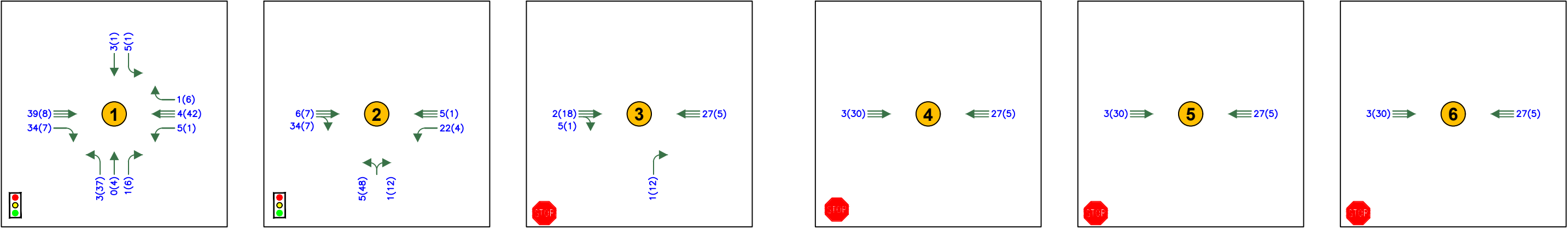
2. TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment was based on the original TIA dated July 16, 2020 for the 2030 scenario. The 2025 scenario had updates to the specific assignments at intersections due to the phasing approach of the development.

Spreadsheets showing the development of the trips at each intersection for the build scenario are also included in Appendix A. The trip distribution percentages and assigned traffic volumes for the Build analysis is shown in Figure 1 through Figure 6.

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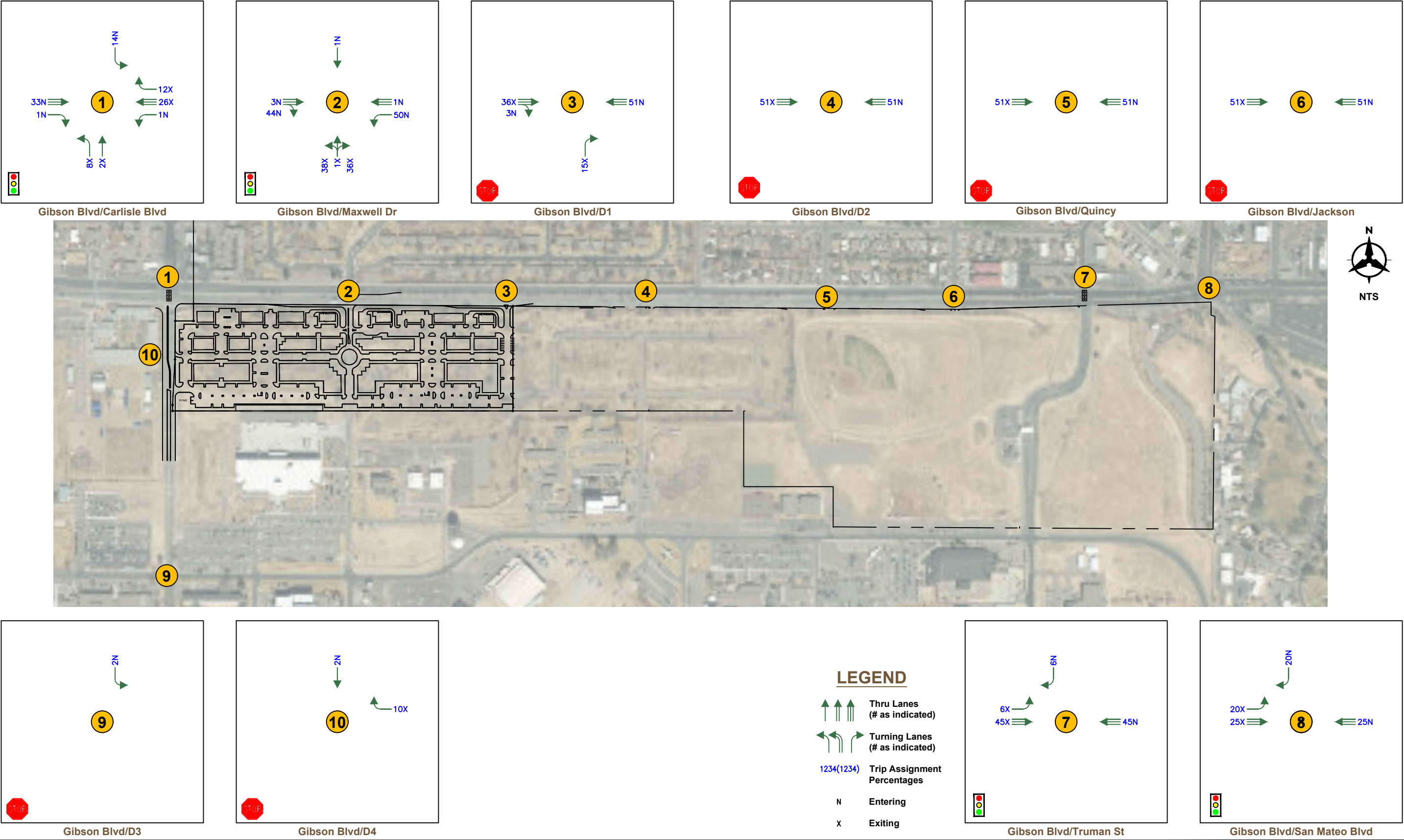


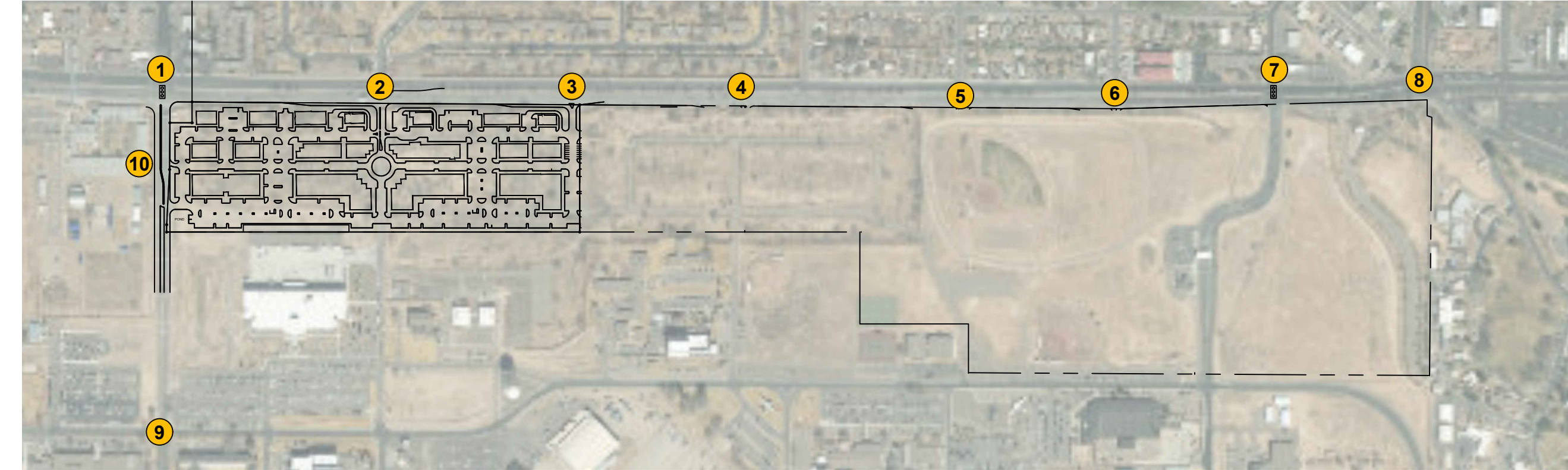
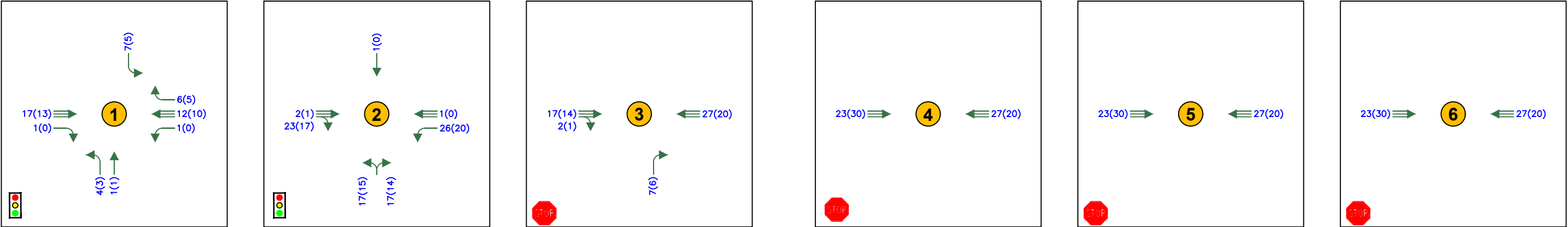


LEGEND

- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts

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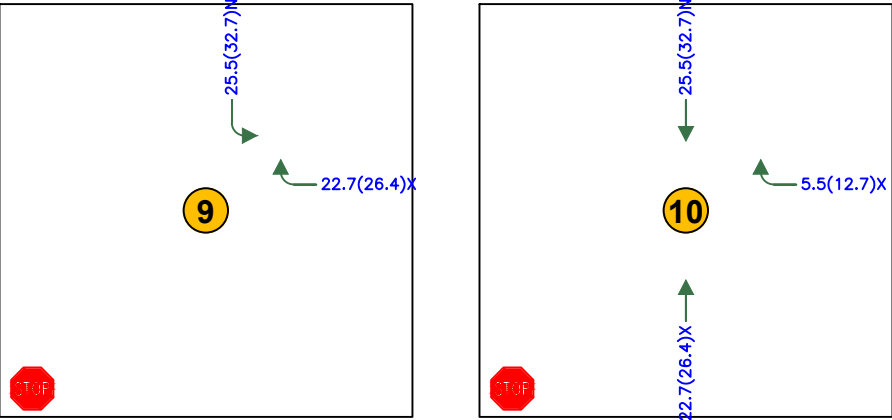
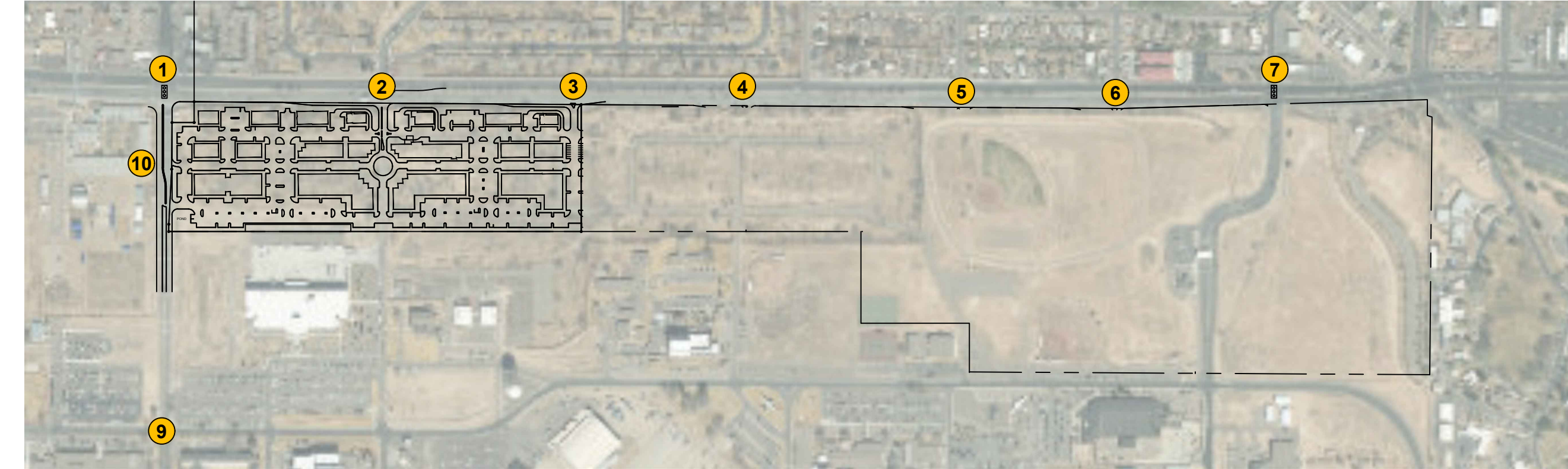
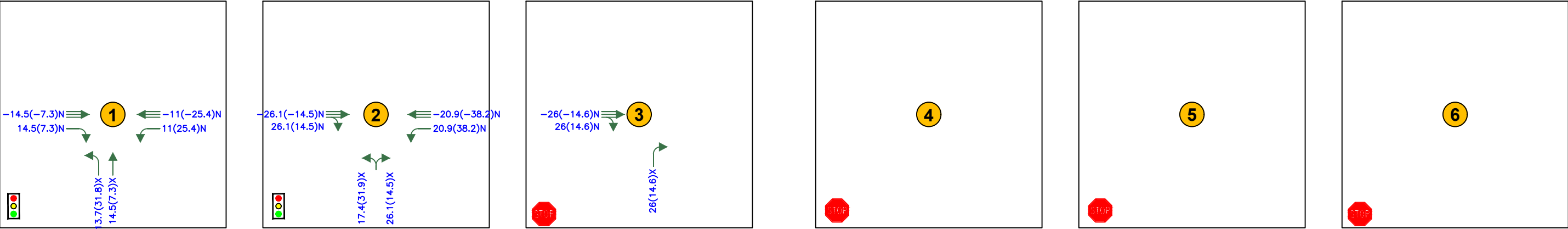




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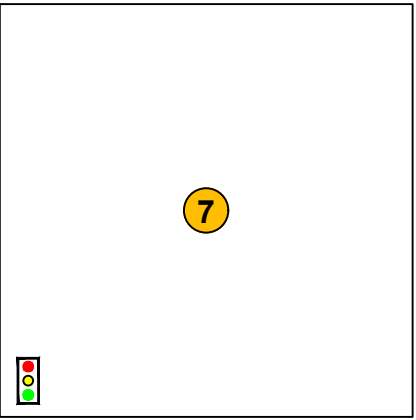
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts

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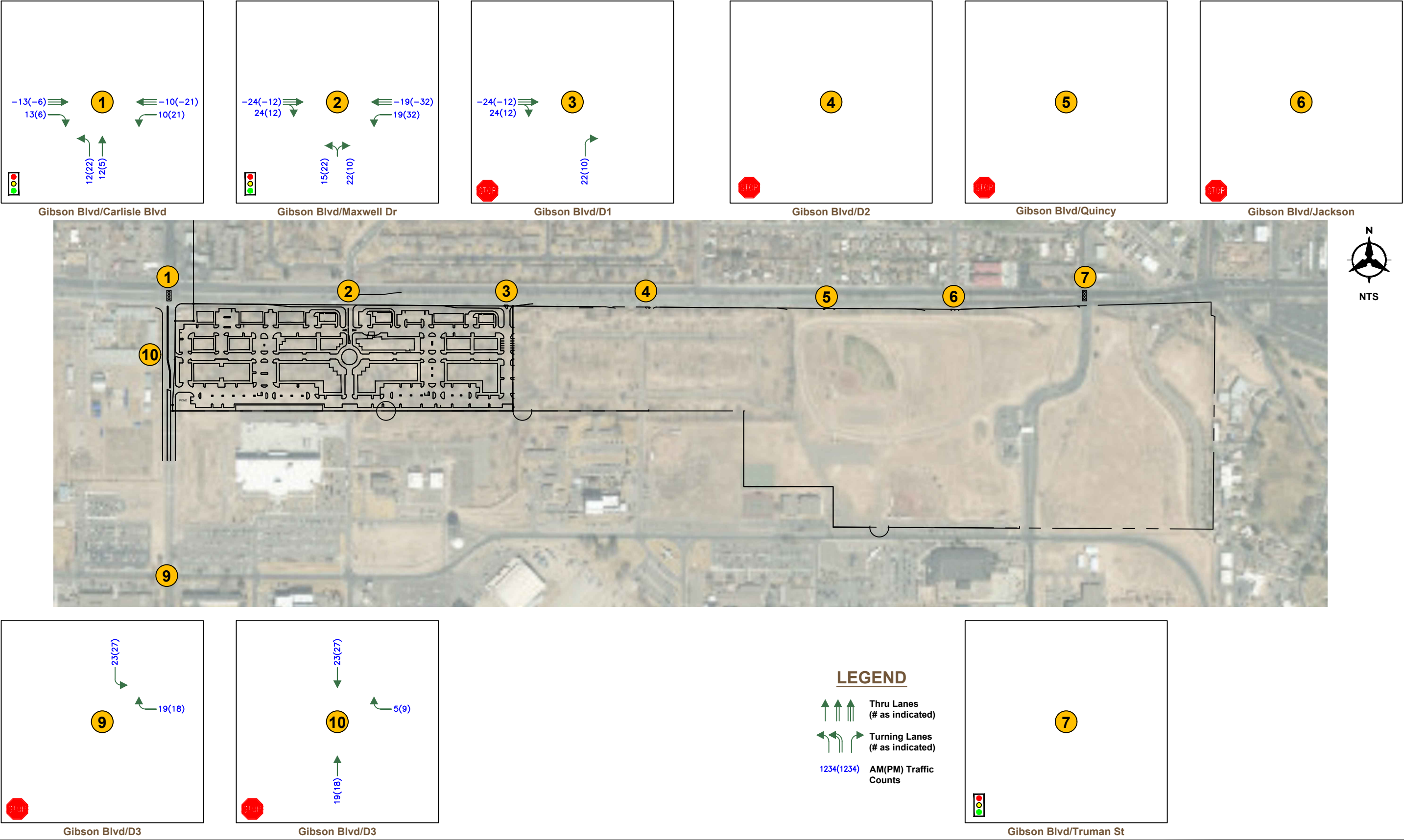


LEGEND

- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) Trip Assignment Percentages
- N Entering
- X Exiting



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III. TRAFFIC AND IMPROVEMENT ANALYSIS

The following section will discuss the results of the future year traffic analysis.

A. LEVEL OF SERVICE ANALYSIS

1. 2025 NO BUILD INTERSECTION CAPACITY ANALYSIS

The 2025 No Build analysis assumes the development is not constructed.

For the 2025 No Build scenario, the intersections were analyzed using Synchro 10. Table 7 and Table 8 shows the 2030 No Build analysis results for signalized and unsignalized intersections respectively. The volumes and laneage are shown in Figure 7. Synchro output is included in Appendix C. The analysis indicates that most signalized intersections will continue to operate as they do currently.

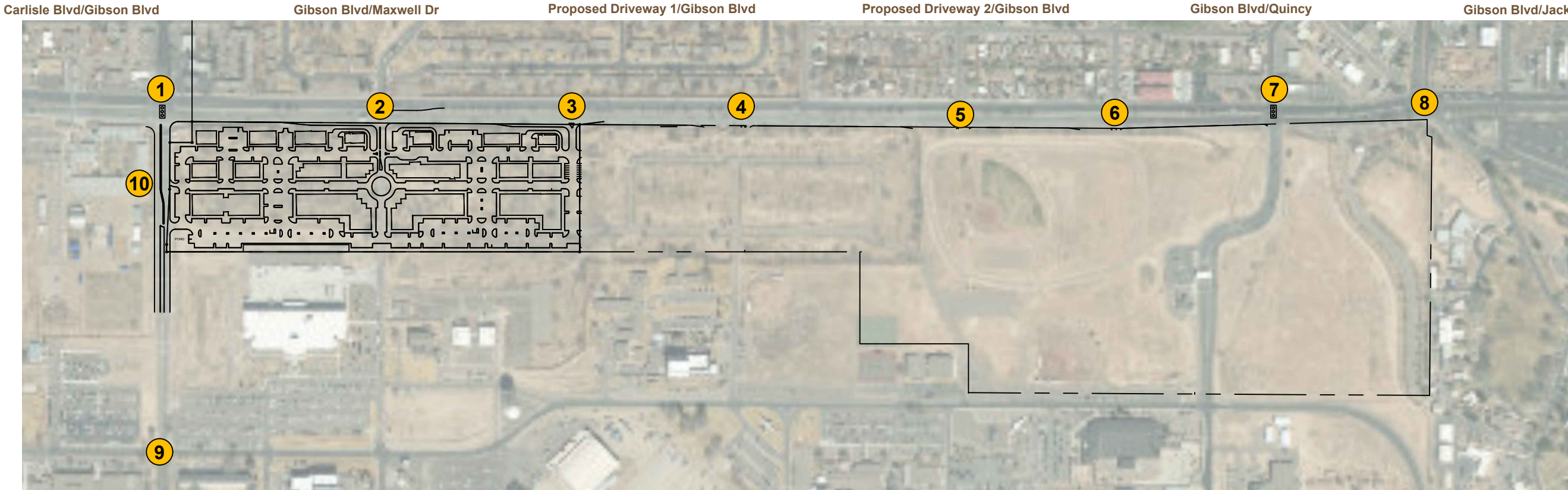
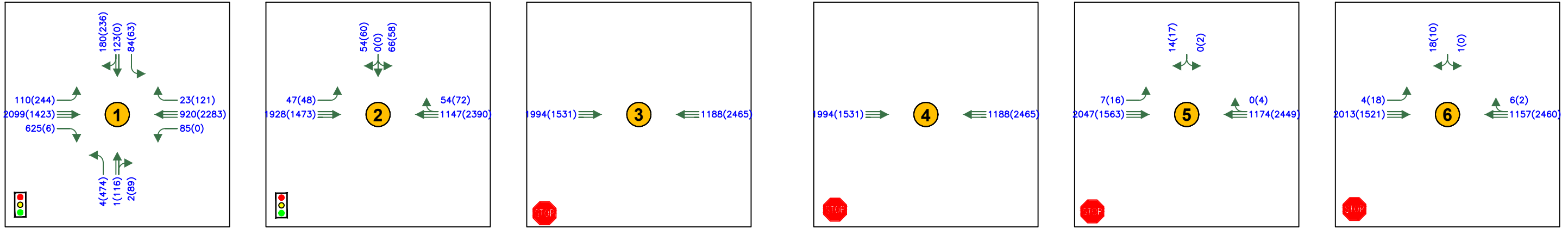
Similar to the existing conditions analysis, results indicate the signalized intersections operate at an overall acceptable LOS in the AM though there are movements of LOS E and LOS F at some of the intersections studied. In the PM, Gibson and Maxwell operates at an overall acceptable LOS, but all others operate at LOS F or LOS E. All intersections in the AM and PM have movements with LOS E or LOS F except for Gibson and Truman in the AM peak hour. Generally, eastbound movements perform worse in the AM and westbound movements perform worse in the PM. This is due to KAFB employees traveling eastbound in the AM and westbound in the PM.

Table 7 – 2025 No Build Signalized Intersection Capacity Analysis Results						
Signalized Intersections	2025 No Build AM Peak			2025 No Build PM Peak		
	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	15.2	0.81	B*	70.8	1.52	E**
Gibson & Maxwell	5.7	0.87	A**	5.4	0.63	A*
Gibson & Truman	23.2	0.94	C	151.4	3.02	F**
Gibson & San Mateo	23.0	0.74	D*	56.2	1.35	E**
*-movement LOS E						
**-movement LOS F						

The analysis indicates that most unsignalized intersections will continue to operate as they do currently. The left turn movements are expected to degrade from LOS E to LOS F due to the large traffic volumes on Gibson Boulevard.

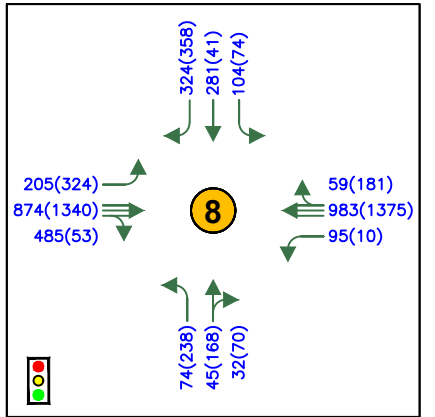
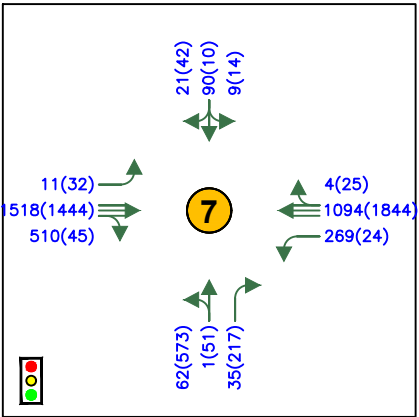
Table 8 – 2025 No Build Unsignalized Intersection Results								
Intersection/Movement	2025 No Build AM Peak				2025 No Build PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Gibson & Quincy	0.1	-	-	-	0.7	-	-	-
EB Left	18.8	0.03	25	C	78.5	0.26	25	F
SB Left	16	0.05	25	C	74.2	0.28	25	F
Gibson & Jackson	0.1	-	-	-	0.5	-	-	-
EB Left	17.6	0.02	25	C	83.1	0.29	25	F
SB Right	19.4	0.08	25	C	34.1	0.08	25	D
* – HCM 95 th percentile queue rounded to next 25-foot increment								

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LEGEND

- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



2. 2025 BUILD INTERSECTION CAPACITY ANALYSIS

The trips generated by the site (Table 2) were assigned to the intersections using the trip percentages and volumes assigned at each intersection shown Figure 1 through Figure 6 for the 2025 build year. These trips were added to the 2025 No Build traffic projections in Figure 7.

Figure 8 is a summary of the 2025 Build Peak hour traffic projections, lane geometry, and movement and intersection level of service for the 2025 Build analysis. Table 9 and Table 10 show a summary of the 2025 Build analysis results for signalized and unsignalized intersections. Individual intersection output is included in Appendix D.

Results indicate the signalized intersections will continue to operate similar to the No Build condition.

Table 9 – 2025 Build Signalized Intersection Capacity Analysis Results						
Signalized Intersections	2025 Build AM Peak			2025 Build PM Peak		
	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	37.5	0.96	D	78.4	1.33	E**
Gibson & Maxwell	11.4	0.66	B*	9.6	0.65	A*
Gibson & Truman	28.9	0.94	C	152.1	3.08	F**
Gibson & San Mateo	24.7	0.74	C**	63.3	1.45	E**
*-movement LOS E **-movement LOS F						

The results also indicate that unsignalized intersections are generally expected to operate at acceptable levels of service. The two proposed driveways onto Gibson are expected to operate at LOS F for the northbound right movements in the AM peak hour due to the large traffic volumes on Gibson Boulevard. Queues for these movements are not expected to exceed 4 vehicles. It was considered prudent to have the unsignalized intersections/driveways have stop control prior to accessing Gibson. Signal spacing per MRCOG RAC identified in policy.

