
TRAFFIC IMPACT REPORT

1725 PEORIA
EAST 17TH AVENUE AND PEORIA STREET
AURORA, COLORADO

MARCH 16, 2018

Prepared for:

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I. EXECUTIVE SUMMARY

Ovis Capital LLC is proposing to develop the property in the northwest corner of East 17th Avenue and Peoria Street located in the City of Aurora, CO into a development with 96 multi-family residential units and a 4,000 SF retail use (tentatively a restaurant without drive-thru) into a development currently referred to as “1725 Peoria”.

The proposed project is projected to generate 3,213 daily vehicle trips of which 205 are projected to be generated during the AM peak hour and 159 are projected to be generated during the PM peak hour.

Access to the project is proposed to be gained by constructing one access point with E 17th Ave at the existing alley driveway. There is projected to be no access using the existing alley to/from the north.

Two existing intersections affected by this development plus the new access point have been analyzed in this report:

- E 17th Ave and Paris Street
- E 17th Ave and South Driveway (proposed intersection for project access)
- E 17th Ave and Peoria Street

The results of the analysis of intersections affected by this development are as follows:

1. The growth of background traffic is projected to cause the overall operations of the E 17th/Peoria intersection to become unacceptable in the PM peak hour in 2040. Operations are projected to remain acceptable in 2019.
2. The growth of background traffic is projected to cause the eastbound traffic on E 17th Ave through the study area to become congested during peak hours. Queue lengths are projected to extend across intersections rendering acceptable operations difficult to achieve for the AM and PM peak hours.
3. Some moderation of eastbound queue lengths is obtained by changing the eastbound and westbound left-turns from the existing “permissive-only” to “protected-permissive” phasing. This improvement is achieved at the expense of green time on Peoria, which causes a slight overall decrease in intersection operation levels.
4. Some moderation of eastbound queue lengths is obtained by restriping the west approach to three lanes. This improvement is achieved with no stealing of green time from other phases.
5. Southbound traffic exiting the project at the new intersection of E 17th Ave and South Driveway is projected to have 95th-percentile queue lengths of four vehicles in 2019 and 12 vehicles in 2040. Southbound queue are reduced to nine vehicles in 2040 with the restriping of the west approach to three eastbound lanes. Eastbound queues at E 17th/Peoria are projected to inhibit traffic exiting onto E 17th Ave during the AM and PM peak hours.
6. In the intersection of E 17th Ave and South Driveway (proposed intersection for project access), the street area will need to be marked with pavement markings and signage “Do Not Block Intersection” to allow vehicle egress movements during peak hours.

Based on the analyses contained in this traffic study, it is concluded that the study-area roadway system can accommodate the proposed 1725 Peoria development with the recommended improvements with negligible impact on the study-area roadway system.

II. INTRODUCTION

A. Project Overview

Ovis Capital LLC is proposing to develop the property in the northwest corner of East 17th Avenue and Peoria Street located in the City of Aurora, CO into a development with 96 multi-family residential units and a 4,000 SF retail use (tentatively a restaurant without drive-thru) into a development currently referred to as “1725 Peoria”.

The parcel is currently occupied by an unoccupied single-story building. The rectangular-shaped property is bounded on the north by a multi-story commercial building, on the east by Peoria Street, on the south by E 17th Avenue, and on the west by an alley.

Access to the project is proposed to be gained by constructing one access point onto E 17th Ave. There is to be no access to the north onto E 19th Ave via the existing alley.

See Figure 2 for a graphical representation of the proposed access point with E 17th Ave.

B. Purpose of Study

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed development on the nearby intersections and roadway system. The study includes 2017, 2019 (year of anticipated build-out), and 2040 (long-range horizon year) analysis horizons.

C. Study Area

The study area encompasses the existing roadway system in the vicinity of the project site. Specifically, the following existing intersections will receive traffic directly from the project and were therefore evaluated:

- E 17th Ave and Paris Street (two-way stop-controlled)
- E 17th Ave and Peoria Street (signalized)

See Figures 1 and 2 for a graphical representation of the general area of the project and the proposed site plan, respectively.

