

Creekridge at Flying Horse

Traffic Impact Study

Prepared for:
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JANUARY 14, 2026

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LSC #204611



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January 14, 2026

David Gibson, P.E. | Project Manager
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RE: Creekridge at Flying Horse
Traffic Impact Study
Colorado Springs, CO
LSC #204611

Dear Mr. Gibson,

LSC Transportation Consultants, Inc. has prepared this traffic impact study for the proposed Creekridge at Flying Horse development site in Colorado Springs, Colorado. Located at El Paso County parcel ID number [6200000640](#), the site is located generally northwest of the intersection of New Life Drive/Interquest Parkway, as shown in Figure 1.

Site access is proposed to:

- Interquest Parkway between New Life Drive and Powers – right-in/right-out (RIRO)
- New Life Drive/Redmare Street (RIRO on the southbound leg and full-movement on the northbound leg)
- New Life Drive/Somerstone Street (full-movement)
- New Life Drive/Running Water Drive (full-movement)

This report has been prepared to accompany the Land Use Plan (LUP) submittal to the City of Colorado Springs.

REPORT CONTENTS

The preparation of this report included the following:

- Inventory of existing adjacent and nearby area street system. This included surface conditions, functional classifications, roadway widths, lane configurations, traffic control, posted speed limits, pavement markings, intersection and access spacing, roadway and intersection alignments, auxiliary left- and right-turn lanes, intersection sight distances, etc.;
- Summary of morning and late-afternoon peak-hour turning-movement traffic counts (from January 2024, as shown in Matrix Design Group's *Kettle Creek Center* report) at the following "study-area" intersections:
 - Interquest Parkway/New Life Drive
 - New Life Drive/Pikes Peak State College (PPSC) access/proposed RIRO access

- Estimates of average weekday and peak-hour trip generation for the proposed development;
- Estimation of directional distribution of site-generated vehicle trips on the area street system, at the study-area intersections, and at the proposed site-access points on New Life Drive and Interquest Parkway;
- Projections of site-generated turning-movement traffic volumes at the following “study-area” intersections:
 - Interquest Parkway/New Life Drive
 - Interquest Parkway/proposed right-in/right-out (RIRO) access
 - New Life Drive/Pikes Peak State College (PPSC) access/Redmare Street
 - New Life Drive/Somerstone Street
 - New Life Drive/Running Water Drive
- Estimates of short- and long-term background traffic volumes at the study-area intersections and access points;
- Total traffic (site traffic-plus-background traffic) projections at these intersections for the short and long term;
- Level of service (LOS) analysis at the study-area intersections;
- Vehicle queuing analysis for key turning movements at the study-area intersections;
- Evaluation of existing, short-term, and long-term projected intersection volumes to determine the potential need for any new auxiliary right-/left-turn lanes, based on the criteria in the City of Colorado Springs’ *Traffic Criteria Manual* and CDOT’s *State Highway Access Code*;
- Other recommended improvements and modifications to the study-area streets and intersections; and
- Summary of compiled data, analysis, findings, and recommendations.

PRIOR AREA TRAFFIC REPORTS

LSC utilized the following previous traffic reports to assist in the production of this report:

- *Downtown Flying Horse* – dated March 25, 2021 (by LSC Transportation Consultants, Inc.)
- Kettle Creek Center Master Traffic Impact Study – dated August 20, 2024 (by Matrix)

SITE LAND USE PLAN

The 44.3-acre property (zoned PUD UV) is located generally northwest of the intersection of New Life Drive/Interquest Parkway. Figure 1 shows the site location relative to the adjacent and nearby streets.

Previously-Approved Land Uses

Previously, a mix of multi-family residential housing, mixed-use/commercial, hotel, and office land uses was proposed. The previous PUD Concept Plan was approved by the City of Colorado Springs on September 16, 2021.

Currently-Proposed Zoning and Anticipated Land Uses

The Land Use Plan (LUP) shows proposed R-Flex-Medium Zoning with a 5-16 Du/Acre density.

While the previously approved Concept Plan showed a mix of residential and non-residential land uses, the proposed revision includes only residential land uses:

- 192 single-family detached houses
- 40 single-family attached houses
- 593 multi-family dwelling units

A copy of the updated LUP plan, with access information superimposed on the plan by LSC, is shown in Figure 2. Table 1 (attached) presents the detailed land uses assumed in this analysis. The figure also shows the general location of LSC “traffic analysis zones” which correspond to the land-use assumptions listed in Table 1.

PROPOSED SITE ACCESSES

Four access points are proposed for the site:

- Right-in/right-out (RIRO) on Interquest Parkway – approximately 880 feet south of Interquest/Powers;
- New Life Drive/Redmare Street – (RIRO) access connection to New Life Drive aligning with the existing northeast PPSC access. This access to Creekridge at Flying Horse will be restricted to right-in/right-out turning movements. Left turning to and from the south side (PPSC) will be maintained.
- New Life Drive/Somerstone Street – full-movement access, approximately 500 feet east of Running Water Drive; and
- New Life Drive/Running Water Drive – existing full-movement access, approximately 500 feet west of Somerstone Street.

Figure 2 show the land-use plan, including the site circulation and the proposed development access points.

ROAD AND TRAFFIC CONDITIONS

Figure 1 shows the streets adjacent to and in the vicinity of the site. Adjacent streets serving the site are identified below followed by a brief description of each:

Interquest Parkway is a four-to-six-lane Principal Arterial that extends east from Interstate 25 (I-25) connecting to State Highway (SH) 83 at its intersection with Powers Boulevard. Auxiliary left- and right-turn lanes exist at all approaches at the signalized intersection of Interquest Parkway/New Life Drive. The posted speed limit in the vicinity of the site is 55 mph.

New Life Drive is a three-lane, non-arterial street extending from Federal Drive to Interquest Parkway. A westbound auxiliary left- and eastbound auxiliary right-turn lane is found at its existing intersection with the Pikes Peak State College (PPSC) northeast access. The intersection of Interquest Parkway/New Life Drive is signalized. The posted speed limit in the vicinity of the site is 40 mph.

Running Water Drive is a north-south, two-lane local street. Currently, a center, two-way, left-turn lane on New Life Drive and a westbound right-turn auxiliary turn lane exist at the intersection of New Life Drive/Running Water Drive.

Existing Traffic Volumes

Figure 3 shows recent peak hour, intersection turning-movement traffic count volumes from the Kettle Creek Center Master Traffic Impact Study – dated August 20, 2024 (by Matrix), as well as the average weekday traffic volumes on the study-area streets. Note: A new westbound intersection leg was under-construction (as of October 2025) on New Life Drive at its intersection with Interquest Parkway, converting it from a T-intersection to a four-leg intersection. Traffic volumes at the intersections along New Life Drive west of Interquest Parkway are estimates by LSC.

Short-Term Baseline Volumes

In order to establish short-term baseline traffic volumes, LSC combined January 2024 “existing” counts with estimated site-generated traffic associated with Matrix’s Kettle Creek Center development. A breakdown of projected Kettle Creek Center site-generated traffic, as well as raw traffic-count data from Matrix, is shown in the appendix (attached).

These total volumes represent projected short-term baseline volumes at the study-area intersections prior to the construction of this Creekridge at Flying Horse development. Please refer to Figure 4 for more details.

TRIP GENERATION

Estimates of the existing and projected vehicle-trips to be generated by the proposed site land uses have been made using the following nationally published average trip generation rates based on land use codes in *Trip Generation, 12th Edition, 2025* by the Institute of Transportation Engineers (ITE). These land use codes are identified in the land use plan summary table (Table 1 above).

Table 2 below presents a summary of the estimated site trip generation. A detailed trip-generation estimate for the development, including ITE rates for the proposed land uses, is presented in Table 3 (attached).

Table 2: Estimated External Site Vehicle-Trip Generation

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	91	272	363
Evening Peak Hour	298	184	184
Daily/24-hour	2,767	2,767	5,533

Based on the ITE estimate for the proposed development, the site would generate about 5,533 vehicle trips on the average weekday. During the weekday morning peak hour, approximately 91 vehicles would enter, and 272 vehicles would exit the site. Approximately 298 entering vehicles and 184 exiting vehicles are projected for the weekday evening peak hour. Please refer to Table 3 for detailed trip-generation estimate information, including rates.

Comparison to Previously-Approved Site Plan

The previously-approved site plan consisted of a mix of residential, mixed-use/commercial, hotel, and office land uses. As shown in Table 3, the previously-approved site plan was projected to generated approximately:

- Average weekday (24-hour) – 16,141 (Total ITE trips); 11,797 (external/"driveway" trips)
- AM peak hour – 470 entering and 450 exiting trips (Total ITE trips);
- AM peak hour – 396 entering and 335 exiting trips (external "driveway" trips)
- PM peak hour – 644 entering and 697 exiting trips (Total ITE trips);
- PM peak hour – 390 entering and 399 exiting trips (external "driveway" trips)

Compared to the March 25, 2021 traffic impact study, the new development would generate fewer total ITE and external "driveway" trips.

- Average weekday (24-hour) – 10,607 fewer trips (66 percent decrease)
- AM peak hour – 378 fewer entering and 178 fewer exiting trips (81 and 40 percent decreases)
- PM peak hour – 346 fewer entering and 513 fewer exiting trips (54 and 74 percent decreases)
- Please refer to Table 2 for the reduction in projected external "driveway" trips. Note: Generally, the table shows a significant external "driveway" trip reduction. The PM entering estimate shows an additional 8 entering trips-per-hour during the PM peak hour compared to the previous plan. This represents a very minor increase in external "driveway" trips – only 2.7 percent.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Directional Distribution and Localized Routing

An estimate of the directional distribution of site-generated vehicle trips to the study-area street and roadway network is a necessary component in determining the site's traffic impacts. Figure 5 shows the percentages of the site-generated vehicle trips projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: the proposed new land uses, the area street and road system serving the site, and the site's geographic location relative to the City of Colorado Springs and the Pikes Peak region.

LSC has also estimated the localized routing of vehicle trips between the distribution points shown in Figure 6 and each of the development parcels.

Site-Generated Traffic

Figure 6 shows the projected site-generated traffic volumes for the weekday morning and evening peak hours. Site-generated traffic volumes at the following intersections have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 5) and localized trip routing estimates to the trip-generation estimates (from Table 3):

- Interquest Parkway/New Life Drive
- Interquest Parkway/proposed RIRO access
- New Life Drive/Pikes Peak State College (PPSC) access/Redmare Street
- New Life Drive/Somerstone Street
- New Life Drive/Running Water Drive

Short-Term Baseline -Plus-Site-Generated Traffic Volumes

Figure 7 shows the sum of the adjusted existing traffic volumes (short-term baseline volumes) (from Figure 4) and site-generated peak-hour traffic volumes (shown in Figure 6). These volumes represent the projected short-term total traffic, following site buildout.

Estimated Future 2050 Background Traffic Volumes

Figure 8 shows the projected long-term background traffic volumes for the year 2050. Background traffic estimates have been based on the projected 2050 Total Volumes from the *Kettle Creek Center Master Traffic Impact Study*. The site-generated traffic volumes from the LSC *Downtown Flying Horse* – dated March 25, 2021 were subtracted from the 2050 Total volumes shown in the Kettle Creek Center TIS.

Background volumes include/account for:

- General traffic growth in the area;
- Changes in through traffic volumes resulting from the future connection of Powers Boulevard between SH 83 and I-25; and
- Trips generated by other area future developments, including Matrix's Kettle Creek Center.

As the Kettle Creek Center TIS indicated that the site-generated traffic volumes from the LSC *Downtown Flying Horse* were included in the reported total volumes and these volumes have been subtracted from the Kettle Creek Center TIS total volumes, the projected 2050 **background** traffic volumes shown in Figure 8 do **not** include projected traffic to be generated by the proposed Creekridge at Flying Horse development.

Powers Boulevard (State Highway 21) currently terminates at Interquest Parkway/SH 83) but is planned to be extended to the north to I-25. LSC's estimates accounted for changes in driver behavior (such as rerouting) once a new major roadway connection (the proposed Powers Boulevard extension to I-25) is added. As such, projected future 2050 volumes on New Life Drive and Interquest Parkway are not shown significantly higher than current volumes (in some cases, they decreased slightly).

Future 2050 Total Traffic Volumes

Figure 9 shows the projected 2050 total traffic volumes, which are the sum of 2050 background traffic volumes (from Figure 8) plus the site-generated traffic volumes (from Figure 6).

LEVEL OF SERVICE ANALYSIS

The following intersections have been analyzed to determine the projected intersection levels of service for short- and long-term traffic scenarios for the morning and evening peak-hour time periods:

- Interquest Parkway/New Life Drive
- Interquest Parkway/proposed RIRO access
- New Life Drive/Pikes Peak State College (PPSC) access/Redmare Street
- New Life Drive/Somerstone Street
- New Life Drive/Running Water Drive

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 4 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 4: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle) ⁽¹⁾
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

Detailed Synchro reports are attached. A summary of LOS during the weekday morning and evening peak hours for the following unsignalized intersections is shown in the following figures:

- Figure 4: Short-Term Baseline Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 7: Short-Term Total Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 8: 2050 Background Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 9: 2050 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

Interquest Parkway/New Life Drive

Short-Term

The signalized intersection of Interquest Parkway/New Life Drive is projected to operate at LOS D or better **overall** during both short-term peak hours. The southbound-left, westbound-through, and eastbound-through/right individual turning movements are projected to operate at LOS E during the short-term PM peak-hour scenarios, with or without the addition of site-generated traffic. All other individual turning movements at this signalized intersection are projected to remain at LOS D or better during both short-term peak hours.

Long-Term

The signalized intersection of Interquest Parkway/New Life Drive is projected to operate at LOS D or better **overall** through 2050 during both peak hours. The southbound-left and northbound-through individual turning movements are projected to operate at LOS E during the long-term PM peak-hour scenarios. All other individual turning movements at this signalized intersection are projected to remain at LOS D or better through 2050 during both peak hours.

Interquest Parkway/Proposed RIRO Access

Short-Term

The eastbound-right turning movement at the proposed RIRO access on Interquest Parkway is projected to operate at LOS F during both short-term peak-hour scenarios. Despite this LOS F individual movement level of service, analysis results show a volume-to-capacity (v/c) ratio to be below 1.00 for all turning movements/approaches during all short-term buildout traffic scenarios. It is not uncommon for minor-street approaches on arterial streets to operate at LOS E or even LOS F during peak periods. It is unlikely that a traffic-signal warrant would be met at this intersection.

Long-Term

The eastbound-right turning movement at the proposed RIRO access on Interquest Parkway is projected to operate at LOS E during the long-term AM peak hour and LOS D during the long-term PM peak hour. This projected LOS improvement is due to shifts in existing travel paths anticipated from the future Powers Boulevard extension at Interquest Parkway.

Despite this LOS E individual movement level of service, analysis results show a v/c ratio to be below 1.00 for all turning movements/approaches during all long-term buildout traffic scenarios. It is not uncommon for minor street approaches on arterial streets to operate at LOS E or even LOS F during peak periods. It is unlikely that a traffic-signal warrant would be met at this intersection.

New Life Drive/ PPSC Access/Redmare Street

All approaches and individual turning movements at the New Life Drive/PPSC access/Redmare Street intersection currently operate at and are projected to remain at LOS D or better through 2050 during both peak hours, with or without the addition of site-generated traffic. Laneage has been based on the approved street improvement plans.

New Life Drive/Somerstone Street

All approaches and individual turning movements at the New Life Drive/Somerstone Street intersection are projected to operate at LOS D or better through 2050 during both peak hours, with or without the addition of site-generated traffic. Laneage has been based on the approved street improvement plans.

New Life Drive/Running Water Drive

All approaches and individual turning movements at the New Life Drive/Running Water Drive intersection currently operate at and are projected to remain at LOS D or better through 2050

during both peak hours, with or without the addition of site-generated traffic. No modifications have been assumed to the existing lane geometry or traffic control at this intersection.

Somerstone Street

The southbound approach would operate at LOS D or better during both long-term peak hours.

Running Water Drive

The southbound approach currently operates and would remain at LOS D or better during both long-term peak hours. Thus, no modifications would be required to the existing lane geometry on the southbound approach of Running Water Drive at New Life Drive.

VEHICLE QUEUEING ANALYSIS

A SimTraffic queueing analysis was performed to estimate the maximum and average queues at the intersection of **Interquest Parkway/New Life Drive** during the morning and afternoon peak hours.

“Upstream block time” represents the percent of time during the peak hour in which the entry point for a turn lane upstream of the subject intersection is blocked by a queue in the adjacent through lane. “Storage block time” is the proportion of time in which the turn lane’s queue exceeds the available storage length and left-turning vehicles overspill the turn lane in the model and into the adjacent through lane.

“Maximum queue” represents the maximum queue length observed for each individual lane during the 15-minute analysis period. SimTraffic records the maximum back of queue observed for every two-minute period. In SimTraffic, a vehicle is considered queued whenever it is behind another vehicle traveling at less than 10 feet/second (approximately 7 mph) or at a stop bar. The maximum observed queue may not occur during the same interval in which the highest upstream block time (percent) or storage block time (percent) occurs. SimTraffic reports have reported the highest value for each metric for each turn lane/approach, regardless of whether or not they occur in the same 15-minute interval.

Reported queue length for auxiliary turn lanes in SimTraffic is generally limited by the turn-lane length. SimTraffic simply reports the maximum observed queue length during simulations. The reported 95th-percentile queue is also part of the results.

Analysis has been run to estimate the queue length that the eastbound approach at New Life Drive/Interquest Parkway will extend back to the site access on New Life Drive. There are about 400 feet between the stop line on the eastbound approach on New Life Drive and its PPSC access/Redmare Street intersection. Queues less than 400 feet would not block the access.

Long Term

The following queuing analysis results assume modifications shown in Figure 11 would be made to the existing eastbound approach on New Life Drive approaching Interquest Parkway:

- 2 eastbound-left turn lanes
- 1 shared eastbound-through/right turn lane

Simulation reports indicate the following maximum queue lengths during the long-term AM peak hour:

- Eastbound left (outer) – 271 feet (0 percent storage block time)
- Eastbound left (inner) – 295 feet (5 percent storage block time)
- Eastbound through/right – 128 feet (0 percent storage block time)

Simulation reports indicate the following maximum queue lengths during the long-term PM peak hour:

- Eastbound left (outer) – 319 feet (0-4 percent storage block time)
- Eastbound left (inner) – 369 feet (8-29 percent storage block time)
- Eastbound through/right – 248 feet (0 percent storage block time)

Results from the simulations indicate that queues extending back from the signalized intersection of New Life Drive/Interquest Parkway would be minimal during the long-term AM peak hour but extend across to the west side of the PPSC access during approximately 8-29 percent of the time within the long-term PM peak hour.

Synchro-reported 95th-percentile eastbound left-turn queue lengths are 206 feet and 302 feet during the long-term morning and afternoon peak hours, respectively.

AUXILIARY TURN-LANE ANALYSIS

Table 2 of the City of Colorado Springs' *Traffic Criteria Manual* contains turning-volume thresholds which require auxiliary left- or right-turn lanes by roadway classifications. Roadway classifications for key thoroughfares in the vicinity of the site are based on the City of Colorado Springs' *Major Thoroughfare Plan (MTP)*:

- Principal Arterial – Interquest Parkway
- Non-arterial street – New Life Drive

Note: for Interquest Parkway, or a portion thereof, the Colorado State Highway Access Code may apply. Please refer to the section below regarding coordination with CDOT.

Interquest Parkway

Left-Turn Deceleration Lanes

Left-turn auxiliary turn lanes are required for an access with a projected peak-hour left-ingress turning volume of 10 vehicles per hour (vph) or greater. However, only right-in/right-out access will be permitted from Interquest Parkway.

Right-Turn Deceleration Lanes

Right-turn auxiliary turn lanes are required for an access with a projected peak-hour left-ingress turning volume of 25 vph or greater. The projected southbound right-turn volumes would exceed the 25 vph threshold during both peak hours. As such, a southbound right-turn deceleration lane would be required on Interquest Parkway at the proposed RIRO site access.

The posted speed limit on Interquest Parkway is 55 mph. Per the *Traffic Criteria Manual*, the required turn-lane length on this Principal Arterials is 480 feet, consisting of 260 feet of lane length and a 220-foot approach taper.

Right-Turn Deceleration Lanes

Per direction from the City of Colorado Springs, an eastbound-to-southbound acceleration lane would be required on Interquest Parkway between the proposed RIRO access and New Life Drive.

Additionally, please refer to the following section of this report.

New Life Drive

Right-Turn Deceleration Lanes

Right-turn auxiliary turn lanes are required for an access with a projected peak-hour right-ingress turning volume of 50 vph or greater. The posted speed limit on New Life Drive is 40 mph. Per the *Traffic Criteria Manual*, the required total lane length on New Life Drive is 315 feet, consisting of 155 feet of full-width lane length and a 160-foot approach taper. The following individual turning movements would require right-turn deceleration lanes, based on projected total volumes:

- New Life Drive/PPSC access/Redmare Street – westbound right-turn lane
- New Life Drive/Somerstone Street – westbound right-turn lane

These lanes are reflected on the approved street improvement plans.