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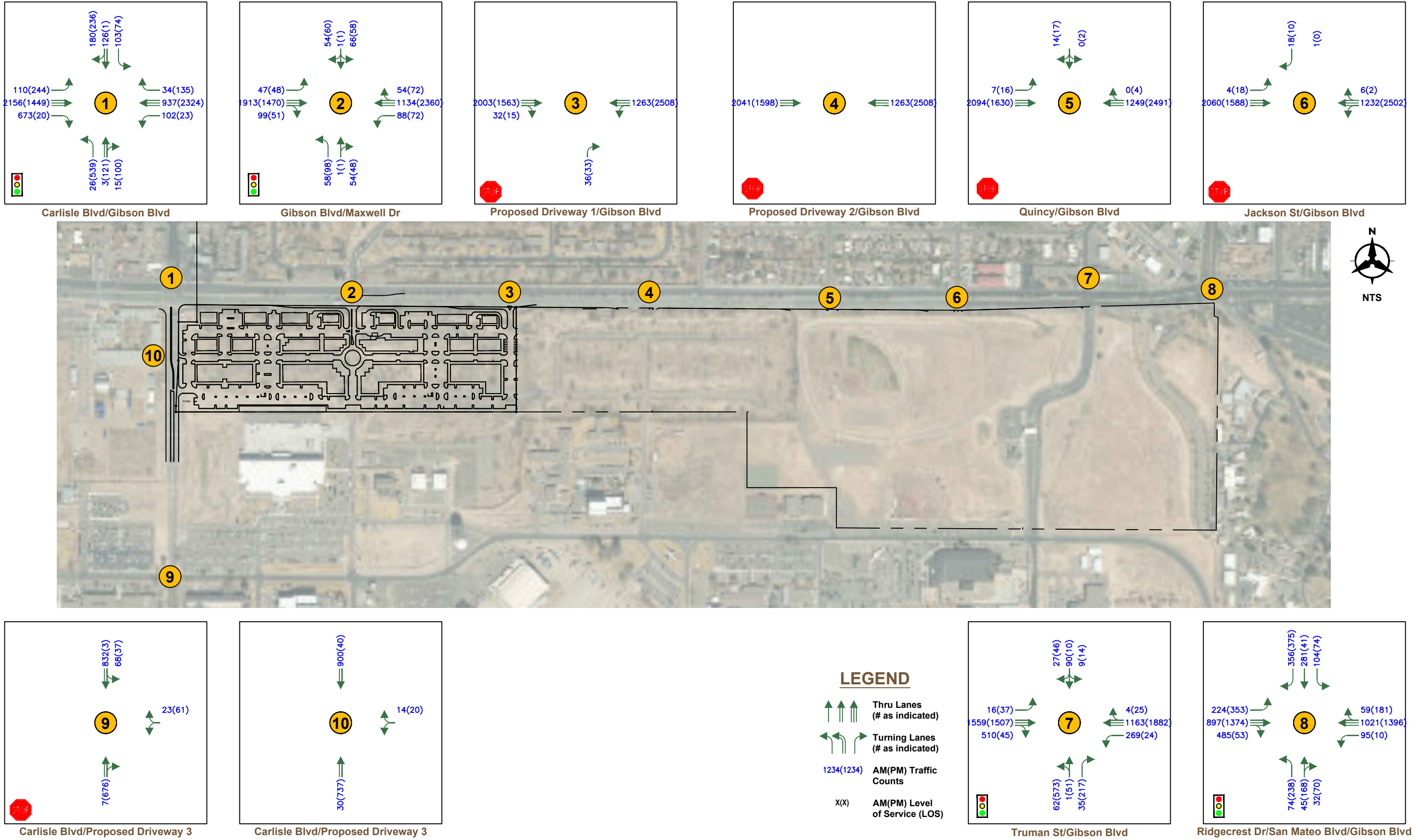


Table 10 – 2025 Build Unsignalized Intersection Results								
Intersection/Movement	2025 Build AM Peak				2025 Build PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Gibson & Proposed Driveway 1 NB Right	0.3 28.5	- 0.17	- 25	- D	0.1 20.1	- 0.11	- 25	- C
Gibson & Quincy EB Left SB Left	0.1 18.3 15.7	- 0.03 0.04	- 25 25	- C C	0.8 81.6 106.1	- 0.27 0.37	- 25 50	- F F
Gibson & Jackson EB Left SB Right	0.8 18.4 16.3	- 0.02 0.06	- 0 25	- C C	0.5 86.5 34.8	- 0.30 0.08	- 50 25	- F D
Carlisle & Proposed Driveway 3 WB Right SB Left	1.0 8.4 7.3	- 0.02 0.04	- 25 25	- A A	1.3 11.3 9.3	- 0.10 0.04	- 25 25	- B A
Carlisle & Proposed Driveway 4 WB Right	0.1 8.6	- 0.01	- 25	- A	0.2 11.7	- 0.03	- 25	- B
* – HCM 95 th percentile queue rounded to next 25-foot increment								

a) 2025 Mitigation of Failing Movements

Table 11 below documents failing movements for each intersection in the build scenario and the expected performance resulting from mitigation for the 2025 Build analysis. For each mitigated movement the total number of lanes is identified in parenthesis. A detailed matrix of results and Synchro reports are located in Appendix E.

Table 11 – 2025 Mitigation Results						
	2025 Build AM Peak			2025 Build PM Peak		
Signalized Intersections	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	37.5	0.96	D	78.4	1.33	E**
<i>Mitigation: Add EBL (2), NBL (2), Reduce SBT(1)</i>	-	-	-	30.0	0.90	C
<i>Mitigation: Add NBL (2), reduce SBT (1)</i>	-	-	-	39.9	1.30	D**
Gibson & Maxwell	11.4	0.66	B*	9.6	0.65	A*
<i>Mitigation: Add SBL(1), EBR(1) Protected/Permissive Signal Optimization</i>	9.3	0.55	A	12.1	0.70	B
Gibson & Truman	28.9	0.94	C	152.1	3.08	F**
<i>Mitigation: Add NBL (1 dedicated, 1 shared/Thru)</i>	-	-	-	14.7	0.77	B
Gibson & San Mateo	24.7	1.07	C**	63.3	1.45	E**
<i>Mitigation: Add EBL (2)</i>	-	-	-	40.5	0.96	D*
<i>Mitigation: Add NBL (2), NBT (2), SBR (2)</i>	17.5	0.64	B	30.6	1.14	C**
<i>Mitigation: Add EBL (2), NBL (2), NBT (2)</i>	30.6	1.25	C**	28.8	0.82	C*
*-movement LOS E **-movement LOS F						

An overall mitigation recommendation is to add dedicated eastbound right lanes at each of the site entrances. This will improve the performance of eastbound thru traffic by moving the right turns into dedicated lanes.

i. **Carlisle**

In the PM the eastbound left, northbound left and southbound right movements fail. Adding a second eastbound left, second northbound left and reducing the southbound to one dedicated right and one through improves all failing movements to LOS D. Due to the large amount of right-of-way required to widen Gibson, it is not a feasible solution to add the westbound thru lane on an ad hoc basis.

An alternative lane configuration for northbound and southbound Carlisle was identified in the previous TIA by the project team, which included an additional northbound left turn lane and a single southbound thru lane with a dedicated southbound right lane. These changes to the northbound and southbound approaches had performance improvements for the intersection, although the eastbound left movement retains a LOS F.

ii. **Maxwell**

In the AM and PM this intersection has failing movements of northbound and southbound lefts which are LOS E. The PM peak period also shows the northbound right as LOS E. The shown improvements for the intersection is adding a dedicated southbound left turn lane so that the signal may operate as a protected/permissive left. This improves all failing movements to LOS D. When this signal retiming is done the Gibson corridor should be verified as this is the coordinated corridor.

iii. **Truman**

The northbound left movement fails in the PM and by changing the lane configuration to a dedicated left, a shared thru/left, and a dedicated right the failing movement improves to LOS D.

iv. **San Mateo/ Ridgecrest**

Failing movements in the AM include northbound left, northbound thru and southbound right. Adding a second northbound left lane, a second northbound thru lane, and a second southbound right lane improves the failing movements to LOS D.

Failing movements in the PM include eastbound left, eastbound thru, eastbound right, westbound thru, and westbound right. In the eastbound approach, adding a second left lane will not improve the eastbound left movement and will remain LOS F. Adding a dedicated eastbound right will improve the eastbound right movement to LOS B and the eastbound thru

movement to LOS D. Adding a fourth westbound thru lane will not improve the westbound thru movement which remains LOS F. However, adding a dedicated westbound right turn lane improves that movement to LOS D.

3. 2030 NO BUILD INTERSECTION CAPACITY ANALYSIS

An updated summary of the signalized intersections is shown in Table 12 for the 2030 No Build intersections. The only changes that have been made in this summary is the intersection of Carlisle and Gibson for both peak hours and the intersection of Gibson and San Mateo in the PM peak hour. Similar LOS results for the remaining signalized intersections are presented in this update. The only change to LOS resulted from the updated coordination of Gibson effected the intersection of Gibson and Carlisle updating it to a LOS B with a movements of LOS E. All other intersections operate in a similar manner as the original TIA dated July 16, 2020. Refer to that TIA for discussions of specific intersections. Updated results for each signalized intersection are located in Appendix F.

Table 12 – 2030 No Build Signalized Intersection Capacity Analysis Results						
	2030 No Build AM Peak			2030 No Build PM Peak		
Signalized Intersections	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	16.5	0.81	B*	86.8	1.41	F**
Gibson & Maxwell	6.7	0.96	A**	5.8	0.68	A*
Gibson & Truman	50.9	1.11	D**	160.3	3.15	F**
Gibson & San Mateo	24.6	1.06	C**	82.6	1.45	F**
*-movement LOS E						
**-movement LOS F						

4. 2030 BUILD INTERSECTION CAPACITY ANALYSIS

An updated summary of the signalized intersections is shown in this report for the 2030 Build intersections. Every signalized intersection LOS was updated, and results were updated from the previous TIA. A summary of these results is shown in Table 13. The intersection of Gibson and Truman in the AM was the most severe change which occurred while adjusting the coordination along Gibson. Gibson and Maxwell had a substantial change as well when coordinating Gibson. All other LOS updates listed in the table were minor and the LOS stayed

similar to the previous results. All other intersections operate in a similar manner as the original TIA dated July 16, 2020. Refer to the July TIA for discussions of specific intersections results. Updated Results for each signalized intersection are located in Appendix G.

Table 13 – 2030 Build Signalized Intersection Capacity Analysis Results						
Signalized Intersections	2030 Build AM Peak			2030 Build PM Peak		
	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	65.3	1.14	E**	129.3	1.89	F**
Gibson & Maxwell	20.4	0.91	C**	45.6	2.37	D**
Gibson & Quincy	20.5	0.91	C*	15.2	0.82	B*
Gibson & Truman	62.5	1.16	E**	182.1	3.59	F**
Gibson & San Mateo	37.5	1.30	D**	186.8	2.00	F**
*-movement LOS E **-movement LOS F						

a) *2030 Mitigation of Failing Movements*

Table 14 documents failing movements for each intersection in the 2030 build scenario and the expected performance resulting from mitigation measures. For each mitigated movement the total number of lanes is identified in parenthesis. A detailed matrix of results and Synchro reports are located in Appendix H.

Table 14 – 2030 Mitigation Results						
	2030 AM Peak			2030 PM Peak		
Signalized Intersections	Delay (sec)	Max V/C	LOS	Delay (sec)	Max V/C	LOS
Gibson & Carlisle	65.3	1.14	E**	129.3	1.89	F**
<i>Mitigation: Add WBT (4)</i>	-	-	-	81.8	1.89	F**
<i>Mitigation: Add EBT (4)</i>	56.3	1.13	E**	-	-	-
<i>Mitigation: Add EBL (2), NBL (2)</i>	64.8	1.14	E**	77.3	1.20	E**
<i>Mitigation: Add NBL (2), reduce SBT (1)</i>	64.9	1.14	E**	88.8	1.41	F**
Gibson & Maxwell	20.4	0.91	C**	45.6	2.37	D**
<i>Mitigation: Add SBL(1), EBR(1) Protected/Permissive</i>	14.8	0.84	B	22.1	0.89	C
Gibson & Truman	62.5	1.16	E**	182.1	3.59	F**
<i>Mitigation: Add EBR(1), NBL (1 dedicated, 1 shared/Thru)</i>	11.7	0.95	B	16.9	0.79	B
Gibson & San Mateo	37.5	1.30	D**	186.8	2.00	F**
<i>Mitigation: Add EBL (2), EBR(1)</i>	-	-	-	77.0	1.21	E**
<i>Mitigation: Add EBL(2), NBL (2), WBR(1)</i>	36.9	0.86	D**	-	-	-
<i>Mitigation: Add EBL(2), EBR(1), WBT (4), WBR(1)</i>				67.8	1.13	E**
*-movement LOS E						
**-movement LOS F						

An overall mitigation recommendation is to add dedicated eastbound right lanes at each of the site entrances. This will improve the performance of eastbound thru traffic by moving the right turns into dedicated lanes.

v. Carlisle

In the AM the eastbound thru movement fails. Adding a fourth eastbound lane PM the eastbound left and the westbound thru movements fail. Adding a fourth westbound thru lane does not improve the movement.

In the PM the eastbound left, westbound thru, northbound left and southbound right all operate worse than LOS D. Adding a fourth westbound thru lane and a second eastbound left improves each of the movements to LOS D. Adding a second northbound left improves that movement to LOS E. Due to the large amount of right-of-way required to widen Gibson, it is not a feasible solution to add the westbound thru lane on an ad hoc basis.

An alternative lane configuration for northbound and southbound Carlisle was identified in the previous TIA by the project team, which included an additional northbound left turn lane and a single southbound thru lane. The changes to the northbound and southbound approaches did not improve the performance of the intersection as a whole. The northbound left movement improved to LOS D in the PM; however, the eastbound left, westbound thru, and southbound right movements continue to fail.

vi. Maxwell

In the AM and PM this intersection shows acceptable overall LOS although the northbound left and southbound left operate worse than LOS D. The shown improvements for the intersection are adding a dedicated southbound left lane and updating the signal timing to add protected/permissive left turns northbound and southbound. These updates improve the movements to a LOS D. Also, in the updates to this intersection is adding the dedicated eastbound right to the intersection as discussed earlier.

vii. Truman

Failing movements occur in the eastbound thru and eastbound right in the AM peak period. Adding a dedicated eastbound right turn lane improves the eastbound right movement to LOS C and the eastbound thru to a LOS A.

In the PM the northbound left movement is the only failing movement. Changing the lane configuration to a northbound dedicated left turn lane, a thru/left combination lane, and a dedicated right turn lane will improve the northbound left to LOS D.

viii. San Mateo/ Ridgecrest

Failing movements in the AM include northbound left, northbound thru and southbound right. Adding a second northbound left lane improves the movement to LOS D. Adding a second

northbound thru lane improves the movement to LOS D. Adding a second southbound right turn lane at this intersection is not recommended due to the close proximity and the high amount of traffic that will turn left at Truman to enter KAFB.

Failing movements in the PM include eastbound left, eastbound thru, eastbound right, westbound thru, and westbound right. In the eastbound approach, adding a second left lane will not improve the eastbound left movement remaining LOS F. Adding a dedicated right turn lane eastbound will improve the eastbound right to LOS B and the eastbound thru to LOS D. Adding an additional westbound thru lane and adding a dedicated westbound right, will improve the westbound right to LOS D but will not improve the westbound thru movement remaining LOS F. Again due to the large amount of right-of-way required to widen Gibson, it is not a feasible solution to add the westbound thru lane on an ad hoc basis.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The traffic analysis shows that most signalized intersections operate at acceptable levels of service under existing conditions with the exception of Gibson and Truman during the PM peak period. Most intersections have movements of LOS E or LOS F in existing conditions. Unsignalized intersections all operate with movements of LOS F in the PM peak hour. Due to the existing and proposed traffic volumes on Gibson, it is not possible to achieve LOS D or better for all movements. In addition to roadway improvements recommended below, flexible work hours, telecommuting, and subsidized transit for employees should be considered.

In the 2025 No Build and 2025 Build conditions all the signalized intersections operate at overall acceptable levels of service in the AM peak period, with some movements of LOS E or LOS F. In the PM peak period, only the intersection of Gibson and Maxwell operates at an acceptable overall level of service, but all intersections have a movement of either LOS E or LOS F. All other signalized intersections operate at poor levels of service in the PM.

All signalized intersections in the AM peak hour operate at an overall acceptable LOS except Gibson and Carlisle. These intersection all have at least one movement that operates at either LOS E or LOS F during the AM peak hour. In the PM peak hour all the signalized intersections in the study area operate at an overall poor LOS except for Gibson and Maxwell

which has a movement at LOS E. Both unsignalized intersections have movements of LOS F in the PM peak hour due to high volume on Gibson.

In the 2030 No Build condition all signalized intersection operate at overall acceptable levels of service similar to 2025 in the AM peak period. Only the intersection of Gibson and Maxwell during the PM peak period operates at an acceptable level of service. All other signalized intersections operate poorly in the PM peak period. All signalized intersections in 2030 No build have movements of LOS E or LOS F.

In the 2030 Build condition, the signalized intersections continue to degrade during both AM and PM peak periods. The intersections of Gibson and Maxwell, Gibson and Quincy, and Gibson and San Mateo operate at overall acceptable levels of service in the AM peak period. Gibson and Maxwell and Gibson and Quincy also operate at overall acceptable levels of service in the PM peak period. All signalized intersections in 2030 Build have movements of LOS E or LOS F in both peak periods. The northbound right movements onto Gibson for traffic exiting the site at unsignalized intersections are generally expected to operate at a poor LOS due to the high level of eastbound through traffic. This is particularly true in the AM peak hour when traffic to KAFB and SNL is in the adjacent eastbound lanes.

1. RECOMMENDATIONS

a) Dedicated Right Turn Lanes

As directed in the TIA dated July 16, 2020 dedicated eastbound right turn lanes entering the site are recommended for the 2025 and 2030 Build years.

b) Westbound Left Turn Lanes

It is recommended that the westbound left turn lanes be constructed or extended to accommodate the queue for 2030, which is approximately 100 feet at Carlisle, 175 feet at Maxwell and 350 feet at Truman. Carlisle and Maxwell should be built prior to the 2025 build out but the Truman left turn extension should be built before 2030. These left turn lanes can be built as development is built to the entrances. These left turn lanes should follow City of Albuquerque standards.

2. 2025 RECOMMENDATIONS

a) *Carlisle and Gibson*

Addition of a second northbound left and restriping of the southbound approach to include a dedicated right, a thru, and a left will substantially improve the intersection and should be installed before 2025 build out. Analysis presented in Section i on page 19 found substantial overall improvement to intersection operations with this mitigation.

b) *Maxwell and Gibson*

Addition of a southbound left at this intersection will be necessary to accommodate a protected/permissive signal for the northbound and southbound turn lanes. Signal timing optimization will be necessary to ensure an acceptable level of service at all approaches and to ensure Gibson coordination remains for 2025.

c) *Truman and Gibson*

Any changes at this intersection will require coordination with KAFB. In 2025 Build scenario the LOS of movements that have assigned trips to the development are minimally impacted.

3. 2030 RECOMMENDATIONS

All 2025 recommendations are necessary for 2030 build out and should be installed prior to any mitigating efforts for the 2030 build out for the development. These recommendations for 2030 are above what is stated for the 2025 build out.

d) *Carlisle and Gibson*

Analysis shows that 4 lanes will be needed in both eastbound and westbound directions. Additional analysis will be needed prior to 2030 to further prove that Gibson will need additional lanes in 2030.

e) *Truman and Gibson*

Any changes at this intersection will require coordination with KAFB. In 2025 Build scenario the LOS of movements that have assigned trips to the development are minimally impacted.

**APPENDIX A:
UPDATED EXISTING INTERSECTION
CAPACITY ANALYSIS**

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

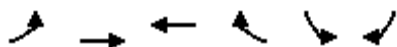
KAFB EUL MAXQ
2019 Existing AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	46	1836	563	77	694	21	3	1	2	76	111	74
Future Volume (veh/h)	46	1836	563	77	694	21	3	1	2	76	111	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	1933	593	81	731	22	3	1	2	80	117	78
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	569	3608	1124	177	3647	1217	137	118	106	248	248	154
Arrive On Green	0.02	0.71	0.71	0.03	0.71	0.71	0.00	0.07	0.07	0.05	0.12	0.12
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1777	1585	1781	2104	1308
Grp Volume(v), veh/h	48	1933	593	81	731	22	3	1	2	80	97	98
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1635
Q Serve(g_s), s	0.9	21.5	20.9	1.5	5.7	0.4	0.2	0.1	0.1	4.9	6.1	6.7
Cycle Q Clear(g_c), s	0.9	21.5	20.9	1.5	5.7	0.4	0.2	0.1	0.1	4.9	6.1	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	569	3608	1124	177	3647	1217	137	118	106	248	209	192
V/C Ratio(X)	0.08	0.54	0.53	0.46	0.20	0.02	0.02	0.01	0.02	0.32	0.47	0.51
Avail Cap(c_a), veh/h	713	3608	1124	325	3647	1217	295	523	466	314	523	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.7	8.3	8.1	9.7	5.7	3.3	52.1	52.3	52.3	46.8	49.4	49.7
Incr Delay (d2), s/veh	0.0	0.6	1.8	0.7	0.1	0.0	0.0	0.0	0.1	0.3	1.6	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	11.2	11.3	1.1	3.2	0.2	0.2	0.1	0.1	3.9	5.1	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	8.9	9.9	10.3	5.8	3.3	52.1	52.3	52.4	47.1	51.0	51.7
LnGrp LOS	A	A	A	B	A	A	D	D	D	D	D	D
Approach Vol, veh/h		2574			834			6			275	
Approach Delay, s/veh		9.0			6.2			52.3			50.1	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	89.8	9.9	13.5	5.9	90.7	3.8	19.6				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.2	10.9	35.3				
Max Q Clear Time (g_c+I1), s	3.5	23.5	6.9	2.1	2.9	7.7	2.2	8.7				
Green Ext Time (p_c), s	0.0	17.4	0.0	0.0	0.0	7.9	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2019 Existing AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑↑
Traffic Volume (veh/h)	42	1681	899	49	60	49
Future Volume (veh/h)	42	1681	899	49	60	49
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	1769	946	52	63	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	541	4369	3935	216	79	70
Arrive On Green	0.02	0.86	0.79	0.79	0.04	0.04
Sat Flow, veh/h	1781	5274	5122	272	1781	1585
Grp Volume(v), veh/h	44	1769	650	348	63	52
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1821	1781	1585
Q Serve(g_s), s	0.4	6.9	4.4	4.4	3.2	2.9
Cycle Q Clear(g_c), s	0.4	6.9	4.4	4.4	3.2	2.9
Prop In Lane	1.00			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	541	4369	2704	1447	79	70
V/C Ratio(X)	0.08	0.40	0.24	0.24	0.80	0.74
Avail Cap(c_a), veh/h	693	4369	2704	1447	79	70
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.4	1.4	2.4	2.4	42.6	42.5
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.4	41.5	33.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.6	1.4	1.7	4.1	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.5	1.7	2.6	2.7	84.1	75.6
LnGrp LOS	A	A	A	A	F	E
Approach Vol, veh/h		1813	998		115	
Approach Delay, s/veh		1.7	2.6		80.3	
Approach LOS		A	A		F	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		82.0			5.5	76.5
Change Period (Y+Rc), s		5.0			3.5	5.0
Max Green Setting (Gmax), s		76.6			9.7	63.0
Max Q Clear Time (g_c+I1), s		8.9			2.4	6.4
Green Ext Time (p_c), s		33.2			0.0	11.8

Intersection Summary

HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	1789	923	0	0	13
Future Vol, veh/h	6	1789	923	0	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	1903	982	0	0	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	982	0	0 1755 491
Stage 1	-	-	- 982 -
Stage 2	-	-	- 773 -
Critical Hdwy	5.34	-	- 5.74 7.14
Critical Hdwy Stg 1	-	-	- 6.64 -
Critical Hdwy Stg 2	-	-	- 6.04 -
Follow-up Hdwy	3.12	-	- 3.82 3.92
Pot Cap-1 Maneuver	399	-	- 127 448
Stage 1	-	-	- 248 -
Stage 2	-	-	- 378 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	399	-	- 125 448
Mov Cap-2 Maneuver	-	-	- 125 -
Stage 1	-	-	- 244 -
Stage 2	-	-	- 378 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	399	-	-	-	448
HCM Lane V/C Ratio	0.016	-	-	-	0.031
HCM Control Delay (s)	14.2	-	-	-	13.3
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1758	908	5	1	16
Future Vol, veh/h	4	1758	908	5	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	4	1911	987	5	1	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	992	0	0 1762 496
Stage 1	-	-	- 990 -
Stage 2	-	-	- 772 -
Critical Hdwy	5.34	-	- 5.82 7.22
Critical Hdwy Stg 1	-	-	- 6.72 -
Critical Hdwy Stg 2	-	-	- 6.12 -
Follow-up Hdwy	3.12	-	- 3.86 3.96
Pot Cap-1 Maneuver	395	-	- 120 436
Stage 1	-	-	- 238 -
Stage 2	-	-	- 369 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	395	-	- 119 436
Mov Cap-2 Maneuver	-	-	- 119 -
Stage 1	-	-	- 236 -
Stage 2	-	-	- 369 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	395	-	-	-	377
HCM Lane V/C Ratio	0.011	-	-	-	0.049
HCM Control Delay (s)	14.2	-	-	-	15
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th Signalized Intersection Summary
7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2019 Existing AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1311	460	243	851	4	56	1	32	8	81	19
Future Volume (veh/h)	10	1311	460	243	851	4	56	1	32	8	81	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1490	523	276	967	5	64	1	36	9	92	22
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	430	2395	827	298	3955	20	148	2	378	35	156	35
Arrive On Green	0.64	0.64	0.64	0.17	1.00	1.00	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	578	3748	1294	1781	5242	27	578	12	1585	19	1025	227
Grp Volume(v), veh/h	11	1351	662	276	628	344	65	0	36	123	0	0
Grp Sat Flow(s),veh/h/ln	578	1702	1637	1781	1702	1865	590	0	1585	1272	0	0
Q Serve(g_s), s	0.8	28.5	29.4	8.2	0.0	0.0	0.0	0.0	2.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.8	28.5	29.4	8.2	0.0	0.0	15.6	0.0	2.1	16.0	0.0	0.0
Prop In Lane	1.00		0.79	1.00		0.01	0.98		1.00	0.07		0.18
Lane Grp Cap(c), veh/h	430	2175	1046	298	2568	1407	149	0	378	226	0	0
V/C Ratio(X)	0.03	0.62	0.63	0.93	0.24	0.24	0.44	0.00	0.10	0.54	0.00	0.00
Avail Cap(c_a), veh/h	430	2175	1046	538	2568	1407	280	0	540	406	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.0	13.0	13.1	23.2	0.0	0.0	49.7	0.0	35.6	46.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.3	2.9	6.2	0.2	0.4	2.0	0.0	0.1	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	15.4	15.8	8.7	0.1	0.3	3.6	0.0	1.5	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	14.3	16.0	29.3	0.2	0.4	51.7	0.0	35.7	48.4	0.0	0.0
LnGrp LOS	A	B	B	C	A	A	D	A	D	D	A	A
Approach Vol, veh/h	2024				1248				101			
Approach Delay, s/veh	14.8				6.7				46.0			
Approach LOS	B				A				D			
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.9	82.3		23.8		96.2		23.8				
Change Period (Y+Rc), s	3.5	5.7		5.5		5.7		5.5				
Max Green Setting (Gmax), s	26.5	48.3		30.5		78.3		30.5				
Max Q Clear Time (g_c+I1), s	10.2	31.4		17.6		2.0		18.0				
Green Ext Time (p_c), s	0.2	14.3		0.3		11.5		0.4				
Intersection Summary												
HCM 6th Ctrl Delay	14.0											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2019 Existing AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳			↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		
Traffic Volume (veh/h)	174	741	438	86	785	53	67	41	29	94	254	259
Future Volume (veh/h)	174	741	438	86	785	53	67	41	29	94	254	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	198	842	498	98	892	60	76	47	0	107	289	294
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	436	1924	896	350	2627	176	113	119		267	561	345
Arrive On Green	0.14	1.00	1.00	0.04	0.54	0.54	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3404	1585	1781	4888	328	1725	1811	1535	1781	3741	1585
Grp Volume(v), veh/h	198	842	498	98	621	331	76	47	0	107	289	294
Grp Sat Flow(s), veh/h/ln	1781	1702	1585	1781	1702	1811	1725	1811	1535	1781	1870	1585
Q Serve(g_s), s	6.0	0.0	0.0	3.0	12.4	12.4	5.2	3.0	0.0	6.5	8.5	18.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	3.0	12.4	12.4	5.2	3.0	0.0	6.5	8.5	18.0
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	436	1924	896	350	1830	974	113	119		267	561	345
V/C Ratio(X)	0.45	0.44	0.56	0.28	0.34	0.34	0.67	0.40		0.40	0.52	0.85
Avail Cap(c_a), veh/h	584	1924	896	441	1830	974	172	181		267	561	345
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	11.3	15.7	15.7	54.8	53.8	0.0	46.1	47.0	45.1
Incr Delay (d2), s/veh	0.2	0.5	1.8	0.2	0.5	1.0	5.1	1.6	0.0	0.4	0.4	17.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	8.5	0.3	0.8	2.0	8.3	8.9	4.3	2.5	0.0	5.3	7.2	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.4	0.5	1.8	11.5	16.2	16.7	59.9	55.4	0.0	46.5	47.3	62.4
LnGrp LOS	B	A	A	B	B	B	E	E		D	D	E
Approach Vol, veh/h	1538			1050			123			690		
Approach Delay, s/veh	2.2			15.9			58.1			53.6		
Approach LOS	A			B			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	3.8	73.8		13.9	11.6	70.5		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.5	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+1.0), s	15.0	2.0		7.2	8.0	14.4		20.0				
Green Ext Time (p_c), s	0.0	12.5		0.1	0.1	6.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