III. EXISTING CONDITIONS

A. Existing Traffic Volumes

Existing (2017) peak-hour intersection turning-movement traffic-volume counts were collected for this study at the following intersections in June, 2017:

- E 17th Ave and Paris Street
- E 17th Ave and Peoria Street

A summary of the existing (2017) peak-hour intersection turning-movement traffic volume counts is graphically illustrated in Figure 3. Detailed traffic-volume-count data are provided in Appendix “A”.

B. Existing Roadway System

The existing transportation network in the vicinity of the subject property is graphically illustrated in Figure 1. The following narrative provides a description of the study-area roadways and associated intersections as they exist in 2017:

Study Area Roadways:

- Paris Street would be classified as a Local Street. It consists of one travel lane northbound and one travel lane southbound. There are attached narrow sidewalks, parallel parking, and curb-and-gutter on the east side and west sides. The posted speed limit is 25 mph.
- E 17th Ave would be classified as a Local Street Type 2 due to its 60' ROW. It has one travel lane in each direction with a center single-yellow pavement stripe. There are attached narrow sidewalks, no-parking signage, and mountable curb-and-gutter on the north and south sides. On-street parallel parking is allowed west of Oswego Street but not between Oswego St and Peoria Street. The posted speed limit is 25 mph.
- Peoria Street would be classified as a 6-Lane Arterial. It consists of three travel lanes in each direction with curb-and-gutter plus attached sidewalk on the east and west sides. There are separate left-turn lanes at major intersections. The posted speed limit is 35 mph.

IV. BACKGROUND TRAFFIC

A. Background Traffic Volumes

Background traffic and forecasts for the 2019 and 2040 analysis horizons were developed for this study utilizing the following:

- For the purposes of this study it is assumed that the subject parcel will be fully developed by 2019 as a multi-family residential development with 96 units and a 4,000 SF restaurant.
- For the purposes of this study it is assumed that peak-hour distribution of background intersection approach traffic (left-turn, through, right-turn) will remain constant through the 2019 and 2040 analysis horizons.
- Based on City of Aurora TIS standards for all projects in the City of Aurora regardless of location and/or density, annual volume increases of 2.0% were used to project 2019 and 2040 traffic volumes in the area of the study (a multiplier of 1.58 x 2017 volume to obtain 2040 volumes).
- Ped traffic was included in the analysis at the request of the City of Aurora

Figures 4 and 5 graphically illustrate the projected background-traffic volumes for the 2019 and 2040 analysis horizons, respectively.

B. Background Traffic Operational Analysis

In order to establish a base condition in which to evaluate the impact of the traffic generated by the proposed development on the study-area intersections, peak-hour capacity analyses were performed for the 2017 existing, and the 2019 and 2040 background traffic conditions. These analyses utilized the methodologies contained in the *Highway Capacity Manual 2010* (HCM)

employing *Synchro 8.0* software and resulted in a qualitative measure of the operational characteristics of the intersection described by a letter designation ranging from “A” to “F” known as “Level of Service” (LOS). LOS “A” represents free-flow operating conditions, whereas LOS “F” represents excessive congestion and delay. Unsignalized intersection capacity analysis reports a LOS designation for each impeded intersection movement. Signalized intersection capacity analysis reports the overall LOS designation for the intersection as well as for each lane group and approach. LOS “D” is considered the minimum acceptable standard of operation.

Peak-hour factor (PHF) from traffic counts for each approach were used as-is in 2017 and 2019 analyses. For 2040 analyses, the PHF for each approach was averaged with the HCM default value of 0.92.

Existing signal timing was used with splits optimized in *Synchro 8.0*.

The following study-area intersections were analyzed for 2017 existing traffic and the 2019 and 2040 analysis horizon background-traffic conditions:

- E 17th Ave and Paris Street
- E 17th Ave and Peoria Street

The results of these background traffic operational analyses are summarized graphically for the 2017 existing, 2019 background and 2040 background analysis horizons in Figures 6, 7, and 8, respectively. A summary of the results of the intersection capacity analyses is provided in Table 4 and detailed *Synchro 8.0* software intersection capacity analysis reports in Appendix “B”.

V. PROJECT DEVELOPMENT

A. Trip Generation

The trip-generation projection for the proposed development was estimated utilizing the publication *Trip Generation, 9th Edition*, Institute of Transportation Engineers. Estimates of total daily traffic volume and AM and PM peak-hour traffic volumes were calculated. Trip-generation reductions due to transportation demand management were not considered.