Left-Turn Deceleration Lanes

The posted speed limit on New Life Drive is 40 mph. Per the *Traffic Criteria Manual*, the required total lane length on New Life Drive is 365 feet, consisting of full-width 155 feet of lane length and a 160-foot approach taper. An additional 50 feet of storage would be required to accommodate projected peak-hour ingress volumes, per Table 8 of the *Traffic Criteria Manual*. The following

individual turning movements would require left-turn deceleration lanes, based on projected total volumes:

- New Life Drive/Somerstone Street – eastbound left-turn lane. This turn lane is reflected on the approved street improvement plans. Also, Please refer to the following section of this report.

No modifications would be required to the existing TWLTL (accommodates the eastbound left-turn movement) at New Life Drive/Running Water Drive.

As previously mentioned, eastbound left-turn movements would not be permitted at the proposed New Life Drive/PPSC/Redmare Street intersection.

CITY-REQUIRED TURN LANE IMPROVEMENTS

Please refer to Figure 10 which shows the auxiliary turn-lane improvements for Interquest Parkway and Figure 11 which shows the auxiliary turn-lane improvements for New Life Drive.

These figures are based on the **City staff comment memo dated December 23, 2025**. The required turn lane lengths and tapers conveyed in the comment memo are reflected on these two figures with the following exceptions:

- The shared eastbound through/eastbound right turn lane at New Life Drive/Interquest Parkway intersection is shown as a 220-foot lane plus a 120-foot taper are shown in Figure 11. A 300-foot lane won't geometrically fit without expanding the street offsite to the south given the width needed to accommodate the longer eastbound left-turn lanes.
- A 60-foot bay taper is shown for the No. 1 eastbound left-turn lane at the New Life Drive/Interquest Parkway intersection. The taper ratio for this 60-foot bay taper would exceed the taper ratio for a 100-foot dual-left lane taper. The No. 2 eastbound left-turn lane is continuous back to the upstream intersection – the New Life Drive/PPSC east access (consistent with the current condition) – so transition taper is not applicable. On a related note: with the lengthening of the No. 1 eastbound left-turn lane at the New Life Drive/Interquest Parkway intersection, the westbound left-turn bay at the New Life Drive/PPSC east access is shown restriped for 110-feet plus a 50-foot taper.

STREET CLASSIFICATIONS

Running Water Drive

Running Water Drive would provide access to the west portion of the site and the adjacent Flying Horse No. 13/Capri Filing Nos. 1 & 2 and the Parcel 28 single-family residential developments. Estimates of the buildout AWT on Running Water Drive north of New Life Drive indicate a volume of about 1,265 vehicles per day (vpd). Given the above projected daily volume and the

continuity/function of this street, Running Water Drive could remain classified as a Residential Collector. Residential lots on the west side do not front this street directly.

Somerstone Street

Somerstone Street would have a buildout AWT of approximately 1,438 vehicles per day (vpd). Given the above projected daily volume and the function of this street, Somerstone Street would be classified as a Residential (Local) street.

Redmare Street

Estimated buildout AWT on Redmare Street indicates a volume of about 1,046 vpd. As such, this RIRO access should be classified as a Residential (Local) street, as described in the City's *Traffic Criteria Manual*.

Street Connection to the Right-in/Right-out Access at Interquest Parkway

LSC estimates the buildout AWT on the street proposed to connect to the right-in/right-out access to Interquest Parkway would be about 3,244 vpd. As such, this access should be classified as a Collector street described in the *Traffic Criteria Manual*.

INTERSECTION TURN-MOVEMENT RESTRICTIONS AND INTERSECTION TRAFFIC CONTROL RECOMMENDATIONS

All proposed site-access points to New Life Drive and Interquest Parkway have been analyzed as stop-sign-controlled intersections.

The following turning movements would **not** be permitted at the proposed Interquest Parkway/right-in/right-out access intersection and would, thus, be prohibited by a raised center median:

- Eastbound-left turn
- Northbound-left turn

Regarding potential downstream U-turning movements to the south of the proposed RIRO intersection, the existing and planned laneage shown on DEPN- 23-0169 may not accommodate southbound-to-northbound U-turn movements at the New Life Drive/Interquest Parkway intersection. If the applicant, in conjunction with the installation of the RIRO access to Interquest Parkway to the north, would like the current U-Turn prohibition to be lifted, a design analysis of this U-Turn movement should be completed at the applicable Development Plan (DP) stage for the portion of the plan that adds the Interquest RIRO access. Note: This study assumes future accommodation of these southbound to northbound U-turn movements in the analysis. If at the DP stage, following the evaluation, it is determined that the U-turn prohibition would need to

remain in-place, most of the U-turn movements shown in this study would likely be re-routed through the Somerstone intersection and added to the southbound-left turn movement.

The following turning movements would **not** be permitted at the proposed New Life Drive/PPSC/Redmare Street intersection and would, thus, be prohibited by a raised right-turn channelizing island on the north side of the intersection:

- Eastbound-left turn
- Southbound through, northbound through movements
- Southbound-left turn movements

COORDINATION WITH CDOT

Per City staff direction, *the developer will have to coordinate with CDOT on the proposed Right in/out site access along Interquest Pkwy to discuss turn lane spacings from future Powers Blvd extension and roadway improvements along Interquest Parkway.*

CDOT has indicated that an Access Permit will be required. The access permit application will be submitted to CDOT later - at the time of a future development plan and/or plat submittal to the City (as this is only the Land Use Plan phase of the city process).

SUMMARY/CONCLUSIONS

- The site is projected to generate about 5,533 new driveway vehicle trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 91 vehicles would enter the site while 272 vehicles would exit.
- During the weekday evening peak hour of adjacent street traffic, 298 vehicles would enter the site while 184 vehicles would exit.
- Please refer to the "Trip Generation" Section and Table 2 for additional details and a comparison to the LSC 2021 TIS report. Generally, the table shows a significant reduction in ITE total trip generation and external "driveway" trip generation compared to the estimate in the prior TIS.
- Please refer to the "Level of Service" section above for detailed LOS analysis results for individual turning movements and approaches at all studied intersections, during both peak hours through the 2050 horizon year.
- The "Vehicle Queuing Analysis" section presents detailed analysis of queuing results associated with the New Life Drive/Interquest Parkway intersection and effects on the upstream PPSC access intersection. The site access on the north (Somerstone Street) will be restricted to right-in/right-out, so there will be no conflicts with traffic entering the roadway from the north leg. However, given the spacing to the full-movement south leg/PPSC east access intersection, consideration could be given to adding a "DO NOT BLOCK INTERSECTION" sign for the eastbound approach to this intersection (and/or

pavement markings). This potentially would need to be considered regardless of this development as left turns to/from the south leg would not be restricted.

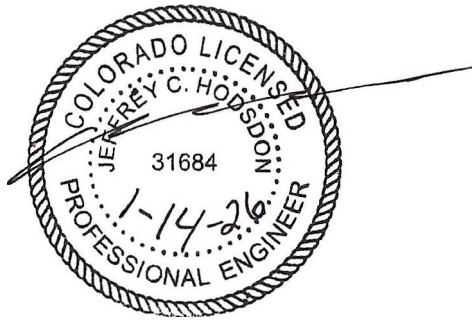
- Please refer to the “Auxiliary Turn Lane Analysis,” section above, Figure 10 and Figure 11 for proposed auxiliary turn lanes at the study-area intersections.
- Four access points are proposed for the site. These access points are in conformance with the Master Plan. A copy has been attached for reference.
 - Right-in/right-out (RIRO) – approximately 880 feet south of Interquest/Powers
 - Redmare Street – RIRO at the proposed access north side to New Life Drive and full-movement access to the existing PPSC access
 - Somerstone Street – full-movement access located approximately 500 east of Running Water Drive
 - Full-movement – New Life Drive/Running Water Drive (existing)
- Please refer to the “Street Classifications” section for recommended design criteria to which the proposed site accesses/development street connections would be required to be constructed, per the City of Colorado Springs’ *Engineering Criteria Manual*.
- Please refer to the “Intersection Turn-Movement Restrictions/Intersection Traffic Control Recommendations” section above for information specific to each access point. The New Life Drive/middle access intersection is a planned full-movement T-intersection.

* * * * *

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.



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

JCJ/JAB:jas

Enclosures: Table 1, Table 3
Figure 1 - Figure 11
Queue Reports
Synchro LOS Reports
Appendix Figures
Traffic Counts from Matrix report

Tables

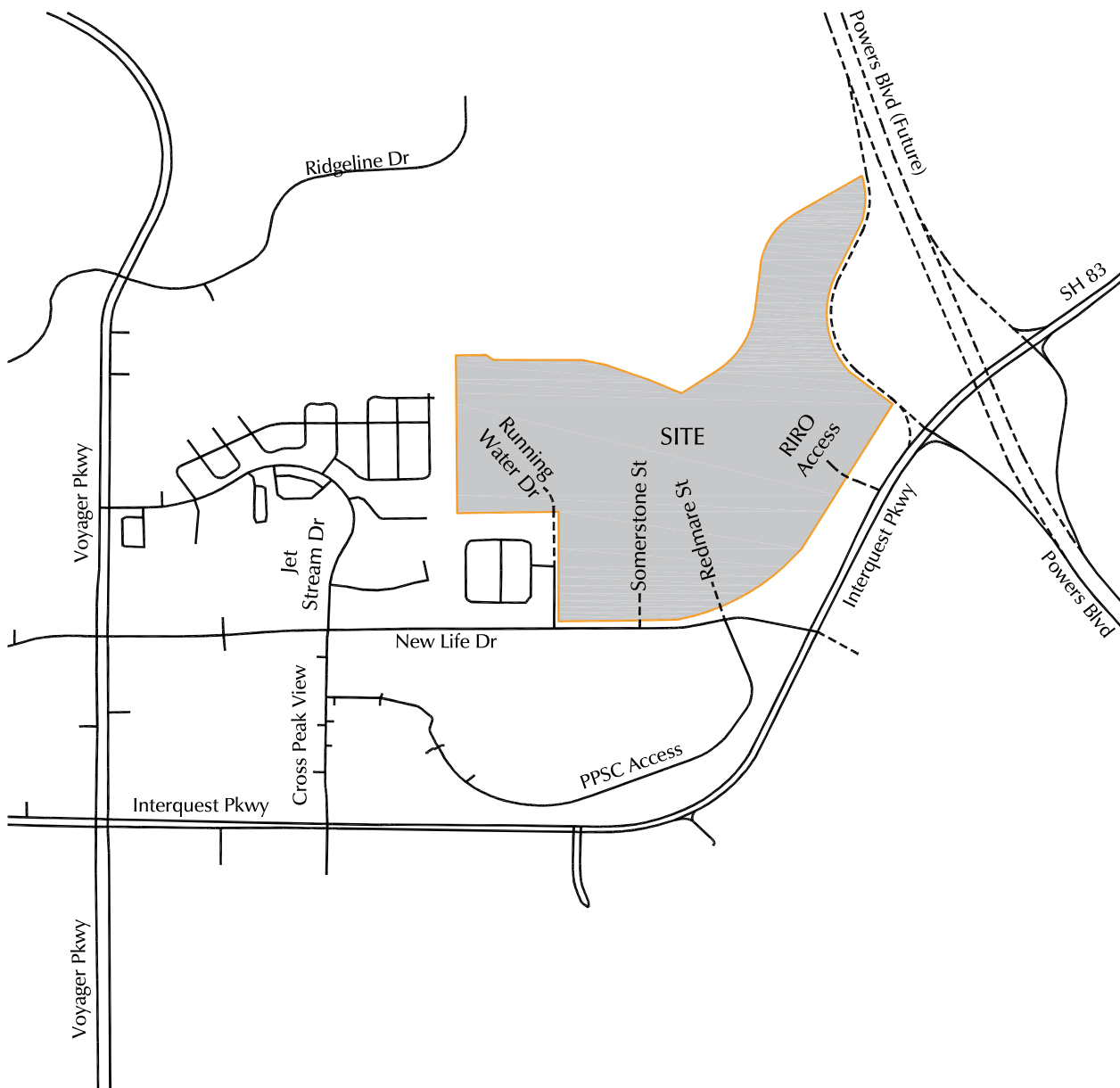
Table 1: Land Use Development Plan

Current 2025 Land Use Plan				
TAZ*	Identifier of Approved Concept Plan	ITE Land Use Code	ITE Land Use Description	TAZ DU Count
---	A	-	Detention Pond	N/A
1	B	220	Multi-Family Housing (Low-Rise)	485
3	D, E	411	Public Park	N/A
3	D, E	220	Multi-Family Housing (Low-Rise)	48
4	Part of C	210	Single-Family (Detached) Housing	73
5	Parts of G & I	210	Single-Family (Detached) Housing	34
6	H	215	Single-Family (Attached) Housing	40
5	Parts of G & I	220	Multi-Family Housing (Low-Rise)	60
7	Not a Part (Vacant, PUD)	210	Single-Family (Detached) Housing	85
Source: DENSITY CONCEPT OPT2 25-07-22; information provided by the project team.				
* TAZ= LSC "traffic analysis zone" (for TIS reference only) - please refer to Figure 2 for locations				Revised: January 2026

Table 3: Detailed Trip Generation Estimate

ITE		Value	Units ¹	Trip Generation Rates ^{2,3}				Total ITE Trips Generated				External Trips Generated ⁴				Total Non-PrimaryTrips Generated ⁴										
				Average Weekday	A.M.		P.M.		Average Weekday ⁵	A.M.		P.M.		Average Weekday ⁵	A.M.		P.M.		Average Weekday ⁵	A.M.		P.M.				
Code	Description				Peak Hour In	Peak Hour Out	Peak Hour In	Peak Hour Out	Weekday ⁵	Peak Hour ⁶ In	Peak Hour ⁶ Out	Peak Hour ⁶ In	Peak Hour ⁶ Out	Weekday ⁵	Peak Hour ⁶ In	Peak Hour ⁶ Out	Peak Hour ⁶ In	Peak Hour ⁶ Out	Weekday ⁵	Peak Hour ⁶ In	Peak Hour ⁶ Out	Peak Hour ⁶ In	Peak Hour ⁶ Out			
Based on Currently-Proposed Site Plan (July 9, 2025) ²																										
210	Single-Family (Detached) Housing	192	DU	9.45	0.19	0.51	0.57	0.35	1,813	36	98	109	67		1,813	36	98	109	67		1,813	36	98	109	67	
215	Single-Family (Attached) Housing	40	DU	6.61	0.05	0.16	0.21	0.16	264	2	6	9	6		264	2	6	9	6		264	2	6	9	6	
220	Multi-Family Housing (Low-Rise)	593	DU	5.83	0.09	0.28	0.31	0.19	3,457	53	167	181	111		3,457	53	167	181	111		3,457	53	167	181	111	
									Total	5,533	91	272	298	184	Total	5,533	91	272	298	184	Total	5,533	91	272	298	184
Based on Traffic Study by LSC (Dated March 25, 2021) ³																										
-	Residential	-	-	-	-	-	-	-	6,719	105	302	308	195		5,039	97	236	148	119		5,039	97	236	148	119	
-	Mixed-Use and Commercial	-	-	-	-	-	-	-	5,532	122	74	238	258		3,841	102	62	110	94		2,407	64	39	68	59	
-	Hospitality/Office	-	-	-	-	-	-	-	3,889	243	73	98	244		2,917	197	37	33	186		2,917	197	37	33	186	
									Total	16,141	470	450	644	697	Total	11,797	396	335	290	399	Total	10,363	359	312	249	364
Based on Currently-Proposed Site Plan (July 9, 2025)									5,533	91	272	298	184		5,533	91	272	298	184		5,533	91	272	298	184	
Based on Traffic Study by LSC (Dated March 25, 2021)									16,141	470	450	644	697		11,797	396	335	290	399		10,363	359	312	249	364	
Change									-10,607	-378	-178	-346	-513	Change	-6,264	-305	-63	8	-215	Change	-4,829	-268	-40	49	-180	
% Change									-66%	-81%	-40%	-54%	-74%	% Change	-53%	-77%	-19%	3%	-54%	% Change	-47%	-75%	-13%	20%	-50%	
¹ DU = dwelling units																										
² Source: Trip Generation, 12th Edition, 2025, by the Institute of Transportation Engineers (ITE)																										
³ Source: Trip Generation, 10th Edition, 2017, by the Institute of Transportation Engineers (ITE); please refer to Table 4 in the 2021 TIS for rates and other details.																										
⁴ To be conservative, no internal capture adjustments were applied to the current plan trip generation; regarding the info shown for the 2021 study, please refer to Table 4 in the 2021 TIS for internal capture rates used in the 2021 TIS, trip type by % primary and additional details.																										
⁵ Units = vehicle-trips per day																										
⁶ Units = vehicle-trips per hour																										
10/22/2025 - Revised 1/14/2026																										

Figures





1:80
scale

Land uses assumed by LSC in this TIS by TAZ

TAZ	DU	Type
1	240	Multi-family
2	95	Multi-family
3	48	Multi-family
4	223	Single-family, multi-family
5	94	Single-family, multi-family
6	40	Single-family
7	85	Single-family

LSC traffic analysis zone (TAZ)