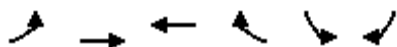
KAFB EUL MAXQ
2019 Existing PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	96	1124	3	0	1958	109	425	105	80	57	0	110
Future Volume (veh/h)	96	1124	3	0	1958	109	425	105	80	57	0	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1159	3	0	2019	112	438	108	82	59	0	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	3417	1272	333	3102	1026	318	366	256	234	160	143
Arrive On Green	0.03	0.67	0.67	0.00	1.00	1.00	0.13	0.18	0.18	0.04	0.00	0.09
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1997	1399	1781	1777	1585
Grp Volume(v), veh/h	99	1159	3	0	2019	112	438	95	95	59	0	113
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1619	1781	1777	1585
Q Serve(g_s), s	2.6	12.6	0.0	0.0	0.0	0.0	17.3	6.0	6.6	3.9	0.0	9.1
Cycle Q Clear(g_c), s	2.6	12.6	0.0	0.0	0.0	0.0	17.3	6.0	6.6	3.9	0.0	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		1.00
Lane Grp Cap(c), veh/h	232	3417	1272	333	3102	1026	318	325	296	234	160	143
V/C Ratio(X)	0.43	0.34	0.00	0.00	0.65	0.11	1.38	0.29	0.32	0.25	0.00	0.79
Avail Cap(c_a), veh/h	301	3417	1272	462	3102	1026	318	493	449	400	493	440
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.1	9.2	2.5	0.0	0.0	0.0	48.2	45.8	46.1	50.9	0.0	58.0
Incr Delay (d2), s/veh	0.5	0.3	0.0	0.0	0.9	0.2	187.9	0.5	0.6	0.2	0.0	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	7.8	0.0	0.0	0.5	0.1	29.1	4.9	4.9	3.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	9.5	2.6	0.0	0.9	0.2	236.1	46.3	46.7	51.1	0.0	67.4
LnGrp LOS	A	A	A	A	A	A	F	D	D	D	A	E
Approach Vol, veh/h		1261			2131			628			172	
Approach Delay, s/veh		9.4			0.9			178.7			61.8	
Approach LOS		A			A			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	92.0	8.7	29.3	8.0	84.0	20.8	17.2				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	0.0	14.6	5.9	8.6	4.6	2.0	19.3	11.1				
Green Ext Time (p_c), s	0.0	13.7	0.0	1.1	0.0	34.1	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2019 Existing PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑↑
Traffic Volume (veh/h)	43	1169	2054	65	52	54
Future Volume (veh/h)	43	1169	2054	65	52	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	1193	2096	66	53	55
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	213	4386	4138	130	107	96
Arrive On Green	0.02	1.00	0.81	0.81	0.06	0.06
Sat Flow, veh/h	1781	5274	5254	160	1781	1585
Grp Volume(v), veh/h	44	1193	1401	761	53	55
Grp Sat Flow(s), veh/h/ln	1781	1702	1702	1842	1781	1585
Q Serve(g_s), s	0.5	0.0	16.9	17.1	3.7	4.4
Cycle Q Clear(g_c), s	0.5	0.0	16.9	17.1	3.7	4.4
Prop In Lane	1.00			0.09	1.00	1.00
Lane Grp Cap(c), veh/h	213	4386	2770	1498	107	96
V/C Ratio(X)	0.21	0.27	0.51	0.51	0.49	0.58
Avail Cap(c_a), veh/h	311	4386	2770	1498	423	377
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.4	0.0	3.8	3.8	59.2	59.5
Incr Delay (d2), s/veh	0.5	0.1	0.7	1.2	3.5	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.1	7.7	8.6	3.2	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.8	0.1	4.5	5.1	62.6	64.8
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h		1237	2162		108	
Approach Delay, s/veh		0.3	4.7		63.8	
Approach LOS		A	A		E	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		116.7			5.9	110.8
Change Period (Y+Rc), s		5.0			3.5	5.0
Max Green Setting (Gmax), s		88.6			9.5	76.0
Max Q Clear Time (g_c+I1), s		2.0			2.5	19.1
Green Ext Time (p_c), s		17.4			0.0	39.2
Intersection Summary						
HCM 6th Ctrl Delay			5.0			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	1250	2107	4	2	15
Future Vol, veh/h	14	1250	2107	4	2	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	1302	2195	4	2	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2199	0	-	0	2748	1100
Stage 1	-	-	-	-	2197	-
Stage 2	-	-	-	-	551	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	99	-	-	-	36	178
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	99	-	-	-	31	178
Mov Cap-2 Maneuver	-	-	-	-	31	-
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	494	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		42.3		
HCM LOS	E					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	99	-	-	-	114	
HCM Lane V/C Ratio	0.147	-	-	-	0.155	
HCM Control Delay (s)	47.5	-	-	-	42.3	
HCM Lane LOS	E	-	-	-	E	
HCM 95th %tile O(veh)	0.5	-	-	-	0.5	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑↑	↑↑↑↱		↰	
Traffic Vol, veh/h	16	1212	2117	2	0	9
Future Vol, veh/h	16	1212	2117	2	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	1263	2205	2	0	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2207	0	-	0	2745	1104
Stage 1	-	-	-	-	2206	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	98	-	-	-	36	177
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	98	-	-	-	30	177
Mov Cap-2 Maneuver	-	-	-	-	30	-
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	501	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		26.5		
HCM LOS	D					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	98	-	-	-	177	
HCM Lane V/C Ratio	0.17	-	-	-	0.053	
HCM Control Delay (s)	49.1	-	-	-	26.5	
HCM Lane LOS	E	-	-	-	D	
HCM 95th %tile O(veh)	0.6	-	-	-	0.2	

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2019 Existing PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1143	41	22	1561	23	517	46	196	13	9	38
Future Volume (veh/h)	29	1143	41	22	1561	23	517	46	196	13	9	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1166	42	22	1593	23	528	47	200	13	9	39
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	2563	92	244	2832	41	203	13	603	34	34	61
Arrive On Green	0.51	0.51	0.51	0.03	1.00	1.00	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	313	5059	182	1781	5186	75	408	36	1585	0	93	165
Grp Volume(v), veh/h	30	784	424	22	1046	570	575	0	200	61	0	0
Grp Sat Flow(s),veh/h/ln	313	1702	1838	1781	1702	1857	444	0	1585	258	0	0
Q Serve(g_s), s	6.8	19.2	19.2	0.8	0.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.8	19.2	19.2	0.8	0.0	0.0	47.8	0.0	11.6	47.8	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.04	0.92		1.00	0.21		0.64
Lane Grp Cap(c), veh/h	214	1724	931	244	1859	1014	216	0	603	129	0	0
V/C Ratio(X)	0.14	0.45	0.46	0.09	0.56	0.56	2.66	0.00	0.33	0.47	0.00	0.00
Avail Cap(c_a), veh/h	214	1724	931	352	1859	1014	216	0	603	129	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.5	20.6	20.6	15.9	0.0	0.0	47.0	0.0	28.6	33.3	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.9	1.6	0.0	0.9	1.6	758.8	0.0	0.3	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	12.1	13.1	0.5	0.4	0.8	89.4	0.0	8.0	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	21.4	22.2	15.9	0.9	1.6	805.7	0.0	28.9	36.0	0.0	0.0
LnGrp LOS	B	C	C	B	A	A	F	A	C	D	A	A
Approach Vol, veh/h	1238			1638			775			61		
Approach Delay, s/veh	21.6			1.4			605.3			36.0		
Approach LOS	C			A			F			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.1	71.6		53.3		76.7		53.3				
Change Period (Y+Rc), s	3.5	5.7		5.5		5.7		5.5				
Max Green Setting (Gmax), s	9.5	58.0		47.8		71.0		47.8				
Max Q Clear Time (g_c+I1), s	2.8	21.2		49.8		2.0		49.8				
Green Ext Time (p_c), s	0.0	15.1		0.0		27.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	134.8											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2019 Existing PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Traffic Volume (veh/h)	261	1080	48	9	1159	163	215	152	63	67	37	302
Future Volume (veh/h)	261	1080	48	9	1159	163	215	152	63	67	37	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	281	1161	52	10	1246	175	231	163	0	72	40	325
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	305	2396	107	232	1694	238	267	281		704	370	488
Arrive On Green	0.15	0.64	0.64	0.01	0.37	0.37	0.15	0.15	0.00	0.20	0.20	0.20
Sat Flow, veh/h	1781	5010	224	1781	4525	635	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	281	789	424	10	937	484	231	163	0	72	40	325
Grp Sat Flow(s),veh/h/ln	1781	1702	1830	1781	1702	1756	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	12.4	15.8	15.9	0.5	30.9	30.9	16.5	10.5	0.0	2.2	2.3	23.4
Cycle Q Clear(g_c), s	12.4	15.8	15.9	0.5	30.9	30.9	16.5	10.5	0.0	2.2	2.3	23.4
Prop In Lane	1.00		0.12	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	1628	875	232	1274	657	267	281		704	370	488
V/C Ratio(X)	0.92	0.48	0.48	0.04	0.74	0.74	0.86	0.58		0.10	0.11	0.67
Avail Cap(c_a), veh/h	308	1628	875	385	1274	657	434	456		862	452	558
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	15.2	15.2	25.0	35.1	35.1	54.0	51.4	0.0	42.5	42.6	39.0
Incr Delay (d2), s/veh	28.5	0.9	1.7	0.0	3.8	7.2	8.1	1.4	0.0	0.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.2	8.8	9.6	0.3	19.1	20.3	12.6	8.8	0.0	1.7	1.9	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	16.1	16.9	25.1	38.9	42.3	62.1	52.9	0.0	42.6	42.6	40.7
LnGrp LOS	D	B	B	C	D	D	E	D		D	D	D
Approach Vol, veh/h	1494			1431			394			437		
Approach Delay, s/veh	23.6			40.0			58.3			41.2		
Approach LOS	C			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	68.2		25.5	17.9	54.7		31.9				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (G_max), s	12.5	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I), s	12.5	17.9		18.5	14.4	32.9		25.4				
Green Ext Time (p_c), s	0.0	6.8		1.0	0.0	0.0		0.5				

Intersection Summary

HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

**APPENDIX B:
FORECAST TURNING MOVEMENTS
AND TRIP DISTRIBUTION**

Scenario - 1

Scenario Name: Phase 1A - AM

User Group:

Dev. phase: 1

No. of Years to Project 0
Traffic :

Analyst Note:

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
932 - High-Turnover (Sit-Down) Restaurant	General	1000 Sq. Ft. GFA	7.1	Weekday, Peak Hour of Adjacent Street Traffic,	Average	39	32	71
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban				9.94	55%	45%	
934 - Fast-Food Restaurant with Drive-Through	General	1000 Sq. Ft. GFA	7.8	Weekday, Peak Hour of Adjacent Street Traffic,	Average	160	154	314
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban				40.19	51%	49%	
710 - General Office Building	General	1000 Sq. Ft. GFA	128	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	126	21	147
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban				T = 0.94(X) + 26.49	86%	14%	

VEHICLE TO PERSON TRIP CONVERSION**BASELINE SITE VEHICLE CHARACTERISTICS:**

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	55	45
934 - Fast-Food Restaurant with Drive-Through Window	100	100	1	1	51	49
710 - General Office Building	100	100	1	1	86	14

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	39	32	0	0	39	32
	71		0		71	
934 - Fast-Food Restaurant with Drive-Through Window	160	154	0	0	160	154
	314		0		314	
710 - General Office Building	126	21	0	0	126	21
	147		0		147	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT**MODE SHARE:**

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
932 - High-Turnover (Sit-Down) Restaurant	98%	98%	0%	0%	2%	2%
934 - Fast-Food Restaurant with Drive-Through Window	98%	100%	0%	0%	2%	0%
710 - General Office Building	98%	98%	0%	0%	2%	2%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	1.00	1.00
934 - Fast-Food Restaurant with Drive-Through Window	1.00	1.00
710 - General Office Building	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehicle Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehicle Trips
932 - High-Turnover (Sit-Down) Restaurant	39	98%	1.00	38	32	98%	1.00	31
934 - Fast-Food Restaurant with Drive-	160	98%	1.00	157	154	100%	1.00	154
710 - General Office Building	126	98%	1.00	123	21	98%	1.00	21

INTERNAL VEHICLE TRIP REDUCTION**INTERNAL PERSON TRIPS:****932 - High-Turnover (Sit-Down) Restaurant**

Internal Person Trips From	Entry	Exit	Total
934 - Fast-Food Restaurant with Drive-Through Window	0	0	0
710 - General Office Building	4	5	9
Total Internal Person Trips	4	5	9

934 - Fast-Food Restaurant with Drive-Through Window

Internal Person Trips From	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	0	0	0
710 - General Office Building	6	9	15
Total Internal Person Trips	6	9	15

710 - General Office Building

Internal Person Trips From	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	5	4	9
934 - Fast-Food Restaurant with Drive-Through Window	9	6	15
Total Internal Person Trips	14	10	24

INTERNAL VEHICLE TRIPS AND CAPTURE:**932 - High-Turnover (Sit-Down) Restaurant**

Total Internal Person Trips	4	5	9
Vehicle Mode Share	98%	98%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	4	5	9
Total External Vehicle Trips	34	26	60
Internal Vehicle Trip Capture	11%	16%	13%

934 - Fast-Food Restaurant with Drive-Through Window

Total Internal Person Trips	6	9	15
Vehicle Mode Share	98%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	6	9	15
Total External Vehicle Trips	151	145	296
Internal Vehicle Trip Capture	4%	6%	5%

710 - General Office Building

Total Internal Person Trips	14	10	24
Vehicle Mode Share	98%	98%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	14	10	24
Total External Vehicle Trips	109	11	120
Internal Vehicle Trip Capture	11%	48%	17%

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	34	26	49.00%	49.00%	17	13
934 - Fast-Food Restaurant with Drive-Through Window	151	145	49.00%	49.00%	74	71
710 - General Office Building	109	11	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	34	26	0.00%	0.00%	0	0
934 - Fast-Food Restaurant with Drive-Through Window	151	145	0.00%	0.00%	0	0
710 - General Office Building	109	11	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	[External - (Pass-by + Diverted)] Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	17	13	0.00%	0.00%	0	0
934 - Fast-Food Restaurant with Drive-Through Window	77	74	0.00%	0.00%	0	0
710 - General Office Building	109	11	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	17	13	30
934 - Fast-Food Restaurant with Drive-Through Window	77	74	151
710 - General Office Building	109	11	120

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	17	13	30
934 - Fast-Food Restaurant with Drive-Through Window	77	74	151
710 - General Office Building	109	11	120

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	0	0	0
934 - Fast-Food Restaurant with Drive-Through Window	0	0	0
710 - General Office Building	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	325	207	532
Vehicle Trips After Multi-modal Adjustment	318	206	524
Internal Vehicle Trips	24	24	48
External Vehicle Trips	294	182	476
Internal Vehicle Trip Capture	8%	12%	10%
Pass-by Vehicle Trips	91	84	175
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	203	98	301
PPV	203	98	301
Truck	0	0	0
Person Trips by Other Modes	7	1	8

Scenario - 2

Scenario Name: Phase 1A - PM

User Group:

Dev. phase: 1

No. of Years to Project 0

Analyst Note:

Traffic :

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
932 - High-Turnover (Sit-Down) Restaurant	General	1000 Sq. Ft. GFA	7.1	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4	Average	43	26	69
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban				9.77	62%	38%	
934 - Fast-Food Restaurant with Drive-Through	General	1000 Sq. Ft. GFA	7.8	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4	Average	133	122	255
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban				32.67	52%	48%	
710 - General Office Building	General	1000 Sq. Ft. GFA	128	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG)	23	121	144
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban				$\ln(T) = 0.95\ln(X) + 0.36$	16%	84%	

VEHICLE TO PERSON TRIP CONVERSION**BASELINE SITE VEHICLE CHARACTERISTICS:**

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	62	38
934 - Fast-Food Restaurant with Drive-Through Window	100	100	1	1	52	48
710 - General Office Building	100	100	1	1	16	84

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	43	26	0	0	43	26
		69	0	0		69
934 - Fast-Food Restaurant with Drive-Through Window	133	122	0	0	133	122
		255	0	0		255
710 - General Office Building	23	121	0	0	23	121
		144	0	0		144

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT**MODE SHARE:**

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
932 - High-Turnover (Sit-Down) Restaurant	98%	98%	0%	0%	2%	2%
934 - Fast-Food Restaurant with Drive-Through Window	98%	98%	0%	0%	2%	2%
710 - General Office Building	98%	98%	0%	0%	2%	2%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	1.00	1.00
934 - Fast-Food Restaurant with Drive-Through Window	1.00	1.00
710 - General Office Building	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehicle Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehicle Trips
932 - High-Turnover (Sit-Down) Restaurant	43	98%	1.00	42	26	98%	1.00	25
934 - Fast-Food Restaurant with Drive-	133	98%	1.00	130	122	98%	1.00	120
710 - General Office Building	23	98%	1.00	23	121	98%	1.00	119

INTERNAL VEHICLE TRIP REDUCTION**LAND USE GROUP ASSIGNMENT:**

Land Use	Land Use Group
932 - High-Turnover (Sit-Down) Restaurant	Restaurant
934 - Fast-Food Restaurant with Drive-Through Window	Restaurant
710 - General Office Building	Office

INTERNAL PERSON TRIPS:**932 - High-Turnover (Sit-Down) Restaurant**

Internal Person Trips From	Entry	Exit	Total
934 - Fast-Food Restaurant with Drive-Through Window	0	0	0
710 - General Office Building	0	0	1
Total Internal Person Trips	0	0	0

934 - Fast-Food Restaurant with Drive-Through Window

Internal Person Trips From	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	0	0	0
710 - General Office Building	1	2	3
Total Internal Person Trips	1	2	3

710 - General Office Building

Internal Person Trips From	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	0	0	1
934 - Fast-Food Restaurant with Drive-Through Window	2	1	3
Total Internal Person Trips	2	1	3

INTERNAL VEHICLE TRIPS AND CAPTURE:**932 - High-Turnover (Sit-Down) Restaurant**

Total Internal Person Trips	0	0	0
Vehicle Mode Share	98%	98%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	0	0	0
Total External Vehicle Trips	42	25	67
Internal Vehicle Trip Capture	0%	0%	0%

934 - Fast-Food Restaurant with Drive-Through Window

Total Internal Person Trips	1	2	3
Vehicle Mode Share	98%	98%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	1	2	3
Total External Vehicle Trips	129	118	247
Internal Vehicle Trip Capture	1%	2%	1%

710 - General Office Building

Total Internal Person Trips	2	1	3
Vehicle Mode Share	98%	98%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	2	1	3
Total External Vehicle Trips	21	118	139
Internal Vehicle Trip Capture	9%	1%	2%

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	42	25	43.00%	43.00%	18	11
934 - Fast-Food Restaurant with Drive-Through Window	129	118	50.00%	50.00%	65	59
710 - General Office Building	21	118	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	42	25	0.00%	0.00%	0	0
934 - Fast-Food Restaurant with Drive-Through Window	129	118	0.00%	0.00%	0	0
710 - General Office Building	21	118	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
932 - High-Turnover (Sit-Down) Restaurant	24	14	0.00%	0.00%	0	0
934 - Fast-Food Restaurant with Drive-Through Window	64	59	0.00%	0.00%	0	0
710 - General Office Building	21	118	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	24	14	38
934 - Fast-Food Restaurant with Drive-Through Window	64	59	123
710 - General Office Building	21	118	139

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	24	14	38
934 - Fast-Food Restaurant with Drive-Through Window	64	59	123
710 - General Office Building	21	118	139

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
932 - High-Turnover (Sit-Down) Restaurant	0	0	0
934 - Fast-Food Restaurant with Drive-Through Window	0	0	0
710 - General Office Building	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	199	269	468
Vehicle Trips After Multi-modal Adjustment	195	264	459
Internal Vehicle Trips	3	3	6
External Vehicle Trips	192	261	453
Internal Vehicle Trip Capture	2%	1%	2%
Pass-by Vehicle Trips	83	70	153
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	109	191	300
PPV	109	191	300
Truck	0	0	0
Person Trips by Other Modes	4	5	9

**APPENDIX C:
2025 NO BUILD INTERSECTION CAPACITY
ANALYSIS**

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

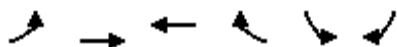
KAFB EUL MAXQ
2025 No Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	2099	625	85	920	23	4	1	2	84	123	180
Future Volume (veh/h)	110	2099	625	85	920	23	4	1	2	84	123	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	2209	658	89	968	24	4	1	2	88	129	189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	3434	1071	154	3404	1147	100	166	148	292	262	234
Arrive On Green	0.04	0.67	0.67	0.03	0.67	0.67	0.00	0.09	0.09	0.06	0.15	0.15
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1777	1585	1781	1777	1585
Grp Volume(v), veh/h	116	2209	658	89	968	24	4	1	2	88	129	189
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.5	30.0	27.6	1.9	9.4	0.5	0.2	0.1	0.1	5.2	8.0	13.9
Cycle Q Clear(g_c), s	2.5	30.0	27.6	1.9	9.4	0.5	0.2	0.1	0.1	5.2	8.0	13.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	460	3434	1071	154	3404	1147	100	166	148	292	262	234
V/C Ratio(X)	0.25	0.64	0.61	0.58	0.28	0.02	0.04	0.01	0.01	0.30	0.49	0.81
Avail Cap(c_a), veh/h	574	3434	1071	296	3404	1147	256	523	466	353	523	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.1	11.3	10.8	21.5	8.2	4.7	49.3	49.3	49.4	43.8	47.0	49.5
Incr Delay (d2), s/veh	0.1	0.9	2.6	1.2	0.2	0.0	0.1	0.0	0.0	0.2	1.4	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	15.4	14.8	3.1	5.7	0.3	0.2	0.1	0.1	4.2	6.6	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	12.3	13.4	22.7	8.4	4.7	49.4	49.3	49.4	44.0	48.5	56.1
LnGrp LOS	A	B	B	C	A	A	D	D	D	D	D	E
Approach Vol, veh/h	2983		1081				7		406			
Approach Delay, s/veh	12.3		9.5				49.4		51.0			
Approach LOS	B		A				D		D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	85.7	10.3	16.7	7.9	85.0	3.9	23.2				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.2	10.9	35.3				
Max Q Clear Time (g_c+I1), s	3.9	32.0	7.2	2.1	4.5	11.4	2.2	15.9				
Green Ext Time (p_c), s	0.0	10.6	0.0	0.0	0.0	10.8	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2025 No Build AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑↑
Traffic Volume (veh/h)	47	1928	1147	54	66	54
Future Volume (veh/h)	47	1928	1147	54	66	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	2029	1207	57	69	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	441	4369	3963	187	79	70
Arrive On Green	0.02	0.86	0.79	0.79	0.04	0.04
Sat Flow, veh/h	1781	5274	5164	236	1781	1585
Grp Volume(v), veh/h	49	2029	822	442	69	57
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1828	1781	1585
Q Serve(g_s), s	0.4	8.6	5.9	5.9	3.5	3.2
Cycle Q Clear(g_c), s	0.4	8.6	5.9	5.9	3.5	3.2
Prop In Lane	1.00			0.13	1.00	1.00
Lane Grp Cap(c), veh/h	441	4369	2700	1450	79	70
V/C Ratio(X)	0.11	0.46	0.30	0.30	0.87	0.81
Avail Cap(c_a), veh/h	591	4369	2700	1450	79	70
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.6	1.6	2.5	2.5	42.7	42.6
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.5	60.3	48.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.7	2.0	2.3	5.1	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.6	1.8	2.8	3.1	103.0	91.1
LnGrp LOS	A	A	A	A	F	F
Approach Vol, veh/h		2078	1264		126	
Approach Delay, s/veh		1.8	2.9		97.7	
Approach LOS		A	A		F	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		82.0			5.6	76.4
Change Period (Y+Rc), s		5.0			3.5	5.0
Max Green Setting (Gmax), s		76.6			9.7	63.0
Max Q Clear Time (g_c+I1), s		10.6			2.4	7.9
Green Ext Time (p_c), s		40.9			0.0	16.8
Intersection Summary						
HCM 6th Ctrl Delay			5.7			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	2047	1174	0	0	14
Future Vol, veh/h	7	2047	1174	0	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	2178	1249	0	0	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1249	0	-	0	2134	625
Stage 1	-	-	-	-	1249	-
Stage 2	-	-	-	-	885	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	296	-	-	-	79	367
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	329	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	296	-	-	-	77	367
Mov Cap-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	329	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		15.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	296	-	-	-	367	
HCM Lane V/C Ratio	0.025	-	-	-	0.041	
HCM Control Delay (s)	17.5	-	-	-	15.2	
HCM Lane LOS	C	-	-	-	C	
HCM 95th %tile O(veh)	0.1	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	2013	1157	6	1	18
Future Vol, veh/h	4	2013	1157	6	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	4	2188	1258	7	1	20
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1265	0	-	0	2145	633
Stage 1	-	-	-	-	1262	-
Stage 2	-	-	-	-	883	-
Critical Hdwy	5.34	-	-	-	5.82	7.22
Critical Hdwy Stg 1	-	-	-	-	6.72	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	3.12	-	-	-	3.86	3.96
Pot Cap-1 Maneuver	291	-	-	-	74	355
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	322	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	291	-	-	-	73	355
Mov Cap-2 Maneuver	-	-	-	-	73	-
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	322	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		18.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	291	-	-	-	295	
HCM Lane V/C Ratio	0.015	-	-	-	0.07	
HCM Control Delay (s)	17.6	-	-	-	18.1	
HCM Lane LOS	C	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2025 No Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1518	510	269	1094	4	62	1	35	9	90	21
Future Volume (veh/h)	11	1518	510	269	1094	4	62	1	35	9	90	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1870	1870	1870
Adj Flow Rate, veh/h	12	1668	560	296	1202	4	68	1	38	10	99	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	2	2	2
Cap, veh/h	303	1999	651	316	3592	12	144	2	532	35	216	46
Arrive On Green	0.52	0.52	0.52	0.26	1.00	1.00	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	464	3810	1241	1781	5254	17	378	8	1510	11	967	206
Grp Volume(v), veh/h	12	1485	743	296	779	427	69	0	38	132	0	0
Grp Sat Flow(s),veh/h/ln	464	1702	1647	1781	1702	1867	386	0	1510	1184	0	0
Q Serve(g_s), s	1.5	44.1	46.9	13.5	0.0	0.0	0.0	0.0	2.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	1.5	44.1	46.9	13.5	0.0	0.0	25.0	0.0	2.0	25.4	0.0	0.0
Prop In Lane	1.00		0.75	1.00		0.01	0.99		1.00	0.08		0.17
Lane Grp Cap(c), veh/h	303	1786	864	316	2327	1277	146	0	532	296	0	0
V/C Ratio(X)	0.04	0.83	0.86	0.94	0.33	0.33	0.47	0.00	0.07	0.45	0.00	0.00
Avail Cap(c_a), veh/h	303	1786	864	478	2327	1277	183	0	580	351	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	24.0	24.7	29.7	0.0	0.0	45.9	0.0	25.8	39.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	4.7	10.9	14.3	0.3	0.6	2.4	0.0	0.1	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	24.5	26.8	12.7	0.2	0.4	3.8	0.0	1.3	6.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	28.7	35.6	43.9	0.3	0.6	48.3	0.0	25.8	40.5	0.0	0.0
LnGrp LOS	B	C	D	D	A	A	D	A	C	D	A	A
Approach Vol, veh/h	2240			1502			107			132		
Approach Delay, s/veh	30.9			9.0			40.3			40.5		
Approach LOS	C			A			D			D		
Timer - Assigned Phs	1	2	4			6		8				
Phs Duration (G+Y+Rc), s	19.2	68.2	32.6			87.4		32.6				
Change Period (Y+Rc), s	3.5	5.7	5.5			5.7		5.5				
Max Green Setting (Gmax), s	26.5	48.3	30.5			78.3		30.5				
Max Q Clear Time (g_c+I1), s	15.5	48.9	27.0			2.0		27.4				
Green Ext Time (p_c), s	0.2	0.0	0.1			16.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	23.2											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 No Build AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	205	874	485	95	983	59	74	45	32	104	281	324
Future Volume (veh/h)	205	874	485	95	983	59	74	45	32	104	281	324
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	233	993	551	108	1117	67	84	51	0	118	319	368
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	384	1911	890	314	2591	155	114	119		267	561	363
Arrive On Green	0.16	1.00	1.00	0.04	0.53	0.53	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3404	1585	1781	4926	295	1725	1811	1535	1781	3741	1585
Grp Volume(v), veh/h	233	993	551	108	772	412	84	51	0	118	319	368
Grp Sat Flow(s), veh/h/ln	1781	1702	1585	1781	1702	1817	1725	1811	1535	1781	1870	1585
Q Serve(g_s), s	7.4	0.0	0.0	3.3	16.7	16.7	5.7	3.2	0.0	7.2	9.5	18.0
Cycle Q Clear(g_c), s	7.4	0.0	0.0	3.3	16.7	16.7	5.7	3.2	0.0	7.2	9.5	18.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	384	1911	890	314	1790	956	114	119		267	561	363
V/C Ratio(X)	0.61	0.52	0.62	0.34	0.43	0.43	0.74	0.43		0.44	0.57	1.01
Avail Cap(c_a), veh/h	512	1911	890	398	1790	956	172	181		267	561	363
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	0.0	0.0	11.8	17.4	17.4	55.0	53.9	0.0	46.4	47.4	46.3
Incr Delay (d2), s/veh	0.4	0.6	2.0	0.2	0.8	1.4	6.8	1.8	0.0	0.4	0.9	50.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.1	0.3	0.9	2.3	10.6	11.4	4.9	2.8	0.0	5.8	8.0	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.9	0.6	2.0	12.1	18.2	18.9	61.8	55.7	0.0	46.9	48.3	97.0
LnGrp LOS	B	A	A	B	B	B	E	E		D	D	F
Approach Vol, veh/h	1777			1292			135			805		
Approach Delay, s/veh	2.5			17.9			59.5			70.3		
Approach LOS	A			B			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	73.4		13.9	13.0	69.1		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+1.3), s	15.3	2.0		7.7	9.4	18.7		20.0				
Green Ext Time (p_c), s	0.0	15.9		0.1	0.1	8.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