The project is located such that accessible transit choices like RTD Bus Routes #121 on Peoria Street and #15 on Colfax (0.25 mile walk) are in close proximity for ultimate connectivity to the entire RTD mass-transit system. Also, it is anticipated some residents will walk to/from the Fitzsimmons medical complex east of Peoria Street. Therefore, engineering judgment was used to apply a conservative 10% reduction in generated vehicle trips due to easy pedestrian access to the medical center and easy transit use by residents of the project and patrons of the restaurant.

For the purposes of this study, it is assumed that the subject parcel will be fully developed by 2019 with 96 dwelling units of multi-family apartments plus a 4,000 SF restaurant. The proposed project is projected to generate 3,213 daily vehicle trips of which 205 are projected to be generated during the AM peak hour and 159 are projected to be generated during the PM peak hour. The retail use is projected to generate a disproportionate 65%-90% of the trips generated by the overall project. No deductions were taken for internal trips. See Table 1.

A worst-case approach was taken for estimating trips for the retail generator. Because the exact land use type is not known, and because on-site parking is limited and may thus encourage multi-modal access to the retail use, the trip-intensive land use "Fast-Food Restaurant w/o Drive-Thru" was selected to represent a "worst-case scenario" for trips generated by the retail use.

**TABLE 1
1725 PEORIA MULTI-FAMILY DEVELOPMENT**

Trip Generation															
Land Use	Intensity	ITE Code	Daily (vpd)	AM Peak Hour (vph)				PM Peak Hour (vph)							
				Total	% In	% Out	In	Out	Total	% In	% Out	In	Out		
Apartments	96 DU	220	706	51	20%	80%	11	40	71	65%	35%	46	25		
Fast-Food Restaurant w/o DT	4000 SF	933	2,864	176	60%	40%	106	70	105	51%	49%	54	51		
Less 10% Transit and Pedestrians			-357	-23				-12	-11	-18				-10	-8
TOTAL			3,213	205				106	99	159				90	69

Notes:

1. Trip Generation Projections are based on ITE Trip Generation, 9th Edition using "Fitted Curve" method when availab

B. Trip Distribution

The distribution of the estimated vehicle trips generated by the land uses for this study was established based on the current and projected future traffic patterns on the surrounding transportation system, efficiency of access to the principal transportation corridors serving the area, and the potential trip origins/destinations for the proposed land use for the subject property. Figure 9 graphically illustrates the project-generated trip-distribution patterns for the development. Trip distribution was not modified to reflect alternate routes selected by seasoned drivers due to congestion on their preferred route.

C. Trip Assignment

The vehicular traffic volumes estimated to be generated by the proposed development were assigned to the study-area roadways and intersections utilizing the trip-distribution analysis described above. Figure 10 graphically illustrates the site-generated trip assignment for the development.

VI. TOTAL TRAFFIC

Total-traffic forecast for the 2019 analysis scenario was computed by combining the 2019 background-traffic volumes with the associated projected site-generated traffic volumes. Total-traffic forecast for the 2040 analysis scenario was computed by combining the 2040 background-traffic volumes with the associated projected site-generated traffic volumes. Figures 11 and 12 graphically illustrate the total-traffic forecasts for the study-area intersections for the 2019 and 2040 analysis horizons, respectively.

VII. PROJECT ANALYSIS

A. Operational Analysis

To evaluate the impact of the proposed land use for the subject property on the study-area roadway system, peak-hour intersection capacity analyses for total-traffic conditions were performed for the 2019 and 2040 analysis horizons at each of the study-area intersections listed below. Existing signal timing was used with splits optimized in Synchro 8.0.

- E 17th Ave and Paris Street
- E 17th Ave and South Driveway (proposed intersection)
- E 17th Ave and Peoria Street

A narrative of the summary of the analysis and comparison to background traffic conditions for the 2019 and 2040 analysis horizons is provided below. The results of the total-traffic operational analysis are summarized graphically for the 2019 and 2040 analysis horizons in Figure 13 and 14, respectively. A summary of the results of the intersection capacity analysis is provided in Table 4 and detailed *Synchro 8.0* software intersection capacity analysis reports in Appendix “B”. Existing signal timing was used with splits optimized in *Synchro 8.0*.