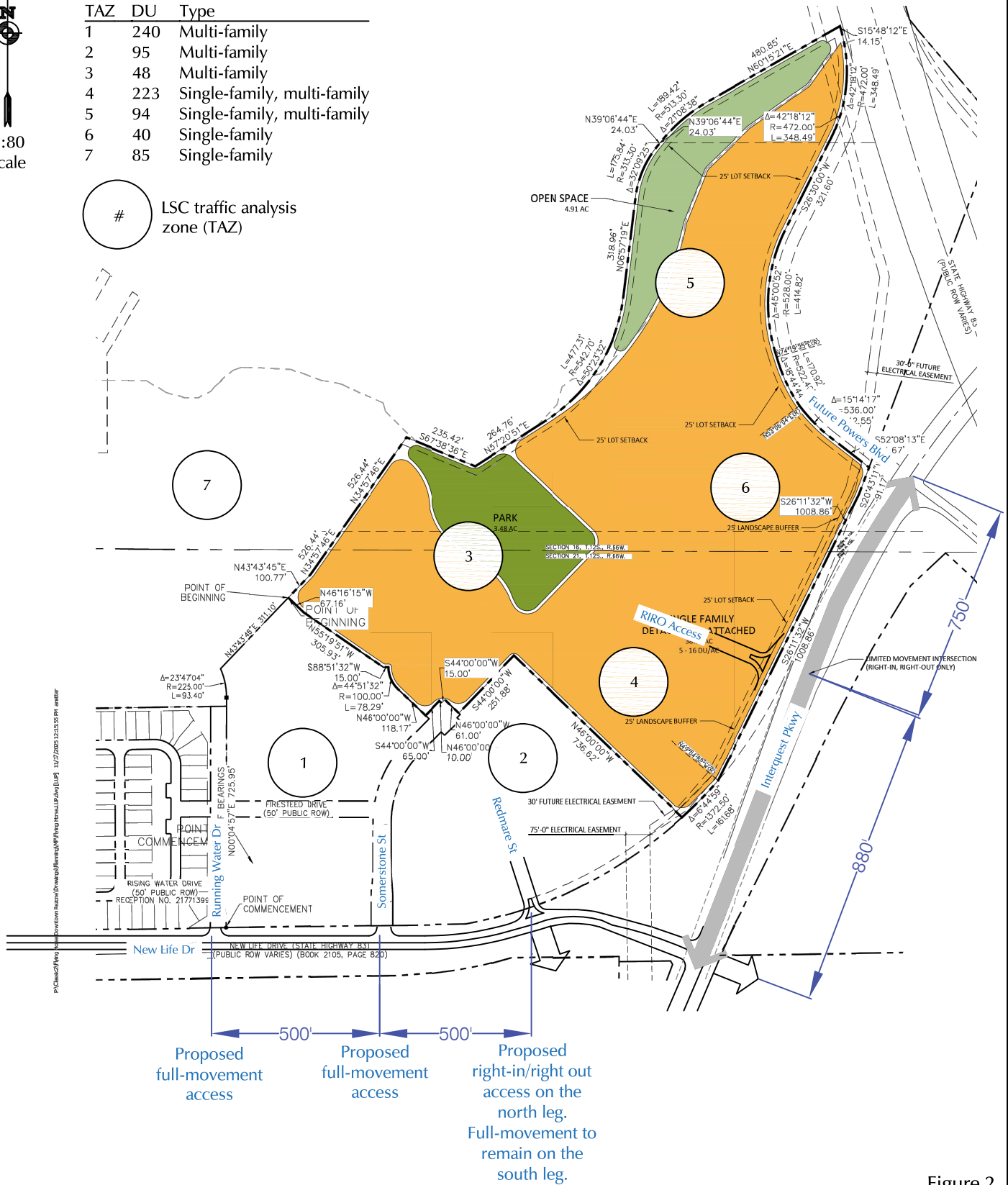
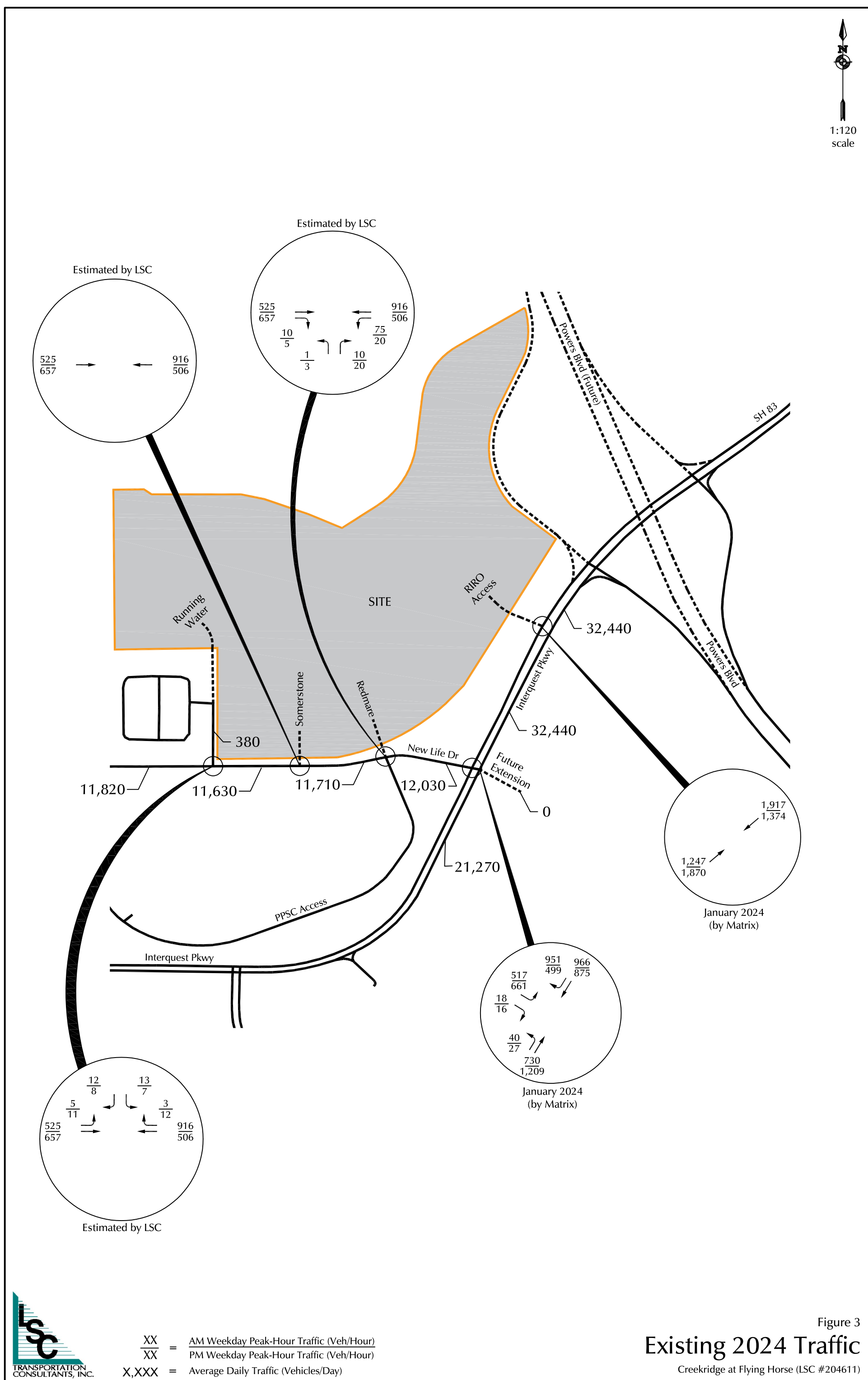
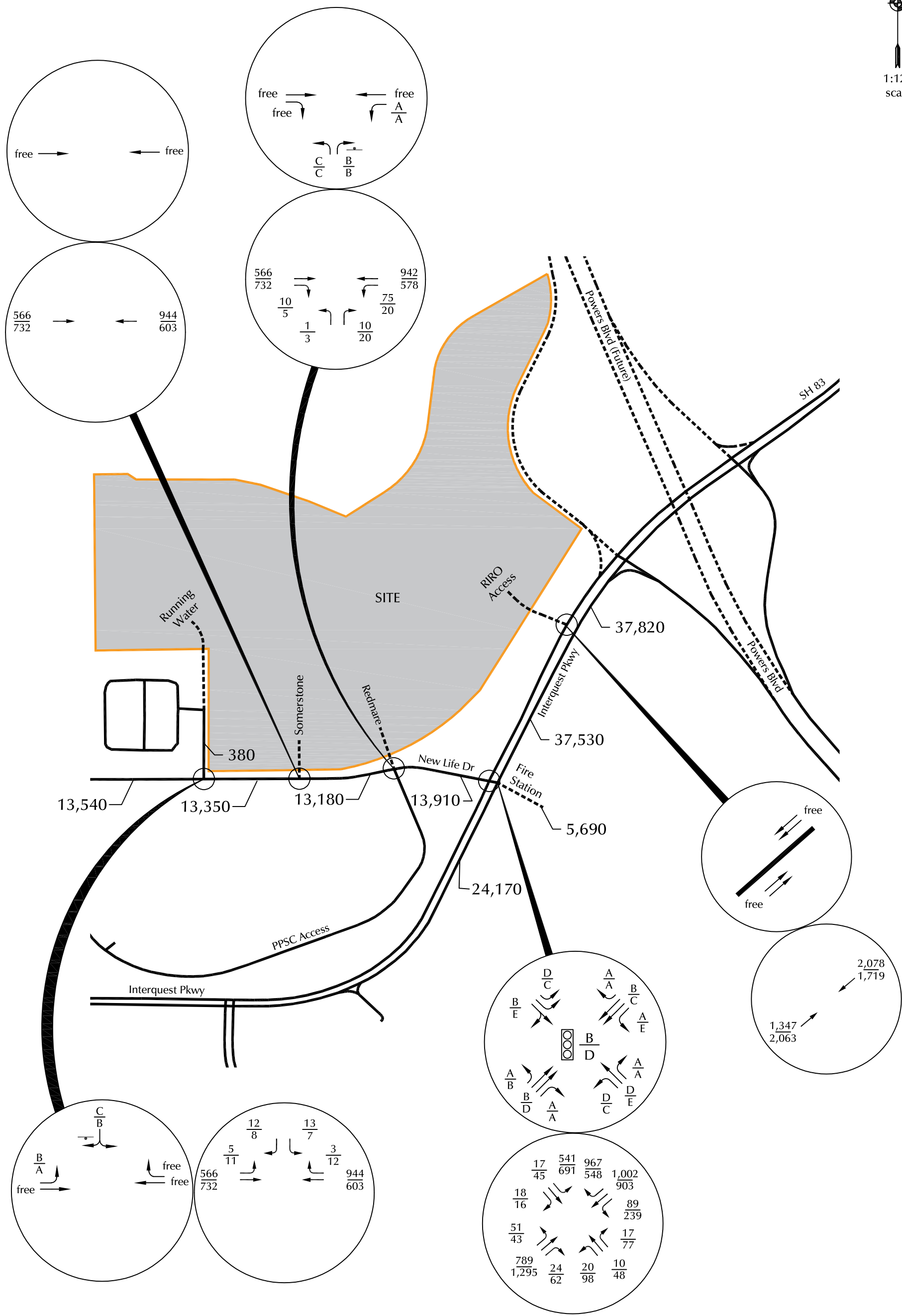


Figure 2

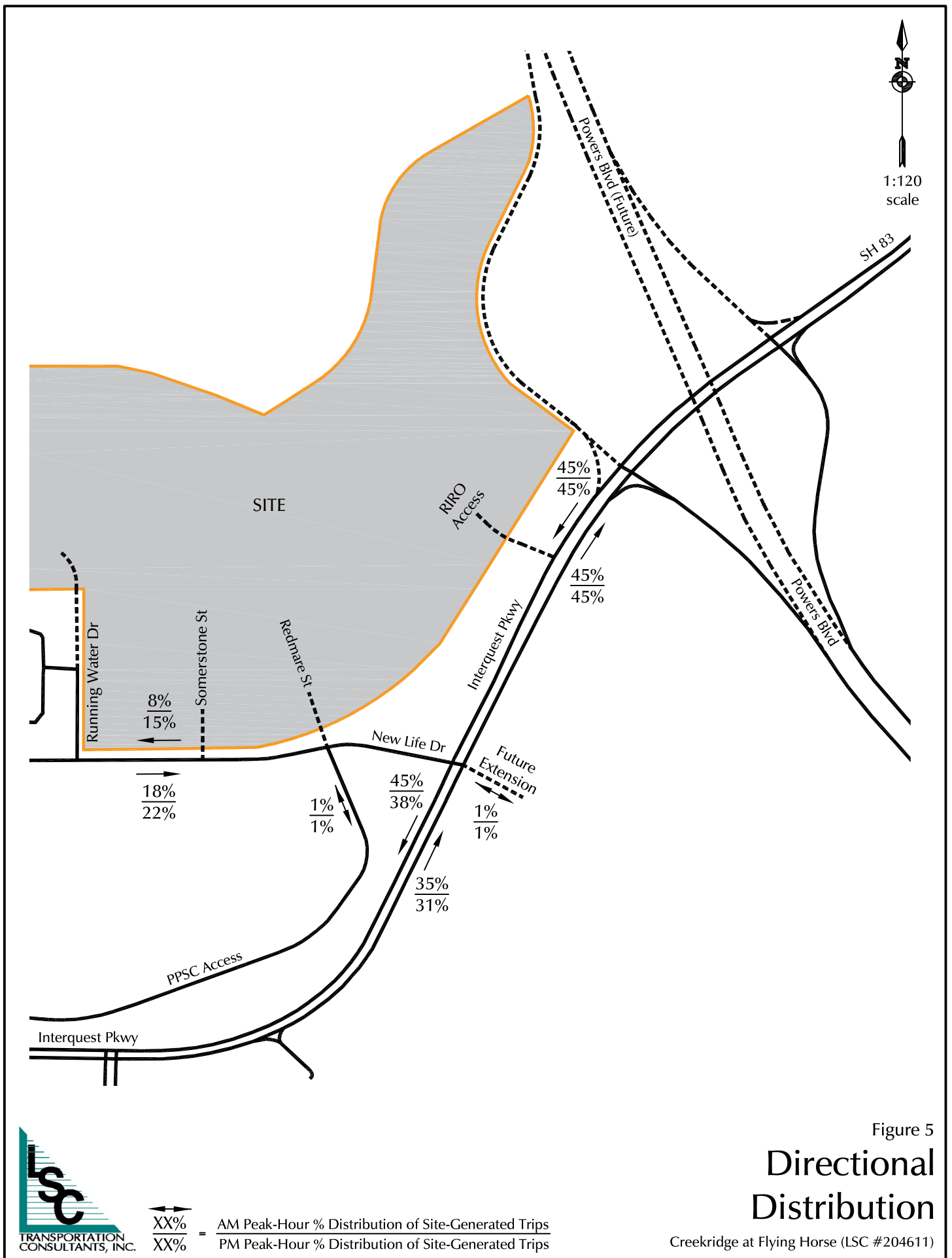
Land Use Plan (LUP) with Access Points and TIS Land Uses

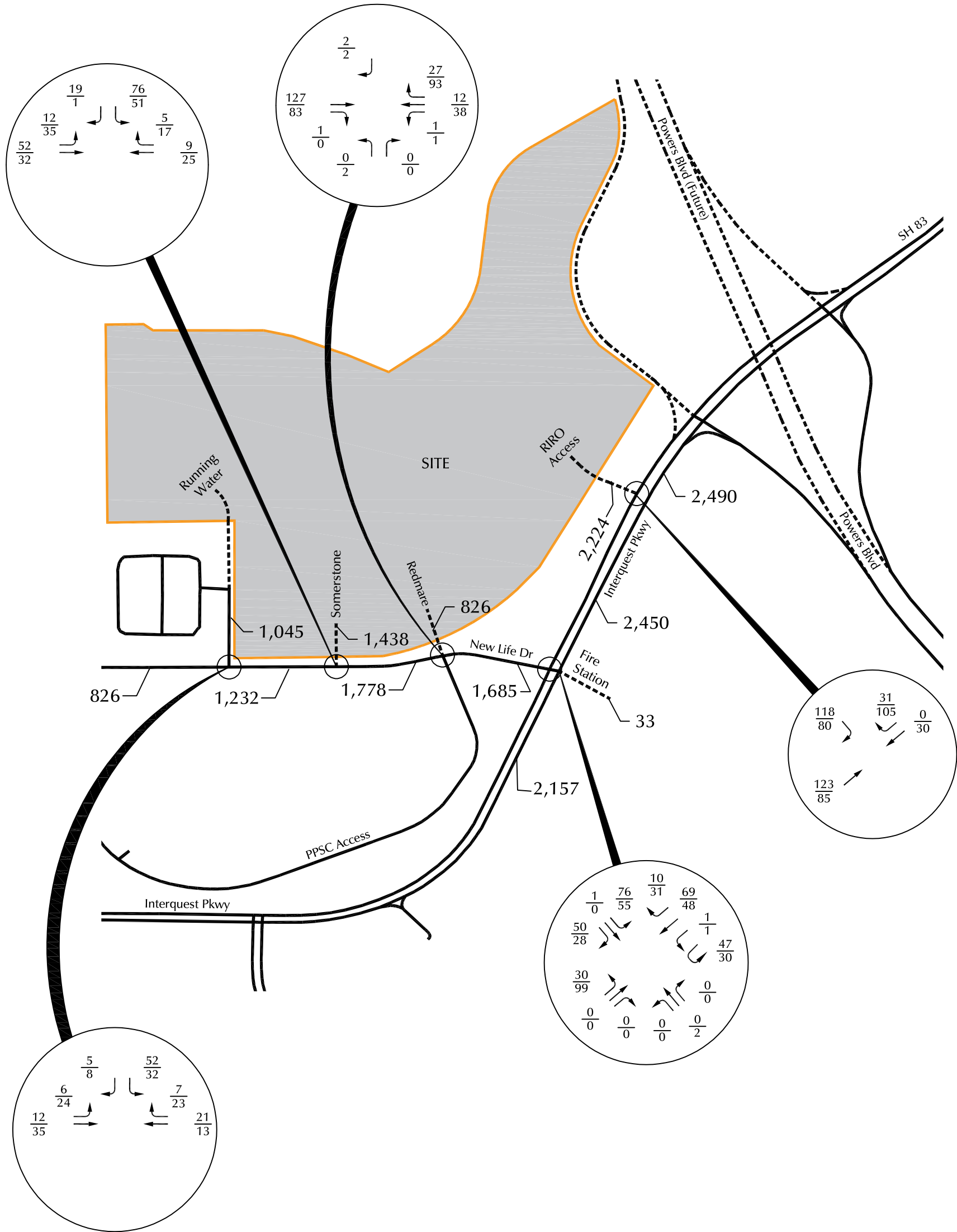
Creekridge at Flying Horse (LSC #204611)





 = Traffic Signal  = Stop Sign
 $\frac{X}{X}$ = AM Individual Movement Peak-Hour LOS
 PM Individual Movement Peak-Hour LOS
 $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (Veh/Hour)
 PM Weekday Peak-Hour Traffic (Veh/Hour)
X,XXX = Average Daily Traffic (Vehicles/Day)





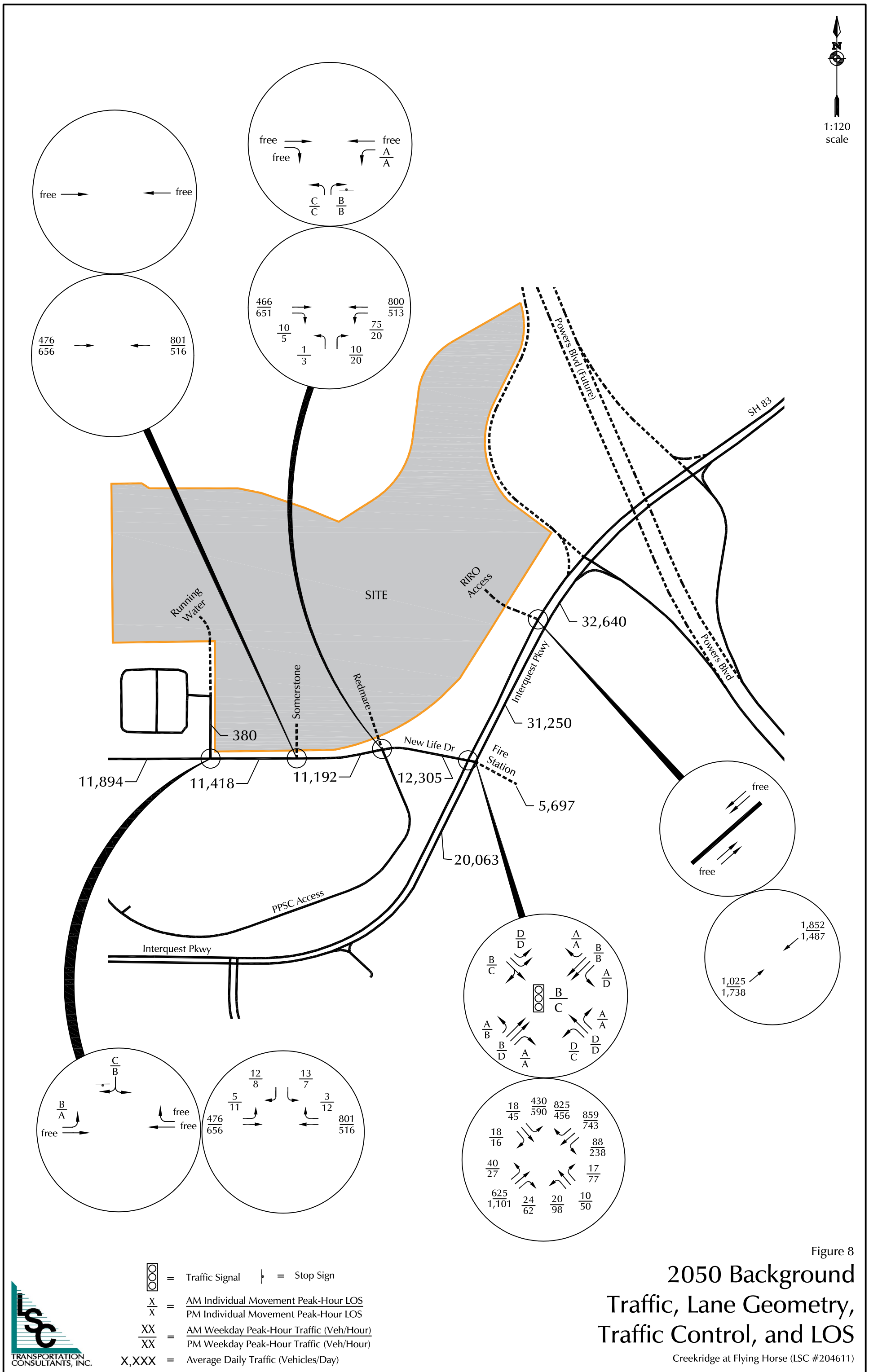


Figure 8

2050 Background Traffic, Lane Geometry, Traffic Control, and LOS

Creekridge at Flying Horse (LSC #204611)