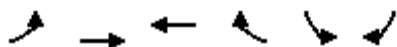
KAFB EUL MAXQ
2025 No Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	1423	6	0	2283	121	474	116	89	63	0	236
Future Volume (veh/h)	244	1423	6	0	2283	121	474	116	89	63	0	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1467	6	0	2354	125	489	120	92	65	0	243
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	2985	1137	207	2474	833	321	530	376	333	310	277
Arrive On Green	0.07	0.58	0.58	0.00	0.32	0.32	0.13	0.27	0.27	0.04	0.00	0.17
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1985	1409	1781	1777	1585
Grp Volume(v), veh/h	252	1467	6	0	2354	125	489	106	106	65	0	243
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1617	1781	1777	1585
Q Serve(g_s), s	9.5	21.8	0.1	0.0	58.6	6.7	17.3	6.1	6.7	3.9	0.0	19.4
Cycle Q Clear(g_c), s	9.5	21.8	0.1	0.0	58.6	6.7	17.3	6.1	6.7	3.9	0.0	19.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	190	2985	1137	207	2474	833	321	474	431	333	310	277
V/C Ratio(X)	1.33	0.49	0.01	0.00	0.95	0.15	1.52	0.22	0.24	0.20	0.00	0.88
Avail Cap(c_a), veh/h	190	2985	1137	335	2474	833	321	493	449	497	493	440
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.76	0.76	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.2	15.7	5.2	0.0	42.4	21.3	40.2	37.2	37.4	41.5	0.0	52.3
Incr Delay (d2), s/veh	178.2	0.6	0.0	0.0	7.9	0.3	250.6	0.2	0.3	0.1	0.0	11.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	24.1	12.8	0.1	0.0	34.4	4.8	46.8	4.9	4.9	3.1	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	219.4	16.3	5.2	0.0	50.3	21.6	290.8	37.4	37.7	41.6	0.0	63.8
LnGrp LOS	F	B	A	A	D	C	F	D	D	D	A	E
Approach Vol, veh/h	1725		2479				701			308		
Approach Delay, s/veh	45.9		48.9				214.2			59.1		
Approach LOS	D		D				F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	81.0	8.8	40.2	13.0	68.0	20.8	28.2				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	0.0	23.8	5.9	8.7	11.5	60.6	19.3	21.4				
Green Ext Time (p_c), s	0.0	15.6	0.0	1.3	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	70.8											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2025 No Build PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	48	1473	2390	72	58	60
Future Volume (veh/h)	48	1473	2390	72	58	60
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1503	2439	73	59	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	172	4384	4140	123	108	96
Arrive On Green	0.04	1.00	0.81	0.81	0.06	0.06
Sat Flow, veh/h	1781	5274	5264	152	1781	1585
Grp Volume(v), veh/h	49	1503	1625	887	59	61
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1843	1781	1585
Q Serve(g_s), s	0.6	0.0	22.3	22.6	4.2	4.9
Cycle Q Clear(g_c), s	0.6	0.0	22.3	22.6	4.2	4.9
Prop In Lane	1.00			0.08	1.00	1.00
Lane Grp Cap(c), veh/h	172	4384	2766	1497	108	96
V/C Ratio(X)	0.28	0.34	0.59	0.59	0.55	0.63
Avail Cap(c_a), veh/h	268	4384	2766	1497	423	377
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2	0.0	4.4	4.4	59.3	59.6
Incr Delay (d2), s/veh	0.8	0.2	0.9	1.7	4.2	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.1	9.6	10.8	3.6	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.0	0.2	5.3	6.1	63.5	66.4
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h		1552	2512		120	
Approach Delay, s/veh		0.4	5.6		65.0	
Approach LOS		A	A		E	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		116.6			6.0	110.6
Change Period (Y+Rc), s		5.0			3.5	5.0
Max Green Setting (Gmax), s		88.6			9.5	76.0
Max Q Clear Time (g_c+I1), s		2.0			2.6	24.6
Green Ext Time (p_c), s		26.5			0.0	42.6
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	1563	2449	4	2	17
Future Vol, veh/h	16	1563	2449	4	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	1628	2551	4	2	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2555	0	-	0	3238	1278
Stage 1	-	-	-	-	2553	-
Stage 2	-	-	-	-	685	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	65	-	-	-	19	135
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	65	-	-	-	14	135
Mov Cap-2 Maneuver	-	-	-	-	14	-
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	420	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		74.2		
HCM LOS	F					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	65	-	-	-	71	
HCM Lane V/C Ratio	0.256	-	-	-	0.279	
HCM Control Delay (s)	78.5	-	-	-	74.2	
HCM Lane LOS	F	-	-	-	F	
HCM 95th %tile O(veh)	0.9	-	-	-	1	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1521	2460	2	0	10
Future Vol, veh/h	18	1521	2460	2	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	1584	2563	2	0	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2565	0	-	0	3236	1283
Stage 1	-	-	-	-	2564	-
Stage 2	-	-	-	-	672	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	64	-	-	-	19	134
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	427	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	64	-	-	-	13	134
Mov Cap-2 Maneuver	-	-	-	-	13	-
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	427	-
Approach	EB	WB		SB		
HCM Control Delay, s	1	0		34.1		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	64	-	-	-	134	
HCM Lane V/C Ratio	0.293	-	-	-	0.078	
HCM Control Delay (s)	83.1	-	-	-	34.1	
HCM Lane LOS	F	-	-	-	D	
HCM 95th %tile Q(veh)	1	-	-	-	0.2	

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2025 No Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1444	45	24	1844	25	573	51	217	14	10	42
Future Volume (veh/h)	32	1444	45	24	1844	25	573	51	217	14	10	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	1520	47	25	1941	26	603	54	228	15	11	44
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	2572	80	177	2836	38	204	13	605	34	35	59
Arrive On Green	0.51	0.51	0.51	0.03	1.00	1.00	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	222	5089	157	1781	5192	70	410	37	1585	0	95	162
Grp Volume(v), veh/h	34	1017	550	25	1272	695	657	0	228	70	0	0
Grp Sat Flow(s),veh/h/ln	222	1702	1842	1781	1702	1858	446	0	1585	257	0	0
Q Serve(g_s), s	11.6	27.4	27.4	0.9	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.6	27.4	27.4	0.9	0.0	0.0	47.8	0.0	13.5	47.8	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.04	0.92		1.00	0.21		0.63
Lane Grp Cap(c), veh/h	168	1721	931	177	1859	1015	217	0	605	128	0	0
V/C Ratio(X)	0.20	0.59	0.59	0.14	0.68	0.68	3.02	0.00	0.38	0.55	0.00	0.00
Avail Cap(c_a), veh/h	168	1721	931	282	1859	1015	217	0	605	128	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.20	0.20	0.20	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.8	22.7	22.7	17.6	0.0	0.0	46.9	0.0	29.1	33.4	0.0	0.0
Incr Delay (d2), s/veh	2.7	1.5	2.8	0.0	0.4	0.8	923.4	0.0	1.8	15.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	16.3	17.8	0.6	0.2	0.4	106.0	0.0	9.3	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	24.2	25.4	17.6	0.4	0.8	970.4	0.0	30.8	49.1	0.0	0.0
LnGrp LOS	C	C	C	B	A	A	F	A	C	D	A	A
Approach Vol, veh/h	1601				1992				885			
Approach Delay, s/veh	24.5				0.8				728.3			
Approach LOS	C				A				F			
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.3	71.4		53.3		76.7		53.3				
Change Period (Y+Rc), s	3.5	5.7		5.5		5.7		5.5				
Max Green Setting (Gmax), s	9.5	58.0		47.8		71.0		47.8				
Max Q Clear Time (g_c+I1), s	2.9	29.4		49.8		2.0		49.8				
Green Ext Time (p_c), s	0.0	18.3		0.0		38.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	151.4											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 No Build PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳			↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		
Traffic Volume (veh/h)	324	1340	53	10	1375	181	238	168	70	74	41	358
Future Volume (veh/h)	324	1340	53	10	1375	181	238	168	70	74	41	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	348	1441	57	11	1478	195	256	181	0	80	44	385
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	258	2179	86	183	1492	197	292	307		814	428	540
Arrive On Green	0.23	0.86	0.86	0.01	0.33	0.33	0.16	0.16	0.00	0.23	0.23	0.23
Sat Flow, veh/h	1781	5039	199	1781	4564	602	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	348	973	525	11	1102	571	256	181	0	80	44	385
Grp Sat Flow(s), veh/h/ln	1781	1702	1834	1781	1702	1762	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	14.7	11.7	11.7	0.5	41.9	42.0	18.2	11.6	0.0	2.3	2.4	27.7
Cycle Q Clear(g_c), s	14.7	11.7	11.7	0.5	41.9	42.0	18.2	11.6	0.0	2.3	2.4	27.7
Prop In Lane	1.00		0.11	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	1472	793	183	1113	576	292	307		814	428	540
V/C Ratio(X)	1.35	0.66	0.66	0.06	0.99	0.99	0.88	0.59		0.10	0.10	0.71
Avail Cap(c_a), veh/h	258	1472	793	336	1113	576	434	456		862	452	561
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	5.8	5.8	29.0	43.5	43.6	53.0	50.3	0.0	39.4	39.4	37.1
Incr Delay (d2), s/veh	175.5	1.8	3.3	0.1	24.7	35.5	11.2	1.3	0.0	0.0	0.0	3.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh	26.6	4.5	5.5	0.4	28.4	31.3	14.0	9.5	0.0	1.8	2.0	16.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	208.6	7.6	9.1	29.0	68.3	79.0	64.2	51.6	0.0	39.4	39.5	40.5
LnGrp LOS	F	A	A	C	E	E	E	D		D	D	D
Approach Vol, veh/h	1846			1684			437			509		
Approach Delay, s/veh	45.9			71.7			59.0			40.2		
Approach LOS	D			E			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	62.2		27.3	18.2	48.5		36.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I), s	12.5	13.7		20.2	16.7	44.0		29.7				
Green Ext Time (p_c), s	0.0	9.8		1.1	0.0	0.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay 56.2

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

**APPENDIX D:
2025 BUILD INTERSECTION CAPACITY
ANALYSIS**

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	110	2156	673	102	937	34	26	3	15	103	126	180
Future Volume (veh/h)	110	2156	673	102	937	34	26	3	15	103	126	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	2269	708	107	986	36	27	3	16	108	133	189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	2330	749	146	2315	808	347	523	466	560	594	530
Arrive On Green	0.05	0.46	0.46	0.05	0.45	0.45	0.02	0.29	0.29	0.06	0.33	0.33
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1777	1585	1781	1777	1585
Grp Volume(v), veh/h	116	2269	708	107	986	36	27	3	16	108	133	189
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.1	52.2	51.1	3.8	15.7	1.4	1.3	0.1	0.9	4.9	6.5	10.8
Cycle Q Clear(g_c), s	4.1	52.2	51.1	3.8	15.7	1.4	1.3	0.1	0.9	4.9	6.5	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	2330	749	146	2315	808	347	523	466	560	594	530
V/C Ratio(X)	0.35	0.97	0.95	0.73	0.43	0.04	0.08	0.01	0.03	0.19	0.22	0.36
Avail Cap(c_a), veh/h	418	2330	749	259	2315	808	480	523	466	622	594	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	31.9	30.2	28.2	22.2	14.8	29.1	29.9	30.2	25.6	28.8	30.2
Incr Delay (d2), s/veh	0.2	13.4	21.9	2.5	0.5	0.1	0.0	0.0	0.1	0.1	0.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	30.9	31.3	2.9	10.1	0.9	1.0	0.1	0.6	3.8	5.3	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	45.3	52.1	30.7	22.8	14.9	29.2	30.0	30.3	25.7	29.6	32.1
LnGrp LOS	B	D	D	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h	3093		1129				46		430			
Approach Delay, s/veh	45.8		23.3				29.6		29.7			
Approach LOS	D		C				C		C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	59.8	10.2	40.8	9.6	59.4	5.4	45.6				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.0	10.9	35.3				
Max Q Clear Time (g_c+I1), s	5.8	54.2	6.9	2.9	6.1	17.7	3.3	12.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	10.2	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay	38.8											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2025 Build AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳			↰ ↱	↲ ↳			↰ ↱	
Traffic Volume (veh/h)	47	1913	99	88	1134	54	52	1	54	66	1	54
Future Volume (veh/h)	47	1913	99	88	1134	54	52	1	54	66	1	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	2014	104	93	1194	57	55	1	57	69	1	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	365	3526	181	200	3587	171	213	5	276	112	11	68
Arrive On Green	0.02	0.71	0.71	0.03	0.72	0.72	0.03	0.18	0.18	0.12	0.12	0.12
Sat Flow, veh/h	1781	4972	256	1781	4993	238	1781	27	1562	587	90	552
Grp Volume(v), veh/h	49	1377	741	93	814	437	55	0	58	127	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1824	1781	1702	1827	1781	0	1589	1229	0	0
Q Serve(g_s), s	1.1	27.7	27.9	2.0	12.4	12.4	0.0	0.0	4.4	10.3	0.0	0.0
Cycle Q Clear(g_c), s	1.1	27.7	27.9	2.0	12.4	12.4	0.0	0.0	4.4	14.7	0.0	0.0
Prop In Lane	1.00		0.14	1.00		0.13	1.00		0.98	0.54		0.45
Lane Grp Cap(c), veh/h	365	2414	1293	200	2446	1313	213	0	281	191	0	0
V/C Ratio(X)	0.13	0.57	0.57	0.47	0.33	0.33	0.26	0.00	0.21	0.66	0.00	0.00
Avail Cap(c_a), veh/h	448	2414	1293	238	2446	1313	219	0	488	375	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.8	10.0	10.0	10.5	7.3	7.3	55.4	0.0	49.2	61.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	1.7	0.4	0.7	0.6	0.0	0.4	3.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	11.3	12.2	1.7	7.9	8.5	3.3	0.0	3.2	8.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.8	10.0	10.2	12.2	7.7	8.0	56.0	0.0	49.6	65.0	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	E	A	D	E	A	A
Approach Vol, veh/h	2167			1344			113			127		
Approach Delay, s/veh	10.0			8.1			52.7			65.0		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	103.3		28.8	6.6	104.6	7.5	21.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	78.0			43.0	9.2	75.8	4.0	35.0				
Max Q Clear Time (g_c+14), s	29.9			6.4	3.1	14.4	2.0	16.7				
Green Ext Time (p_c), s	0.0	27.4		0.3	0.0	12.0	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

HCM 6th TWSC
3: Proposed Driveway 1 & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑			↑↑↑↑		↑
Traffic Vol, veh/h	2003	32	0	1263	0	36
Future Vol, veh/h	2003	32	0	1263	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2131	34	0	1344	0	38
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1083
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	183
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	183
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		29.8	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	183	-	-	-		
HCM Lane V/C Ratio	0.209	-	-	-		
HCM Control Delay (s)	29.8	-	-	-		
HCM Lane LOS	D	-	-	-		
HCM 95th %tile O(veh)	0.8	-	-	-		

HCM 6th TWSC
4: Proposed Driveway 2 & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	2041	0	0	1263	0	0
Future Vol, veh/h	2041	0	0	1263	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	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2171	0	0	1344	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1086
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 182
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 182
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱ ↑↑↑			↱ ↑↑↑			↱	↱			↱	
Traffic Vol, veh/h	7	2094	0	0	1249	0	0	0	0	0	0	14
Future Vol, veh/h	7	2094	0	0	1249	0	0	0	0	0	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2228	0	0	1329	0	0	0	0	0	0	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1329	0	0	2228	0	0	2774	3571	1114	2234	3571	665
Stage 1	-	-	-	-	-	-	2242	2242	-	1329	1329	-
Stage 2	-	-	-	-	-	-	532	1329	-	905	2242	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	271	-	-	96	-	-	20	6	174	45	6	345
Stage 1	-	-	-	-	-	-	26	77	-	117	222	-
Stage 2	-	-	-	-	-	-	456	222	-	269	77	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	271	-	-	96	-	-	19	6	174	44	6	345
Mov Cap-2 Maneuver	-	-	-	-	-	-	19	6	-	44	6	-
Stage 1	-	-	-	-	-	-	25	75	-	114	222	-
Stage 2	-	-	-	-	-	-	436	222	-	262	75	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			0			15.9		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	-	-	271	-	-	96	-	-	345			
HCM Lane V/C Ratio	-	-	0.027	-	-	-	-	-	0.043			
HCM Control Delay (s)	0	0	18.7	-	-	0	-	-	15.9			
HCM Lane LOS	A	A	C	-	-	A	-	-	C			
HCM 95th %tile Q(veh)	-	-	0.1	-	-	0	-	-	0.1			

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↑↑↑					↵			↵
Traffic Vol, veh/h	4	2060	0	0	1232	6	0	0	0	1	0	18
Future Vol, veh/h	4	2060	0	0	1232	6	0	0	0	1	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	4	2239	0	0	1339	7	0	0	0	1	0	20
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	1346	0	0	-	-	0	-	-	1120	2247	-	673
Stage 1	-	-	-	-	-	-	-	-	-	1343	-	-
Stage 2	-	-	-	-	-	-	-	-	-	904	-	-
Critical Hdwy	5.34	-	-	-	-	-	-	-	7.14	6.52	-	7.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.42	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.82	-	-
Follow-up Hdwy	3.12	-	-	-	-	-	-	-	3.92	3.86	-	3.96
Pot Cap-1 Maneuver	265	-	-	0	-	-	0	0	172	42	0	334
Stage 1	-	-	-	0	-	-	0	0	-	110	0	-
Stage 2	-	-	-	0	-	-	0	0	-	263	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	265	-	-	-	-	-	-	-	172	41	-	334
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	41	-	-
Stage 1	-	-	-	-	-	-	-	-	-	108	-	-
Stage 2	-	-	-	-	-	-	-	-	-	259	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		0			0			16.4			
HCM LOS						A			C			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1					
Capacity (veh/h)	-	265	-	-	-	-	334					
HCM Lane V/C Ratio	-	0.016	-	-	-	-	0.059					
HCM Control Delay (s)	0	18.8	-	-	-	-	16.4					
HCM Lane LOS	A	C	-	-	-	-	C					
HCM 95th %tile O(veh)	-	0.1	-	-	-	-	0.2					

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1559	510	269	1163	4	62	1	35	9	90	27
Future Volume (veh/h)	16	1559	510	269	1163	4	62	1	35	9	90	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1870	1870	1870
Adj Flow Rate, veh/h	18	1713	560	296	1278	4	68	1	38	10	99	30
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	2	2	2
Cap, veh/h	268	1853	586	318	3429	11	343	5	597	46	341	98
Arrive On Green	0.48	0.48	0.48	0.28	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	431	3841	1215	1781	5255	16	1115	18	1510	54	1343	384
Grp Volume(v), veh/h	18	1512	761	296	828	454	69	0	38	139	0	0
Grp Sat Flow(s),veh/h/ln	431	1702	1652	1781	1702	1867	1133	0	1510	1781	0	0
Q Serve(g_s), s	2.7	49.6	53.1	14.7	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	49.6	53.1	14.7	0.0	0.0	7.4	0.0	1.9	7.5	0.0	0.0
Prop In Lane	1.00		0.74	1.00		0.01	0.99		1.00	0.07		0.22
Lane Grp Cap(c), veh/h	268	1642	797	318	2221	1218	347	0	597	485	0	0
V/C Ratio(X)	0.07	0.92	0.96	0.93	0.37	0.37	0.20	0.00	0.06	0.29	0.00	0.00
Avail Cap(c_a), veh/h	268	1642	797	460	2221	1218	347	0	597	485	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.8	28.9	29.8	30.9	0.0	0.0	36.1	0.0	22.5	36.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	10.0	22.7	14.8	0.4	0.7	1.3	0.0	0.2	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	28.8	32.9	12.5	0.2	0.4	3.2	0.0	1.3	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	38.9	52.5	45.6	0.4	0.7	37.4	0.0	22.7	37.7	0.0	0.0
LnGrp LOS	B	D	D	D	A	A	D	A	C	D	A	A
Approach Vol, veh/h	2291					1578		107		139		
Approach Delay, s/veh	43.2					9.0		32.2		37.7		
Approach LOS	D					A		C		D		
Timer - Assigned Phs	1	2	4			6		8				
Phs Duration (G+Y+Rc), s	20.4	63.6	36.0			84.0		36.0				
Change Period (Y+Rc), s	3.5	5.7	5.5			5.7		5.5				
Max Green Setting (Gmax), s	26.5	48.3	30.5			78.3		30.5				
Max Q Clear Time (g_c+I1), s	16.7	55.1	9.4			2.0		9.5				
Green Ext Time (p_c), s	0.2	0.0	0.4			18.1		0.7				
Intersection Summary												
HCM 6th Ctrl Delay	29.6											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑ ↱			↰ ↑↑ ↱			↰ ↑	↑	↰ ↱	↰ ↱	↰ ↑	↰ ↱
Traffic Volume (veh/h)	224	897	485	95	1021	59	74	45	32	104	281	356
Future Volume (veh/h)	224	897	485	95	1021	59	74	45	32	104	281	356
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	255	1019	551	108	1160	67	84	51	0	118	319	405
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	382	1910	889	308	2560	148	114	119		267	561	375
Arrive On Green	0.17	1.00	1.00	0.04	0.52	0.52	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3404	1585	1781	4938	285	1725	1811	1535	1781	3741	1585
Grp Volume(v), veh/h	255	1019	551	108	799	428	84	51	0	118	319	405
Grp Sat Flow(s), veh/h/ln	1781	1702	1585	1781	1702	1819	1725	1811	1535	1781	1870	1585
Q Serve(g_s), s	8.2	0.0	0.0	3.4	17.7	17.8	5.7	3.2	0.0	7.2	9.5	18.0
Cycle Q Clear(g_c), s	8.2	0.0	0.0	3.4	17.7	17.8	5.7	3.2	0.0	7.2	9.5	18.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	382	1910	889	308	1765	943	114	119		267	561	375
V/C Ratio(X)	0.67	0.53	0.62	0.35	0.45	0.45	0.74	0.43		0.44	0.57	1.08
Avail Cap(c_a), veh/h	497	1910	889	391	1765	943	172	181		267	561	375
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	0.0	0.0	12.2	18.2	18.2	55.0	53.9	0.0	46.4	47.4	45.8
Incr Delay (d2), s/veh	0.2	0.2	0.6	0.3	0.8	1.6	6.8	1.8	0.0	0.4	0.9	69.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	8.6	0.1	0.3	2.4	11.1	12.0	4.9	2.8	0.0	5.8	8.0	26.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.4	0.2	0.6	12.5	19.0	19.8	61.8	55.7	0.0	46.9	48.3	115.4
LnGrp LOS	B	A	A	B	B	B	E	E		D	D	F
Approach Vol, veh/h	1825			1335			135			842		
Approach Delay, s/veh	2.0			18.7			59.5			80.4		
Approach LOS	A			B			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8	73.3		13.9	13.9	68.2		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+I), s	15.4	2.0		7.7	10.2	19.8		20.0				
Green Ext Time (p_c), s	0.0	16.4		0.1	0.1	9.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
9: Carlisle Blvd & Proposed Driveway 3

KAFB EUL MAXQ
2025 Build AM Peak

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	23	7	0	68	832
Future Vol, veh/h	0	23	7	0	68	832
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	7	0	72	885
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	594	4	0	0	7	0
Stage 1	7	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	436	1078	-	-	1612	-
Stage 1	1015	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	398	1078	-	-	1612	-
Mov Cap-2 Maneuver	398	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.4	0		0.8		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	1078	1612	-	
HCM Lane V/C Ratio	-	-	0.023	0.045	-	
HCM Control Delay (s)	-	-	8.4	7.3	0.3	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	

HCM 6th TWSC
10: Carlisle Blvd & Proposed Driveway 4

KAFB EUL MAXQ
2025 Build AM Peak

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	30	0	0	900
Future Vol, veh/h	0	14	30	0	0	900
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	32	0	0	957

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	16	0
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	1059	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1059	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1059	-
HCM Lane V/C Ratio	-	- 0.014	-
HCM Control Delay (s)	-	- 8.4	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0	-

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	1449	20	23	2324	135	539	121	100	74	1	236
Future Volume (veh/h)	244	1449	20	23	2324	135	539	121	100	74	1	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1494	21	24	2396	139	556	125	103	76	1	243
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	2779	1074	202	2474	843	321	501	381	341	310	277
Arrive On Green	0.07	0.54	0.54	0.01	0.48	0.48	0.13	0.26	0.26	0.05	0.17	0.17
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1921	1462	1781	1777	1585
Grp Volume(v), veh/h	252	1494	21	24	2396	139	556	115	113	76	1	243
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1607	1781	1777	1585
Q Serve(g_s), s	9.5	24.5	0.6	0.9	59.2	5.9	17.3	6.6	7.3	4.5	0.1	19.4
Cycle Q Clear(g_c), s	9.5	24.5	0.6	0.9	59.2	5.9	17.3	6.6	7.3	4.5	0.1	19.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	189	2779	1074	202	2474	843	321	463	419	341	310	277
V/C Ratio(X)	1.33	0.54	0.02	0.12	0.97	0.16	1.73	0.25	0.27	0.22	0.00	0.88
Avail Cap(c_a), veh/h	189	2779	1074	308	2474	843	321	493	446	494	493	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	19.1	6.9	17.8	32.5	15.6	40.2	38.0	38.2	41.1	44.3	52.3
Incr Delay (d2), s/veh	180.9	0.8	0.0	0.1	9.3	0.3	341.9	0.3	0.3	0.1	0.0	11.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	24.3	14.5	0.4	0.7	32.0	4.0	59.5	5.3	5.3	3.6	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	222.3	19.8	6.9	17.8	41.9	15.9	382.1	38.3	38.6	41.2	44.3	63.8
LnGrp LOS	F	B	A	B	D	B	F	D	D	D	D	E
Approach Vol, veh/h	1767		2559				784			320		
Approach Delay, s/veh	48.6		40.2				282.1			58.4		
Approach LOS	D		D				F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	75.7	9.6	39.4	13.0	68.0	20.8	28.2				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.9	26.5	6.5	9.3	11.5	61.2	19.3	21.4				
Green Ext Time (p_c), s	0.0	14.9	0.0	1.4	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	78.9											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2025 Build PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↩ ↑↑↑			↩ ↑↑↑			↩	↑			↩	
Traffic Volume (veh/h)	48	1470	51	72	2360	72	98	1	48	58	1	60
Future Volume (veh/h)	48	1470	51	72	2360	72	98	1	48	58	1	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1500	52	73	2408	73	100	1	49	59	1	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	3741	130	307	3809	115	214	5	237	100	8	73
Arrive On Green	0.02	0.74	0.74	0.03	0.75	0.75	0.03	0.15	0.15	0.10	0.10	0.10
Sat Flow, veh/h	1781	5067	176	1781	5093	154	1781	32	1558	654	83	749
Grp Volume(v), veh/h	49	1008	544	73	1606	875	100	0	50	121	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1839	1781	1702	1843	1781	0	1590	1487	0	0
Q Serve(g_s), s	1.0	16.1	16.1	1.5	32.9	33.3	4.0	0.0	4.0	10.4	0.0	0.0
Cycle Q Clear(g_c), s	1.0	16.1	16.1	1.5	32.9	33.3	4.0	0.0	4.0	11.6	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	1.00		0.98	0.49		0.50
Lane Grp Cap(c), veh/h	151	2513	1358	307	2546	1378	214	0	242	181	0	0
V/C Ratio(X)	0.32	0.40	0.40	0.24	0.63	0.64	0.47	0.00	0.21	0.67	0.00	0.00
Avail Cap(c_a), veh/h	229	2513	1358	307	2546	1378	214	0	242	364	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.0	7.1	7.1	5.3	8.8	8.8	58.0	0.0	54.2	64.7	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.4	0.8	0.4	1.2	2.2	1.6	0.0	0.4	4.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	9.3	10.1	1.0	17.2	19.1	2.8	0.0	3.0	8.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	7.5	7.9	5.7	10.0	11.1	59.6	0.0	54.6	68.8	0.0	0.0
LnGrp LOS	B	A	A	A	A	B	E	A	D	E	A	A
Approach Vol, veh/h	1601			2554			150			121		
Approach Delay, s/veh	7.8			10.2			58.0			68.8		
Approach LOS	A			B			E			E		
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	111.8		26.2	6.6	113.2	8.0	18.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	89.6		11.0	9.0	77.0	4.0	32.4				
Max Q Clear Time (g_c+1.5), s	13.5	18.1		6.0	3.0	35.3	6.0	13.6				
Green Ext Time (p_c), s	0.0	27.9		0.1	0.0	36.4	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