Study-Area Intersections – Summary of Results:

- E 17th Ave and Peoria Street:
 - Initially analyzed with existing EB/WB permissive-only left-turn phasing. Splits were optimized in Synchro 8 with cycle length remaining at 120s. The results of that analysis indicate that 2040 Background Traffic scenarios are projected to have the overall intersection LOS be “E” in PM, with several lane groups operating with LOS “E” or “F”. The NB T is projected to operate at LOS “D” and SB T at LOS “F”. See section below discussing eastbound queue lengths extending across the alley and Paris Street intersections.
 - Intersection subsequently analyzed with EB L and WB L phasing changed to protected/permissive with cycle length remaining at 120s. The results of that analysis indicate several movements improve at the expense of falling overall intersection LOS, projected as “F” in the PM scenario in 2040. SB T is projected as LOS “F” in the PM scenario.
 - Intersection subsequently analyzed with EB L and WB L protected/permissive left-turn phasing and west approach as EBL, EBT, and EBR with cycle length remaining at 120s. The results of that analysis indicate several movements improve at the expense of falling overall intersection LOS, projected as “F” in the PM scenario in 2040. SB T is projected as LOS “F” in the PM scenario. However, the EB queues decreased as would be expected. Also, the alley SB L/R queue lengths decreased also (see Queue section below).
 - It is recommended that this intersection receive additional analysis as background traffic increases. It would be a decision by City of Aurora traffic engineering personnel as to whether or not the revised left-turn phasing and restriping the west approach are reasonable solutions to the queuing problems.
- The E 17th Ave and South Driveway intersection is projected to have all impeded movements operate at LOS “D” or better in the 2040 Total Traffic analysis scenarios as analyzed in Synchro. However, SimTraffic projects delays >100s. Also, see section below discussing eastbound queue lengths at the 17th/Peoria intersection.
- The E 17th Ave and Paris Street intersection is projected to have all impeded movements operate at LOS “D” or better in the 2040 Total Traffic analysis scenarios. However, see section below discussing eastbound queue lengths at the 17th/Peoria intersection backing up into this intersection.

B. Queue Lengths and Storage Required

SimTraffic 8 at 95th-percentile queue lengths was used to project queue lengths and associated queue-storage needs. Analyses were run for Total Traffic:

1. For [EB L and WB L] protected/permissive phasing, and
 2. For EB L and WB L prot/perm phasing plus west approach re-stripped to three lanes: EBL, EBT, EBR.
- For the modified EB L and WB L Protected/Permissive Phasing
 - In 2019:
 - At the E 17th Ave and Paris Street intersection, the projected queue lengths are contained within the existing queue storage lanes
 - At the E 17th Ave and South Driveway intersection, the EB queues on 17th at Peoria are projected to back up to the intersection. SB queues are projected to be 91' (four vehicles).
 - At E 17th Ave and Peoria the projected queue lengths are contained within the existing queue storage lanes, with the exception of WB L which extends slightly beyond the available queue storage length by one car length.
 - In 2040:
 - At the E 17th Ave and Paris Street intersection, the EB L/T/R movement is projected to have queue lengths of 399' due to the EB queue at Peoria backing up across the alley and west of the intersection.
 - At the E 17th Ave and South Driveway intersection, the EB queues on 17th at Peoria are projected to back up to and across this intersection causing SB L/R queues to be 300' (12 vehicles).
 - At E 17th Ave and Peoria and with the current C=120s and existing laneage, some projected 95th percentile queue lengths are not contained within the existing queue storage lanes: WB L (two additional vehicles storage needed), NB T (one vehicle across each of three lanes), SB L (multiple vehicles), and SB T (two vehicles across each of three lanes).
 - Modified EB L and WB L Protected/Permissive Phasing plus west approach restriped to EBL, EBT, and EBR:
 - In 2040:
 - At the E 17th Ave and Paris Street intersection, the EB L/T/R movement is projected to have queue lengths of 337' due to the EB queue at Peoria backing up across the alley and west of the intersection.
 - At the E 17th Ave and South Driveway intersection, the EB queues on 17th at Peoria are projected to back up to and across this intersection causing SB L/R queues to be 219' (9 vehicles).
 - At E 17th Ave and Peoria and with the current C=120s and existing laneage, some projected 95th percentile queue lengths are not contained within the existing queue storage lanes: WB L (two additional vehicles storage needed), NB T (two vehicles across each of three lanes), SB L (two vehicles), and SB T (three vehicles across each of three lanes).