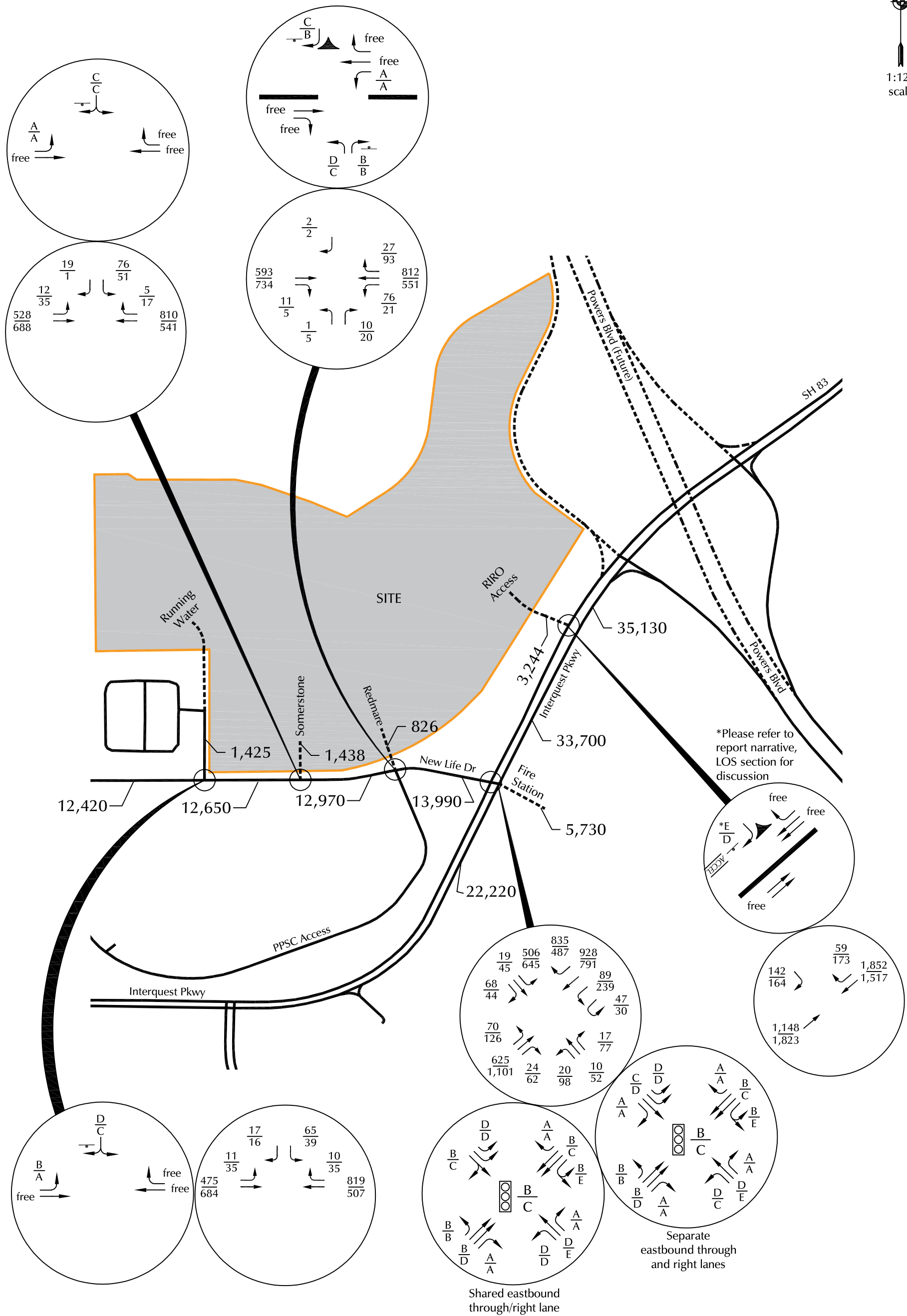
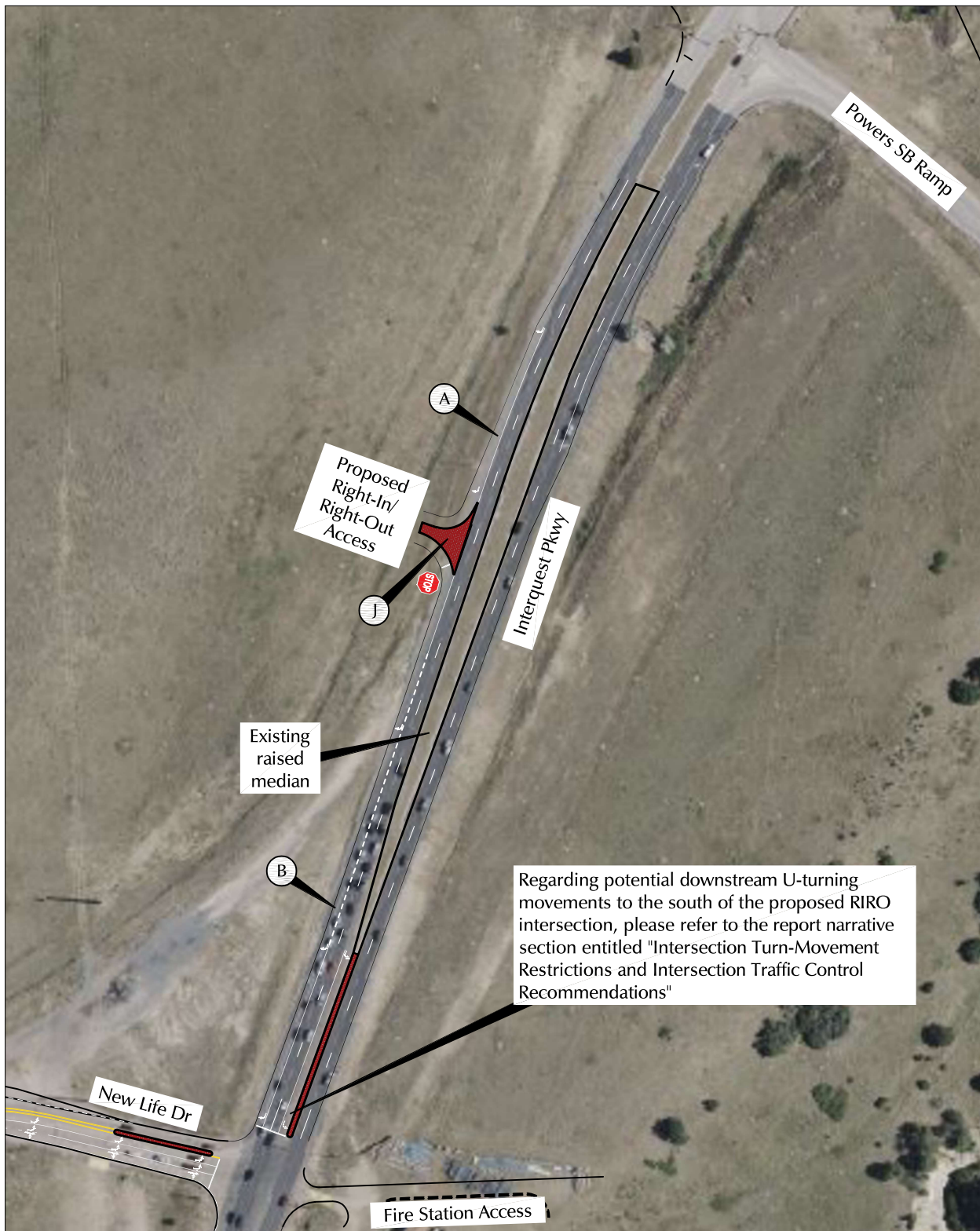
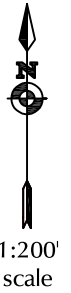


Figure 9
2050 Background + Site
Traffic, Lane Geometry,
Traffic Control, and LOS
Creekridge at Flying Horse (LSC #204611)



The developer will be responsible for the following turn lane improvement costs

- A - Southbound-right turn deceleration lane (260' + 220' taper = 480' total)
- B - Continuous southbound-right turn acceleration/deceleration lane
- J - Raised/curbed right-turn channelizing island

Notes

Developer will have to coordinate with CDOT on the proposed right-in/right-out access along Interquest Pkwy to discuss turn lane spacings from the future Powers Blvd extension and any other roadway improvements along Interquest Pkwy

Figure 10

Turn Lane Improvements Interquest Pkwy

Creekridge at Flying Horse (LSC #204611)

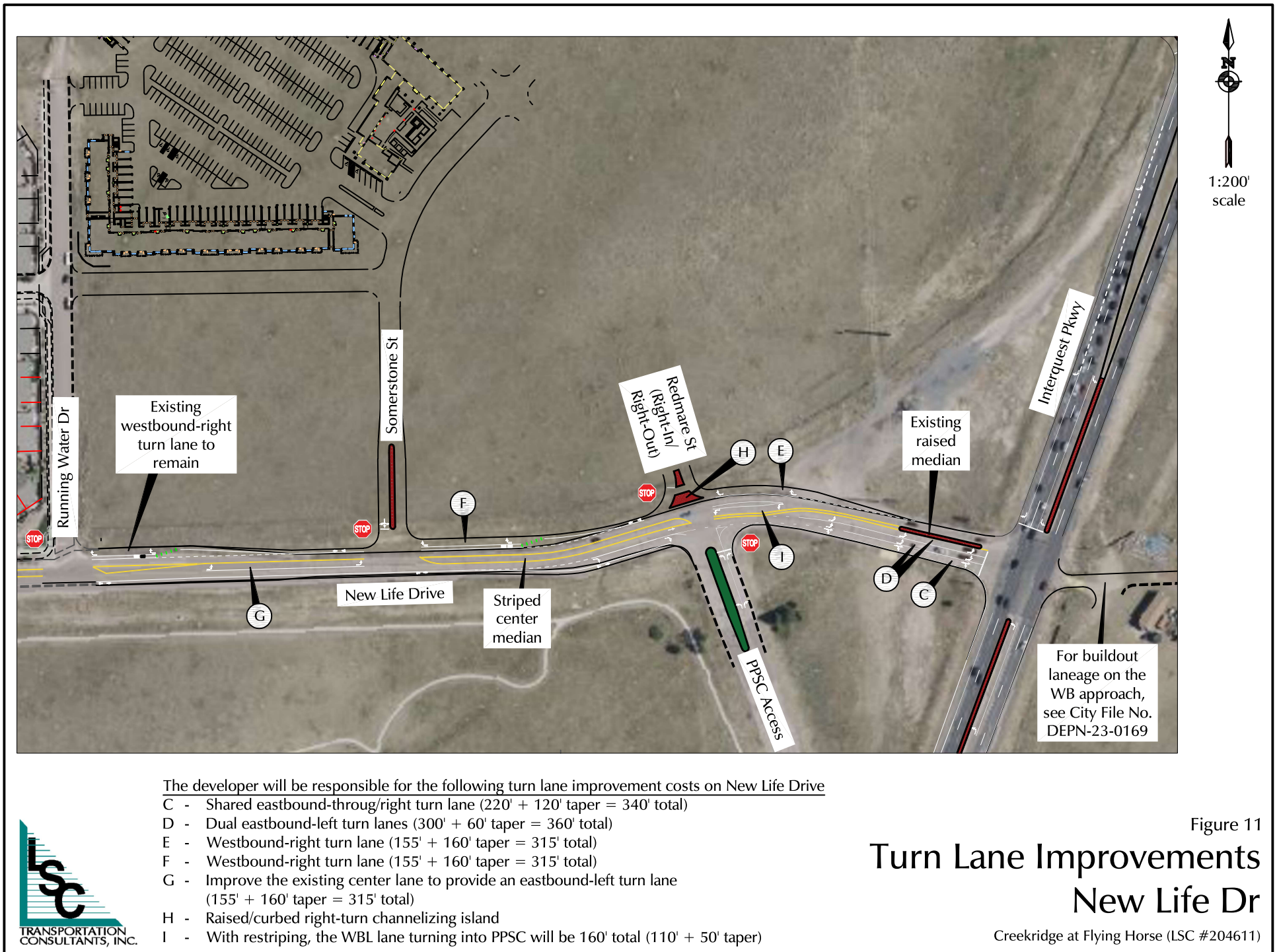


Figure 11
Turn Lane Improvements
New Life Dr

Creekridge at Flying Horse (LSC #204611)

Queuing Reports

Intersection: 2: Interquest & New Life/Fire Station, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	252	265	105	39	23	29	90	148	134	16	102	209
Average Queue (ft)	157	190	44	16	5	12	42	102	74	5	53	142
95th Queue (ft)	253	278	99	41	23	32	85	157	138	16	103	208
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	0	5										
Queuing Penalty (veh)	0	19										

Intersection: 2: Interquest & New Life/Fire Station, Interval #1

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	207	383
Average Queue (ft)	132	226
95th Queue (ft)	197	413
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	195	225	98	46	36	29	70	141	138	14	69	225
Average Queue (ft)	140	170	52	18	10	12	36	94	76	3	41	137
95th Queue (ft)	208	245	106	50	35	31	74	146	150	14	70	223
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)		2										
Queuing Penalty (veh)		7										

Intersection: 2: Interquest & New Life/Fire Station, Interval #2

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	220	372
Average Queue (ft)	125	206
95th Queue (ft)	219	416
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	182	210	77	48	41	25	64	143	117	8	99	193
Average Queue (ft)	123	154	37	16	12	7	34	90	58	3	48	123
95th Queue (ft)	188	211	80	49	38	24	63	158	123	10	107	196
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)		0										
Queuing Penalty (veh)		1										

Intersection: 2: Interquest & New Life/Fire Station, Interval #3

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	208	364
Average Queue (ft)	118	218
95th Queue (ft)	219	479
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	235	256	79	55	23	30	53	142	143	13	76	201
Average Queue (ft)	151	175	44	27	7	11	27	93	71	3	49	120
95th Queue (ft)	227	247	80	59	23	32	56	151	139	14	86	203
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)		3										
Queuing Penalty (veh)		11										

Intersection: 2: Interquest & New Life/Fire Station, Interval #4

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	173	249
Average Queue (ft)	112	154
95th Queue (ft)	179	259
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	271	295	128	60	45	42	94	183	160	22	125	244
Average Queue (ft)	143	172	44	19	9	10	35	95	70	3	48	131
95th Queue (ft)	223	249	93	51	31	30	71	154	139	14	94	209
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	0	3										
Queuing Penalty (veh)	0	9										

Intersection: 2: Interquest & New Life/Fire Station, All Intervals

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	269	457
Average Queue (ft)	122	201
95th Queue (ft)	206	405
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	262	308	133	117	66	81	280	519	499	241	277	256
Average Queue (ft)	223	256	100	69	37	48	176	396	368	41	154	175
95th Queue (ft)	327	404	282	124	70	89	453	664	624	256	274	242
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)		2										
Queuing Penalty (veh)		19										
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	4	20			2	1		37	21			
Queuing Penalty (veh)	16	89			2	1		49	13			

Intersection: 2: Interquest & New Life/Fire Station, Interval #1

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	252	137
Average Queue (ft)	165	85
95th Queue (ft)	252	144
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	299	348	196	100	127	109	331	620	606	241	259	242
Average Queue (ft)	258	294	114	53	75	59	244	501	470	60	185	164
95th Queue (ft)	374	447	305	101	202	126	522	825	778	318	308	245
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)		3			1							
Queuing Penalty (veh)		24			0							
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	6	29			17	4	0	47	32			
Queuing Penalty (veh)	26	130			15	2	0	62	21			

Intersection: 2: Interquest & New Life/Fire Station, Interval #2

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	210	162
Average Queue (ft)	136	94
95th Queue (ft)	202	163
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	265	274	156	104	79	89	330	580	541	237	201	197
Average Queue (ft)	190	203	63	52	42	44	168	436	406	42	152	147
95th Queue (ft)	277	295	157	107	86	86	427	823	791	257	219	210
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	0	8			0	2	0	33	19			
Queuing Penalty (veh)	2	32			0	1	0	40	12			

Intersection: 2: Interquest & New Life/Fire Station, Interval #3

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	322	293
Average Queue (ft)	150	122
95th Queue (ft)	360	343
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	282	317	186	102	84	99	357	533	519	135	294	253
Average Queue (ft)	217	235	64	59	50	34	203	423	384	29	200	184
95th Queue (ft)	328	358	152	105	95	73	468	625	588	184	352	253
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	1	17			5	3	0	43	19			
Queuing Penalty (veh)	3	74			5	2	0	57	12			

Intersection: 2: Interquest & New Life/Fire Station, Interval #4

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	234	184
Average Queue (ft)	168	106
95th Queue (ft)	241	192
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Interquest & New Life/Fire Station, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	T	R	L	T	T	R	UL	T
Maximum Queue (ft)	319	369	248	128	136	134	424	730	706	357	325	282
Average Queue (ft)	222	247	85	58	51	46	198	439	407	43	173	168
95th Queue (ft)	334	389	237	111	128	97	472	749	710	258	297	242
Link Distance (ft)		448		290	290			1158	1158			877
Upstream Blk Time (%)		1			0							
Queuing Penalty (veh)		11			0							
Storage Bay Dist (ft)	300		220			90	255			350	430	
Storage Blk Time (%)	3	19			6	3	0	40	23			
Queuing Penalty (veh)	12	81			5	1	0	52	15			

Intersection: 2: Interquest & New Life/Fire Station, All Intervals

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	374	330
Average Queue (ft)	155	101
95th Queue (ft)	280	231
Link Distance (ft)	877	877
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Level of Service Reports



Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	541	17	18	20	10	17	51	789	24	89	1002	967
Future Volume (vph)	541	17	18	20	10	17	51	789	24	89	1002	967
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		0	90		90	255		350	430		265
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	200			132			170			220		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.923				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1719	0	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.176			0.264		
Satd. Flow (perm)	3433	1719	0	1770	1863	1583	328	3539	1583	492	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19				224			212			949
Link Speed (mph)		40			30			55			55	
Link Distance (ft)		551			356			1213			939	
Travel Time (s)		9.4			8.1			15.0			11.6	
Peak Hour Factor	0.93	0.93	0.93	0.83	0.83	0.83	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	582	18	19	24	12	20	55	848	26	94	1055	1018
Shared Lane Traffic (%)												
Lane Group Flow (vph)	582	37	0	24	12	20	55	848	26	94	1055	1018
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		36			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8	2		2	6		6

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	10.5		9.5	10.5	10.5	9.0	17.5	17.5	9.5	17.5	17.5
Total Split (s)	24.0	20.0		15.0	11.0	11.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (%)	26.7%	22.2%		16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%
Maximum Green (s)	19.5	13.5		10.5	4.5	4.5	5.0	37.5	37.5	5.5	37.5	37.5
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.0	5.5	5.5	3.5	5.5	5.5
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5		4.5	6.5	6.5	5.0	7.5	7.5	4.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0									7.0	7.0
Flash Dont Walk (s)		24.0									17.0	17.0
Pedestrian Calls (#/hr)		0									0	0
Act Effect Green (s)	18.5	18.1		6.8	4.9	4.9	51.4	44.7	44.7	52.3	44.7	44.7
Actuated g/C Ratio	0.21	0.20		0.08	0.05	0.05	0.57	0.50	0.50	0.58	0.50	0.50
v/c Ratio	0.83	0.10		0.18	0.12	0.07	0.20	0.48	0.03	0.26	0.60	0.81
Control Delay	45.2	19.4		41.5	43.7	0.4	10.7	18.1	0.0	10.1	19.9	7.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	19.4		41.5	43.7	0.4	10.7	18.1	0.0	10.1	19.9	7.9
LOS	D	B		D	D	A	B	B	A	B	B	A
Approach Delay		43.7			27.3			17.2			13.8	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)	161	7		13	7	0	13	189	0	23	255	23
Queue Length 95th (ft)	#224	35		34	23	0	30	248	0	m42	330	#207
Internal Link Dist (ft)		471			276			1133			859	
Turn Bay Length (ft)	220			90		90	255		350	430		265
Base Capacity (vph)	743	360		206	101	297	272	1759	893	367	1759	1264
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.10		0.12	0.12	0.07	0.20	0.48	0.03	0.26	0.60	0.81

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 19.8

Intersection LOS: B

Intersection Capacity Utilization 82.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Lanes, Volumes, Timings 2: Interquest & New Life/Fire Station

ST Baseline
AM

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Interquest & New Life/Fire Station



Lanes, Volumes, Timings
7: Interquest Pkwy & Powers Off-Ramp

ST Baseline
AM

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	420		0	0	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	3614	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	3614	1863	3539	0	1863	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		55			55
Link Distance (ft)	927		899			1360
Travel Time (s)	21.1		11.1			16.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		30			30
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	

Lanes, Volumes, Timings

7: Interquest Pkwy & Powers Off-Ramp

ST Baseline
AM



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector Phase	4	4	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.5	24.5	25.5		25.5	25.5
Total Split (s)	45.0	45.0	65.0		65.0	65.0
Total Split (%)	40.9%	40.9%	59.1%		59.1%	59.1%
Maximum Green (s)	38.5	38.5	57.5		57.5	57.5
Yellow Time (s)	4.5	4.5	5.5		5.5	5.5
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5		7.5	7.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	847		819		1280	
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						
Intersection Summary						
Area Type:	Other					
Cycle Length: 110						
Actuated Cycle Length: 18						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.00						
Intersection Signal Delay: 0.0				Intersection LOS: A		
Intersection Capacity Utilization 0.0%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 7: Interquest Pkwy & Powers Off-Ramp



Lanes, Volumes, Timings

JAB

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	566	10	75	942	1	10
Future Vol, veh/h	566	10	75	942	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	145	175	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	609	11	81	1013	1	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	620
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	960
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	960
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	14.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	129	495	-	-	960	-
HCM Lane V/C Ratio	0.01	0.026	-	-	0.084	-
HCM Control Delay (s)	33.2	12.5	-	-	9.1	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0.3	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	525	916	3	13	12
Future Vol, veh/h	5	525	916	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	175	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	565	985	3	17	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	988	0	-	0	1560	985
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	*491	-	-	-	*31	*328
Stage 1	-	-	-	-	*309	-
Stage 2	-	-	-	-	*563	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*491	-	-	-	*30	*328
Mov Cap-2 Maneuver	-	-	-	-	*193	-
Stage 1	-	-	-	-	*306	-
Stage 2	-	-	-	-	*563	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		22.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	* 491	-	-	-	241	
HCM Lane V/C Ratio	0.011	-	-	-	0.133	
HCM Control Delay (s)	12.4	-	-	-	22.2	
HCM Lane LOS	B	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	691	45	16	98	48	77	43	1295	62	239	903	548
Future Volume (vph)	691	45	16	98	48	77	43	1295	62	239	903	548
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		0	90		90	255		350	430		265
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	200			132			170			220		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.961				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1790	0	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.741			0.271			0.082		
Satd. Flow (perm)	3433	1790	0	1380	1863	1583	505	3539	1583	153	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14				243			218			577
Link Speed (mph)		40			30			55			55	
Link Distance (ft)		551			356			1213			939	
Travel Time (s)		9.4			8.1			15.0			11.6	
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	743	48	17	113	55	89	45	1363	65	252	951	577
Shared Lane Traffic (%)												
Lane Group Flow (vph)	743	65	0	113	55	89	45	1363	65	252	951	577
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		36			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases				8		8	2		2	6		6