HCM 6th TWSC
3: Proposed Driveway 1 & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	1563	15	0	2508	0	33
Future Vol, veh/h	1563	15	0	2508	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1663	16	0	2668	0	35
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	840
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	265
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	265
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		20.6	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	265	-	-	-		
HCM Lane V/C Ratio	0.132	-	-	-		
HCM Control Delay (s)	20.6	-	-	-		
HCM Lane LOS	C	-	-	-		
HCM 95th %tile O(veh)	0.5	-	-	-		

HCM 6th TWSC
4: Proposed Driveway 2 & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	1598	0	0	2508	0	0
Future Vol, veh/h	1598	0	0	2508	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	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1700	0	0	2668	0	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	850
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	261
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	261
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Control Delay (s)	0	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile O(veh)	-	-	-	-		

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	16	1630	0	0	2491	4	0	0	0	2	0	17
Future Vol, veh/h	16	1630	0	0	2491	4	0	0	0	2	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	1698	0	0	2595	4	0	0	0	2	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2599	0	0	1698	0	0	2770	4331	849	3310	4329	1300
Stage 1	-	-	-	-	-	-	1732	1732	-	2597	2597	-
Stage 2	-	-	-	-	-	-	1038	2599	-	713	1732	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	61	-	-	178	-	-	21	2	261	9	2	130
Stage 1	-	-	-	-	-	-	60	141	-	14	51	-
Stage 2	-	-	-	-	-	-	223	50	-	354	141	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	61	-	-	178	-	-	14	1	261	7	1	130
Mov Cap-2 Maneuver	-	-	-	-	-	-	14	1	-	9	42	-
Stage 1	-	-	-	-	-	-	43	102	-	10	51	-
Stage 2	-	-	-	-	-	-	193	50	-	255	102	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	0	106.1
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	61	-	-	178	-	-	54
HCM Lane V/C Ratio	-	-	0.273	-	-	-	-	-	0.367
HCM Control Delay (s)	0	0	84.9	-	-	0	-	-	106.1
HCM Lane LOS	A	A	F	-	-	A	-	-	F
HCM 95th %tile Q(veh)	-	-	1	-	-	0	-	-	1.3

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	18	1588	0	0	2502	2	0	0	0	0	0	10
Future Vol, veh/h	18	1588	0	0	2502	2	0	0	0	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	1654	0	0	2606	2	0	0	0	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2608	0	0	-	-	0	-	-	827	-	-	1304
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	61	-	-	0	-	-	0	0	270	0	0	129
Stage 1	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	61	-	-	-	-	-	-	-	270	-	-	129
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0	0	35.3
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	61	-	-	-	-	129
HCM Lane V/C Ratio	-	0.307	-	-	-	-	0.081
HCM Control Delay (s)	0	88.3	-	-	-	-	35.3
HCM Lane LOS	A	F	-	-	-	-	E
HCM 95th %tile Q(veh)	-	1.1	-	-	-	-	0.3

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (veh/h)	37	1507	45	24	1882	25	573	51	217	14	10	46
Future Volume (veh/h)	37	1507	45	24	1882	25	573	51	217	14	10	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	1586	47	25	1981	26	603	54	228	15	11	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	2581	801	167	2837	37	197	13	605	33	35	65
Arrive On Green	0.51	0.51	0.51	0.03	1.00	1.00	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	214	5106	1585	1781	5194	68	391	35	1585	0	96	178
Grp Volume(v), veh/h	39	1586	47	25	1298	709	657	0	228	74	0	0
Grp Sat Flow(s),veh/h/ln	214	1702	1585	1781	1702	1858	426	0	1585	274	0	0
Q Serve(g_s), s	14.3	29.0	2.0	0.9	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.3	29.0	2.0	0.9	0.0	0.0	47.8	0.0	13.5	47.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	0.92		1.00	0.20		0.65
Lane Grp Cap(c), veh/h	163	2581	801	167	1859	1015	210	0	605	134	0	0
V/C Ratio(X)	0.24	0.61	0.06	0.15	0.70	0.70	3.13	0.00	0.38	0.55	0.00	0.00
Avail Cap(c_a), veh/h	163	2581	801	273	1859	1015	210	0	605	134	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.4	23.1	16.4	18.0	0.0	0.0	47.1	0.0	29.1	33.3	0.0	0.0
Incr Delay (d2), s/veh	3.4	1.1	0.1	0.0	0.2	0.4	971.0	0.0	0.4	4.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	17.4	1.4	0.6	0.1	0.2	107.1	0.0	9.0	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	24.2	16.5	18.0	0.2	0.4	1018.2	0.0	29.4	38.1	0.0	0.0
LnGrp LOS	C	C	B	B	A	A	F	A	C	D	A	A
Approach Vol, veh/h	1672		2032			885			74			
Approach Delay, s/veh	23.9		0.5			763.4			38.1			
Approach LOS	C		A			F			D			
Timer - Assigned Phs	1	2	4		6		8					
Phs Duration (G+Y+Rc), s	5.3	71.4	53.3		76.7		53.3					
Change Period (Y+Rc), s	3.5	5.7	5.5		5.7		5.5					
Max Green Setting (Gmax), s	9.5	58.0	47.8		71.0		47.8					
Max Q Clear Time (g_c+I1), s	2.9	31.0	49.8		2.0		49.8					
Green Ext Time (p_c), s	0.0	19.5	0.0		42.4		0.0					
Intersection Summary												
HCM 6th Ctrl Delay	154.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↩ ↑↑↑	↩ ↑↑↑		↩ ↑↑↑	↩ ↑↑↑		↩ ↑	↑	↩	↩	↩ ↑↑	↩
Traffic Volume (veh/h)	353	1374	53	10	1396	181	238	168	70	74	41	375
Future Volume (veh/h)	353	1374	53	10	1396	181	238	168	70	74	41	375
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	380	1477	57	11	1501	195	256	181	0	80	44	403
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	261	2238	86	183	1547	201	294	308		772	405	521
Arrive On Green	0.23	0.89	0.89	0.01	0.34	0.34	0.16	0.16	0.00	0.22	0.22	0.22
Sat Flow, veh/h	1781	5045	195	1781	4574	594	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	380	997	537	11	1117	579	256	181	0	80	44	403
Grp Sat Flow(s),veh/h/ln	1781	1702	1835	1781	1702	1764	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	14.7	10.3	10.3	0.5	42.0	42.1	18.2	11.6	0.0	2.4	2.5	28.4
Cycle Q Clear(g_c), s	14.7	10.3	10.3	0.5	42.0	42.1	18.2	11.6	0.0	2.4	2.5	28.4
Prop In Lane	1.00		0.11	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	1510	814	183	1151	596	294	308		772	405	521
V/C Ratio(X)	1.46	0.66	0.66	0.06	0.97	0.97	0.87	0.59		0.10	0.11	0.77
Avail Cap(c_a), veh/h	261	1510	814	336	1151	596	480	504		772	405	521
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	4.7	4.7	28.0	42.4	42.4	52.9	50.2	0.0	40.6	40.7	39.1
Incr Delay (d2), s/veh	220.8	1.7	3.2	0.1	20.2	30.5	7.9	1.3	0.0	0.0	0.0	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	34.8	4.0	4.9	0.4	28.2	31.1	13.7	9.5	0.0	1.9	2.1	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	253.6	6.4	7.9	28.0	62.6	72.9	60.9	51.5	0.0	40.6	40.7	45.5
LnGrp LOS	F	A	A	C	E	E	E	D		D	D	D
Approach Vol, veh/h	1914			1707			437			527		
Approach Delay, s/veh	55.9			65.9			57.0			44.4		
Approach LOS	E			E			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	63.7		27.4	18.2	50.0		34.4				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.5	33.0		35.0	14.7	30.0		28.4				
Max Q Clear Time (g_c+I), s	12.5	12.3		20.2	16.7	44.1		30.4				
Green Ext Time (p_c), s	0.0	11.2		1.2	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 58.4

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
9: Carlisle Blvd & Proposed Driveway 3

KAFB EUL MAXQ
2025 Build PM Peak

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	61	676	0	37	3
Future Vol, veh/h	0	61	676	0	37	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	719	0	39	3
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	799	360	0	0	719	0
Stage 1	719	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	323	637	-	-	878	-
Stage 1	444	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	309	637	-	-	878	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	444	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.3	0		8.6		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	637	878	-	
HCM Lane V/C Ratio	-	-	0.102	0.045	-	
HCM Control Delay (s)	-	-	11.3	9.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

HCM 6th TWSC
10: Carlisle Blvd & Proposed Driveway 4

KAFB EUL MAXQ
2025 Build PM Peak

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	737	0	0	40
Future Vol, veh/h	0	20	737	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	784	0	0	43
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	392	0	0	-	-
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	607	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	607	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.1	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	607		-		
HCM Lane V/C Ratio	-	0.035		-		
HCM Control Delay (s)	-	11.1		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0.1		-		

**APPENDIX E:
2025 MITIGATION INTERSECTION CAPACITY
ANALYSIS**

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ

2025 Build AM Peak - Mitigation SBL(1), EBR(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (veh/h)	47	1911	80	67	1134	54	37	0	40	66	1	54
Future Volume (veh/h)	47	1911	80	67	1134	54	37	0	40	66	1	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	2012	84	71	1194	57	39	0	42	69	1	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	409	3651	1133	241	3595	172	164	0	85	185	2	113
Arrive On Green	0.04	0.71	0.71	0.04	0.72	0.72	0.03	0.00	0.05	0.05	0.07	0.07
Sat Flow, veh/h	1781	5106	1585	1781	4993	238	1781	0	1585	1781	27	1562
Grp Volume(v), veh/h	49	2012	84	71	814	437	39	0	42	69	0	58
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1827	1781	0	1585	1781	0	1589
Q Serve(g_s), s	0.8	20.4	1.8	1.1	9.7	9.7	2.3	0.0	2.8	4.0	0.0	3.9
Cycle Q Clear(g_c), s	0.8	20.4	1.8	1.1	9.7	9.7	2.3	0.0	2.8	4.0	0.0	3.9
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	409	3651	1133	241	2451	1316	164	0	85	185	0	115
V/C Ratio(X)	0.12	0.55	0.07	0.29	0.33	0.33	0.24	0.00	0.49	0.37	0.00	0.50
Avail Cap(c_a), veh/h	427	3651	1133	250	2451	1316	196	0	533	185	0	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.0	7.4	4.7	6.4	5.7	5.7	47.5	0.0	50.6	46.4	0.0	49.1
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	0.4	0.7	0.7	0.0	4.3	1.2	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	7.7	0.9	0.7	5.7	6.3	1.9	0.0	2.2	3.3	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.0	7.4	4.7	7.1	6.0	6.3	48.3	0.0	54.9	47.7	0.0	52.5
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		2145			1322			81			127	
Approach Delay, s/veh		7.2			6.2			51.7			49.9	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	82.6	9.0	9.9	7.9	83.2	7.0	12.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	47.0	5.0	37.0	5.0	47.0	5.0	37.0				
Max Q Clear Time (g_c+I1), s	3.1	22.4	6.0	4.8	2.8	11.7	4.3	5.9				
Green Ext Time (p_c), s	0.0	17.7	0.0	0.2	0.0	10.9	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			9.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak - Mitigation NBL(2), NBT(2), SBR(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 	 			  	  
Traffic Volume (veh/h)	216	887	485	95	1010	59	74	45	32	104	281	348
Future Volume (veh/h)	216	887	485	95	1010	59	74	45	32	104	281	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	245	1008	551	108	1148	67	84	51	0	118	319	395
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	385	1948	907	313	2634	154	221	227		249	522	701
Arrive On Green	0.16	1.00	1.00	0.04	0.53	0.53	0.07	0.07	0.00	0.14	0.14	0.14
Sat Flow, veh/h	1781	3404	1585	1781	4935	288	3346	3441	1535	1781	3741	3170
Grp Volume(v), veh/h	245	1008	551	108	792	423	84	51	0	118	319	395
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1819	1673	1721	1535	1781	1870	1585
Q Serve(g_s), s	7.6	0.0	0.0	3.3	17.0	17.0	2.9	1.7	0.0	7.3	9.6	13.3
Cycle Q Clear(g_c), s	7.6	0.0	0.0	3.3	17.0	17.0	2.9	1.7	0.0	7.3	9.6	13.3
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	1948	907	313	1817	971	221	227		249	522	701
V/C Ratio(X)	0.64	0.52	0.61	0.34	0.44	0.44	0.38	0.22		0.47	0.61	0.56
Avail Cap(c_a), veh/h	509	1948	907	398	1817	971	251	258		312	655	813
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.21	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	11.4	17.0	17.0	53.7	53.1	0.0	47.6	48.6	41.6
Incr Delay (d2), s/veh	0.1	0.2	0.6	0.2	0.8	1.4	0.8	0.4	0.0	0.5	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.1	0.3	2.3	10.7	11.5	2.2	1.3	0.0	5.9	8.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	0.2	0.6	11.7	17.8	18.4	54.5	53.5	0.0	48.1	49.0	41.9
LnGrp LOS	B	A	A	B	B	B	D	D		D	D	D
Approach Vol, veh/h	1804				1323				135		832	
Approach Delay, s/veh	1.9				17.5				54.1		45.5	
Approach LOS	A				B				D		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	74.7		13.9	13.3	70.1		22.8				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		9.0	18.1	50.0		21.0				
Max Q Clear Time (g_c+I1), s	5.3	2.0		4.9	9.6	19.0		15.3				
Green Ext Time (p_c), s	0.0	16.2		0.1	0.1	9.2		1.5				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build AM Peak - Mitigation EBL(2), NBL(2), NBT(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	887	485	95	1010	59	74	45	32	104	281	348
Future Volume (veh/h)	216	887	485	95	1010	59	74	45	32	104	281	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	245	1008	551	108	1148	67	84	51	0	118	319	395
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	666	1917	893	318	2741	160	221	227		267	561	316
Arrive On Green	0.10	1.00	1.00	0.04	0.56	0.56	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	3456	3404	1585	1781	4935	288	3346	3441	1535	1781	3741	1585
Grp Volume(v), veh/h	245	1008	551	108	792	423	84	51	0	118	319	395
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1819	1673	1721	1535	1781	1870	1585
Q Serve(g_s), s	3.7	0.0	0.0	3.1	16.2	16.2	2.9	1.7	0.0	7.2	9.5	18.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	3.1	16.2	16.2	2.9	1.7	0.0	7.2	9.5	18.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	666	1917	893	318	1891	1010	221	227		267	561	316
V/C Ratio(X)	0.37	0.53	0.62	0.34	0.42	0.42	0.38	0.22		0.44	0.57	1.25
Avail Cap(c_a), veh/h	1016	1917	893	405	1891	1010	335	344		267	561	316
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.21	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	10.4	15.5	15.5	53.7	53.1	0.0	46.4	47.4	48.0
Incr Delay (d2), s/veh	0.0	0.2	0.7	0.2	0.7	1.3	0.8	0.4	0.0	0.4	0.9	135.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.1	0.3	2.1	10.1	10.9	2.2	1.3	0.0	5.8	8.0	31.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	0.2	0.7	10.6	16.1	16.7	54.5	53.5	0.0	46.9	48.3	183.8
LnGrp LOS	B	A	A	B	B	B	D	D		D	D	F
Approach Vol, veh/h	1804				1323				135			
Approach Delay, s/veh	1.8				15.9				54.1			
Approach LOS	A				B				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	73.6		13.9	9.4	72.7		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+I1), s	5.1	2.0		4.9	5.7	18.2		20.0				
Green Ext Time (p_c), s	0.0	16.2		0.2	0.2	9.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

KAFB EUL MAXQ

1: Carlisle Blvd & Gibson Blvd

2025 Build PM Peak - Mitigation EBL(2), NBL(2), Reduce SBT(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	1438	19	23	2315	131	536	121	100	70	1	236
Future Volume (veh/h)	244	1438	19	23	2315	131	536	121	100	70	1	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1482	20	24	2387	135	553	125	103	72	1	243
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	304	2837	1091	210	2655	896	930	483	367	324	306	336
Arrive On Green	0.05	0.56	0.56	0.01	0.52	0.52	0.13	0.25	0.25	0.05	0.16	0.16
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	1921	1462	1781	1870	1585
Grp Volume(v), veh/h	252	1482	20	24	2387	135	553	115	113	72	1	243
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1607	1781	1870	1585
Q Serve(g_s), s	4.3	23.6	0.5	0.8	54.8	5.3	17.0	6.7	7.4	4.3	0.1	18.5
Cycle Q Clear(g_c), s	4.3	23.6	0.5	0.8	54.8	5.3	17.0	6.7	7.4	4.3	0.1	18.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	304	2837	1091	210	2655	896	930	446	404	324	306	336
V/C Ratio(X)	0.83	0.52	0.02	0.11	0.90	0.15	0.59	0.26	0.28	0.22	0.00	0.72
Avail Cap(c_a), veh/h	388	2837	1091	316	2655	896	930	493	446	481	519	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	18.1	6.4	15.8	28.1	13.4	36.7	39.0	39.2	42.4	45.5	47.6
Incr Delay (d2), s/veh	9.1	0.7	0.0	0.1	4.0	0.3	0.7	0.3	0.4	0.1	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	14.0	0.3	0.6	28.4	3.5	11.7	5.4	5.4	3.5	0.0	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	18.8	6.4	15.9	32.1	13.7	37.4	39.3	39.6	42.5	45.5	50.6
LnGrp LOS	D	B	A	B	C	B	D	D	D	D	D	D
Approach Vol, veh/h	1754		2546			781			316			
Approach Delay, s/veh	21.6		31.0			38.0			48.7			
Approach LOS	C		C			D			D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	77.2	9.4	38.2	9.9	72.6	20.8	26.7				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.8	25.6	6.3	9.4	6.3	56.8	19.0	20.5				
Green Ext Time (p_c), s	0.0	15.1	0.0	1.4	0.1	0.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay	30.0											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ

2025 Build PM Peak - Mitigation NBL(2), Reduce SBT(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 	 				
Traffic Volume (veh/h)	244	1438	19	23	2315	131	536	121	100	70	1	236
Future Volume (veh/h)	244	1438	19	23	2315	131	536	121	100	70	1	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1482	20	24	2387	135	553	125	103	72	1	243
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	2855	1097	212	2550	864	922	475	362	320	299	369
Arrive On Green	0.07	0.56	0.56	0.01	0.50	0.50	0.13	0.25	0.25	0.05	0.16	0.16
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	1921	1462	1781	1870	1585
Grp Volume(v), veh/h	252	1482	20	24	2387	135	553	115	113	72	1	243
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	1777	1607	1781	1870	1585
Q Serve(g_s), s	9.5	23.4	0.5	0.9	57.1	5.5	17.1	6.8	7.4	4.4	0.1	18.1
Cycle Q Clear(g_c), s	9.5	23.4	0.5	0.9	57.1	5.5	17.1	6.8	7.4	4.4	0.1	18.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	193	2855	1097	212	2550	864	922	440	398	320	299	369
V/C Ratio(X)	1.30	0.52	0.02	0.11	0.94	0.16	0.60	0.26	0.28	0.22	0.00	0.66
Avail Cap(c_a), veh/h	193	2855	1097	318	2550	864	922	493	446	477	519	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	17.8	6.2	16.6	30.6	14.7	37.1	39.4	39.6	42.8	45.9	45.2
Incr Delay (d2), s/veh	169.1	0.7	0.0	0.1	6.1	0.3	0.8	0.3	0.4	0.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	23.7	13.9	0.3	0.6	30.2	3.7	11.8	5.4	5.4	3.5	0.1	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	210.1	18.5	6.3	16.7	36.7	15.0	37.8	39.7	40.0	42.9	45.9	47.2
LnGrp LOS	F	B	A	B	D	B	D	D	D	D	D	D
Approach Vol, veh/h		1754			2546			781			316	
Approach Delay, s/veh		45.9			35.4			38.4			46.2	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	77.7	9.4	37.7	13.0	69.9	20.8	26.3				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.9	25.4	6.4	9.4	11.5	59.1	19.1	20.1				
Green Ext Time (p_c), s	0.0	15.2	0.0	1.4	0.0	0.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			39.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ

2025 Build PM Peak - Mitigation SBL(1), EBR(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1463	36	55	2360	72	86	0	36	58	0	60
Future Volume (veh/h)	48	1463	36	55	2360	72	86	0	36	58	0	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1493	37	56	2408	73	88	0	37	59	0	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	3339	1037	343	3443	104	213	0	134	234	0	131
Arrive On Green	0.03	0.65	0.65	0.05	0.68	0.68	0.04	0.00	0.08	0.04	0.00	0.08
Sat Flow, veh/h	1781	5106	1585	1781	5093	154	1781	0	1585	1781	0	1585
Grp Volume(v), veh/h	49	1493	37	56	1606	875	88	0	37	59	0	61
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1843	1781	0	1585	1781	0	1585
Q Serve(g_s), s	0.8	13.6	0.8	0.9	27.5	27.9	4.0	0.0	2.1	2.9	0.0	3.5
Cycle Q Clear(g_c), s	0.8	13.6	0.8	0.9	27.5	27.9	4.0	0.0	2.1	2.9	0.0	3.5
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	3339	1037	343	2301	1246	213	0	134	234	0	131
V/C Ratio(X)	0.27	0.45	0.04	0.16	0.70	0.70	0.41	0.00	0.28	0.25	0.00	0.46
Avail Cap(c_a), veh/h	202	3339	1037	343	2301	1246	213	0	434	237	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.4	8.0	5.8	5.4	9.4	9.5	38.6	0.0	40.7	37.8	0.0	41.6
Incr Delay (d2), s/veh	0.7	0.4	0.1	0.2	1.8	3.3	1.3	0.0	1.1	0.6	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	7.8	0.5	0.5	14.1	15.9	3.5	0.0	1.5	2.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	8.4	5.9	5.6	11.2	12.8	39.9	0.0	41.8	38.3	0.0	44.1
LnGrp LOS	B	A	A	A	B	B	D	A	D	D	A	D
Approach Vol, veh/h	1579		2537				125			120		
Approach Delay, s/veh	8.4		11.6				40.4			41.3		
Approach LOS	A		B				D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	66.1	7.8	12.0	6.9	68.2	8.0	11.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	44.0	4.0	26.0	4.0	45.0	4.0	26.0				
Max Q Clear Time (g_c+I1), s	2.9	15.6	4.9	4.1	2.8	29.9	6.0	5.5				
Green Ext Time (p_c), s	0.0	17.8	0.0	0.1	0.0	14.3	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay	12.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak - Mitigation NBL(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (veh/h)	34	1491	45	24	1866	25	573	51	217	14	10	44
Future Volume (veh/h)	34	1491	45	24	1866	25	573	51	217	14	10	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1569	47	25	1964	26	642	0	228	15	11	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	3118	968	217	3382	45	835	0	438	98	82	258
Arrive On Green	0.61	0.61	0.61	0.03	1.00	1.00	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	217	5106	1585	1781	5193	69	2693	0	1585	245	312	984
Grp Volume(v), veh/h	36	1569	47	25	1287	703	642	0	228	72	0	0
Grp Sat Flow(s),veh/h/ln	217	1702	1585	1781	1702	1858	1346	0	1585	1541	0	0
Q Serve(g_s), s	10.0	22.5	1.5	0.7	0.0	0.0	24.6	0.0	15.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.0	22.5	1.5	0.7	0.0	0.0	28.9	0.0	15.8	4.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.21		0.64
Lane Grp Cap(c), veh/h	188	3118	968	217	2217	1210	835	0	438	438	0	0
V/C Ratio(X)	0.19	0.50	0.05	0.12	0.58	0.58	0.77	0.00	0.52	0.16	0.00	0.00
Avail Cap(c_a), veh/h	188	3118	968	323	2217	1210	1118	0	605	596	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.8	14.2	10.2	10.9	0.0	0.0	45.7	0.0	39.8	36.9	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.6	0.1	0.0	0.1	0.2	2.3	0.0	1.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	13.4	1.0	0.5	0.1	0.1	15.4	0.0	10.4	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	14.8	10.3	10.9	0.1	0.2	48.0	0.0	40.7	37.1	0.0	0.0
LnGrp LOS	B	B	B	B	A	A	D	A	D	D	A	A
Approach Vol, veh/h	1652			2015				870			72	
Approach Delay, s/veh	14.7			0.3				46.1			37.1	
Approach LOS	B			A				D			D	
Timer - Assigned Phs	1	2	4			6		8				
Phs Duration (G+Y+Rc), s	5.3	85.1	39.6			90.4		39.6				
Change Period (Y+Rc), s	3.5	5.7	5.5			5.7		5.5				
Max Green Setting (Gmax), s	9.5	58.0	47.8			71.0		47.8				
Max Q Clear Time (g_c+I1), s	2.7	24.5	30.9			2.0		6.3				
Green Ext Time (p_c), s	0.0	22.4	3.2			41.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay 14.7
HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak - Mitigation EBL(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Traffic Volume (veh/h)	346	1365	53	10	1387	181	238	168	70	74	41	369
Future Volume (veh/h)	346	1365	53	10	1387	181	238	168	70	74	41	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	372	1468	57	11	1491	195	256	181	0	80	44	397
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	421	2120	82	175	1562	204	292	307		857	450	517
Arrive On Green	0.17	0.84	0.84	0.01	0.34	0.34	0.16	0.16	0.00	0.24	0.24	0.24
Sat Flow, veh/h	3456	5043	196	1781	4570	597	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	372	991	534	11	1110	576	256	181	0	80	44	397
Grp Sat Flow(s),veh/h/ln	1728	1702	1835	1781	1702	1763	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	9.0	14.4	14.4	0.5	41.4	41.5	18.2	11.6	0.0	2.3	2.4	29.5
Cycle Q Clear(g_c), s	9.0	14.4	14.4	0.5	41.4	41.5	18.2	11.6	0.0	2.3	2.4	29.5
Prop In Lane	1.00		0.11	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1431	772	175	1164	603	292	307		857	450	517
V/C Ratio(X)	0.88	0.69	0.69	0.06	0.95	0.96	0.88	0.59		0.09	0.10	0.77
Avail Cap(c_a), veh/h	514	1431	772	327	1164	603	434	456		862	452	519
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	7.1	7.1	27.8	41.8	41.8	53.0	50.3	0.0	38.2	38.2	39.2
Incr Delay (d2), s/veh	10.9	2.3	4.2	0.1	17.4	27.2	11.2	1.3	0.0	0.0	0.0	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.8	5.6	6.7	0.4	27.3	30.2	14.0	9.5	0.0	1.8	2.0	18.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	9.5	11.4	27.8	59.2	69.0	64.2	51.6	0.0	38.2	38.2	45.4
LnGrp LOS	D	A	B	C	E	E	E	D		D	D	D
Approach Vol, veh/h	1897				1697				437			
Approach Delay, s/veh	15.8				62.4				59.0			
Approach LOS	B				E				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	60.7		27.3	14.7	50.4		37.5				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I1), s	2.5	16.4		20.2	11.0	43.5		31.5				
Green Ext Time (p_c), s	0.0	9.7		1.1	0.2	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 40.5
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak - Mitigation NBL(2), NBT(2), SBR(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 	 			 	 
Traffic Volume (veh/h)	346	1365	53	10	1387	181	238	168	70	74	41	369
Future Volume (veh/h)	346	1365	53	10	1387	181	238	168	70	74	41	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	372	1468	57	11	1491	195	256	181	0	80	44	397
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	327	2999	116	236	2235	292	344	353		470	247	774
Arrive On Green	0.23	1.00	1.00	0.01	0.49	0.49	0.10	0.10	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1781	5043	196	1781	4570	597	3456	3554	1585	3534	1856	3145
Grp Volume(v), veh/h	372	991	534	11	1110	576	256	181	0	80	44	397
Grp Sat Flow(s),veh/h/ln	1781	1702	1835	1781	1702	1763	1728	1777	1585	1767	1856	1572
Q Serve(g_s), s	14.7	0.0	0.0	0.4	32.1	32.2	9.4	6.3	0.0	2.6	2.7	14.2
Cycle Q Clear(g_c), s	14.7	0.0	0.0	0.4	32.1	32.2	9.4	6.3	0.0	2.6	2.7	14.2
Prop In Lane	1.00		0.11	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	2024	1091	236	1665	862	344	353		470	247	774
V/C Ratio(X)	1.14	0.49	0.49	0.05	0.67	0.67	0.75	0.51		0.17	0.18	0.51
Avail Cap(c_a), veh/h	327	2024	1091	388	1665	862	843	867		862	452	1123
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	0.0	16.6	25.2	25.2	56.9	55.5	0.0	50.0	50.1	42.3
Incr Delay (d2), s/veh	87.9	0.7	1.3	0.0	2.1	4.1	2.4	0.9	0.0	0.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	18.8	0.4	0.7	0.3	19.3	20.5	7.6	5.2	0.0	2.1	2.3	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.8	0.7	1.3	16.6	27.3	29.3	59.3	56.4	0.0	50.1	50.2	42.5
LnGrp LOS	F	A	A	B	C	C	E	E		D	D	D
Approach Vol, veh/h	1897			1697			437			521		
Approach Delay, s/veh	22.9			27.9			58.1			44.3		
Approach LOS	C			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	83.3		18.9	18.2	69.6		23.3				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I1), s	2.4	2.0		11.4	16.7	34.2		16.2				
Green Ext Time (p_c), s	0.0	13.7		1.6	0.0	0.0		1.1				