TABLE 2
1725 PEORIA DEVELOPMENT
QUEUE LENGTHS AND ASSOCIATED STORAGE NEEDED
SIMTRAFFIC 8.0 95TH-PERCENTILE METHOD

INTERSECTION		EXISTING STORAGE PER LANE (FT)	INTERSECTION CONTROL	2019 TOTAL TRAFFIC		2040 TOTAL TRAFFIC	
				QUEUE LENGTH (FT) 95TH%		QUEUE LENGTH (FT) 95TH%	
				AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. E 17th Ave / Paris Street		-	TWSC	-	-	-	-
	a. EB L/T/R	-		19	11	316	399
	b. WB L/T/R	-		20	19	45	27
	c. NB L/T/R	-	STOP	29	42	48	53
	d. SB L/T/R	-	STOP	27	48	35	54
2. E 17th Ave / South Driveway		-	TWSC	-	-	-	-
	a. EB L/T	100		50	54	104	149
	b. EB T	100		101	97	147	148
	c. SB L/R	-	STOP	91	66	300	249
3. E 17th Ave / Peoria Street		-	SIGNALIZED	-	-	-	-
	a. EB L (prot/perm)	100		91	96	94	90
	b. EB T/R	100		94	89	104	93
	c. WB L (prot/perm)	140		47	170	66	193
	d. WB T	580		81	255	92	415
	e. WB R	580		62	122	84	309
	f. NB L (prot/perm)	580		171	171	183	165
	g. NB T	580		316	272	658	617
	h. SB L (prot/perm)	170		190	157	556	224
	i. SB T	610		253	445	698	684

INTERSECTION		EXISTING STORAGE PER LANE (FT)	INTERSECTION CONTROL	2019 TOTAL TRAFFIC		2040 TOTAL TRAFFIC	
				QUEUE LENGTH (FT) 95TH%		QUEUE LENGTH (FT) 95TH%	
				AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. E 17th Ave / Paris Street		-	TWSC	-	-	-	-
	a. EB L/T/R	-		13	29	58	337
	b. WB L/T/R	-		28	10	23	7
	c. NB L/T/R	-	STOP	35	40	45	83
	d. SB L/T/R	-	STOP	26	43	35	62
2. E 17th Ave / South Driveway		-	TWSC	-	-	-	-
	a. EB L/T	100		56	57	108	154
	b. EB T	100		68	33	87	103
	c. SB L/R	-	STOP	79	65	127	219
3. E 17th Ave / Peoria Street		-	SIGNALIZED	-	-	-	-
	a. EB L (prot/perm)	100		93	90	90	88
	b. EB T	100		96	72	90	77
	c. EB R	260		65	78	79	97
	d. WB L (prot/perm)	140		52	166	63	188
	e. WB T	580		72	235	108	394
	f. WB R	580		61	155	80	324
	g. NB L (prot/perm)	580		167	159	176	168
	h. NB T	580		324	313	640	625
	i. SB L (prot/perm)	170		197	150	208	209
	j. SB T	610		259	478	611	680

NOTES:

1. Vehicle Length = 25 feet

VIII. SUMMARY

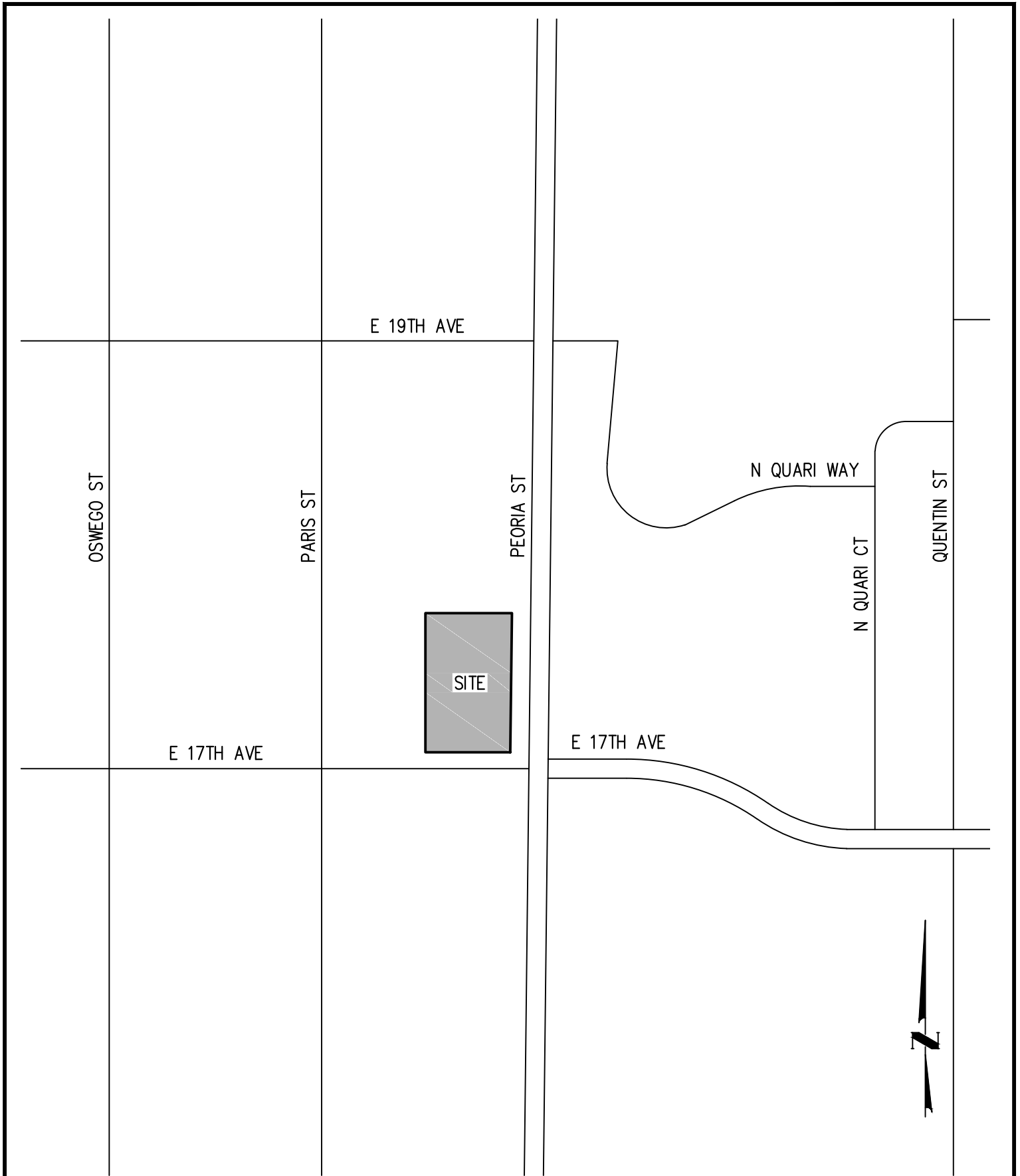
Based on the analyses contained in this traffic study it is concluded that the study-area roadway system can accommodate the proposed 1725 Peoria development with the recommended access improvements shown in Table 3 with negligible impact on the study-area roadway system.