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.0	10.5		10.0	10.5	10.5	9.0	17.5	17.5	10.0	17.5	17.5
Total Split (s)	30.0	25.0		17.0	12.0	12.0	9.0	50.0	50.0	18.0	59.0	59.0
Total Split (%)	27.3%	22.7%		15.5%	10.9%	10.9%	8.2%	45.5%	45.5%	16.4%	53.6%	53.6%
Maximum Green (s)	25.0	20.0		12.0	7.0	7.0	4.0	42.5	42.5	13.0	51.5	51.5
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.5	5.5	3.0	5.5	5.5
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	7.5	7.5	5.0	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)											7.0	7.0
Flash Dont Walk (s)											17.0	17.0
Pedestrian Calls (#/hr)											0	0
Act Effect Green (s)	24.6	17.7		19.0	6.7	6.7	49.2	42.7	42.7	62.8	53.3	53.3
Actuated g/C Ratio	0.23	0.17		0.18	0.06	0.06	0.46	0.40	0.40	0.59	0.50	0.50
v/c Ratio	0.94	0.21		0.38	0.47	0.27	0.16	0.96	0.09	0.90	0.54	0.53
Control Delay	61.9	32.8		31.9	63.6	2.1	12.7	49.4	0.2	60.3	21.0	3.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	32.8		31.9	63.6	2.1	12.7	49.4	0.2	60.3	21.0	3.5
LOS	E	C		C	E	A	B	D	A	E	C	A
Approach Delay		59.6			28.3			46.1			20.9	
Approach LOS		E			C			D			C	
Queue Length 50th (ft)	268	30		56	38	0	13	498	0	124	249	0
Queue Length 95th (ft)	#387	70		96	78	0	29	#663	0	#276	313	59
Internal Link Dist (ft)		471			276			1133			859	
Turn Bay Length (ft)	220			90		90	255		350	430		265
Base Capacity (vph)	807	362		310	122	331	279	1414	763	287	1767	1079
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.18		0.36	0.45	0.27	0.16	0.96	0.09	0.88	0.54	0.53

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 106.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 37.2

Intersection LOS: D

Intersection Capacity Utilization 90.0%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
 2: Interquest & New Life/Fire Station

ST Baseline
 PM

Splits and Phases: 2: Interquest & New Life/Fire Station



Lanes, Volumes, Timings
7: Interquest Pkwy & Powers Off-Ramp

ST Baseline
PM

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	420		0	0	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	3614	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	3614	1863	3539	0	1863	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		55			55
Link Distance (ft)	927		899			1360
Travel Time (s)	21.1		11.1			16.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		30			30
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	

Lanes, Volumes, Timings
7: Interquest Pkwy & Powers Off-Ramp

ST Baseline
PM



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector Phase	4	4	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.5	24.5	25.5		25.5	25.5
Total Split (s)	45.0	45.0	65.0		65.0	65.0
Total Split (%)	40.9%	40.9%	59.1%		59.1%	59.1%
Maximum Green (s)	38.5	38.5	57.5		57.5	57.5
Yellow Time (s)	4.5	4.5	5.5		5.5	5.5
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5		7.5	7.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	847		819		1280	
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						
Intersection Summary						
Area Type:	Other					
Cycle Length: 110						
Actuated Cycle Length: 18						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.00						
Intersection Signal Delay: 0.0				Intersection LOS: A		
Intersection Capacity Utilization 0.0%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 7: Interquest Pkwy & Powers Off-Ramp



Lanes, Volumes, Timings

JAB

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	732	5	20	578	3	20
Future Vol, veh/h	732	5	20	578	3	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	145	175	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	787	5	22	622	4	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	792	0	1453	787
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	666	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	829	-	144	392
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	511	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	829	-	140	392
Mov Cap-2 Maneuver	-	-	-	-	279	-
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	497	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		15.2	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	279	392	-	-	829	-
HCM Lane V/C Ratio	0.014	0.065	-	-	0.026	-
HCM Control Delay (s)	18.1	14.8	-	-	9.5	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	657	506	12	7	8
Future Vol, veh/h	11	657	506	12	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	175	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	706	544	13	9	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	557	0	-	0	1274	544
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	730	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1014	-	-	-	184	539
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	477	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1014	-	-	-	182	539
Mov Cap-2 Maneuver	-	-	-	-	320	-
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	477	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		14.2		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1014	-	-	-	-	409
HCM Lane V/C Ratio	0.012	-	-	-	-	0.047
HCM Control Delay (s)	8.6	-	-	-	-	14.2
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.1

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	617	18	68	20	10	17	81	789	24	47	90	1071
Future Volume (vph)	617	18	68	20	10	17	81	789	24	47	90	1071
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt		0.881				0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1641	0	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.170				0.247	
Satd. Flow (perm)	3433	1641	0	1770	1863	1583	317	3539	1583	0	460	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		73				224			212			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.78	0.78	0.78	0.93	0.93	0.93	1.00	1.00	1.00
Adj. Flow (vph)	663	19	73	26	13	22	87	848	26	47	90	1071
Shared Lane Traffic (%)												
Lane Group Flow (vph)	663	92	0	26	13	22	87	848	26	0	137	1071
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases						8	2		2	6	6	

ST Baseline + Site AM
Lanes, Volumes, Timings

Synchro 11 Report
JAB

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	977
Future Volume (vph)	977
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	909
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	1.00
Adj. Flow (vph)	977
Shared Lane Traffic (%)	
Lane Group Flow (vph)	977
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4		3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.5	10.5		9.5	10.5	10.5	9.0	17.5	17.5	9.5	9.5	17.5
Total Split (s)	24.0	20.0		15.0	11.0	11.0	10.0	45.0	45.0	10.0	10.0	45.0
Total Split (%)	26.7%	22.2%		16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	11.1%	50.0%
Maximum Green (s)	19.5	13.5		10.5	4.5	4.5	5.0	37.5	37.5	5.5	5.5	37.5
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.0	5.5	5.5	3.5	3.5	5.5
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5		4.5	6.5	6.5	5.0	7.5	7.5		4.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)		7.0										7.0
Flash Dont Walk (s)		24.0										17.0
Pedestrian Calls (#/hr)		0										0
Act Effect Green (s)	19.2	18.8		6.9	4.7	4.7	49.6	41.7	41.7		51.6	43.9
Actuated g/C Ratio	0.21	0.21		0.08	0.05	0.05	0.55	0.46	0.46		0.57	0.49
v/c Ratio	0.90	0.23		0.19	0.13	0.07	0.33	0.52	0.03		0.39	0.62
Control Delay	52.1	12.6		41.7	44.1	0.5	12.5	19.4	0.1		11.9	20.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	52.1	12.6		41.7	44.1	0.5	12.5	19.4	0.1		11.9	20.6
LOS	D	B		D	D	A	B	B	A		B	C
Approach Delay		47.3			27.3			18.3				14.2
Approach LOS		D			C			B				B
Queue Length 50th (ft)	189	7		14	7	0	22	189	0		35	261
Queue Length 95th (ft)	#287	51		34	23	0	43	248	0		63	336
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300			90		90	255		350		430	
Base Capacity (vph)	743	400		206	97	294	262	1640	847		350	1725
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.89	0.23		0.13	0.13	0.07	0.33	0.52	0.03		0.39	0.62

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 21.7

Intersection LOS: C

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	45.0
Total Split (%)	50.0%
Maximum Green (s)	37.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	43.9
Actuated g/C Ratio	0.49
v/c Ratio	0.79
Control Delay	7.6
Queue Delay	0.0
Total Delay	7.6
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	23
Queue Length 95th (ft)	183
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1237
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.79
Intersection Summary	

Queue shown is maximum after two cycles.

Splits and Phases: 2: Interquest & New Life/Fire Station



Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	↗
Traffic Vol, veh/h	0	142	0	1570	2211	59
Future Vol, veh/h	0	142	0	1570	2211	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	95	95	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	163	0	1653	2211	59
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	1106	-	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	205	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	205	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	68.3	0		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 205		-	-		
HCM Lane V/C Ratio	- 0.796		-	-		
HCM Control Delay (s)	- 68.3		-	-		
HCM Lane LOS	- F		-	-		
HCM 95th %tile Q(veh)	- 5.6		-	-		

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↗	↑	↗	↗		↗			↗
Traffic Vol, veh/h	0	734	11	76	980	38	1	0	10	0	0	4
Future Vol, veh/h	0	734	11	76	980	38	1	0	10	0	0	4
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	-	-	145	110	-	155	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	95	95	95	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	789	12	80	1032	40	1	0	13	0	0	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	801	0	0	2004	-	789	-	-	1032
Stage 1	-	-	-	-	-	-	789	-	-	-	-	-
Stage 2	-	-	-	-	-	-	1215	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	822	-	-	44	0	391	0	0	283
Stage 1	0	-	-	-	-	-	384	0	-	0	0	-
Stage 2	0	-	-	-	-	-	222	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	822	-	-	40	-	391	-	-	283
Mov Cap-2 Maneuver	-	-	-	-	-	-	135	-	-	-	-	-
Stage 1	-	-	-	-	-	-	384	-	-	-	-	-
Stage 2	-	-	-	-	-	-	197	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.7			16.1			18		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	135	391	-	-	822	-	-	283				
HCM Lane V/C Ratio	0.009	0.033	-	-	0.097	-	-	0.018				
HCM Control Delay (s)	31.9	14.5	-	-	9.9	-	-	18				
HCM Lane LOS	D	B	-	-	A	-	-	C				
HCM 95th %tile Q(veh)	0	0.1	-	-	0.3	-	-	0.1				

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	569	981	5	76	19
Future Vol, veh/h	12	569	981	5	76	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	205	-	-	155	0	0
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	612	1055	5	92	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1060	0	-	0	1693	1055
Stage 1	-	-	-	-	1055	-
Stage 2	-	-	-	-	638	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	657	-	-	-	102	274
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	526	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	657	-	-	-	100	274
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	526	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		23.3		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	657	-	-	-	277	274
HCM Lane V/C Ratio	0.02	-	-	-	0.331	0.084
HCM Control Delay (s)	10.6	-	-	-	24.3	19.3
HCM Lane LOS	B	-	-	-	C	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4	0.3

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	619	993	7	52	5
Future Vol, veh/h	6	619	993	7	52	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	205	-	-	175	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	666	1068	8	63	6
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1076	0	-	0	1746	1068
Stage 1	-	-	-	-	1068	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	648	-	-	-	95	269
Stage 1	-	-	-	-	330	-
Stage 2	-	-	-	-	504	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	648	-	-	-	94	269
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	504	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		26.8		
HCM LOS	D					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	648	-	-	-	221	269
HCM Lane V/C Ratio	0.01	-	-	-	0.283	0.022
HCM Control Delay (s)	10.6	-	-	-	27.6	18.7
HCM Lane LOS	B	-	-	-	D	C
HCM 95th %tile Q(veh)	0	-	-	-	1.1	0.1

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	617	18	68	20	10	17	81	789	24	47	90	1071
Future Volume (vph)	617	18	68	20	10	17	81	789	24	47	90	1071
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt		0.881				0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1641	0	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.170				0.247	
Satd. Flow (perm)	3433	1641	0	1770	1863	1583	317	3539	1583	0	460	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		73				224			212			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.78	0.78	0.78	0.93	0.93	0.93	1.00	1.00	1.00
Adj. Flow (vph)	663	19	73	26	13	22	87	848	26	47	90	1071
Shared Lane Traffic (%)												
Lane Group Flow (vph)	663	92	0	26	13	22	87	848	26	0	137	1071
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases						8	2		2	6	6	

ST Baseline + Site AM
Lanes, Volumes, Timings

Synchro 11 Report
JAB

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	977
Future Volume (vph)	977
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	909
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	1.00
Adj. Flow (vph)	977
Shared Lane Traffic (%)	
Lane Group Flow (vph)	977
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4		3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.5	10.5		9.5	10.5	10.5	9.0	17.5	17.5	9.5	9.5	17.5
Total Split (s)	24.0	20.0		15.0	11.0	11.0	10.0	45.0	45.0	10.0	10.0	45.0
Total Split (%)	26.7%	22.2%		16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	11.1%	50.0%
Maximum Green (s)	19.5	13.5		10.5	4.5	4.5	5.0	37.5	37.5	5.5	5.5	37.5
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.0	5.5	5.5	3.5	3.5	5.5
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5		4.5	6.5	6.5	5.0	7.5	7.5		4.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)		7.0										7.0
Flash Dont Walk (s)		24.0										17.0
Pedestrian Calls (#/hr)		0										0
Act Effect Green (s)	19.2	18.8		6.9	4.7	4.7	49.6	41.7	41.7		51.6	43.9
Actuated g/C Ratio	0.21	0.21		0.08	0.05	0.05	0.55	0.46	0.46		0.57	0.49
v/c Ratio	0.90	0.23		0.19	0.13	0.07	0.33	0.52	0.03		0.39	0.62
Control Delay	52.1	12.6		41.7	44.1	0.5	12.5	19.4	0.1		11.9	20.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	52.1	12.6		41.7	44.1	0.5	12.5	19.4	0.1		11.9	20.6
LOS	D	B		D	D	A	B	B	A		B	C
Approach Delay		47.3			27.3			18.3				14.2
Approach LOS		D			C			B				B
Queue Length 50th (ft)	189	7		14	7	0	22	189	0		35	261
Queue Length 95th (ft)	#287	51		34	23	0	43	248	0		63	336
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300			90		90	255		350		430	
Base Capacity (vph)	743	400		206	97	294	262	1640	847		350	1725
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.89	0.23		0.13	0.13	0.07	0.33	0.52	0.03		0.39	0.62

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 21.7

Intersection LOS: C

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	45.0
Total Split (%)	50.0%
Maximum Green (s)	37.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effect Green (s)	43.9
Actuated g/C Ratio	0.49
v/c Ratio	0.79
Control Delay	7.6
Queue Delay	0.0
Total Delay	7.6
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	23
Queue Length 95th (ft)	183
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1237
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.79
Intersection Summary	

Queue shown is maximum after two cycles.

Splits and Phases: 2: Interquest & New Life/Fire Station



Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	↗
Traffic Vol, veh/h	0	164	0	2341	2026	173
Future Vol, veh/h	0	164	0	2341	2026	173
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	198	0	2341	2026	173
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	1013	-	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	237	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	237	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	67	0	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	237	-	-		
HCM Lane V/C Ratio	-	0.834	-	-		
HCM Control Delay (s)	-	67	-	-		
HCM Lane LOS	-	F	-	-		
HCM 95th %tile Q(veh)	-	6.5	-	-		

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑	↑	↑		↑			↑
Traffic Vol, veh/h	0	890	5	21	688	118	5	0	20	0	0	8
Future Vol, veh/h	0	890	5	21	688	118	5	0	20	0	0	8
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	-	-	145	110	-	155	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	957	5	23	740	127	6	0	26	0	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	962	0	0	1812	-	957	-	-	740
Stage 1	-	-	-	-	-	-	957	-	-	-	-	-
Stage 2	-	-	-	-	-	-	855	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	715	-	-	61	0	313	0	0	417
Stage 1	0	-	-	-	-	-	310	0	-	0	0	-
Stage 2	0	-	-	-	-	-	353	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	715	-	-	58	-	313	-	-	417
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	-	-	-	-	-
Stage 1	-	-	-	-	-	-	310	-	-	-	-	-
Stage 2	-	-	-	-	-	-	333	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			19.3			13.9		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	173		313	-	-	715	-	-	417			
HCM Lane V/C Ratio	0.037		0.082	-	-	0.032	-	-	0.025			
HCM Control Delay (s)	26.6		17.5	-	-	10.2	-	-	13.9			
HCM Lane LOS	D		C	-	-	B	-	-	B			
HCM 95th %tile Q(veh)	0.1		0.3	-	-	0.1	-	-	0.1			

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	842	713	23	32	8
Future Vol, veh/h	24	842	713	23	32	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	205	-	-	155	0	0
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	905	767	25	39	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	792	0	-	0	1724	767
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	957	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	829	-	-	-	98	402
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	373	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	829	-	-	-	95	402
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	373	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		18.5		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	829	-	-	-	285	402
HCM Lane V/C Ratio	0.031	-	-	-	0.135	0.024
HCM Control Delay (s)	9.5	-	-	-	19.6	14.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	843	711	35	35	3
Future Vol, veh/h	19	843	711	35	35	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	205	-	-	175	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	906	765	38	45	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	803	0	-	0	1711	765
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	946	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	821	-	-	-	100	403
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	377	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	821	-	-	-	98	403
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	377	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		23.5		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	821	-	-	-	231	403
HCM Lane V/C Ratio	0.025	-	-	-	0.194	0.01
HCM Control Delay (s)	9.5	-	-	-	24.3	14
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7	0

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

2050 Background
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	430	18	18	20	10	17	40	625	24	88	859	825
Future Volume (vph)	430	18	18	20	10	17	40	625	24	88	859	825
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		0	90		90	255		350	430		265
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	200			132			170			220		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.925				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1723	0	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.255			0.348		
Satd. Flow (perm)	3433	1723	0	1770	1863	1583	475	3539	1583	648	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19				224			212			868
Link Speed (mph)		40			30			55			55	
Link Distance (ft)		551			356			1213			939	
Travel Time (s)		9.4			8.1			15.0			11.6	
Peak Hour Factor	0.93	0.93	0.93	0.78	0.78	0.78	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	462	19	19	26	13	22	43	672	26	93	904	868
Shared Lane Traffic (%)												
Lane Group Flow (vph)	462	38	0	26	13	22	43	672	26	93	904	868
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		36			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8	2		2	6		6

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

2050 Background
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	10.5		9.5	10.5	10.5	9.0	17.5	17.5	9.5	17.5	17.5
Total Split (s)	24.0	20.0		15.0	11.0	11.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (%)	26.7%	22.2%		16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%
Maximum Green (s)	19.5	13.5		10.5	4.5	4.5	5.0	37.5	37.5	5.5	37.5	37.5
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.0	5.5	5.5	3.5	5.5	5.5
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5		4.5	6.5	6.5	5.0	7.5	7.5	4.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0									7.0	7.0
Flash Dont Walk (s)		24.0									17.0	17.0
Pedestrian Calls (#/hr)		0									0	0
Act Effect Green (s)	16.8	16.7		6.9	5.3	5.3	52.7	45.9	45.9	54.5	48.1	48.1
Actuated g/C Ratio	0.19	0.19		0.08	0.06	0.06	0.59	0.51	0.51	0.61	0.53	0.53
v/c Ratio	0.72	0.11		0.19	0.12	0.07	0.12	0.37	0.03	0.20	0.48	0.69
Control Delay	41.1	19.7		41.7	43.1	0.5	9.5	16.3	0.0	9.3	16.9	4.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	19.7		41.7	43.1	0.5	9.5	16.3	0.0	9.3	16.9	4.4
LOS	D	B		D	D	A	A	B	A	A	B	A
Approach Delay		39.5			27.1			15.4			10.7	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)	127	8		14	7	0	10	141	0	22	206	0
Queue Length 95th (ft)	173	36		34	23	0	25	189	0	m41	269	78
Internal Link Dist (ft)		471			276			1133			859	
Turn Bay Length (ft)	220			90		90	255		350	430		265
Base Capacity (vph)	743	346		206	110	304	355	1804	911	464	1889	1249
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.11		0.13	0.12	0.07	0.12	0.37	0.03	0.20	0.48	0.69

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 16.7

Intersection LOS: B

Intersection Capacity Utilization 73.6%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Interquest & New Life/Fire Station



Lanes, Volumes, Timings
7: Interquest Pkwy & Powers Off-Ramp

2050 Background
AM

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	 		 			 
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	420		0	0	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	3614	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	3614	1863	3539	0	1863	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		55			55
Link Distance (ft)	927		899			1360
Travel Time (s)	21.1		11.1			16.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		30			30
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	

Lanes, Volumes, Timings

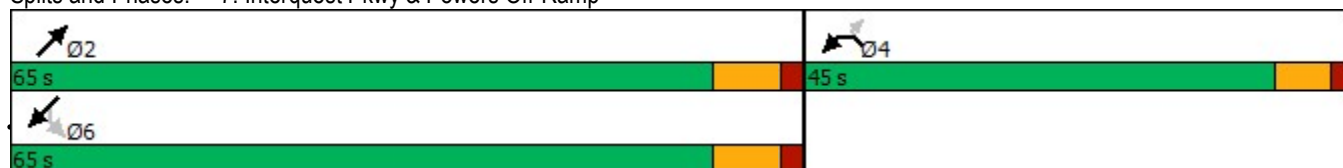
7: Interquest Pkwy & Powers Off-Ramp

2050 Background
AM



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector Phase	4	4	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.5	24.5	25.5		25.5	25.5
Total Split (s)	45.0	45.0	65.0		65.0	65.0
Total Split (%)	40.9%	40.9%	59.1%		59.1%	59.1%
Maximum Green (s)	38.5	38.5	57.5		57.5	57.5
Yellow Time (s)	4.5	4.5	5.5		5.5	5.5
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5		7.5	7.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		None	None
Act Effect Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	847		819		1280	
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						
Intersection Summary						
Area Type:	Other					
Cycle Length: 110						
Actuated Cycle Length: 18						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.00						
Intersection Signal Delay: 0.0				Intersection LOS: A		
Intersection Capacity Utilization 0.0%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 7: Interquest Pkwy & Powers Off-Ramp