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2025 Build PM Peak - Mitigation EBL(2), NBL(2), NBT(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	1365	53	10	1387	181	238	168	70	74	41	369
Future Volume (veh/h)	346	1365	53	10	1387	181	238	168	70	74	41	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	372	1468	57	11	1491	195	256	181	0	80	44	397
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	456	2440	95	210	1884	246	344	353		862	452	508
Arrive On Green	0.16	0.97	0.97	0.01	0.41	0.41	0.10	0.10	0.00	0.24	0.24	0.24
Sat Flow, veh/h	3456	5043	196	1781	4570	597	3456	3554	1585	3534	1856	1572
Grp Volume(v), veh/h	372	991	534	11	1110	576	256	181	0	80	44	397
Grp Sat Flow(s),veh/h/ln	1728	1702	1835	1781	1702	1763	1728	1777	1585	1767	1856	1572
Q Serve(g_s), s	8.0	2.9	2.9	0.5	37.0	37.1	9.4	6.3	0.0	2.3	2.4	29.7
Cycle Q Clear(g_c), s	8.0	2.9	2.9	0.5	37.0	37.1	9.4	6.3	0.0	2.3	2.4	29.7
Prop In Lane	1.00		0.11	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	456	1647	888	210	1403	727	344	353		862	452	508
V/C Ratio(X)	0.82	0.60	0.60	0.05	0.79	0.79	0.75	0.51		0.09	0.10	0.78
Avail Cap(c_a), veh/h	574	1647	888	362	1403	727	843	867		862	452	508
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	1.1	1.1	22.0	33.3	33.4	56.9	55.5	0.0	38.0	38.1	39.9
Incr Delay (d2), s/veh	4.8	1.4	2.5	0.0	4.6	8.7	2.4	0.9	0.0	0.0	0.0	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	1.5	2.1	0.4	22.6	24.3	7.6	5.2	0.0	1.8	2.0	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	2.5	3.6	22.1	38.0	42.0	59.3	56.4	0.0	38.0	38.1	46.9
LnGrp LOS	C	A	A	C	D	D	E	E		D	D	D
Approach Vol, veh/h	1897				1697				437			
Approach Delay, s/veh	8.3				39.2				58.1			
Approach LOS	A				D				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	68.9		18.9	13.8	59.6		37.7				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I1), s	2.5	4.9		11.4	10.0	39.1		31.7				
Green Ext Time (p_c), s	0.0	13.1		1.6	0.3	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

**APPENDIX F:
2030 NO BUILD INTERSECTION CAPACITY
ANALYSIS**

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

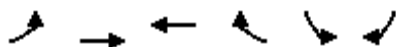
KAFB EUL MAXQ
2030 No Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	2265	675	92	982	25	5	1	2	91	133	187
Future Volume (veh/h)	114	2265	675	92	982	25	5	1	2	91	133	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	2384	711	97	1034	26	5	1	2	96	140	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	433	3390	1058	146	3365	1142	101	170	152	303	272	243
Arrive On Green	0.04	0.66	0.66	0.03	0.66	0.66	0.00	0.10	0.10	0.06	0.15	0.15
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1777	1585	1781	1777	1585
Grp Volume(v), veh/h	120	2384	711	97	1034	26	5	1	2	96	140	197
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.6	35.3	32.4	2.1	10.4	0.6	0.3	0.1	0.1	5.6	8.7	14.4
Cycle Q Clear(g_c), s	2.6	35.3	32.4	2.1	10.4	0.6	0.3	0.1	0.1	5.6	8.7	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	433	3390	1058	146	3365	1142	101	170	152	303	272	243
V/C Ratio(X)	0.28	0.70	0.67	0.66	0.31	0.02	0.05	0.01	0.01	0.32	0.51	0.81
Avail Cap(c_a), veh/h	544	3390	1058	284	3365	1142	256	523	466	355	523	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	12.7	12.0	26.0	8.7	4.8	49.0	49.1	49.1	43.3	46.7	49.1
Incr Delay (d2), s/veh	0.1	1.2	3.4	1.8	0.2	0.0	0.1	0.0	0.0	0.2	1.5	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	17.8	17.1	3.4	6.4	0.3	0.2	0.1	0.1	4.5	7.1	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.6	14.0	15.4	27.8	9.0	4.8	49.1	49.1	49.2	43.6	48.2	55.6
LnGrp LOS	A	B	B	C	A	A	D	D	D	D	D	E
Approach Vol, veh/h		3215			1157			8			433	
Approach Delay, s/veh		14.0			10.5			49.1			50.5	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	84.7	10.9	17.0	8.1	84.1	4.0	23.9				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.0	10.9	35.3				
Max Q Clear Time (g_c+I1), s	4.1	37.3	7.6	2.1	4.6	12.4	2.3	16.4				
Green Ext Time (p_c), s	0.0	5.6	0.0	0.0	0.0	11.6	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2030 No Build AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑↑
Traffic Volume (veh/h)	50	2079	1228	59	72	59
Future Volume (veh/h)	50	2079	1228	59	72	59
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	2188	1293	62	76	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	413	4369	3955	190	79	70
Arrive On Green	0.02	0.86	0.79	0.79	0.04	0.04
Sat Flow, veh/h	1781	5274	5160	239	1781	1585
Grp Volume(v), veh/h	53	2188	882	473	76	62
Grp Sat Flow(s), veh/h/ln	1781	1702	1702	1827	1781	1585
Q Serve(g_s), s	0.4	9.7	6.5	6.5	3.8	3.5
Cycle Q Clear(g_c), s	0.4	9.7	6.5	6.5	3.8	3.5
Prop In Lane	1.00			0.13	1.00	1.00
Lane Grp Cap(c), veh/h	413	4369	2697	1448	79	70
V/C Ratio(X)	0.13	0.50	0.33	0.33	0.96	0.88
Avail Cap(c_a), veh/h	561	4369	2697	1448	79	70
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.7	1.6	2.6	2.6	42.9	42.8
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.6	87.4	67.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.8	2.2	2.6	6.5	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	1.9	2.9	3.2	130.3	110.4
LnGrp LOS	A	A	A	A	F	F
Approach Vol, veh/h		2241	1355		138	
Approach Delay, s/veh		1.9	3.0		121.3	
Approach LOS		A	A		F	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		82.0			5.7	76.3
Change Period (Y+Rc), s		5.0			3.5	5.0
Max Green Setting (Gmax), s		76.6			9.7	63.0
Max Q Clear Time (g_c+I1), s		11.7			2.4	8.5
Green Ext Time (p_c), s		45.0			0.0	18.7
Intersection Summary						
HCM 6th Ctrl Delay			6.7			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑↑	↑↑↑↱		↱	
Traffic Vol, veh/h	7	2208	1257	0	0	16
Future Vol, veh/h	7	2208	1257	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	2349	1337	0	0	17
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1337	0	-	0	2291	669
Stage 1	-	-	-	-	1337	-
Stage 2	-	-	-	-	954	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	268	-	-	-	65	343
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	302	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	268	-	-	-	63	343
Mov Cap-2 Maneuver	-	-	-	-	63	-
Stage 1	-	-	-	-	146	-
Stage 2	-	-	-	-	302	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		16		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	268	-	-	-	343	
HCM Lane V/C Ratio	0.028	-	-	-	0.05	
HCM Control Delay (s)	18.8	-	-	-	16	
HCM Lane LOS	C	-	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑↑	↑↑↑↱		↰	
Traffic Vol, veh/h	5	2171	1239	6	1	19
Future Vol, veh/h	5	2171	1239	6	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	5	2360	1347	7	1	21
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1354	0	-	0	2305	677
Stage 1	-	-	-	-	1351	-
Stage 2	-	-	-	-	954	-
Critical Hdwy	5.34	-	-	-	5.82	7.22
Critical Hdwy Stg 1	-	-	-	-	6.72	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	3.12	-	-	-	3.86	3.96
Pot Cap-1 Maneuver	263	-	-	-	61	332
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	294	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	263	-	-	-	60	332
Mov Cap-2 Maneuver	-	-	-	-	60	-
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	294	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		19.4		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	263	-	-	-	271	
HCM Lane V/C Ratio	0.021	-	-	-	0.08	
HCM Control Delay (s)	19	-	-	-	19.4	
HCM Lane LOS	C	-	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 6th Signalized Intersection Summary
7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2030 No Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1636	551	291	1170	5	67	1	38	10	97	23
Future Volume (veh/h)	12	1636	551	291	1170	5	67	1	38	10	97	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1859	626	331	1330	6	76	1	43	11	110	26
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	1761	563	351	3424	15	134	1	662	32	216	46
Arrive On Green	0.46	0.46	0.46	0.33	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	410	3831	1223	1781	5246	24	293	5	1585	1	849	183
Grp Volume(v), veh/h	14	1641	844	331	863	473	77	0	43	147	0	0
Grp Sat Flow(s),veh/h/ln	410	1702	1650	1781	1702	1866	298	0	1585	1032	0	0
Q Serve(g_s), s	2.3	55.2	55.2	17.4	0.0	0.0	0.1	0.0	1.9	0.2	0.0	0.0
Cycle Q Clear(g_c), s	2.3	55.2	55.2	17.4	0.0	0.0	30.5	0.0	1.9	30.5	0.0	0.0
Prop In Lane	1.00		0.74	1.00		0.01	0.99		1.00	0.07		0.18
Lane Grp Cap(c), veh/h	248	1565	759	351	2221	1218	135	0	662	295	0	0
V/C Ratio(X)	0.06	1.05	1.11	0.94	0.39	0.39	0.57	0.00	0.06	0.50	0.00	0.00
Avail Cap(c_a), veh/h	248	1565	759	453	2221	1218	135	0	662	295	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	32.4	32.4	30.2	0.0	0.0	45.1	0.0	20.9	37.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	36.5	68.2	19.3	0.4	0.7	5.5	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	39.5	48.4	13.7	0.2	0.5	4.5	0.0	1.3	6.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	68.9	100.6	49.5	0.4	0.7	50.6	0.0	21.0	38.4	0.0	0.0
LnGrp LOS	B	F	F	D	A	A	D	A	C	D	A	A
Approach Vol, veh/h	2499			1667			120			147		
Approach Delay, s/veh	79.4			10.3			40.0			38.4		
Approach LOS	E			B			D			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	23.1	60.9		36.0		84.0		36.0				
Change Period (Y+Rc), s	3.5	5.7		5.5		5.7		5.5				
Max Green Setting (Gmax), s	26.5	48.3		30.5		78.3		30.5				
Max Q Clear Time (g_c+I1), s	19.4	57.2		32.5		2.0		32.5				
Green Ext Time (p_c), s	0.2	0.0		0.0		19.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				50.9								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 No Build AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↩ ↑↑↑			↩ ↑↑↑			↩ ↑	↑	↩	↩	↩↑	↩
Traffic Volume (veh/h)	221	940	525	103	1054	63	80	49	35	113	304	348
Future Volume (veh/h)	221	940	525	103	1054	63	80	49	35	113	304	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	251	1068	597	117	1198	72	91	56	0	128	345	395
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	370	1890	880	297	2542	153	119	125		267	561	373
Arrive On Green	0.17	1.00	1.00	0.05	0.52	0.52	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3404	1585	1781	4925	296	1725	1811	1535	1781	3741	1585
Grp Volume(v), veh/h	251	1068	597	117	828	442	91	56	0	128	345	395
Grp Sat Flow(s), veh/h/ln	1781	1702	1585	1781	1702	1817	1725	1811	1535	1781	1870	1585
Q Serve(g_s), s	8.1	0.0	0.0	3.7	18.7	18.7	6.2	3.6	0.0	7.9	10.4	18.0
Cycle Q Clear(g_c), s	8.1	0.0	0.0	3.7	18.7	18.7	6.2	3.6	0.0	7.9	10.4	18.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	370	1890	880	297	1757	938	119	125		267	561	373
V/C Ratio(X)	0.68	0.57	0.68	0.39	0.47	0.47	0.76	0.45		0.48	0.61	1.06
Avail Cap(c_a), veh/h	486	1890	880	376	1757	938	172	181		267	561	373
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	12.3	18.6	18.6	54.9	53.7	0.0	46.7	47.8	45.9
Incr Delay (d2), s/veh	0.5	0.5	1.8	0.3	0.9	1.7	9.3	1.9	0.0	0.5	1.5	62.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.2	0.3	0.8	2.6	11.6	12.5	5.4	3.0	0.0	6.4	8.6	25.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.2	0.5	1.8	12.6	19.5	20.3	64.2	55.5	0.0	47.2	49.2	108.4
LnGrp LOS	B	A	A	B	B	C	E	E		D	D	F
Approach Vol, veh/h	1916			1387			147			868		
Approach Delay, s/veh	2.6			19.1			60.9			75.9		
Approach LOS	A			B			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	72.6		14.3	13.8	67.9		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+1.5), s	15.7	2.0		8.2	10.1	20.7		20.0				
Green Ext Time (p_c), s	0.0	18.2		0.1	0.1	9.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

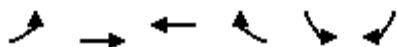
KAFB EUL MAXQ
2030 No Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	1525	7	0	2460	131	512	126	96	68	0	246
Future Volume (veh/h)	253	1525	7	0	2460	131	512	126	96	68	0	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	1572	7	0	2536	135	528	130	99	70	0	254
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	2949	1126	183	2439	826	321	539	381	342	323	288
Arrive On Green	0.07	0.58	0.58	0.00	0.32	0.32	0.13	0.27	0.27	0.04	0.00	0.18
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1988	1407	1781	1777	1585
Grp Volume(v), veh/h	261	1572	7	0	2536	135	528	115	114	70	0	254
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1617	1781	1777	1585
Q Serve(g_s), s	9.5	24.4	0.2	0.0	62.1	7.3	17.3	6.6	7.2	4.1	0.0	20.3
Cycle Q Clear(g_c), s	9.5	24.4	0.2	0.0	62.1	7.3	17.3	6.6	7.2	4.1	0.0	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	186	2949	1126	183	2439	826	321	482	439	342	323	288
V/C Ratio(X)	1.41	0.53	0.01	0.00	1.04	0.16	1.64	0.24	0.26	0.20	0.00	0.88
Avail Cap(c_a), veh/h	186	2949	1126	312	2439	826	321	493	449	502	493	440
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.68	0.68	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	16.8	5.5	0.0	44.2	21.7	39.6	36.9	37.1	40.6	0.0	51.8
Incr Delay (d2), s/veh	211.9	0.7	0.0	0.0	26.7	0.3	303.6	0.3	0.3	0.1	0.0	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	26.4	14.2	0.1	0.0	41.8	5.2	54.1	5.3	5.2	3.3	0.0	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	253.9	17.5	5.5	0.0	70.9	22.0	343.2	37.2	37.5	40.7	0.0	64.6
LnGrp LOS	F	B	A	A	F	C	F	D	D	D	A	E
Approach Vol, veh/h		1840			2671			757			324	
Approach Delay, s/veh		50.9			68.5			250.6			59.4	
Approach LOS		D			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	80.1	9.2	40.8	13.0	67.1	20.8	29.1				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	0.0	26.4	6.1	9.2	11.5	64.1	19.3	22.3				
Green Ext Time (p_c), s	0.0	15.6	0.0	1.4	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			86.8									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2030 No Build PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑↑
Traffic Volume (veh/h)	52	1578	2575	78	62	65
Future Volume (veh/h)	52	1578	2575	78	62	65
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	1610	2628	80	63	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	155	4382	4134	125	109	97
Arrive On Green	0.04	1.00	0.81	0.81	0.06	0.06
Sat Flow, veh/h	1781	5274	5261	154	1781	1585
Grp Volume(v), veh/h	53	1610	1750	958	63	66
Grp Sat Flow(s), veh/h/ln	1781	1702	1702	1843	1781	1585
Q Serve(g_s), s	0.6	0.0	25.9	26.5	4.5	5.3
Cycle Q Clear(g_c), s	0.6	0.0	25.9	26.5	4.5	5.3
Prop In Lane	1.00			0.08	1.00	1.00
Lane Grp Cap(c), veh/h	155	4382	2763	1496	109	97
V/C Ratio(X)	0.34	0.37	0.63	0.64	0.58	0.68
Avail Cap(c_a), veh/h	250	4382	2763	1496	423	377
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	0.0	4.7	4.8	59.4	59.8
Incr Delay (d2), s/veh	1.2	0.2	1.1	2.1	4.8	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.2	10.9	12.4	3.9	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.7	0.2	5.9	6.9	64.2	68.0
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h		1663	2708		129	
Approach Delay, s/veh		0.5	6.2		66.2	
Approach LOS		A	A		E	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		116.6			6.1	110.5
Change Period (Y+Rc), s		5.0			3.5	5.0
Max Green Setting (Gmax), s		88.6			9.5	76.0
Max Q Clear Time (g_c+I1), s		2.0			2.6	28.5
Green Ext Time (p_c), s		30.4			0.0	42.1

Intersection Summary

HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑↑	↑↑↑↱		↱	
Traffic Vol, veh/h	17	1676	2638	5	2	18
Future Vol, veh/h	17	1676	2638	5	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	1746	2748	5	2	19
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2753	0	-	0	3485	1377
Stage 1	-	-	-	-	2751	-
Stage 2	-	-	-	-	734	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	51	-	-	-	14	115
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	396	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	51	-	-	-	9	115
Mov Cap-2 Maneuver	-	-	-	-	9	-
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	396	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		111.5		
HCM LOS	F					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	51	-	-	-	53	
HCM Lane V/C Ratio	0.347	-	-	-	0.393	
HCM Control Delay (s)	109.3	-	-	-	111.5	
HCM Lane LOS	F	-	-	-	F	
HCM 95th %tile O(veh)	1.2	-	-	-	1.4	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	1630	2650	2	0	11
Future Vol, veh/h	19	1630	2650	2	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	1698	2760	2	0	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2762	0	-	0	3480	1381
Stage 1	-	-	-	-	2761	-
Stage 2	-	-	-	-	719	-
Critical Hdwy	5.34	-	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	-	-	3.82	3.92
Pot Cap-1 Maneuver	51	-	-	-	14	115
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	403	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	51	-	-	-	9	115
Mov Cap-2 Maneuver	-	-	-	-	9	-
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	403	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		39.7		
HCM LOS	E					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	51	-	-	-	115	
HCM Lane V/C Ratio	0.388	-	-	-	0.1	
HCM Control Delay (s)	114.8	-	-	-	39.7	
HCM Lane LOS	F	-	-	-	E	
HCM 95th %tile O(veh)	1.4	-	-	-	0.3	

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2030 No Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1547	49	26	1984	28	619	55	235	16	11	46
Future Volume (veh/h)	35	1547	49	26	1984	28	619	55	235	16	11	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1579	50	27	2024	29	632	56	240	16	11	47
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	2567	81	168	2833	41	205	13	606	34	34	59
Arrive On Green	0.50	0.50	0.50	0.03	1.00	1.00	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	204	5084	161	1781	5187	74	413	37	1585	0	93	161
Grp Volume(v), veh/h	36	1057	572	27	1328	725	688	0	240	74	0	0
Grp Sat Flow(s),veh/h/ln	204	1702	1841	1781	1702	1857	449	0	1585	254	0	0
Q Serve(g_s), s	13.8	29.0	29.0	0.9	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.8	29.0	29.0	0.9	0.0	0.0	47.8	0.0	14.3	47.8	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.04	0.92		1.00	0.22		0.64
Lane Grp Cap(c), veh/h	159	1719	930	168	1859	1014	218	0	606	127	0	0
V/C Ratio(X)	0.23	0.62	0.62	0.16	0.71	0.72	3.15	0.00	0.40	0.58	0.00	0.00
Avail Cap(c_a), veh/h	159	1719	930	273	1859	1014	218	0	606	127	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.3	23.1	23.1	18.1	0.0	0.0	46.9	0.0	29.2	33.5	0.0	0.0
Incr Delay (d2), s/veh	3.3	1.7	3.0	0.0	0.2	0.4	979.9	0.0	1.9	18.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	17.1	18.7	0.7	0.1	0.2	112.0	0.0	9.8	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	24.8	26.2	18.1	0.2	0.4	1026.8	0.0	31.2	51.6	0.0	0.0
LnGrp LOS	C	C	C	B	A	A	F	A	C	D	A	A
Approach Vol, veh/h	1665			2080			928			74		
Approach Delay, s/veh	25.2			0.5			769.3			51.6		
Approach LOS	C			A			F			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.4	71.3		53.3		76.7		53.3				
Change Period (Y+Rc), s	3.5	5.7		5.5		5.7		5.5				
Max Green Setting (Gmax), s	9.5	58.0		47.8		71.0		47.8				
Max Q Clear Time (g_c+I1), s	2.9	31.0		49.8		2.0		49.8				
Green Ext Time (p_c), s	0.0	18.4		0.0		40.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	160.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 No Build PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑ ↱			↰ ↑↑ ↱			↰ ↑	↑	↰ ↱	↰ ↱	↰ ↑	↰ ↱
Traffic Volume (veh/h)	347	1437	58	11	1479	195	258	182	75	80	44	385
Future Volume (veh/h)	347	1437	58	11	1479	195	258	182	75	80	44	385
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	373	1545	62	12	1590	210	277	196	0	86	47	414
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	257	2048	82	151	1377	181	313	329		862	452	561
Arrive On Green	0.23	0.81	0.81	0.01	0.30	0.30	0.18	0.18	0.00	0.24	0.24	0.24
Sat Flow, veh/h	1781	5036	202	1781	4565	601	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	373	1044	563	12	1185	615	277	196	0	86	47	414
Grp Sat Flow(s), veh/h/ln	1781	1702	1834	1781	1702	1762	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	14.7	19.3	19.3	0.6	39.2	39.2	19.7	12.5	0.0	2.5	2.6	29.9
Cycle Q Clear(g_c), s	14.7	19.3	19.3	0.6	39.2	39.2	19.7	12.5	0.0	2.5	2.6	29.9
Prop In Lane	1.00		0.11	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	1385	746	151	1027	532	313	329		862	452	561
V/C Ratio(X)	1.45	0.75	0.75	0.08	1.15	1.16	0.88	0.60		0.10	0.10	0.74
Avail Cap(c_a), veh/h	257	1385	746	303	1027	532	434	456		862	452	561
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	9.0	9.0	31.3	45.4	45.4	52.3	49.3	0.0	38.1	38.1	36.5
Incr Delay (d2), s/veh	219.1	2.9	5.2	0.1	80.3	90.2	13.6	1.3	0.0	0.0	0.0	4.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh	31.2	6.6	7.7	0.5	39.5	42.6	15.2	10.0	0.0	1.9	2.1	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	251.8	11.9	14.2	31.4	125.7	135.6	65.9	50.6	0.0	38.1	38.2	41.0
LnGrp LOS	F	B	B	C	F	F	E	D		D	D	D
Approach Vol, veh/h	1980			1812			473			547		
Approach Delay, s/veh	57.7			128.4			59.5			40.3		
Approach LOS	E			F			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	58.9		28.9	18.2	45.2		37.7				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (G_max), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I), s	12.6	21.3		21.7	16.7	41.2		31.9				
Green Ext Time (p_c), s	0.0	7.6		1.1	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	82.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

**APPENDIX G:
2030 BUILD INTERSECTION CAPACITY
ANALYSIS**

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Future Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	2504	817	140	2478	809	305	523	466	501	523	466
Arrive On Green	0.05	0.49	0.49	0.04	0.49	0.49	0.02	0.29	0.29	0.02	0.29	0.29
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1777	1585	1781	1777	1585
Grp Volume(v), veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.0	58.8	46.6	3.5	18.6	0.4	0.0	0.2	1.0	0.0	7.8	12.0
Cycle Q Clear(g_c), s	4.0	58.8	46.6	3.5	18.6	0.4	0.0	0.2	1.0	0.0	7.8	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	2504	817	140	2478	809	305	523	466	501	523	466
V/C Ratio(X)	0.41	1.14	0.97	0.74	0.48	0.09	0.08	0.01	0.04	0.36	0.29	0.42
Avail Cap(c_a), veh/h	386	2504	817	257	2478	809	423	523	466	618	523	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	30.6	20.1	28.2	20.7	7.6	37.5	30.0	30.3	32.7	32.6	34.1
Incr Delay (d2), s/veh	0.3	69.4	24.9	2.7	0.6	0.2	0.0	0.0	0.2	0.2	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	54.6	29.2	2.7	11.7	1.2	1.0	0.2	0.8	7.5	6.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	99.9	45.0	30.9	21.3	7.8	37.5	30.0	30.4	32.9	34.0	36.9
LnGrp LOS	B	F	D	C	C	A	D	C	C	C	C	D
Approach Vol, veh/h	3772					1355		47		525		
Approach Delay, s/veh	85.7					21.3		34.0		34.7		
Approach LOS	F					C		C		C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	63.8	6.5	40.8	9.5	63.2	6.5	40.8				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.0	10.9	35.3				
Max Q Clear Time (g_c+l1), s	5.5	60.8	2.0	3.0	6.0	20.6	2.0	14.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	12.6	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			65.3									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2030 Build AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↩ ↑↑↑			↩ ↑↑↑			↩	↑			↩	
Traffic Volume (veh/h)	50	2458	170	144	1306	59	107	3	83	72	3	59
Future Volume (veh/h)	50	2458	170	144	1306	59	107	3	83	72	3	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	2587	179	152	1375	62	113	3	87	76	3	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	3218	219	167	3444	155	241	11	316	117	15	73
Arrive On Green	0.02	0.66	0.66	0.05	0.69	0.69	0.03	0.21	0.21	0.15	0.15	0.15
Sat Flow, veh/h	1781	4883	332	1781	5008	226	1781	53	1540	522	100	489
Grp Volume(v), veh/h	53	1789	977	152	935	502	113	0	90	141	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1811	1781	1702	1830	1781	0	1593	1112	0	0
Q Serve(g_s), s	1.4	52.9	55.9	5.7	16.5	16.5	0.0	0.0	6.7	11.5	0.0	0.0
Cycle Q Clear(g_c), s	1.4	52.9	55.9	5.7	16.5	16.5	0.0	0.0	6.7	18.2	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.12	1.00		0.97	0.54		0.44
Lane Grp Cap(c), veh/h	301	2243	1193	167	2341	1258	241	0	327	205	0	0
V/C Ratio(X)	0.18	0.80	0.82	0.91	0.40	0.40	0.47	0.00	0.28	0.69	0.00	0.00
Avail Cap(c_a), veh/h	380	2243	1193	167	2341	1258	242	0	489	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.0	17.2	17.7	41.6	9.4	9.4	55.2	0.0	46.9	60.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.6	45.2	0.5	0.9	1.4	0.0	0.5	4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	21.9	24.6	11.9	10.2	11.0	7.0	0.0	4.9	8.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	17.4	18.3	86.8	9.9	10.4	56.6	0.0	47.3	64.1	0.0	0.0
LnGrp LOS	A	B	B	F	A	B	E	A	D	E	A	A
Approach Vol, veh/h	2819			1589			203			141		
Approach Delay, s/veh	17.6			17.4			52.5			64.1		
Approach LOS	B			B			D			E		
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	96.3		32.7	7.0	100.3	8.0	24.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	78.0			43.0	9.2	75.8	4.0	35.0				
Max Q Clear Time (g_c+I1), s	57.9			8.7	3.4	18.5	2.0	20.2				
Green Ext Time (p_c), s	0.0	18.1		0.5	0.0	15.0	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay 20.4
HCM 6th LOS C