Lanes, Volumes, Timings

JAB

Intersection								
Int Delay, s/veh	0.6							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑	↗	↖	↑	↖	↗		
Traffic Vol, veh/h	466	10	75	789	1	10		
Future Vol, veh/h	466	10	75	789	1	10		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	Stop		
Storage Length	-	145	175	-	0	0		
Veh in Median Storage, #	0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	93	93	95	95	78	78		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	501	11	79	831	1	13		
Major/Minor	Major1		Major2		Minor1			
Conflicting Flow All	0	0	512	0	1490	501		
Stage 1	-	-	-	-	501	-		
Stage 2	-	-	-	-	989	-		
Critical Hdwy	-	-	4.12	-	6.42	6.22		
Critical Hdwy Stg 1	-	-	-	-	5.42	-		
Critical Hdwy Stg 2	-	-	-	-	5.42	-		
Follow-up Hdwy	-	-	2.218	-	3.518	3.318		
Pot Cap-1 Maneuver	-	-	1053	-	55	570		
Stage 1	-	-	-	-	609	-		
Stage 2	-	-	-	-	327	-		
Platoon blocked, %	-	-		-	1			
Mov Cap-1 Maneuver	-	-	1053	-	51	570		
Mov Cap-2 Maneuver	-	-	-	-	205	-		
Stage 1	-	-	-	-	609	-		
Stage 2	-	-	-	-	302	-		
Approach	EB		WB		NB			
HCM Control Delay, s	0		0.8		12.5			
HCM LOS	B							
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBT	EBR	WBL	WBT
Capacity (veh/h)	205		570		-	-	1053	-
HCM Lane V/C Ratio	0.006		0.022		-	-	0.075	-
HCM Control Delay (s)	22.7		11.5		-	-	8.7	-
HCM Lane LOS	C		B		-	-	A	-
HCM 95th %tile Q(veh)	0		0.1		-	-	0.2	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	476	801	3	13	12
Future Vol, veh/h	5	476	801	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	175	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	512	861	3	17	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	864	0	-	0	1383	861
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	*643	-	-	-	*81	*430
Stage 1	-	-	-	-	*405	-
Stage 2	-	-	-	-	*595	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*643	-	-	-	*80	*430
Mov Cap-2 Maneuver	-	-	-	-	*254	-
Stage 1	-	-	-	-	*402	-
Stage 2	-	-	-	-	*595	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		17.7		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	* 643	-	-	-	316	
HCM Lane V/C Ratio	0.008	-	-	-	0.101	
HCM Control Delay (s)	10.6	-	-	-	17.7	
HCM Lane LOS	B	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background

PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	590	45	16	98	50	77	27	1101	62	238	743	456
Future Volume (vph)	590	45	16	98	50	77	27	1101	62	238	743	456
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		0	90		90	255		350	430		265
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	200			132			170			220		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.961				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1790	0	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.715			0.356			0.090		
Satd. Flow (perm)	3433	1790	0	1332	1863	1583	663	3539	1583	168	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14				243			218			480
Link Speed (mph)		40			30			55			55	
Link Distance (ft)		551			356			1213			939	
Travel Time (s)		9.4			8.1			15.0			11.6	
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	634	48	17	113	57	89	28	1159	65	251	782	480
Shared Lane Traffic (%)												
Lane Group Flow (vph)	634	65	0	113	57	89	28	1159	65	251	782	480
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		36			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases				8		8	2		2	6		6

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.0	10.5		10.0	10.5	10.5	9.0	17.5	17.5	10.0	17.5	17.5
Total Split (s)	30.0	25.0		21.0	16.0	16.0	9.0	44.0	44.0	20.0	55.0	55.0
Total Split (%)	27.3%	22.7%		19.1%	14.5%	14.5%	8.2%	40.0%	40.0%	18.2%	50.0%	50.0%
Maximum Green (s)	25.0	20.0		16.0	11.0	11.0	4.0	36.5	36.5	15.0	47.5	47.5
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.5	5.5	3.0	5.5	5.5
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	7.5	7.5	5.0	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)											7.0	7.0
Flash Dont Walk (s)											17.0	17.0
Pedestrian Calls (#/hr)											0	0
Act Effect Green (s)	22.4	21.1		17.1	8.4	8.4	43.7	37.1	37.1	57.9	50.4	50.4
Actuated g/C Ratio	0.22	0.21		0.17	0.08	0.08	0.43	0.37	0.37	0.57	0.50	0.50
v/c Ratio	0.83	0.17		0.42	0.37	0.25	0.08	0.89	0.09	0.82	0.44	0.47
Control Delay	49.3	30.2		30.6	53.5	1.7	13.5	42.7	0.2	46.7	19.8	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	30.2		30.6	53.5	1.7	13.5	42.7	0.2	46.7	19.8	3.4
LOS	D	C		C	D	A	B	D	A	D	B	A
Approach Delay		47.5			25.7			39.9			19.1	
Approach LOS		D			C			D			B	
Queue Length 50th (ft)	213	29		53	38	0	8	410	0	116	198	0
Queue Length 95th (ft)	#289	69		90	76	0	23	#576	0	#253	265	59
Internal Link Dist (ft)		471			276			1133			859	
Turn Bay Length (ft)	220			90		90	255		350	430		265
Base Capacity (vph)	860	401		375	205	390	330	1295	717	337	1759	1028
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.16		0.30	0.28	0.23	0.08	0.89	0.09	0.74	0.44	0.47

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 101.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 31.9

Intersection LOS: C

Intersection Capacity Utilization 81.7%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Interquest & New Life/Fire Station



Lanes, Volumes, Timings
7: Interquest Pkwy & Powers Off-Ramp

2050 Background
PM

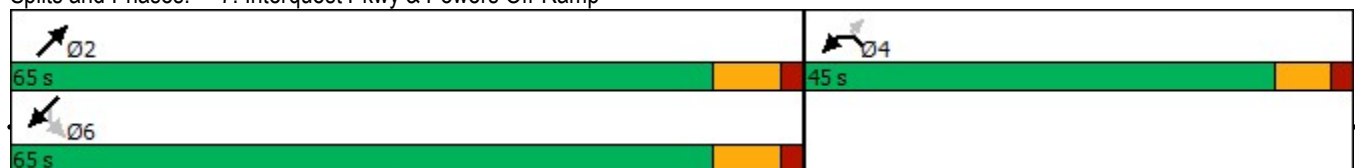
						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	 		 			 
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	420		0	0	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	3614	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	3614	1863	3539	0	1863	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		55			55
Link Distance (ft)	927		899			1360
Travel Time (s)	21.1		11.1			16.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		30			30
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	

Lanes, Volumes, Timings
7: Interquest Pkwy & Powers Off-Ramp

2050 Background
PM

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector Phase	4	4	2		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.5	24.5	25.5		25.5	25.5
Total Split (s)	45.0	45.0	65.0		65.0	65.0
Total Split (%)	40.9%	40.9%	59.1%		59.1%	59.1%
Maximum Green (s)	38.5	38.5	57.5		57.5	57.5
Yellow Time (s)	4.5	4.5	5.5		5.5	5.5
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5		7.5	7.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)	847		819		1280	
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						
Intersection Summary						
Area Type:	Other					
Cycle Length: 110						
Actuated Cycle Length: 18						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.00						
Intersection Signal Delay: 0.0				Intersection LOS: A		
Intersection Capacity Utilization 0.0%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 7: Interquest Pkwy & Powers Off-Ramp



Lanes, Volumes, Timings

JAB

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	651	5	20	488	3	20
Future Vol, veh/h	651	5	20	488	3	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	145	175	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	92	92	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	700	5	22	530	4	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	705	0	1274	700
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	574	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	893	-	184	439
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	893	-	179	439
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	549	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		14.1	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	318	439	-	-	893	-
HCM Lane V/C Ratio	0.012	0.058	-	-	0.024	-
HCM Control Delay (s)	16.5	13.7	-	-	9.1	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	656	516	12	7	8
Future Vol, veh/h	11	656	516	12	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	175	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	92	92	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	705	561	13	9	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	574	0	-	0	1290	561
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	729	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	999	-	-	-	180	527
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	477	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	999	-	-	-	178	527
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	477	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		14.4		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	999	-	-	-	402	
HCM Lane V/C Ratio	0.012	-	-	-	0.048	
HCM Control Delay (s)	8.6	-	-	-	14.4	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

2050 Background + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	506	19	68	20	10	17	70	625	24	47	89	918
Future Volume (vph)	506	19	68	20	10	17	70	625	24	47	89	918
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt		0.882				0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1643	0	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.220				0.340	
Satd. Flow (perm)	3433	1643	0	1770	1863	1583	410	3539	1583	0	633	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		73				224			212			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.78	0.78	0.78	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	544	20	73	26	13	22	75	672	26	49	94	966
Shared Lane Traffic (%)												
Lane Group Flow (vph)	544	93	0	26	13	22	75	672	26	0	143	966
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases						8	2		2	6	6	

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
AM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	835
Future Volume (vph)	835
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	879
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	879
Shared Lane Traffic (%)	
Lane Group Flow (vph)	879
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4		3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.5	10.5		9.5	10.5	10.5	9.0	17.5	17.5	9.5	9.5	17.5
Total Split (s)	24.0	20.0		15.0	11.0	11.0	10.0	45.0	45.0	10.0	10.0	45.0
Total Split (%)	26.7%	22.2%		16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	11.1%	50.0%
Maximum Green (s)	19.5	13.5		10.5	4.5	4.5	5.0	37.5	37.5	5.5	5.5	37.5
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.0	5.5	5.5	3.5	3.5	5.5
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5		4.5	6.5	6.5	5.0	7.5	7.5		4.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)		7.0										7.0
Flash Dont Walk (s)		24.0										17.0
Pedestrian Calls (#/hr)		0										0
Act Effect Green (s)	18.0	17.6		6.9	4.9	4.9	50.7	42.9	42.9		52.8	45.1
Actuated g/C Ratio	0.20	0.20		0.08	0.05	0.05	0.56	0.48	0.48		0.59	0.50
v/c Ratio	0.79	0.24		0.19	0.13	0.07	0.24	0.40	0.03		0.32	0.55
Control Delay	43.2	12.9		41.7	43.8	0.5	10.8	17.4	0.1		10.4	18.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	43.2	12.9		41.7	43.8	0.5	10.8	17.4	0.1		10.4	18.9
LOS	D	B		D	D	A	B	B	A		B	B
Approach Delay		38.8			27.3			16.2				12.0
Approach LOS		D			C			B				B
Queue Length 50th (ft)	150	8		14	7	0	19	141	0		36	226
Queue Length 95th (ft)	206	51		34	23	0	38	189	0		65	293
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300			90		90	255		350		430	
Base Capacity (vph)	743	383		206	102	298	311	1686	865		446	1772
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.73	0.24		0.13	0.13	0.07	0.24	0.40	0.03		0.32	0.55

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 18.1

Intersection LOS: B

Intersection Capacity Utilization 74.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Interquest & New Life/Fire Station



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	45.0
Total Split (%)	50.0%
Maximum Green (s)	37.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	45.1
Actuated g/C Ratio	0.50
v/c Ratio	0.71
Control Delay	4.7
Queue Delay	0.0
Total Delay	4.7
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	77
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1231
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.71
Intersection Summary	

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	↗
Traffic Vol, veh/h	0	142	0	1148	1852	59
Future Vol, veh/h	0	142	0	1148	1852	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	163	0	1208	1949	62
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	975	-	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	251	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	251	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	42.6	0		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 251		-	-		
HCM Lane V/C Ratio	- 0.65		-	-		
HCM Control Delay (s)	- 42.6		-	-		
HCM Lane LOS	- E		-	-		
HCM 95th %tile Q(veh)	- 4.1		-	-		

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑	↗	↖		↗			↗
Traffic Vol, veh/h	0	593	11	76	801	38	1	0	10	0	0	4
Future Vol, veh/h	0	593	11	76	801	38	1	0	10	0	0	4
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	-	-	145	110	-	155	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	95	95	95	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	638	12	80	843	40	1	0	13	0	0	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	650	0	0	1664	-	638	-	-	843
Stage 1	-	-	-	-	-	-	638	-	-	-	-	-
Stage 2	-	-	-	-	-	-	1026	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	936	-	-	77	0	477	0	0	364
Stage 1	0	-	-	-	-	-	465	0	-	0	0	-
Stage 2	0	-	-	-	-	-	283	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	936	-	-	71	-	477	-	-	364
Mov Cap-2 Maneuver	-	-	-	-	-	-	179	-	-	-	-	-
Stage 1	-	-	-	-	-	-	465	-	-	-	-	-
Stage 2	-	-	-	-	-	-	255	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			13.9			15		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	179	477	-	-	936	-	-	364				
HCM Lane V/C Ratio	0.007	0.027	-	-	0.085	-	-	0.014				
HCM Control Delay (s)	25.3	12.8	-	-	9.2	-	-	15				
HCM Lane LOS	D	B	-	-	A	-	-	C				
HCM 95th %tile Q(veh)	0	0.1	-	-	0.3	-	-	0				

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	528	801	5	76	19
Future Vol, veh/h	12	528	801	5	76	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	205	-	-	155	0	0
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	574	861	5	92	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	866	0	-	0	1461	861
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	600	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	777	-	-	-	142	355
Stage 1	-	-	-	-	414	-
Stage 2	-	-	-	-	548	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	777	-	-	-	140	355
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	407	-
Stage 2	-	-	-	-	548	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		19		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	777	-	-	-	334	355
HCM Lane V/C Ratio	0.017	-	-	-	0.274	0.064
HCM Control Delay (s)	9.7	-	-	-	19.8	15.8
HCM Lane LOS	A	-	-	-	C	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1	0.2

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	488	813	7	52	5
Future Vol, veh/h	6	488	813	7	52	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	205	-	-	175	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	93	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	530	874	8	67	6
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	882	0	-	0	1418	874
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	544	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	*643	-	-	-	*71	*430
Stage 1	-	-	-	-	*405	-
Stage 2	-	-	-	-	*582	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*643	-	-	-	*71	*430
Mov Cap-2 Maneuver	-	-	-	-	*248	-
Stage 1	-	-	-	-	*401	-
Stage 2	-	-	-	-	*582	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		23.8		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 643	-	-	-	248	430
HCM Lane V/C Ratio	0.01	-	-	-	0.269	0.015
HCM Control Delay (s)	10.7	-	-	-	24.8	13.5
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	1.1	0
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	645	45	44	98	52	77	126	1101	62	30	239	791
Future Volume (vph)	645	45	44	98	52	77	126	1101	62	30	239	791
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt		0.926				0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1725	0	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.695			0.320				0.088	
Satd. Flow (perm)	3433	1725	0	1295	1863	1583	596	3539	1583	0	164	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		37				243			218			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	694	48	47	113	60	89	133	1159	65	32	252	833
Shared Lane Traffic (%)												
Lane Group Flow (vph)	694	95	0	113	60	89	133	1159	65	0	284	833
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases				8		8	2		2	6	6	

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	487
Future Volume (vph)	487
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	513
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	513
Shared Lane Traffic (%)	
Lane Group Flow (vph)	513
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

2050 Background + Site
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4		3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0		5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	10.0	10.5		10.0	10.5	10.5	9.0	17.5	17.5	10.0	10.0	17.5
Total Split (s)	34.0	20.0		26.0	12.0	12.0	9.0	47.0	47.0	17.0	17.0	55.0
Total Split (%)	30.9%	18.2%		23.6%	10.9%	10.9%	8.2%	42.7%	42.7%	15.5%	15.5%	50.0%
Maximum Green (s)	29.0	15.0		21.0	7.0	7.0	4.0	39.5	39.5	12.0	12.0	47.5
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.5	5.5	3.0	3.0	5.5
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	7.5	7.5		5.0	7.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)												7.0
Flash Dont Walk (s)												17.0
Pedestrian Calls (#/hr)												0
Act Effect Green (s)	26.3	21.0		16.5	7.2	7.2	48.9	41.3	41.3		63.7	51.0
Actuated g/C Ratio	0.24	0.19		0.15	0.07	0.07	0.44	0.38	0.38		0.58	0.46
v/c Ratio	0.85	0.27		0.47	0.50	0.27	0.42	0.87	0.09		0.91	0.51
Control Delay	50.4	24.7		34.3	63.8	2.0	19.7	41.2	0.2		61.8	23.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	50.4	24.7		34.3	63.8	2.0	19.7	41.2	0.2		61.8	23.1
LOS	D	C		C	E	A	B	D	A		E	C
Approach Delay		47.3			30.1			37.2				23.7
Approach LOS		D			C			D				C
Queue Length 50th (ft)	239	33		53	41	0	45	406	0		~172	225
Queue Length 95th (ft)	302	81		90	83	0	78	#539	0		#344	286
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300			90		90	255		350		430	
Base Capacity (vph)	905	377		409	126	334	320	1327	730		312	1640
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.77	0.25		0.28	0.48	0.27	0.42	0.87	0.09		0.91	0.51

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 10 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 33.3
 Intersection Capacity Utilization 87.3%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service E

~ Volume exceeds capacity, queue is theoretically infinite.

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

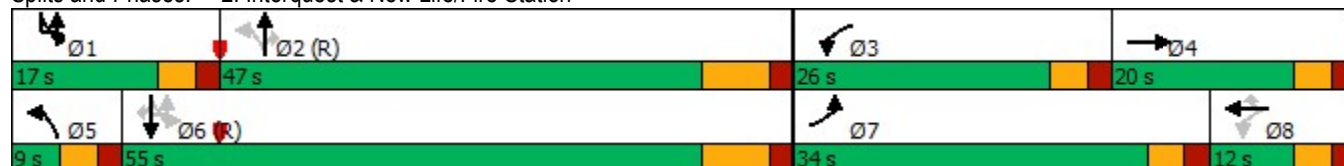
Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	55.0
Total Split (%)	50.0%
Maximum Green (s)	47.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	51.0
Actuated g/C Ratio	0.46
v/c Ratio	0.51
Control Delay	3.7
Queue Delay	0.0
Total Delay	3.7
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	60
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1009
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.51
Intersection Summary	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Interquest & New Life/Fire Station



Lanes, Volumes, Timings
1: Interquest & RIRO Access

2050 Background + Site
PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	0	173	0	1823	1517	164
Future Volume (vph)	0	173	0	1823	1517	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			260
Storage Lanes	0	1	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.865				0.850
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3539	1583
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3539	1583
Link Speed (mph)	25			55	55	
Link Distance (ft)	496			939	699	
Travel Time (s)	13.5			11.6	8.7	
Peak Hour Factor	0.87	0.87	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	199	0	1919	1597	173
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	199	0	1919	1597	173
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			30	30	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.3%			ICU Level of Service B		
Analysis Period (min)	15					

Lanes, Volumes, Timings
3: PPCC & New Life

2050 Background + Site
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	734	5	21	526	118	5	0	20	0	0	8
Future Volume (vph)	0	734	5	21	526	118	5	0	20	0	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		145	110		155	0		0	0		0
Storage Lanes	0		1	1		1	1		1	0		1
Taper Length (ft)	160			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.865
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	1863	1583	1770	1863	1583	1770	0	1583	0	0	1611
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	1863	1583	1770	1863	1583	1770	0	1583	0	0	1611
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		475			551			347			251	
Travel Time (s)		8.1			9.4			9.5			5.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	0	789	5	23	566	127	6	0	26	0	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	789	5	23	566	127	6	0	26	0	0	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			16			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	48.6%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings
4: New Life & Somerstone

2050 Background + Site
PM

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	35	688	522	17	51	1
Future Volume (vph)	35	688	522	17	51	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205			155	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	160				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Link Speed (mph)		40	40		25	
Link Distance (ft)		523	475		347	
Travel Time (s)		8.9	8.1		9.5	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.83	0.83
Adj. Flow (vph)	38	740	567	18	61	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	740	567	18	61	1
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.2%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
5: New Life & Running Water

2050 Background + Site
PM

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	24	691	500	23	32	8
Future Volume (vph)	24	691	500	23	32	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205			175	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	160				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Link Speed (mph)		40	40		25	
Link Distance (ft)		656	523		391	
Travel Time (s)		11.2	8.9		10.7	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.78	0.78
Adj. Flow (vph)	26	743	543	25	41	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	743	543	25	41	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.4%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	617	18	68	20	10	17	81	789	24	47	90	1071
Future Volume (vph)	617	18	68	20	10	17	81	789	24	47	90	1071
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.170				0.247	
Satd. Flow (perm)	3433	1863	1583	1770	1863	1583	317	3539	1583	0	460	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			170			224			212			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.78	0.78	0.78	0.93	0.93	0.93	1.00	1.00	1.00
Adj. Flow (vph)	663	19	73	26	13	22	87	848	26	47	90	1071
Shared Lane Traffic (%)												
Lane Group Flow (vph)	663	19	73	26	13	22	87	848	26	0	137	1071
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases			4			8	2		2	6	6	

ST Baseline + Site AM
Lanes, Volumes, Timings

Synchro 11 Report
JAB

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	977
Future Volume (vph)	977
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	909
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	1.00
Adj. Flow (vph)	977
Shared Lane Traffic (%)	
Lane Group Flow (vph)	977
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4	4	3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0	5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.5	10.5	10.5	9.5	10.5	10.5	9.0	17.5	17.5	9.5	9.5	17.5
Total Split (s)	24.0	20.0	20.0	15.0	11.0	11.0	10.0	45.0	45.0	10.0	10.0	45.0
Total Split (%)	26.7%	22.2%	22.2%	16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	11.1%	50.0%
Maximum Green (s)	19.5	13.5	13.5	10.5	4.5	4.5	5.0	37.5	37.5	5.5	5.5	37.5
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.0	5.5	5.5	3.5	3.5	5.5
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5	6.5	4.5	6.5	6.5	5.0	7.5	7.5		4.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)		7.0	7.0									7.0
Flash Dont Walk (s)		24.0	24.0									17.0
Pedestrian Calls (#/hr)		0	0									0
Act Effect Green (s)	19.2	18.8	18.8	6.9	4.7	4.7	49.6	41.7	41.7		51.6	43.9
Actuated g/C Ratio	0.21	0.21	0.21	0.08	0.05	0.05	0.55	0.46	0.46		0.57	0.49
v/c Ratio	0.90	0.05	0.16	0.19	0.13	0.07	0.33	0.52	0.03		0.39	0.62
Control Delay	52.1	29.8	0.7	41.7	44.1	0.5	12.5	19.4	0.1		11.9	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	52.1	29.8	0.7	41.7	44.1	0.5	12.5	19.4	0.1		11.9	20.6
LOS	D	C	A	D	D	A	B	B	A		B	C
Approach Delay		46.5			27.3			18.3				14.2
Approach LOS		D			C			B				B
Queue Length 50th (ft)	189	7	0	14	7	0	22	189	0		35	261
Queue Length 95th (ft)	#287	29	0	34	23	0	43	248	0		63	336
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300		220	90		90	255		350		430	
Base Capacity (vph)	743	388	464	206	97	294	262	1640	847		350	1725
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.89	0.05	0.16	0.13	0.13	0.07	0.33	0.52	0.03		0.39	0.62

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 21.6

Intersection LOS: C

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

ST Baseline + Site
AM

Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	45.0
Total Split (%)	50.0%
Maximum Green (s)	37.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	43.9
Actuated g/C Ratio	0.49
v/c Ratio	0.79
Control Delay	7.6
Queue Delay	0.0
Total Delay	7.6
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	23
Queue Length 95th (ft)	183
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1237
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.79
Intersection Summary	

Queue shown is maximum after two cycles.

Splits and Phases: 2: Interquest & New Life/Fire Station



Lanes, Volumes, Timings
1: Interquest & RIRO Access

ST Baseline + Site
PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	0	164	0	2341	2026	173
Future Volume (vph)	0	164	0	2341	2026	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			260
Storage Lanes	0	1	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.865				0.850
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3539	1583
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3539	1583
Link Speed (mph)	25			55	55	
Link Distance (ft)	496			939	699	
Travel Time (s)	13.5			11.6	8.7	
Peak Hour Factor	0.83	0.83	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	198	0	2341	2026	173
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	198	0	2341	2026	173
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			30	30	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	72.8%			ICU Level of Service C		
Analysis Period (min)	15					

Lanes, Volumes, Timings
3: PPCC & New Life

ST Baseline + Site
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	890	5	21	688	118	5	0	20	0	0	8
Future Volume (vph)	0	890	5	21	688	118	5	0	20	0	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		145	110		155	0		0	0		0
Storage Lanes	0		1	1		1	1		1	0		1
Taper Length (ft)	160			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.865
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	1863	1583	1770	1863	1583	1770	0	1583	0	0	1611
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	1863	1583	1770	1863	1583	1770	0	1583	0	0	1611
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		475			551			347			251	
Travel Time (s)		8.1			9.4			9.5			5.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	0	957	5	23	740	127	6	0	26	0	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	957	5	23	740	127	6	0	26	0	0	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			16			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 56.8%	ICU Level of Service B											
Analysis Period (min) 15												

Lanes, Volumes, Timings
4: New Life & Somerstone

ST Baseline + Site
PM

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	24	842	713	23	32	8
Future Volume (vph)	24	842	713	23	32	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205			155	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	160				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Link Speed (mph)		40	40		25	
Link Distance (ft)		523	475		347	
Travel Time (s)		8.9	8.1		9.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	26	905	767	25	39	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	905	767	25	39	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	54.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
5: New Life & Running Water

ST Baseline + Site
PM

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	19	843	711	35	35	3
Future Volume (vph)	19	843	711	35	35	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205			175	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	160				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Link Speed (mph)		40	40		25	
Link Distance (ft)		656	523		391	
Travel Time (s)		11.2	8.9		10.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.78	0.78
Adj. Flow (vph)	20	906	765	38	45	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	906	765	38	45	4
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	54.4%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

2: Interquest & New Life/Fire Station

2050 Background + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	506	19	68	20	10	17	70	625	24	47	89	918
Future Volume (vph)	506	19	68	20	10	17	70	625	24	47	89	918
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.220				0.340	
Satd. Flow (perm)	3433	1863	1583	1770	1863	1583	410	3539	1583	0	633	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			170			224			212			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.78	0.78	0.78	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	544	20	73	26	13	22	75	672	26	49	94	966
Shared Lane Traffic (%)												
Lane Group Flow (vph)	544	20	73	26	13	22	75	672	26	0	143	966
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases			4			8	2		2	6	6	

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
AM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	835
Future Volume (vph)	835
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	879
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	879
Shared Lane Traffic (%)	
Lane Group Flow (vph)	879
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4	4	3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0	5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.5	10.5	10.5	9.5	10.5	10.5	9.0	17.5	17.5	9.5	9.5	17.5
Total Split (s)	24.0	20.0	20.0	15.0	11.0	11.0	10.0	45.0	45.0	10.0	10.0	45.0
Total Split (%)	26.7%	22.2%	22.2%	16.7%	12.2%	12.2%	11.1%	50.0%	50.0%	11.1%	11.1%	50.0%
Maximum Green (s)	19.5	13.5	13.5	10.5	4.5	4.5	5.0	37.5	37.5	5.5	5.5	37.5
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.0	5.5	5.5	3.5	3.5	5.5
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5	6.5	4.5	6.5	6.5	5.0	7.5	7.5		4.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)		7.0	7.0									7.0
Flash Dont Walk (s)		24.0	24.0									17.0
Pedestrian Calls (#/hr)		0	0									0
Act Effect Green (s)	18.0	17.6	17.6	6.9	4.9	4.9	50.7	42.9	42.9		52.8	45.1
Actuated g/C Ratio	0.20	0.20	0.20	0.08	0.05	0.05	0.56	0.48	0.48		0.59	0.50
v/c Ratio	0.79	0.05	0.16	0.19	0.13	0.07	0.24	0.40	0.03		0.32	0.55
Control Delay	43.2	29.9	0.8	41.7	43.8	0.5	10.8	17.4	0.1		10.4	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	43.2	29.9	0.8	41.7	43.8	0.5	10.8	17.4	0.1		10.4	18.9
LOS	D	C	A	D	D	A	B	B	A		B	B
Approach Delay		37.9			27.3			16.2				12.0
Approach LOS		D			C			B				B
Queue Length 50th (ft)	150	8	0	14	7	0	19	141	0		36	226
Queue Length 95th (ft)	206	30	0	34	23	0	38	189	0		65	293
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300		220	90		90	255		350		430	
Base Capacity (vph)	743	368	449	206	102	298	311	1686	865		446	1772
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.73	0.05	0.16	0.13	0.13	0.07	0.24	0.40	0.03		0.32	0.55

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 18.0

Intersection LOS: B

Intersection Capacity Utilization 74.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Interquest & New Life/Fire Station



Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	45.0
Total Split (%)	50.0%
Maximum Green (s)	37.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effect Green (s)	45.1
Actuated g/C Ratio	0.50
v/c Ratio	0.71
Control Delay	4.7
Queue Delay	0.0
Total Delay	4.7
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	77
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1231
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.71
Intersection Summary	

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	645	45	44	98	52	77	126	1101	62	30	239	791
Future Volume (vph)	645	45	44	98	52	77	126	1101	62	30	239	791
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		220	90		90	255		350		430	
Storage Lanes	1		1	0		1	1		1		1	
Taper Length (ft)	60			132			170				220	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	1770	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.726			0.320				0.088	
Satd. Flow (perm)	3433	1863	1583	1352	1863	1583	596	3539	1583	0	164	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			193			243			218			
Link Speed (mph)		40			30			55				55
Link Distance (ft)		551			356			1213				939
Travel Time (s)		9.4			8.1			15.0				11.6
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	694	48	47	113	60	89	133	1159	65	32	252	833
Shared Lane Traffic (%)												
Lane Group Flow (vph)	694	48	47	113	60	89	133	1159	65	0	284	833
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	R NA	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		36			24			30				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2	1	1	2	1	1	2	1	1	1	2
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Left	Thru
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases			4	8		8	2		2	6	6	

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	487
Future Volume (vph)	487
Ideal Flow (vphpl)	1900
Storage Length (ft)	265
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	513
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Adj. Flow (vph)	513
Shared Lane Traffic (%)	
Lane Group Flow (vph)	513
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Detector Phase	7	4	4	3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0	5.0	4.0	4.0	4.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	10.0	10.5	10.5	10.0	10.5	10.5	9.0	17.5	17.5	10.0	10.0	17.5
Total Split (s)	34.0	20.0	20.0	26.0	12.0	12.0	9.0	47.0	47.0	17.0	17.0	55.0
Total Split (%)	30.9%	18.2%	18.2%	23.6%	10.9%	10.9%	8.2%	42.7%	42.7%	15.5%	15.5%	50.0%
Maximum Green (s)	29.0	15.0	15.0	21.0	7.0	7.0	4.0	39.5	39.5	12.0	12.0	47.5
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5	3.0	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	7.5	7.5		5.0	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	None	C-Max
Walk Time (s)												7.0
Flash Dont Walk (s)												17.0
Pedestrian Calls (#/hr)												0
Act Effect Green (s)	26.3	20.3	20.3	19.3	7.2	7.2	48.9	41.3	41.3		63.7	51.0
Actuated g/C Ratio	0.24	0.18	0.18	0.18	0.07	0.07	0.44	0.38	0.38		0.58	0.46
v/c Ratio	0.85	0.14	0.10	0.40	0.50	0.27	0.42	0.87	0.09		0.91	0.51
Control Delay	50.4	36.1	0.5	30.9	63.8	2.0	19.7	41.2	0.2		61.8	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	50.4	36.1	0.5	30.9	63.8	2.0	19.7	41.2	0.2		61.8	23.1
LOS	D	D	A	C	E	A	B	D	A		E	C
Approach Delay		46.5			28.6			37.2				23.7
Approach LOS		D			C			D				C
Queue Length 50th (ft)	239	27	0	53	41	0	45	406	0		~172	225
Queue Length 95th (ft)	302	61	0	90	83	0	78	#539	0		#344	286
Internal Link Dist (ft)		471			276			1133				859
Turn Bay Length (ft)	300		220	90		90	255		350		430	
Base Capacity (vph)	905	375	473	413	126	334	320	1327	730		312	1640
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.77	0.13	0.10	0.27	0.48	0.27	0.42	0.87	0.09		0.91	0.51

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 10 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 33.0

Intersection LOS: C

Intersection Capacity Utilization 87.3%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Lanes, Volumes, Timings
2: Interquest & New Life/Fire Station

2050 Background + Site
PM

Lane Group	SBR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	17.5
Total Split (s)	55.0
Total Split (%)	50.0%
Maximum Green (s)	47.5
Yellow Time (s)	5.5
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	7.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	51.0
Actuated g/C Ratio	0.46
v/c Ratio	0.51
Control Delay	3.7
Queue Delay	0.0
Total Delay	3.7
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	60
Internal Link Dist (ft)	
Turn Bay Length (ft)	265
Base Capacity (vph)	1009
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.51
Intersection Summary	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Interquest & New Life/Fire Station



Appendix Figures and Traffic Counts from Matrix Report



Kettle Creek Center Master Traffic Impact Study



Prepared for:

City of Colorado Springs, CO

Prepared by:



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Contact: Scott Barnhart, PE, PTOE

On Behalf of:

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Jovenchi-I LLC
4779 N Academy Blvd.
Colorado Springs, CO 80918

August 20, 2024

Figure 9. Kettle Creek Center Site Trips (AM Peak Hour)

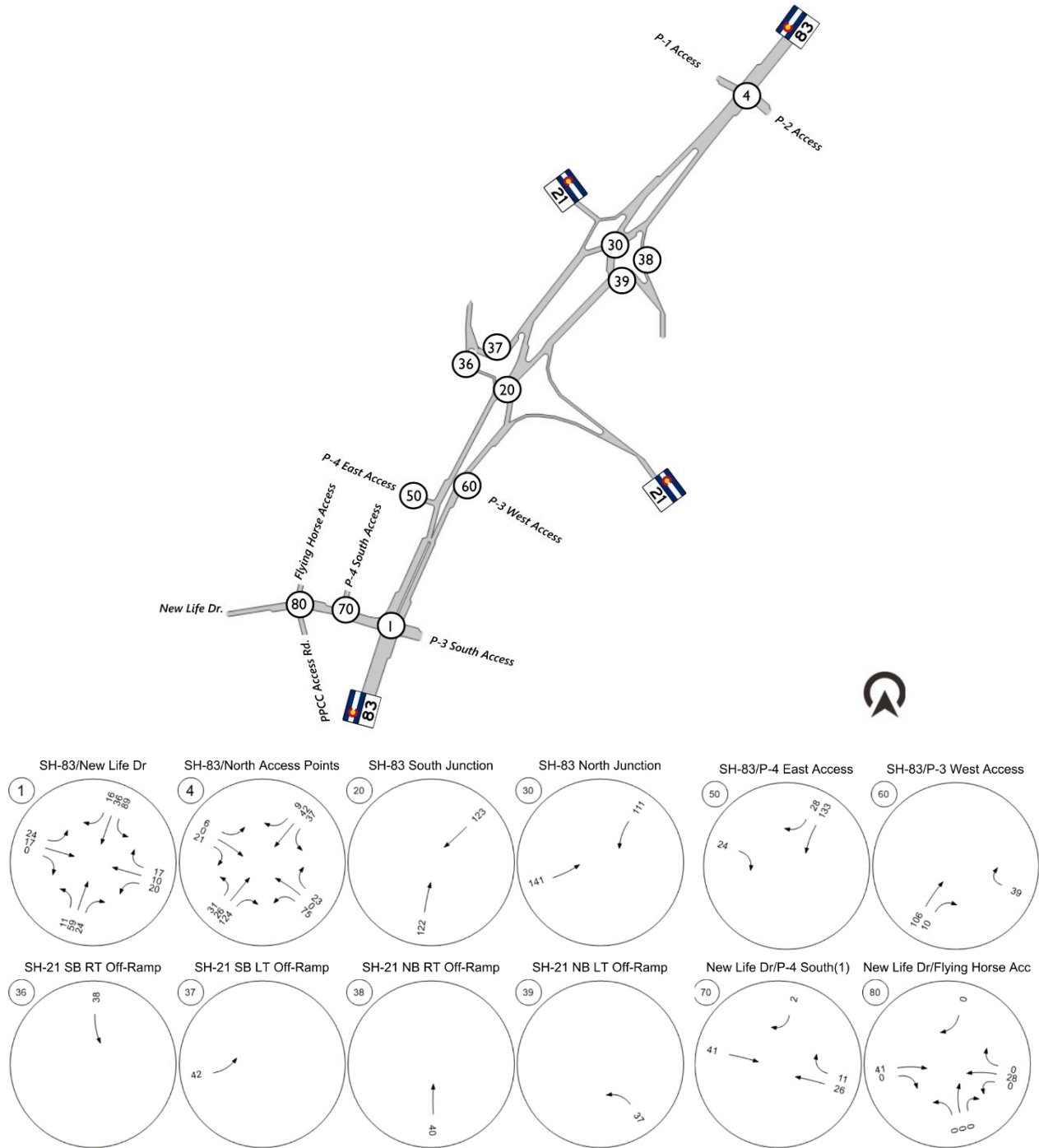
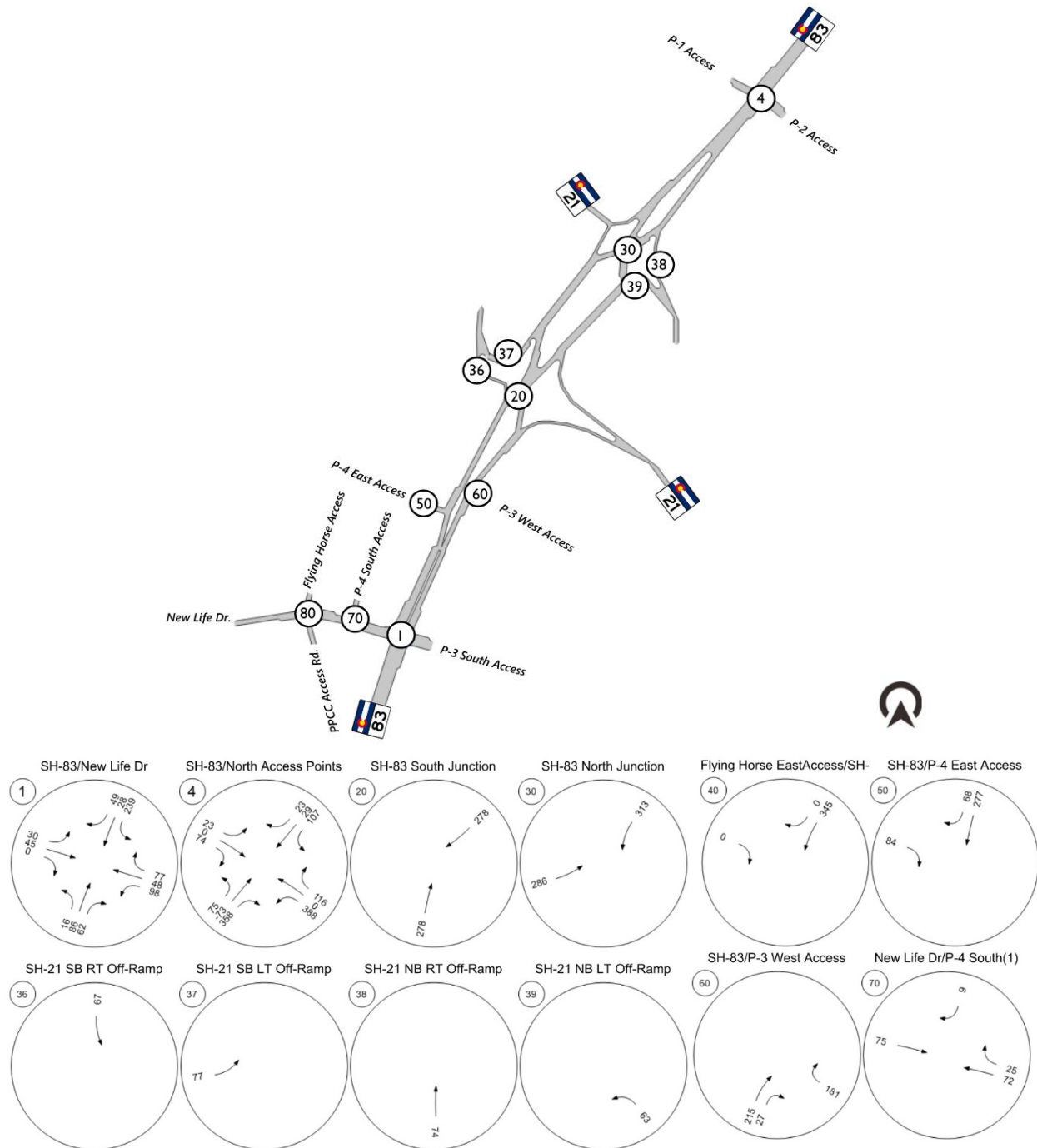


Figure 12. Kettle Creek Center Total Site Trips (PM Peak Hour)



All Traffic Data Services, LLC
 9660 W 44th Ave
 Wheat Ridge, CO 80033
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Page 1

Site Code: 8
 Station ID: 8
 NEW LIFE DR W.O. HWY 83

Start Time	24-Jan-24 Wed	EB	WB							Total
12:00 AM		10	5							15
01:00		3	7							10
02:00		12	3							15
03:00		16	4							20
04:00		23	16							39
05:00		59	50							109
06:00		179	216							395
07:00		466	859							1325
08:00		394	655							1049
09:00		275	545							820
10:00		301	375							676
11:00		385	382							767
12:00 PM		402	376							778
01:00		358	328							686
02:00		409	358							767
03:00		763	515							1278
04:00		686	424							1110
05:00		586	510							1096
06:00		358	355							713
07:00		277	175							452
08:00		245	179							424
09:00		158	110							268
10:00		46	38							84
11:00		31	21							52
Total		6442	6506							12948
Percent		49.8%	50.2%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	466	859	-	-	-	-	-	-	1325
PM Peak	-	15:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	763	515	-	-	-	-	-	-	1278
Grand Total		6442	6506							12948
Percent		49.8%	50.2%							
ADT		ADT 12,948	AADT 12,948							

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 9660 W 44th Ave
 Wheat Ridge, CO 80033
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Page 1

Site Code: 9
 Station ID: 9
 HWY 83 S.O. NEW LIFE DR

Start Time	24-Jan-24 Wed	NB	SB							Total
12:00 AM		83	35							118
01:00		45	18							63
02:00		37	38							75
03:00		33	75							108
04:00		46	176							222
05:00		136	504							640
06:00		468	938							1406
07:00		726	1054							1780
08:00		744	963							1707
09:00		614	819							1433
10:00		630	783							1413
11:00		726	905							1631
12:00 PM		813	796							1609
01:00		768	698							1466
02:00		924	692							1616
03:00		1150	905							2055
04:00		1171	844							2015
05:00		1227	900							2127
06:00		996	621							1617
07:00		737	383							1120
08:00		540	296							836
09:00		455	181							636
10:00		268	91							359
11:00		193	41							234
Total		13530	12756							26286
Percent		51.5%	48.5%							
AM Peak	-	08:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	744	1054	-	-	-	-	-	-	1780
PM Peak	-	17:00	15:00	-	-	-	-	-	-	17:00
Vol.	-	1227	905	-	-	-	-	-	-	2127
Grand Total		13530	12756							26286
Percent		51.5%	48.5%							
ADT		ADT 26,286	AADT 26,286							