HCM 6th TWSC
3: Proposed Driveway 1 & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	2521	97	0	1495	0	77
Future Vol, veh/h	2521	97	0	1495	0	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2682	103	0	1590	0	82

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1393
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 113
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 113
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	94.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	113	-	-	-
HCM Lane V/C Ratio	0.725	-	-	-
HCM Control Delay (s)	94.2	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	3.9	-	-	-

HCM 6th TWSC
4: Proposed Driveway 2 & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak

Intersection

Int Delay, s/veh 1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	2507	95	0	1495	0	62
Future Vol, veh/h	2507	95	0	1495	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2667	101	0	1590	0	66

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1384
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 114
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 114
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	73
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	114	-	-	-
HCM Lane V/C Ratio	0.579	-	-	-
HCM Control Delay (s)	73	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	2.8	-	-	-

HCM 6th Signalized Intersection Summary

5: Quincy & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 				 	
Traffic Volume (veh/h)	7	2415	217	156	1381	0	127	0	71	0	0	16
Future Volume (veh/h)	7	2415	217	156	1381	0	127	0	71	0	0	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	2569	231	166	1469	0	135	0	76	0	0	17
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	2908	255	415	4057	0	293	0	156	0	0	50
Arrive On Green	0.01	0.61	0.61	0.39	1.00	0.00	0.03	0.00	0.10	0.00	0.00	0.03
Sat Flow, veh/h	1781	4780	419	1781	5274	0	3456	0	1585	0	0	1585
Grp Volume(v), veh/h	7	1811	989	166	1469	0	135	0	76	0	0	17
Grp Sat Flow(s),veh/h/ln	1781	1702	1795	1781	1702	0	1728	0	1585	0	0	1585
Q Serve(g_s), s	0.2	53.4	57.6	2.6	0.0	0.0	4.0	0.0	5.4	0.0	0.0	1.3
Cycle Q Clear(g_c), s	0.2	53.4	57.6	2.6	0.0	0.0	4.0	0.0	5.4	0.0	0.0	1.3
Prop In Lane	1.00		0.23	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	277	2071	1092	415	4057	0	293	0	156	0	0	50
V/C Ratio(X)	0.03	0.87	0.91	0.40	0.36	0.00	0.46	0.00	0.49	0.00	0.00	0.34
Avail Cap(c_a), veh/h	324	2071	1092	415	4057	0	293	0	317	0	0	211
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	19.7	20.5	29.5	0.0	0.0	53.0	0.0	51.2	0.0	0.0	56.9
Incr Delay (d2), s/veh	0.0	5.5	12.3	0.6	0.3	0.0	1.1	0.0	2.3	0.0	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	28.8	34.4	5.7	0.2	0.0	3.7	0.0	4.1	0.0	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	25.2	32.8	30.1	0.3	0.0	54.2	0.0	53.6	0.0	0.0	60.7
LnGrp LOS	B	C	C	C	A	A	D	A	D	A	A	E
Approach Vol, veh/h	2807		1635				211		17			
Approach Delay, s/veh	27.8		3.3				53.9		60.7			
Approach LOS	C		A				D		E			
Timer - Assigned Phs	2		3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8		27.2	77.0	8.0	7.8	4.8	99.3				
Change Period (Y+Rc), s	4.0		4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	24.0		11.0	73.0	4.0	16.0	4.0	80.0				
Max Q Clear Time (g_c+I1), s	7.4		4.6	59.6	6.0	3.3	2.2	2.0				
Green Ext Time (p_c), s	0.3		0.2	12.5	0.0	0.0	0.0	17.6				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↑↑↑			↵			↵		
Traffic Vol, veh/h	5	2340	112	0	1502	6	0	0	56	0	0	19
Future Vol, veh/h	5	2340	112	0	1502	6	0	0	56	0	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	5	2543	122	0	1633	7	0	0	61	0	0	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1640	0	0	-	-	0	-	-	1333	-	-	820
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	-	-	-	7.14	-	-	7.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	-	-	-	3.92	-	-	3.96
Pot Cap-1 Maneuver	190	-	-	0	-	-	0	0	124	0	0	266
Stage 1	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	190	-	-	-	-	-	-	-	124	-	-	266
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			59.2			19.7		
HCM LOS							F			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1					
Capacity (veh/h)	124	190	-	-	-	-	266					
HCM Lane V/C Ratio	0.491	0.029	-	-	-	-	0.078					
HCM Control Delay (s)	59.2	24.5	-	-	-	-	19.7					
HCM Lane LOS	F	C	-	-	-	-	C					
HCM 95th %tile O(veh)	2.3	0.1	-	-	-	-	0.2					

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1789	624	335	1404	5	67	1	38	10	106	38
Future Volume (veh/h)	29	1789	624	335	1404	5	67	1	38	10	106	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1870	1870	1870
Adj Flow Rate, veh/h	32	1966	686	368	1543	5	74	1	42	11	116	42
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	2	2	2
Cap, veh/h	207	1678	544	387	3428	11	320	4	661	44	326	112
Arrive On Green	0.88	0.88	0.88	0.37	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	334	3815	1237	1781	5254	17	1025	15	1510	49	1283	441
Grp Volume(v), veh/h	32	1738	914	368	1000	548	75	0	42	169	0	0
Grp Sat Flow(s),veh/h/ln	334	1702	1648	1781	1702	1867	1041	0	1510	1773	0	0
Q Serve(g_s), s	1.7	52.8	52.8	19.9	0.0	0.0	0.5	0.0	1.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	52.8	52.8	19.9	0.0	0.0	9.8	0.0	1.9	9.3	0.0	0.0
Prop In Lane	1.00		0.75	1.00		0.01	0.99		1.00	0.07		0.25
Lane Grp Cap(c), veh/h	207	1497	725	387	2221	1218	324	0	661	483	0	0
V/C Ratio(X)	0.15	1.16	1.26	0.95	0.45	0.45	0.23	0.00	0.06	0.35	0.00	0.00
Avail Cap(c_a), veh/h	207	1497	725	453	2221	1218	324	0	661	483	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.1	7.2	7.2	28.6	0.0	0.0	37.1	0.0	19.5	36.9	0.0	0.0
Incr Delay (d2), s/veh	1.6	80.2	128.5	19.9	0.4	0.8	1.7	0.0	0.2	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	29.4	43.2	14.0	0.2	0.5	3.6	0.0	1.3	7.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	87.5	135.7	48.5	0.4	0.8	38.8	0.0	19.7	38.9	0.0	0.0
LnGrp LOS	A	F	F	D	A	A	D	A	B	D	A	A
Approach Vol, veh/h	2684			1916			117			169		
Approach Delay, s/veh	102.9			9.8			31.9			38.9		
Approach LOS	F			A			C			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	25.5	58.5		36.0		84.0		36.0				
Change Period (Y+Rc), s	3.5	5.7		5.5		5.7		5.5				
Max Green Setting (Gmax), s	26.5	48.3		30.5		78.3		30.5				
Max Q Clear Time (g_c+I1), s	21.9	54.8		11.8		2.0		11.3				
Green Ext Time (p_c), s	0.2	0.0		0.5		25.6		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				62.5								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑ ↱			↰ ↑↑ ↱			↰ ↑	↑	↰ ↱	↰ ↱	↰ ↑	↰ ↱
Traffic Volume (veh/h)	283	1018	525	103	1203	63	80	49	35	113	304	476
Future Volume (veh/h)	283	1018	525	103	1203	63	80	49	35	113	304	476
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	322	1157	597	117	1367	72	91	56	0	128	345	541
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	370	1884	877	280	2431	128	119	125		267	561	416
Arrive On Green	0.22	1.00	1.00	0.05	0.49	0.49	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3404	1585	1781	4966	262	1725	1811	1535	1781	3741	1585
Grp Volume(v), veh/h	322	1157	597	117	937	502	91	56	0	128	345	541
Grp Sat Flow(s), veh/h/ln	1781	1702	1585	1781	1702	1823	1725	1811	1535	1781	1870	1585
Q Serve(g_s), s	11.3	0.0	0.0	3.9	23.3	23.3	6.2	3.6	0.0	7.9	10.4	18.0
Cycle Q Clear(g_c), s	11.3	0.0	0.0	3.9	23.3	23.3	6.2	3.6	0.0	7.9	10.4	18.0
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	370	1884	877	280	1666	892	119	125		267	561	416
V/C Ratio(X)	0.87	0.61	0.68	0.42	0.56	0.56	0.76	0.45		0.48	0.61	1.30
Avail Cap(c_a), veh/h	438	1884	877	356	1666	892	172	181		267	561	416
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	0.0	13.7	21.6	21.6	54.9	53.7	0.0	46.7	47.8	44.3
Incr Delay (d2), s/veh	1.5	0.1	0.4	0.4	1.4	2.6	9.3	1.9	0.0	0.5	1.5	152.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.1	0.1	0.2	2.9	14.5	15.7	5.4	3.0	0.0	6.4	8.6	43.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.4	0.1	0.4	14.1	23.0	24.1	64.2	55.5	0.0	47.2	49.2	196.4
LnGrp LOS	B	A	A	B	C	C	E	E		D	D	F
Approach Vol, veh/h	2076			1556			147			1014		
Approach Delay, s/veh	3.0			22.7			60.9			127.5		
Approach LOS	A			C			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	72.4		14.3	17.0	64.7		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+1.5), s	15.9	2.0		8.2	13.3	25.3		20.0				
Green Ext Time (p_c), s	0.0	22.2		0.1	0.2	11.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
9: Carlisle Blvd & Proposed Driveway 3

KAFB EUL MAXQ
2030 Build AM Peak

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	38	7	0	92	900
Future Vol, veh/h	0	38	7	0	92	900
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	7	0	98	957

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	682	4	0
Stage 1	7	-	-
Stage 2	675	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	384	1078	1612
Stage 1	1015	-	-
Stage 2	467	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	334	1078	1612
Mov Cap-2 Maneuver	334	-	-
Stage 1	1015	-	-
Stage 2	406	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1078	1612	-
HCM Lane V/C Ratio	-	- 0.038	0.061	-
HCM Control Delay (s)	-	- 8.5	7.4	0.4
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0.2	-

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Future Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	1739	33	13	3020	216	607	139	105	113	4	254
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	2767	1070	153	2438	861	321	496	350	379	323	288
Arrive On Green	0.07	0.54	0.54	0.01	0.48	0.48	0.13	0.25	0.25	0.07	0.18	0.18
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1992	1403	1781	1777	1585
Grp Volume(v), veh/h	261	1739	33	13	3020	216	607	123	121	113	4	254
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1618	1781	1777	1585
Q Serve(g_s), s	9.5	30.8	0.9	0.5	62.1	9.4	17.3	7.3	7.9	6.6	0.2	20.3
Cycle Q Clear(g_c), s	9.5	30.8	0.9	0.5	62.1	9.4	17.3	7.3	7.9	6.6	0.2	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	186	2767	1070	153	2438	861	321	443	403	379	323	288
V/C Ratio(X)	1.41	0.63	0.03	0.09	1.24	0.25	1.89	0.28	0.30	0.30	0.01	0.88
Avail Cap(c_a), veh/h	186	2767	1070	268	2438	861	321	493	449	499	493	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	20.7	7.0	19.3	34.0	15.7	39.6	39.4	39.6	39.3	43.6	51.8
Incr Delay (d2), s/veh	211.9	1.1	0.1	0.0	107.8	0.1	412.0	0.3	0.4	0.2	0.0	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	26.5	18.0	0.6	0.4	62.5	4.3	69.1	5.8	5.8	5.3	0.2	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	253.9	21.8	7.1	19.3	141.7	15.8	451.6	39.7	40.0	39.5	43.6	64.5
LnGrp LOS	F	C	A	B	F	B	F	D	D	D	D	E
Approach Vol, veh/h	2033					3249			851		371	
Approach Delay, s/veh	51.3					132.9			333.5		56.6	
Approach LOS	D					F			F		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	75.4	12.0	37.9	13.0	67.1	20.8	29.1				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.5	32.8	8.6	9.9	11.5	64.1	19.3	22.3				
Green Ext Time (p_c), s	0.0	13.8	0.1	1.5	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	129.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ
2030 Build PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	← ↑ ↑	↑ ↑ ↑		← ↑ ↑	↑ ↑ ↑		← ↑	↑			↑ ↓	
Traffic Volume (veh/h)	52	1713	77	111	2937	78	194	3	79	62	3	65
Future Volume (veh/h)	52	1713	77	111	2937	78	194	3	79	62	3	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	1748	79	113	2997	80	198	3	81	63	3	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	3431	155	228	3538	94	84	12	319	98	15	77
Arrive On Green	0.02	0.69	0.69	0.03	0.69	0.69	0.05	0.21	0.21	0.13	0.13	0.13
Sat Flow, veh/h	1781	5008	226	1781	5115	135	1781	57	1537	463	114	577
Grp Volume(v), veh/h	53	1188	639	113	1986	1091	198	0	84	132	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1830	1781	1702	1846	1781	0	1594	1154	0	0
Q Serve(g_s), s	1.3	25.1	25.2	2.9	64.3	66.4	7.0	0.0	6.6	10.8	0.0	0.0
Cycle Q Clear(g_c), s	1.3	25.1	25.2	2.9	64.3	66.4	7.0	0.0	6.6	17.4	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.07	1.00		0.96	0.48		0.50
Lane Grp Cap(c), veh/h	102	2332	1254	228	2355	1277	84	0	331	190	0	0
V/C Ratio(X)	0.52	0.51	0.51	0.50	0.84	0.85	2.37	0.00	0.25	0.69	0.00	0.00
Avail Cap(c_a), veh/h	174	2332	1254	228	2355	1277	84	0	331	311	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.4	11.3	11.4	10.4	17.0	17.3	71.0	0.0	49.4	64.6	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.7	1.2	1.7	3.9	7.4	649.9	0.0	0.4	4.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	14.1	15.3	2.1	33.0	37.8	29.6	0.0	4.8	8.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	12.0	12.6	12.1	20.9	24.7	720.9	0.0	49.8	69.2	0.0	0.0
LnGrp LOS	D	B	B	B	C	C	F	A	D	E	A	A
Approach Vol, veh/h	1880			3190			282			132		
Approach Delay, s/veh	13.0			21.9			521.0			69.2		
Approach LOS	B			C			F			E		
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	106.1		34.9	7.0	107.1	11.0	23.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	89.6		11.0	9.0	77.0	7.0	32.4				
Max Q Clear Time (g_c+1.9), s	4.0	27.2		8.6	3.3	68.4	9.0	19.4				
Green Ext Time (p_c), s	0.0	34.8		0.1	0.0	8.5	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

HCM 6th TWSC
3: Proposed Driveway 1 & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	1789	68	0	3129	0	89
Future Vol, veh/h	1789	68	0	3129	0	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1903	72	0	3329	0	95
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	988
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	211
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	211
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		35.2	
HCM LOS					E	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	211	-	-	-		
HCM Lane V/C Ratio	0.449	-	-	-		
HCM Control Delay (s)	35.2	-	-	-		
HCM Lane LOS	E	-	-	-		
HCM 95th %tile O(veh)	2.1	-	-	-		

HCM 6th TWSC
4: Proposed Driveway 2 & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	1818	66	0	3129	0	75
Future Vol, veh/h	1818	66	0	3129	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1934	70	0	3329	0	80
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1002
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	207
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	207
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	32.9			
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	207	-	-	-		
HCM Lane V/C Ratio	0.385	-	-	-		
HCM Control Delay (s)	32.9	-	-	-		
HCM Lane LOS	D	-	-	-		
HCM 95th %tile O(veh)	1.7	-	-	-		

HCM 6th Signalized Intersection Summary

5: Quincy & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 				 	
Traffic Volume (veh/h)	17	1862	73	96	2705	5	433	0	107	2	0	18
Future Volume (veh/h)	17	1862	73	96	2705	5	433	0	107	2	0	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	1940	76	100	2818	5	451	0	111	2	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	3025	118	414	3932	7	549	0	231	33	2	43
Arrive On Green	0.01	0.60	0.60	0.32	1.00	1.00	0.08	0.00	0.15	0.03	0.00	0.03
Sat Flow, veh/h	1781	5042	197	1781	5263	9	3456	0	1585	97	53	1421
Grp Volume(v), veh/h	18	1309	707	100	1822	1001	451	0	111	21	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1835	1781	1702	1869	1728	0	1585	1570	0	0
Q Serve(g_s), s	0.6	32.5	32.6	0.0	0.0	0.0	11.0	0.0	8.4	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	32.5	32.6	0.0	0.0	0.0	11.0	0.0	8.4	1.7	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.00	1.00		1.00	0.10		0.90
Lane Grp Cap(c), veh/h	134	2042	1101	414	2543	1396	549	0	231	78	0	0
V/C Ratio(X)	0.13	0.64	0.64	0.24	0.72	0.72	0.82	0.00	0.48	0.27	0.00	0.00
Avail Cap(c_a), veh/h	163	2042	1101	414	2543	1396	549	0	378	222	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.3	16.9	16.9	21.6	0.0	0.0	56.6	0.0	51.0	61.9	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.6	2.9	0.3	1.8	3.2	9.8	0.0	1.5	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	18.6	20.3	3.7	1.1	2.2	12.8	0.0	6.2	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	18.5	19.8	21.9	1.8	3.2	66.3	0.0	52.5	63.7	0.0	0.0
LnGrp LOS	B	B	B	C	A	A	E	A	D	E	A	A
Approach Vol, veh/h	2034		2923				562		21			
Approach Delay, s/veh	18.9		2.9				63.6		63.7			
Approach LOS	B		A				E		E			
Timer - Assigned Phs	2		3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0		25.0	82.0	15.0	8.0	5.9	101.1				
Change Period (Y+Rc), s	4.0		4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	31.0		9.0	78.0	11.0	16.0	4.0	83.0				
Max Q Clear Time (g_c+I1), s	10.4		2.0	34.6	13.0	3.7	2.6	2.0				
Green Ext Time (p_c), s	0.6		0.1	24.0	0.0	0.0	0.0	58.8				
Intersection Summary												
HCM 6th Ctrl Delay	15.2											
HCM 6th LOS	B											

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↑↑↑ ↵			↵ ↵			↵ ↵		
Traffic Vol, veh/h	19	1868	57	0	2864	2	0	0	81	0	0	11
Future Vol, veh/h	19	1868	57	0	2864	2	0	0	81	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	1946	59	0	2983	2	0	0	84	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2985	0	0	-	-	0	-	-	1003	-	-	1493
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	39	-	-	0	-	-	0	0	206	0	0	96
Stage 1	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	39	-	-	-	-	-	-	-	206	-	-	96
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0	34.1	47.5
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	206	39	-	-	-	-	96
HCM Lane V/C Ratio	0.41	0.507	-	-	-	-	0.119
HCM Control Delay (s)	34.1	169.1	-	-	-	-	47.5
HCM Lane LOS	D	F	-	-	-	-	E
HCM 95th %tile Q(veh)	1.9	1.8	-	-	-	-	0.4

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (veh/h)	56	1838	71	53	2102	28	619	55	235	16	14	58
Future Volume (veh/h)	56	1838	71	53	2102	28	619	55	235	16	14	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	1935	75	56	2213	29	652	58	247	17	15	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	2515	781	130	2837	37	186	12	625	33	39	75
Arrive On Green	0.16	0.16	0.16	0.05	1.00	1.00	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	170	5106	1585	1781	5194	68	361	32	1585	0	107	204
Grp Volume(v), veh/h	59	1935	75	56	1449	793	710	0	247	93	0	0
Grp Sat Flow(s),veh/h/ln	170	1702	1585	1781	1702	1858	393	0	1585	310	0	0
Q Serve(g_s), s	42.8	47.2	5.2	2.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	42.8	47.2	5.2	2.0	0.0	0.0	47.8	0.0	14.5	47.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	0.92		1.00	0.18		0.66
Lane Grp Cap(c), veh/h	139	2515	781	130	1859	1015	198	0	625	147	0	0
V/C Ratio(X)	0.42	0.77	0.10	0.43	0.78	0.78	3.59	0.00	0.40	0.63	0.00	0.00
Avail Cap(c_a), veh/h	139	2515	781	213	1859	1015	198	0	625	147	0	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.5	47.4	29.8	26.3	0.0	0.0	47.5	0.0	28.2	33.3	0.0	0.0
Incr Delay (d2), s/veh	9.2	2.3	0.2	0.1	0.3	0.6	1179.6	0.0	0.4	8.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	29.9	3.8	1.2	0.1	0.3	119.6	0.0	9.5	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	49.7	30.1	26.4	0.3	0.6	1227.2	0.0	28.7	41.9	0.0	0.0
LnGrp LOS	D	D	C	C	A	A	F	A	C	D	A	A
Approach Vol, veh/h	2069					2298		957		93		
Approach Delay, s/veh	49.1					1.0		917.8		41.9		
Approach LOS	D					A		F		D		
Timer - Assigned Phs	1	2	4			6		8				
Phs Duration (G+Y+Rc), s	7.0	69.7	53.3			76.7		53.3				
Change Period (Y+Rc), s	3.5	5.7	5.5			5.7		5.5				
Max Green Setting (Gmax), s	9.5	58.0	47.8			71.0		47.8				
Max Q Clear Time (g_c+I1), s	4.0	49.2	49.8			2.0		49.8				
Green Ext Time (p_c), s	0.0	8.3	0.0			49.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	182.1											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑ ↑ ↱			↰ ↑ ↑ ↱			↰ ↑	↑	↰ ↱	↰ ↱	↰ ↑	↰ ↱
Traffic Volume (veh/h)	477	1586	58	11	1558	195	258	182	75	80	44	450
Future Volume (veh/h)	477	1586	58	11	1558	195	258	182	75	80	44	450
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	513	1705	62	12	1675	210	277	196	0	86	47	484
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	257	1698	62	70	1061	133	440	462		862	452	561
Arrive On Green	0.23	0.67	0.67	0.01	0.23	0.23	0.25	0.25	0.00	0.24	0.24	0.24
Sat Flow, veh/h	1781	5058	184	1781	4597	574	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	513	1147	620	12	1239	646	277	196	0	86	47	484
Grp Sat Flow(s),veh/h/ln	1781	1702	1837	1781	1702	1767	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	14.7	43.6	43.6	0.7	30.0	30.0	18.0	11.5	0.0	2.5	2.6	31.7
Cycle Q Clear(g_c), s	14.7	43.6	43.6	0.7	30.0	30.0	18.0	11.5	0.0	2.5	2.6	31.7
Prop In Lane	1.00		0.10	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	1143	617	70	786	408	440	462		862	452	561
V/C Ratio(X)	2.00	1.00	1.00	0.17	1.58	1.58	0.63	0.42		0.10	0.10	0.86
Avail Cap(c_a), veh/h	257	1143	617	221	786	408	440	462		862	452	561
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	21.4	21.4	41.4	50.0	50.0	43.7	41.2	0.0	38.1	38.1	38.8
Incr Delay (d2), s/veh	456.9	21.2	28.7	0.4	265.8	274.5	6.7	2.8	0.0	0.0	0.0	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	56.2	18.7	21.5	0.5	64.2	67.9	13.7	9.6	0.0	1.9	2.1	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	487.8	42.6	50.1	41.8	315.8	324.5	50.3	44.0	0.0	38.1	38.2	51.3
LnGrp LOS	F	F	F	D	F	F	D	D		D	D	D
Approach Vol, veh/h	2280			1897			473			617		
Approach Delay, s/veh	144.8			317.0			47.7			48.5		
Approach LOS	F			F			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	49.6		38.1	18.2	36.0		37.7				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (G_max), s	12.5	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I), s	12.5	45.6		20.0	16.7	32.0		33.7				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 186.8

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
9: Carlisle Blvd & Proposed Driveway 3

KAFB EUL MAXQ
2030 Build PM Peak

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	93	731	0	42	4
Future Vol, veh/h	0	93	731	0	42	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	99	778	0	45	4
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	870	389	0	0	778	0
Stage 1	778	-	-	-	-	-
Stage 2	92	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	291	610	-	-	834	-
Stage 1	413	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	275	610	-	-	834	-
Mov Cap-2 Maneuver	275	-	-	-	-	-
Stage 1	413	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12	0		8.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	610	834	-	
HCM Lane V/C Ratio	-	-	0.162	0.054	-	
HCM Control Delay (s)	-	-	12	9.6	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-	

**APPENDIX H:
2030 MITIGATION INTERSECTION CAPACITY
ANALYSIS**

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak - Mitigation EBT(4)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Future Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	2751	701	146	2155	802	390	523	466	606	681	577
Arrive On Green	0.05	0.43	0.43	0.05	0.42	0.42	0.01	0.29	0.29	0.08	0.36	0.36
Sat Flow, veh/h	1781	6434	1585	1781	5106	1585	1781	1777	1585	1781	1870	1585
Grp Volume(v), veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1702	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.5	51.3	51.3	3.9	20.9	2.7	1.1	0.2	1.0	8.1	6.6	10.8
Cycle Q Clear(g_c), s	4.5	51.3	51.3	3.9	20.9	2.7	1.1	0.2	1.0	8.1	6.6	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	2751	701	146	2155	802	390	523	466	606	681	577
V/C Ratio(X)	0.45	1.04	1.13	0.71	0.55	0.09	0.06	0.01	0.04	0.30	0.22	0.34
Avail Cap(c_a), veh/h	350	2751	701	257	2155	802	526	523	466	618	681	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	34.3	33.5	28.6	26.1	15.3	29.1	30.0	30.3	24.5	26.4	27.7
Incr Delay (d2), s/veh	0.4	28.5	76.0	2.2	0.9	0.2	0.0	0.0	0.2	0.1	0.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	33.4	48.2	3.0	12.9	1.8	0.9	0.2	0.8	6.2	5.6	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	62.9	109.4	30.8	27.0	15.5	29.1	30.0	30.4	24.6	27.1	29.3
LnGrp LOS	C	F	F	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h	3772		1355				47		525			
Approach Delay, s/veh	71.3		26.7				29.7		27.1			
Approach LOS	E		C				C		C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	56.3	13.6	40.8	10.0	55.6	5.2	49.2				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.0	10.9	35.3				
Max Q Clear Time (g_c+I1), s	5.9	53.3	10.1	3.0	6.5	22.9	3.1	12.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	11.2	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	56.3											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ

2030 Build AM Peak - Mitigation EBL(2),NBL(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  		 	 			 	
Traffic Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Future Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	2505	817	139	2560	834	596	523	466	501	523	466
Arrive On Green	0.03	0.49	0.49	0.04	0.50	0.50	0.02	0.29	0.29	0.02	0.29	0.29
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	1777	1585	1781	1777	1585
Grp Volume(v), veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.1	58.9	46.6	3.5	18.0	0.3	0.0	0.2	1.0	0.0	7.8	12.0
Cycle Q Clear(g_c), s	2.1	58.9	46.6	3.5	18.0	0.3	0.0	0.2	1.0	0.0	7.8	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	539	2505	817	139	2560	834	596	523	466	501	523	466
V/C Ratio(X)	0.22	1.14	0.97	0.75	0.46	0.08	0.04	0.01	0.04	0.36	0.29	0.42
Avail Cap(c_a), veh/h	771	2505	817	257	2560	834	823	523	466	618	523	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	30.6	20.1	28.2	19.4	7.5	37.0	30.0	30.3	32.7	32.6	34.1
Incr Delay (d2), s/veh	0.1	69.1	24.8	2.7	0.5	0.2	0.0	0.0	0.2	0.2	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	54.6	29.2	2.7	11.4	1.2	0.5	0.2	0.8	7.5	6.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	99.6	44.9	30.9	20.0	7.7	37.1	30.0	30.4	32.9	34.0	36.9
LnGrp LOS	B	F	D	C	B	A	D	C	C	C	C	D
Approach Vol, veh/h	3772					1355			47		525	
Approach Delay, s/veh	85.5					20.2			33.8		34.7	
Approach LOS	F					C			C		C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	63.9	6.5	40.8	7.6	65.2	6.5	40.8				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.0	10.9	35.3				
Max Q Clear Time (g_c+I1), s	5.5	60.9	2.0	3.0	4.1	20.0	2.0	14.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.1	12.8	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			64.8									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ

2030 Build AM Peak - Mitigation NBL(2) Reduce SBT(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 	 				
Traffic Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Future Volume (veh/h)	114	2717	752	99	1123	66	23	4	18	170	142	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	2504	817	140	2478	809	674	523	466	501	550	466
Arrive On Green	0.05	0.49	0.49	0.04	0.49	0.49	0.02	0.29	0.29	0.02	0.29	0.29
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	1777	1585	1781	1870	1585
Grp Volume(v), veh/h	120	2860	792	104	1182	69	24	4	19	179	149	197
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.0	58.8	46.6	3.5	18.6	0.4	0.0	0.2	1.0	0.0	7.3	9.9
Cycle Q Clear(g_c), s	4.0	58.8	46.6	3.5	18.6	0.4	0.0	0.2	1.0	0.0	7.3	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	2504	817	140	2478	809	674	523	466	501	550	466
V/C Ratio(X)	0.41	1.14	0.97	0.74	0.48	0.09	0.04	0.01	0.04	0.36	0.27	0.42
Avail Cap(c_a), veh/h	386	2504	817	257	2478	809	902	523	466	618	550	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	30.6	20.1	28.2	20.7	7.6	33.4	30.0	30.3	32.7	32.5	23.1
Incr Delay (d2), s/veh	0.3	69.4	24.9	2.7	0.6	0.2	0.0	0.0	0.2	0.2	1.2	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	54.6	29.2	2.7	11.7	1.2	0.5	0.2	0.8	7.5	6.3	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	99.9	45.0	30.9	21.3	7.8	33.4	30.0	30.4	32.9	33.7	25.9
LnGrp LOS	B	F	D	C	C	A	C	C	C	C	C	C
Approach Vol, veh/h	3772		1355				47		525			
Approach Delay, s/veh	85.7		21.3				31.9		30.5			
Approach LOS	F		C				C		C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	63.8	6.5	40.8	9.5	63.2	6.5	40.8				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	13.3	43.0	10.9	35.3	12.1	44.0	10.9	35.3				
Max Q Clear Time (g_c+I1), s	5.5	60.8	2.0	3.0	6.0	20.6	2.0	11.9				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	12.6	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	64.9											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary

N

2: Gibson Blvd & Maxwell Dr

2030 Build AM Peak - Mitigation SBL(1), EBR(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	2458	170	144	1306	59	107	3	83	72	3	59
Future Volume (veh/h)	50	2458	170	144	1306	59	107	3	83	72	3	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	2587	179	152	1375	62	113	3	87	76	3	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	3378	1049	182	3439	155	240	5	154	207	5	111
Arrive On Green	0.02	0.66	0.66	0.05	0.69	0.69	0.07	0.10	0.10	0.05	0.07	0.07
Sat Flow, veh/h	1781	5106	1585	1781	5008	226	1781	53	1540	1781	74	1523
Grp Volume(v), veh/h	53	2587	179	152	935	502	113	0	90	76	0	65
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1830	1781	0	1593	1781	0	1596
Q Serve(g_s), s	1.1	38.2	4.7	3.2	13.0	13.0	6.3	0.0	5.9	4.3	0.0	4.3
Cycle Q Clear(g_c), s	1.1	38.2	4.7	3.2	13.0	13.0	6.3	0.0	5.9	4.3	0.0	4.3
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.97	1.00		0.95
Lane Grp Cap(c), veh/h	317	3378	1049	182	2337	1256	240	0	159	207	0	116
V/C Ratio(X)	0.17	0.77	0.17	0.84	0.40	0.40	0.47	0.00	0.57	0.37	0.00	0.56
Avail Cap(c_a), veh/h	390	3378	1049	210	2337	1256	240	0	391	207	0	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.2	12.8	7.1	26.9	7.4	7.4	42.1	0.0	47.2	44.7	0.0	49.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	22.0	0.5	1.0	1.4	0.0	3.1	1.1	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	14.9	2.1	6.8	7.9	8.6	5.1	0.0	4.5	3.5	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	12.9	7.1	48.8	8.0	8.4	43.6	0.0	50.4	45.8	0.0	53.5
LnGrp LOS	A	B	A	D	A	A	D	A	D	D	A	D
Approach Vol, veh/h		2819			1589			203			141	
Approach Delay, s/veh		12.4			12.0			46.6			49.4	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	76.8	9.0	15.0	6.5	79.5	12.0	12.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	55.0	5.0	27.0	7.0	55.0	8.0	24.0				
Max Q Clear Time (g_c+I1), s	5.2	40.2	6.3	7.9	3.1	15.0	8.3	6.3				
Green Ext Time (p_c), s	0.1	13.6	0.0	0.4	0.0	13.9	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak - Mitigation EBR(1), NBL(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (veh/h)	29	1789	624	335	1404	5	67	1	38	10	106	38
Future Volume (veh/h)	29	1789	624	335	1404	5	67	1	38	10	106	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1870	1870	1870
Adj Flow Rate, veh/h	32	1966	686	368	1543	5	75	0	42	11	116	42
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	2	2	2
Cap, veh/h	214	2350	730	387	3428	11	645	0	630	44	326	112
Arrive On Green	0.92	0.92	0.92	0.33	1.00	1.00	0.25	0.00	0.25	0.25	0.25	0.25
Sat Flow, veh/h	334	5106	1585	1781	5254	17	2340	0	1510	49	1283	441
Grp Volume(v), veh/h	32	1966	686	368	1000	548	75	0	42	169	0	0
Grp Sat Flow(s),veh/h/ln	334	1702	1585	1781	1702	1867	1170	0	1510	1773	0	0
Q Serve(g_s), s	1.1	16.0	30.7	17.3	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	16.0	30.7	17.3	0.0	0.0	4.9	0.0	2.0	9.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.07		0.25
Lane Grp Cap(c), veh/h	214	2350	730	387	2221	1218	645	0	630	483	0	0
V/C Ratio(X)	0.15	0.84	0.94	0.95	0.45	0.45	0.12	0.00	0.07	0.35	0.00	0.00
Avail Cap(c_a), veh/h	214	2350	730	490	2221	1218	645	0	630	483	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.6	3.2	3.8	24.1	0.0	0.0	35.2	0.0	21.0	36.9	0.0	0.0
Incr Delay (d2), s/veh	1.5	3.7	21.5	17.3	0.4	0.8	0.4	0.0	0.2	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	4.2	9.9	14.1	0.2	0.5	1.6	0.0	1.3	7.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.1	6.9	25.3	41.4	0.4	0.8	35.6	0.0	21.2	38.9	0.0	0.0
LnGrp LOS	A	A	C	D	A	A	D	A	C	D	A	A
Approach Vol, veh/h	2684			1916				117			169	
Approach Delay, s/veh	11.6			8.4				30.4			38.9	
Approach LOS	B			A				C			D	
Timer - Assigned Phs	1	2	4			6		8				
Phs Duration (G+Y+Rc), s	23.1	60.9	36.0			84.0		36.0				
Change Period (Y+Rc), s	3.5	5.7	5.5			5.7		5.5				
Max Green Setting (Gmax), s	26.5	48.3	30.5			78.3		30.5				
Max Q Clear Time (g_c+I1), s	19.3	32.7	6.9			2.0		11.3				
Green Ext Time (p_c), s	0.2	14.5	0.4			25.6		0.8				

Intersection Summary

HCM 6th Ctrl Delay 11.7
HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build AM Peak - Mitigation EBL(2),NBL(2),WBR(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 				 	
Traffic Volume (veh/h)	283	1018	525	103	1203	63	80	49	35	113	304	476
Future Volume (veh/h)	283	1018	525	103	1203	63	80	49	35	113	304	476
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	322	1157	597	117	1367	72	91	56	0	128	345	541
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	2	2	2
Cap, veh/h	373	1894	882	281	2517	781	221	120		267	561	415
Arrive On Green	0.22	1.00	1.00	0.05	0.49	0.49	0.07	0.07	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3404	1585	1781	5106	1585	3346	1811	1535	1781	3741	1585
Grp Volume(v), veh/h	322	1157	597	117	1367	72	91	56	0	128	345	541
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1673	1811	1535	1781	1870	1585
Q Serve(g_s), s	11.2	0.0	0.0	3.9	22.2	2.9	3.1	3.6	0.0	7.9	10.4	18.0
Cycle Q Clear(g_c), s	11.2	0.0	0.0	3.9	22.2	2.9	3.1	3.6	0.0	7.9	10.4	18.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	1894	882	281	2517	781	221	120		267	561	415
V/C Ratio(X)	0.86	0.61	0.68	0.42	0.54	0.09	0.41	0.47		0.48	0.61	1.30
Avail Cap(c_a), veh/h	443	1894	882	357	2517	781	335	181		267	561	415
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	0.0	13.5	21.1	16.2	53.8	54.0	0.0	46.7	47.8	44.3
Incr Delay (d2), s/veh	1.3	0.1	0.4	0.4	0.8	0.2	0.9	2.1	0.0	0.5	1.5	153.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	0.1	0.2	2.8	13.8	2.0	2.4	3.1	0.0	6.4	8.6	43.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.1	0.4	13.9	21.9	16.4	54.7	56.1	0.0	47.2	49.2	197.8
LnGrp LOS	B	A	A	B	C	B	D	E		D	D	F
Approach Vol, veh/h		2076			1556			147	A		1014	
Approach Delay, s/veh		2.9			21.1			55.2			128.2	
Approach LOS		A			C			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	72.8		13.9	16.9	65.2		24.0				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	10.9	57.6		12.0	18.1	50.0		18.0				
Max Q Clear Time (g_c+I1), s	5.9	2.0		5.6	13.2	24.2		20.0				
Green Ext Time (p_c), s	0.0	22.2		0.2	0.2	11.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay 36.9
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak - Mitigation WBT(4)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Future Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	1739	33	13	3020	216	607	139	105	113	4	254
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	2767	1070	153	3072	861	321	496	350	379	323	288
Arrive On Green	0.07	0.54	0.54	0.01	0.48	0.48	0.13	0.25	0.25	0.07	0.18	0.18
Sat Flow, veh/h	1781	5106	1585	1781	6434	1585	1781	1992	1403	1781	1777	1585
Grp Volume(v), veh/h	261	1739	33	13	3020	216	607	123	121	113	4	254
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1609	1585	1781	1777	1618	1781	1777	1585
Q Serve(g_s), s	9.5	30.8	0.9	0.5	60.1	9.4	17.3	7.3	7.9	6.6	0.2	20.3
Cycle Q Clear(g_c), s	9.5	30.8	0.9	0.5	60.1	9.4	17.3	7.3	7.9	6.6	0.2	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	187	2767	1070	153	3072	861	321	443	403	379	323	288
V/C Ratio(X)	1.40	0.63	0.03	0.09	0.98	0.25	1.89	0.28	0.30	0.30	0.01	0.88
Avail Cap(c_a), veh/h	187	2767	1070	268	3072	861	321	493	449	499	493	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	20.7	7.0	19.3	33.4	15.7	39.6	39.4	39.6	39.3	43.6	51.8
Incr Delay (d2), s/veh	208.8	1.1	0.1	0.0	6.2	0.2	412.0	0.3	0.4	0.2	0.0	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	26.2	17.5	0.6	0.4	28.0	5.2	69.1	5.8	5.8	5.3	0.2	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	250.6	21.8	7.1	19.3	39.6	15.9	451.6	39.7	40.0	39.5	43.6	64.5
LnGrp LOS	F	C	A	B	D	B	F	D	D	D	D	E
Approach Vol, veh/h	2033		3249				851				371	
Approach Delay, s/veh	50.9		38.0				333.5				56.6	
Approach LOS	D		D				F				E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	75.4	12.0	37.9	13.0	67.1	20.8	29.1				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.5	32.8	8.6	9.9	11.5	62.1	19.3	22.3				
Green Ext Time (p_c), s	0.0	13.4	0.1	1.5	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	81.8											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

1: Carlisle Blvd & Gibson Blvd

KAFB EUL MAXQ

2030 Build PM Peak - Mitigation EBL(2), NBL(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  		 	 			 	
Traffic Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Future Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	1739	33	13	3020	216	607	139	105	113	4	254
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	2767	1070	153	2514	884	626	496	350	379	323	288
Arrive On Green	0.06	0.54	0.54	0.01	0.49	0.49	0.13	0.25	0.25	0.07	0.18	0.18
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	1992	1403	1781	1777	1585
Grp Volume(v), veh/h	261	1739	33	13	3020	216	607	123	121	113	4	254
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1618	1781	1777	1585
Q Serve(g_s), s	5.5	30.8	0.9	0.5	64.0	9.1	17.3	7.3	7.9	6.6	0.2	20.3
Cycle Q Clear(g_c), s	5.5	30.8	0.9	0.5	64.0	9.1	17.3	7.3	7.9	6.6	0.2	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	312	2767	1070	153	2514	884	626	443	403	379	323	288
V/C Ratio(X)	0.84	0.63	0.03	0.09	1.20	0.24	0.97	0.28	0.30	0.30	0.01	0.88
Avail Cap(c_a), veh/h	363	2767	1070	268	2514	884	626	493	449	499	493	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	20.7	7.0	18.7	33.0	14.7	38.9	39.4	39.6	39.3	43.6	51.8
Incr Delay (d2), s/veh	12.2	1.1	0.1	0.0	92.0	0.2	28.1	0.3	0.4	0.2	0.0	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	17.5	0.6	0.3	60.7	5.0	15.5	5.8	5.8	5.3	0.2	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	21.8	7.1	18.7	125.0	14.9	67.0	39.7	40.0	39.5	43.6	64.5
LnGrp LOS	D	C	A	B	F	B	E	D	D	D	D	E
Approach Vol, veh/h	2033		3249				851		371			
Approach Delay, s/veh	24.8		117.3				59.2		56.6			
Approach LOS	C		F				E		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	75.4	12.0	37.9	11.1	69.0	20.8	29.1				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.5	32.8	8.6	9.9	7.5	66.0	19.3	22.3				
Green Ext Time (p_c), s	0.0	13.4	0.1	1.5	0.1	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	77.3											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary

KAFB EUL MAXQ

1: Carlisle Blvd & Gibson Blvd

2030 Build PM Peak - Mitigation NBL(2), Reduce SBT(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 	 				
Traffic Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Future Volume (veh/h)	253	1687	32	13	2929	210	589	135	102	110	4	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	1739	33	13	3020	216	607	139	105	113	4	254
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	2787	1076	155	2458	868	954	488	344	375	333	282
Arrive On Green	0.07	0.55	0.55	0.01	0.48	0.48	0.13	0.24	0.24	0.07	0.18	0.18
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	1992	1403	1781	1870	1585
Grp Volume(v), veh/h	261	1739	33	13	3020	216	607	123	121	113	4	254
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	1777	1618	1781	1870	1585
Q Serve(g_s), s	9.5	30.5	0.9	0.5	62.6	9.3	17.3	7.3	7.9	6.7	0.2	20.4
Cycle Q Clear(g_c), s	9.5	30.5	0.9	0.5	62.6	9.3	17.3	7.3	7.9	6.7	0.2	20.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	186	2787	1076	155	2458	868	954	435	396	375	333	282
V/C Ratio(X)	1.41	0.62	0.03	0.08	1.23	0.25	0.64	0.28	0.31	0.30	0.01	0.90
Avail Cap(c_a), veh/h	186	2787	1076	269	2458	868	954	493	449	494	519	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	20.3	6.8	19.0	33.7	15.4	36.0	39.8	40.1	39.7	44.0	52.3
Incr Delay (d2), s/veh	211.9	1.1	0.1	0.0	104.1	0.2	1.1	0.4	0.4	0.2	0.0	14.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	26.4	17.4	0.6	0.4	63.9	5.2	12.7	5.9	5.8	5.3	0.2	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	254.1	21.4	6.9	19.0	137.8	15.6	37.1	40.2	40.5	39.9	44.1	67.1
LnGrp LOS	F	C	A	B	F	B	D	D	D	D	D	E
Approach Vol, veh/h	2033		3249				851			371		
Approach Delay, s/veh	51.0		129.2				38.0			58.5		
Approach LOS	D		F				D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	76.0	12.1	37.3	13.0	67.6	20.8	28.6				
Change Period (Y+Rc), s	3.5	5.0	3.5	5.5	3.5	5.0	3.5	5.5				
Max Green Setting (Gmax), s	9.5	50.0	17.3	36.1	9.5	50.0	17.3	36.1				
Max Q Clear Time (g_c+I1), s	2.5	32.5	8.7	9.9	11.5	64.6	19.3	22.4				
Green Ext Time (p_c), s	0.0	13.6	0.1	1.5	0.0	0.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay	88.8											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

2: Gibson Blvd & Maxwell Dr

KAFB EUL MAXQ

2030 Build PM Peak - Mitigation SBL(1),EBR(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (veh/h)	52	1713	77	111	2937	78	194	3	79	62	3	65
Future Volume (veh/h)	52	1713	77	111	2937	78	194	3	79	62	3	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	1748	79	113	2997	80	198	3	81	63	3	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	3291	1022	244	3379	89	284	8	223	261	8	186
Arrive On Green	0.02	0.64	0.64	0.04	0.66	0.66	0.07	0.15	0.15	0.04	0.12	0.12
Sat Flow, veh/h	1781	5106	1585	1781	5115	135	1781	57	1537	1781	69	1526
Grp Volume(v), veh/h	53	1748	79	113	1986	1091	198	0	84	63	0	69
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1846	1781	0	1594	1781	0	1596
Q Serve(g_s), s	1.3	22.8	2.3	2.6	58.5	60.3	8.0	0.0	5.8	3.8	0.0	4.9
Cycle Q Clear(g_c), s	1.3	22.8	2.3	2.6	58.5	60.3	8.0	0.0	5.8	3.8	0.0	4.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.96	1.00		0.96
Lane Grp Cap(c), veh/h	111	3291	1022	244	2249	1220	284	0	232	261	0	194
V/C Ratio(X)	0.48	0.53	0.08	0.46	0.88	0.89	0.70	0.00	0.36	0.24	0.00	0.35
Avail Cap(c_a), veh/h	201	3291	1022	306	2249	1220	284	0	428	303	0	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	11.8	8.2	10.4	17.0	17.3	47.3	0.0	47.4	44.6	0.0	49.6
Incr Delay (d2), s/veh	2.6	0.5	0.1	1.4	5.5	10.3	7.3	0.0	1.0	0.5	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	12.7	1.4	1.9	30.3	35.2	4.6	0.0	4.3	3.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	12.3	8.3	11.7	22.5	27.6	54.6	0.0	48.4	45.1	0.0	50.7
LnGrp LOS	C	B	A	B	C	C	D	A	D	D	A	D
Approach Vol, veh/h		1880			3190			282			132	
Approach Delay, s/veh		12.7			23.9			52.7			48.0	
Approach LOS		B			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	83.3	9.1	21.9	6.8	85.3	12.0	19.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	9.0	57.0	8.0	33.0	9.0	57.0	8.0	33.0				
Max Q Clear Time (g_c+I1), s	4.6	24.8	5.8	7.8	3.3	62.3	10.0	6.9				
Green Ext Time (p_c), s	0.1	22.9	0.0	0.4	0.0	0.0	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			22.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

7: Truman St & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak - Mitigation EBR(1), NBL(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (veh/h)	56	1838	71	53	2102	28	619	55	235	16	14	58
Future Volume (veh/h)	56	1838	71	53	2102	28	619	55	235	16	14	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	1935	75	56	2213	29	693	0	247	17	15	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	2912	904	165	3229	42	883	0	502	95	94	297
Arrive On Green	0.57	0.57	0.57	0.05	1.00	1.00	0.29	0.00	0.29	0.29	0.29	0.29
Sat Flow, veh/h	170	5106	1585	1781	5194	68	2647	0	1585	213	320	1016
Grp Volume(v), veh/h	59	1935	75	56	1449	793	693	0	247	93	0	0
Grp Sat Flow(s),veh/h/ln	170	1702	1585	1781	1702	1858	1323	0	1585	1549	0	0
Q Serve(g_s), s	29.8	34.1	2.8	1.7	0.0	0.0	27.3	0.0	16.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	29.8	34.1	2.8	1.7	0.0	0.0	32.7	0.0	16.4	5.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.18		0.66
Lane Grp Cap(c), veh/h	152	2912	904	165	2116	1155	883	0	502	485	0	0
V/C Ratio(X)	0.39	0.66	0.08	0.34	0.68	0.69	0.79	0.00	0.49	0.19	0.00	0.00
Avail Cap(c_a), veh/h	152	2912	904	251	2116	1155	1082	0	622	600	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.58	0.58	0.58	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	19.3	12.6	16.5	0.0	0.0	44.2	0.0	36.0	34.5	0.0	0.0
Incr Delay (d2), s/veh	7.3	1.2	0.2	0.3	1.1	1.9	3.1	0.0	0.7	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	19.5	1.9	1.2	0.6	1.1	16.5	0.0	10.6	4.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	20.5	12.8	16.8	1.1	1.9	47.3	0.0	36.7	34.7	0.0	0.0
LnGrp LOS	C	C	B	B	A	A	D	A	D	C	A	A
Approach Vol, veh/h	2069		2298				940				93	
Approach Delay, s/veh	20.4		1.8				44.5				34.7	
Approach LOS	C		A				D				C	
Timer - Assigned Phs	1	2	4			6		8				
Phs Duration (G+Y+Rc), s	6.7	79.8	43.5			86.5		43.5				
Change Period (Y+Rc), s	3.5	5.7	5.5			5.7		5.5				
Max Green Setting (Gmax), s	9.5	58.0	47.8			71.0		47.8				
Max Q Clear Time (g_c+I1), s	3.7	36.1	34.7			2.0		7.4				
Green Ext Time (p_c), s	0.0	19.2	3.2			49.6		0.6				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd

KAFB EUL MAXQ
2030 Build PM Peak - Mitigation EBL(2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	477	1586	58	11	1558	195	258	182	75	80	44	450
Future Volume (veh/h)	477	1586	58	11	1558	195	258	182	75	80	44	450
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	513	1705	62	12	1675	210	277	196	0	86	47	484
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	502	2055	75	127	1385	173	314	627		862	452	561
Arrive On Green	0.23	0.81	0.81	0.01	0.30	0.30	0.18	0.18	0.00	0.24	0.24	0.24
Sat Flow, veh/h	3456	5058	184	1781	4597	574	1781	3554	1585	3534	1856	1572
Grp Volume(v), veh/h	513	1147	620	12	1239	646	277	196	0	86	47	484
Grp Sat Flow(s),veh/h/ln	1728	1702	1837	1781	1702	1767	1781	1777	1585	1767	1856	1572
Q Serve(g_s), s	14.7	25.2	25.3	0.6	39.2	39.2	19.7	6.3	0.0	2.5	2.6	31.7
Cycle Q Clear(g_c), s	14.7	25.2	25.3	0.6	39.2	39.2	19.7	6.3	0.0	2.5	2.6	31.7
Prop In Lane	1.00		0.10	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	502	1383	746	127	1026	532	314	627		862	452	561
V/C Ratio(X)	1.02	0.83	0.83	0.09	1.21	1.21	0.88	0.31		0.10	0.10	0.86
Avail Cap(c_a), veh/h	502	1383	746	278	1026	532	434	867		862	452	561
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	9.6	9.6	31.8	45.4	45.4	52.2	46.7	0.0	38.1	38.1	38.8
Incr Delay (d2), s/veh	38.6	4.0	7.1	0.1	102.8	112.5	13.4	0.2	0.0	0.0	0.0	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.5	7.4	8.7	0.5	45.0	48.5	15.2	5.0	0.0	1.9	2.1	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	13.6	16.7	31.9	148.2	157.9	65.6	46.9	0.0	38.1	38.2	51.3
LnGrp LOS	F	B	B	C	F	F	E	D		D	D	D
Approach Vol, veh/h	2280			1897			473			617		
Approach Delay, s/veh	27.3			150.8			57.8			48.5		
Approach LOS	C			F			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	58.8		28.9	18.2	45.2		37.7				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I1), s	2.6	27.3		21.7	16.7	41.2		33.7				
Green Ext Time (p_c), s	0.0	4.6		1.2	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 77.0

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

KAFB EUL MAXQ

8: Ridgecrest Dr/San Mateo Blvd & Gibson Blvd 2030 Build PM Peak - Mitigation EBL(2),EBR(1),WBT(4), WBR(1)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	477	1586	58	11	1558	195	258	182	75	80	44	450
Future Volume (veh/h)	477	1586	58	11	1558	195	258	182	75	80	44	450
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	513	1705	62	12	1675	210	277	196	0	86	47	484
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	3	3	3
Cap, veh/h	502	1714	532	71	1485	366	440	462		862	452	561
Arrive On Green	0.23	0.67	0.67	0.01	0.23	0.23	0.25	0.25	0.00	0.24	0.24	0.24
Sat Flow, veh/h	3456	5106	1585	1781	6434	1585	1781	1870	1585	3534	1856	1572
Grp Volume(v), veh/h	513	1705	62	12	1675	210	277	196	0	86	47	484
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1609	1585	1781	1870	1585	1767	1856	1572
Q Serve(g_s), s	14.7	42.9	1.8	0.7	30.0	15.3	18.0	11.5	0.0	2.5	2.6	31.7
Cycle Q Clear(g_c), s	14.7	42.9	1.8	0.7	30.0	15.3	18.0	11.5	0.0	2.5	2.6	31.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	502	1714	532	71	1485	366	440	462		862	452	561
V/C Ratio(X)	1.02	0.99	0.12	0.17	1.13	0.57	0.63	0.42		0.10	0.10	0.86
Avail Cap(c_a), veh/h	502	1714	532	223	1485	366	440	462		862	452	561
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	21.2	14.5	41.3	50.0	44.3	43.7	41.2	0.0	38.1	38.1	38.8
Incr Delay (d2), s/veh	36.5	15.3	0.3	0.4	66.9	6.4	6.7	2.8	0.0	0.0	0.0	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.2	17.3	1.3	0.5	27.8	10.9	13.7	9.6	0.0	1.9	2.1	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	36.6	14.7	41.7	116.9	50.8	50.3	44.0	0.0	38.1	38.2	51.3
LnGrp LOS	F	D	B	D	F	D	D	D		D	D	D
Approach Vol, veh/h	2280			1897			473			A		
Approach Delay, s/veh	43.0			109.1			47.7			48.5		
Approach LOS	D			F			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	49.6		38.1	18.2	36.0		37.7				
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0				
Max Green Setting (Gmax), s	12.1	33.0		31.7	14.7	30.0		31.7				
Max Q Clear Time (g_c+I1), s	2.7	44.9		20.0	16.7	32.0		33.7				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 67.8

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.