ALL TRAFFIC DATA SERVICES

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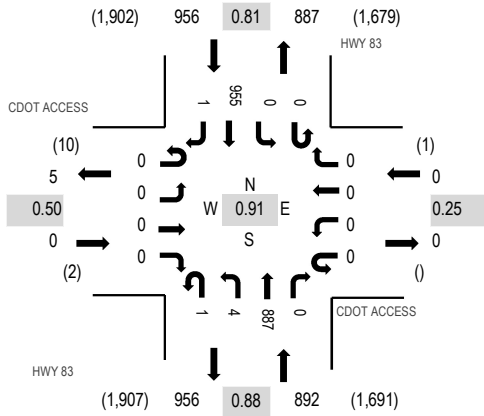
Location: 1 HWY 83 & CDOT ACCESS AM

Date: Wednesday, January 24, 2024

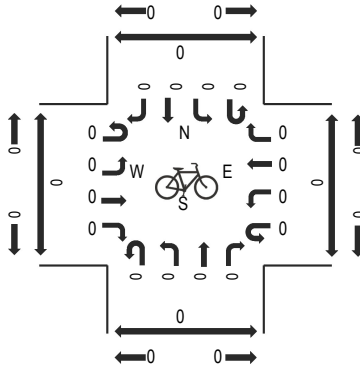
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:15 AM - 07:30 AM

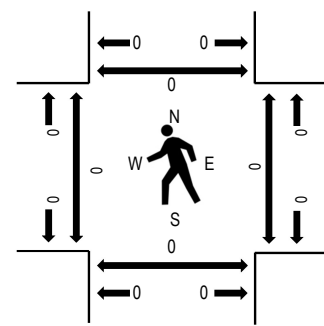
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CDOT ACCESS Eastbound				CDOT ACCESS Westbound				HWY 83 Northbound				HWY 83 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	0	0	0	0	2	155	0	0	0	236	0	393	1,812	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	191	0	0	0	316	0	508	1,848	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	2	209	0	0	0	276	0	488	1,847	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	222	0	0	0	199	1	423	1,806	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	265	0	0	0	164	0	429	1,784	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	1	2	229	0	0	0	274	0	507		0	0	0	0
8:30 AM	0	0	0	1	0	0	0	0	0	0	217	0	0	0	229	0	447		0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	1	1	191	0	0	0	207	0	401		0	0	0	0
Count Total	0	0	0	2	0	1	0	0	3	9	1,679	0	0	0	1,901	1	3,596		0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	1	4	887	0	0	0	955	1	1,848		0	0	0	0



ALL TRAFFIC DATA SERVICES

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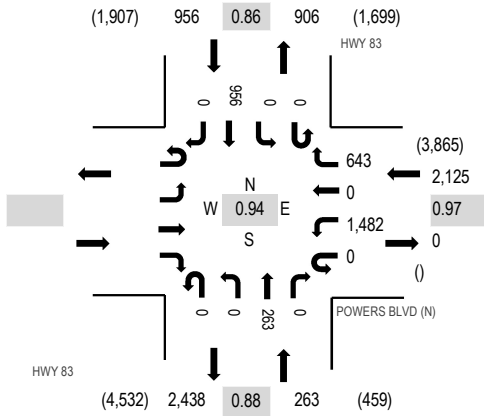
Location: 2 HWY 83 & POWERS BLVD (N) AM

Date: Wednesday, January 24, 2024

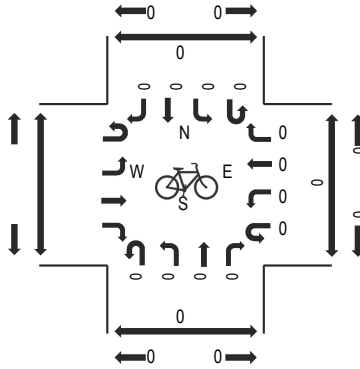
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:15 AM - 07:30 AM

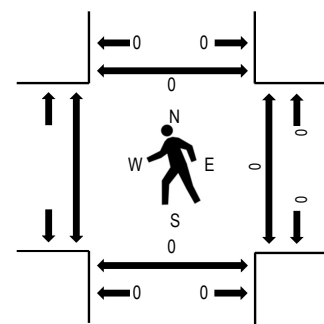
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	POWERS BLVD (N)								HWY 83				HWY 83				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM					0	296	0	127	0	0	28	0	0	0	236	0	687	3,244		0	0	0
7:15 AM					0	390	0	158	0	0	42	0	0	0	298	0	888	3,344		0	0	0
7:30 AM					0	350	0	143	0	0	67	0	0	0	280	0	840	3,296		0	0	0
7:45 AM					0	389	0	152	0	0	74	0	0	0	214	0	829	3,133		0	0	0
8:00 AM					0	353	0	190	0	0	80	0	0	0	164	0	787	2,987		0	0	0
8:15 AM					0	339	0	173	0	0	60	0	0	0	268	0	840			0	0	0
8:30 AM					0	236	0	165	0	0	43	0	0	0	233	0	677			0	0	0
8:45 AM					0	272	0	132	0	0	65	0	0	0	214	0	683			0	0	0
Count Total					0	2,625	0	1,240	0	0	459	0	0	0	1,907	0	6,231			0	0	0
Peak Hour					0	1,482	0	643	0	0	263	0	0	0	956	0	3,344			0	0	0



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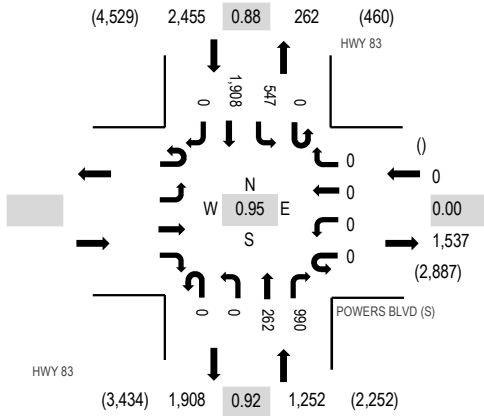
Location: 3 HWY 83 & POWERS BLVD (S) AM

Date: Wednesday, January 24, 2024

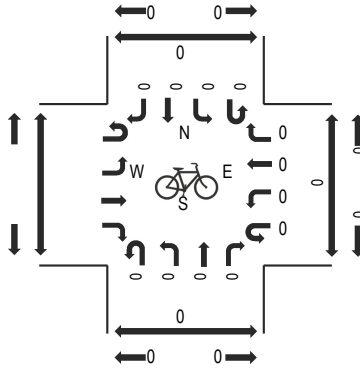
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

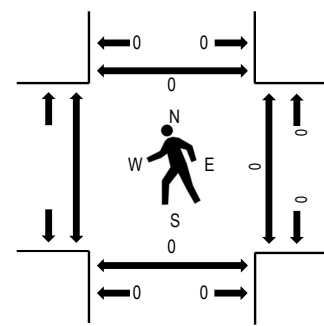
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	POWERS BLVD (S)								HWY 83				HWY 83				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM					0	0	0	0	0	0	30	205	0	137	375	0	747	3,620		0	0	0
7:15 AM					0	0	0	0	0	0	40	228	0	172	527	0	967	3,707		0	0	0
7:30 AM					0	0	0	0	0	0	74	268	0	145	488	0	975	3,591		0	0	0
7:45 AM					0	0	0	0	0	0	67	254	0	133	477	0	931	3,344		0	0	0
8:00 AM					0	0	0	0	0	0	81	240	0	97	416	0	834	3,161		0	0	0
8:15 AM					0	0	0	0	0	0	59	215	0	160	417	0	851			0	0	0
8:30 AM					0	0	0	0	0	0	50	196	0	138	344	0	728			0	0	0
8:45 AM					0	0	0	0	0	0	59	186	0	113	390	0	748			0	0	0
Count Total					0	0	0	0	0	0	460	1,792	0	1,095	3,434	0	6,781			0	0	0
Peak Hour					0	0	0	0	0	0	262	990	0	547	1,908	0	3,707			0	0	0



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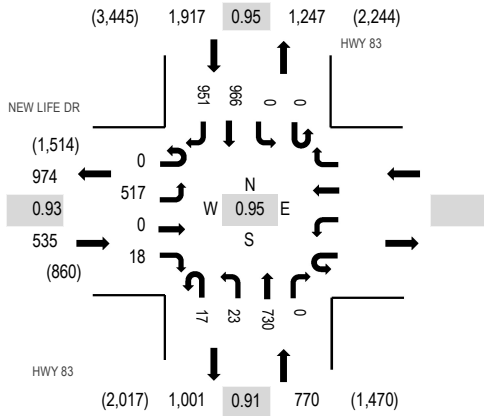
Location: 4 HWY 83 & NEW LIFE DR AM

Date: Wednesday, January 24, 2024

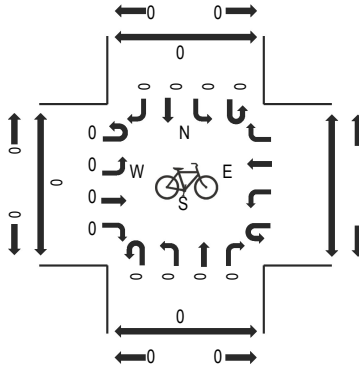
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

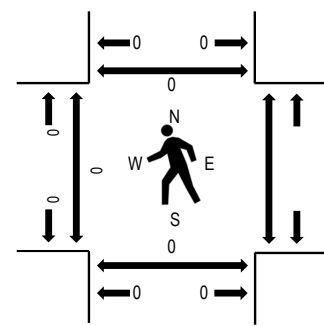
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	NEW LIFE DR Eastbound				Westbound				HWY 83 Northbound				HWY 83 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	67	0	0					2	0	158	0	1	0	261	123	612	3,067	0	0	0	0
7:15 AM	0	111	0	0					4	3	165	0	0	0	286	221	790	3,222	0	0	0	0
7:30 AM	0	139	0	3					7	6	199	0	0	0	256	242	852	3,129	0	0	0	0
7:45 AM	0	139	0	7					3	4	175	0	0	0	225	260	813	2,888	0	0	0	0
8:00 AM	0	128	0	8					3	10	191	0	0	0	199	228	767	2,708	0	0	0	0
8:15 AM	0	117	0	1					5	2	162	0	0	0	240	170	697		0	0	0	0
8:30 AM	0	75	0	1					8	6	169	0	0	0	249	103	611		0	0	0	0
8:45 AM	0	63	0	1					2	1	185	0	0	0	246	135	633		0	0	0	0
Count Total	0	839	0	21					34	32	1,404	0	1	0	1,962	1,482	5,775		0	0	0	0
Peak Hour	0	517	0	18					17	23	730	0	0	0	966	951	3,222		0	0	0	0



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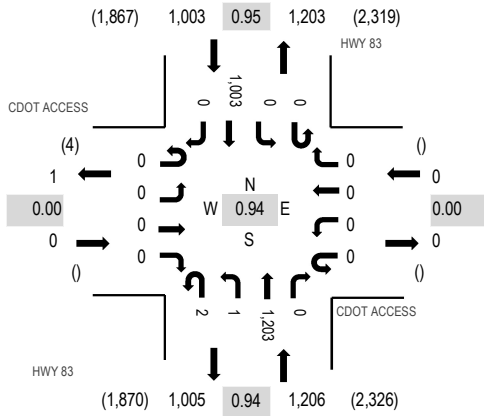
Location: 1 HWY 83 & CDOT ACCESS PM

Date: Wednesday, January 24, 2024

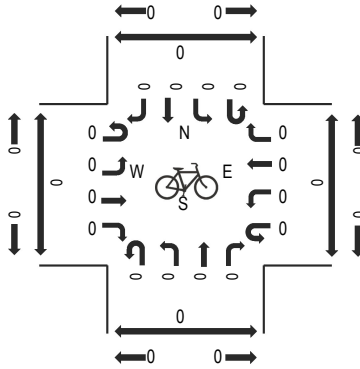
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

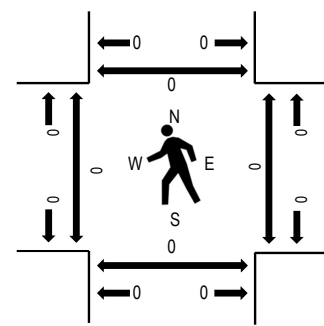
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CDOT ACCESS Eastbound				CDOT ACCESS Westbound				HWY 83 Northbound				HWY 83 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	0	0	0	0	0	302	0	0	0	210	0	512	2,075	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	0	267	0	0	0	237	0	505	2,128	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	1	273	0	0	0	228	0	503	2,209	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	302	0	0	0	253	0	555	2,190	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	0	306	0	0	0	258	0	565	2,118	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	322	0	0	0	264	0	586		0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	2	276	0	0	0	205	0	484		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	271	0	0	0	211	1	483		0	0	0	0
Count Total	0	0	0	0	0	0	0	0	4	3	2,319	0	0	0	1,866	1	4,193		0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	2	1	1,203	0	0	0	1,003	0	2,209		0	0	0	0



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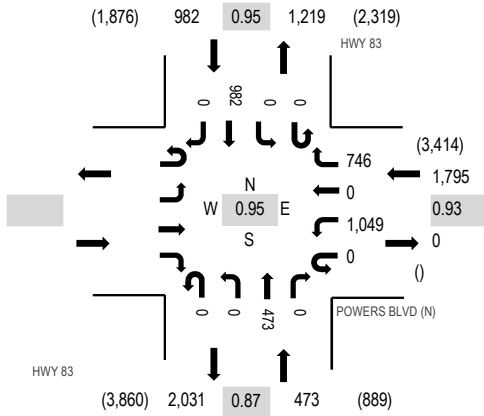
Location: 2 HWY 83 & POWERS BLVD (N) PM

Date: Wednesday, January 24, 2024

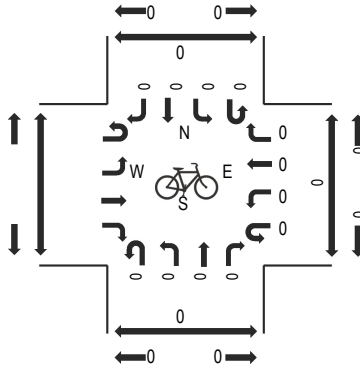
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

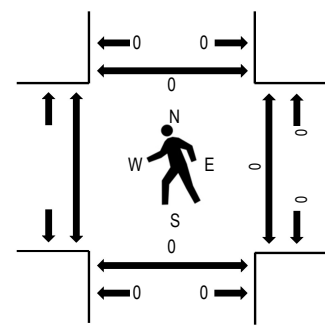
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	POWERS BLVD (N)				HWY 83 Northbound				HWY 83 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM					0	225	0	183	0	0	126	0	763	3,019	0	0	0	0
4:15 PM					0	258	0	172	0	0	102	0	763	3,097	0	0	0	0
4:30 PM					0	200	0	188	0	0	94	0	718	3,193	0	0	0	0
4:45 PM					0	248	0	178	0	0	98	0	775	3,250	0	0	0	0
5:00 PM					0	255	0	198	0	0	127	0	841	3,160	0	0	0	0
5:15 PM					0	290	0	190	0	0	136	0	859		0	0	0	0
5:30 PM					0	256	0	180	0	0	112	0	775		0	0	0	0
5:45 PM					0	252	0	141	0	0	94	0	685		0	0	0	0
Count Total					0	1,984	0	1,430	0	0	889	0	6,179		0	0	0	0
Peak Hour					0	1,049	0	746	0	0	473	0	3,250		0	0	0	0



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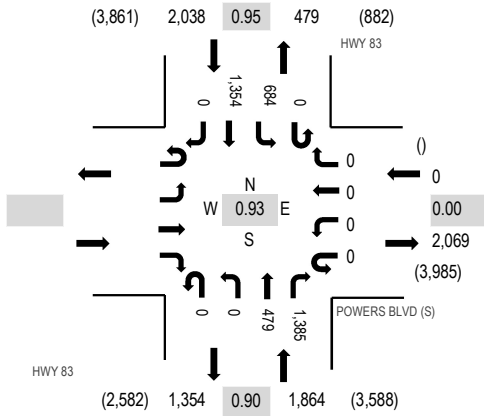
Location: 3 HWY 83 & POWERS BLVD (S) PM

Date: Wednesday, January 24, 2024

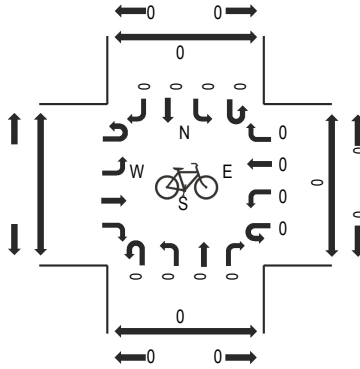
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

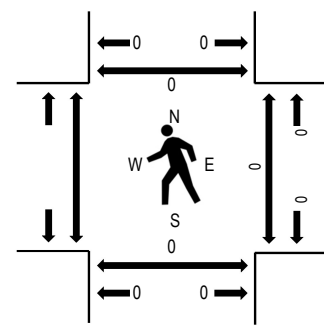
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	POWERS BLVD (S)								HWY 83				HWY 83				Total	Rolling Hour	Pedestrian Crossings									
	Eastbound				Westbound				Northbound				Southbound						West				East		South		North	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North						
4:00 PM					0	0	0	0	0	0	119	369	0	174	291	0	953	3,705		0	0	0						
4:15 PM					0	0	0	0	0	0	105	349	0	166	324	0	944	3,731		0	0	0						
4:30 PM					0	0	0	0	0	0	91	321	0	145	275	0	832	3,838		0	0	0						
4:45 PM					0	0	0	0	0	0	100	368	0	177	331	0	976	3,902		0	0	0						
5:00 PM					0	0	0	0	0	0	128	340	0	165	346	0	979	3,744		0	0	0						
5:15 PM					0	0	0	0	0	0	133	382	0	184	352	0	1,051			0	0	0						
5:30 PM					0	0	0	0	0	0	118	295	0	158	325	0	896			0	0	0						
5:45 PM					0	0	0	0	0	0	87	283	1	109	338	0	818			0	0	0						
Count Total					0	0	0	0	0	0	881	2,707	1	1,278	2,582	0	7,449			0	0	0						
Peak Hour					0	0	0	0	0	0	479	1,385	0	684	1,354	0	3,902			0	0	0						



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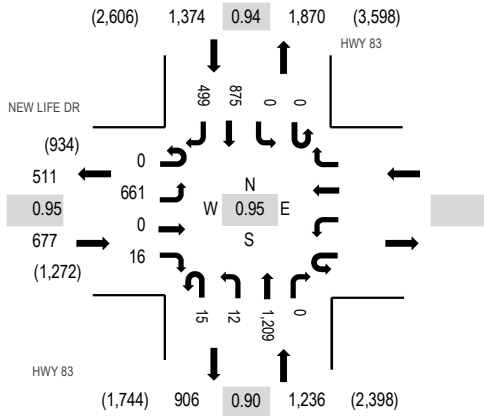
Location: 4 HWY 83 & NEW LIFE DR PM

Date: Wednesday, January 24, 2024

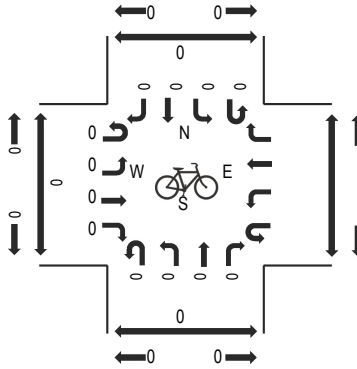
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

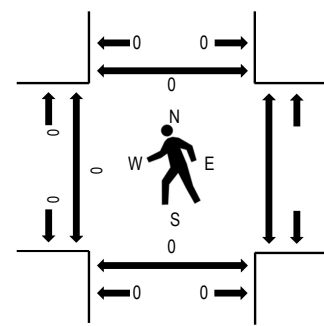
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	NEW LIFE DR Eastbound				Westbound				HWY 83 Northbound				HWY 83 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	186	0	2					5	1	299	0	0	0	203	104	800	3,091	0		0	0
4:15 PM	0	151	0	2					3	2	302	0	0	0	209	96	765	3,139	0		0	0
4:30 PM	0	159	0	3					1	2	259	0	0	0	194	111	729	3,241	0		0	0
4:45 PM	0	176	0	7					4	2	291	0	0	0	211	106	797	3,287	0		0	0
5:00 PM	0	169	0	6					3	3	300	0	0	0	221	146	848	3,185	0		0	0
5:15 PM	0	175	0	3					3	5	337	0	0	0	204	140	867		0		0	0
5:30 PM	0	141	0	0					5	2	281	0	0	0	239	107	775		0		0	0
5:45 PM	0	92	0	0					7	1	280	0	0	0	209	106	695		0		0	0
Count Total	0	1,249	0	23					31	18	2,349	0	0	0	1,690	916	6,276		0		0	0
Peak Hour	0	661	0	16					15	12	1,209	0	0	0	875	499	3,287		0		0	0