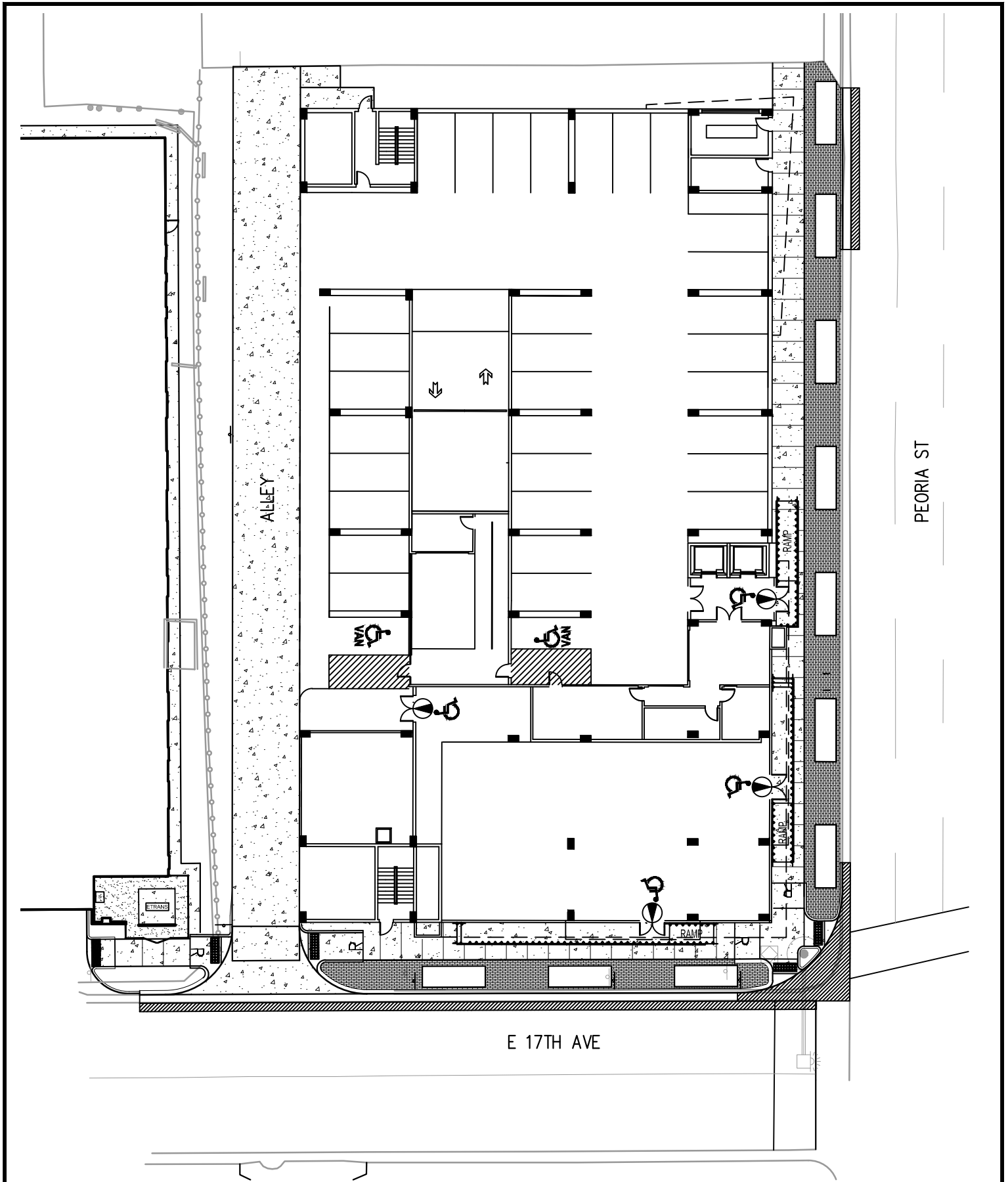
**TABLE 3
SUMMARY OF RECOMMENDATIONS
1725 PEORIA MULTI-FAMILY DEVELOPMENT**

Intersection	Recommendations	Responsible	Timing
E 17 th Ave and Paris Street	No changes recommended	N.A.	N.A.
E 17 th Ave and South Driveway	Construct new access to roadway system by installing access driveway on E 17 th Ave. Construct two lanes (one in each direction) in accordance with City of Aurora specifications with five-vehicle queue storage (100') for southbound exiting traffic (handles 2019 southbound exiting vehicle queues). Install signage on E 17 th "Do Not Block Intersection". Install pavement marking on E 17 th Ave denoting area to not block when queued eastbound.	Developer	Developer
E 17 th Ave and Peoria Street	Investigate protected/permissive phasing for EB L and WB L to alleviate eastbound queues. Investigate restriping west approach to three lanes: EB L, EB T, EB R reflecting analysis scenario in this report as requested by City of Aurora.	City of Aurora	Before 2040

TABLE 4
SUMMARY OF RESULTS - INTERSECTION CAPACITY ANALYSIS
1725 PEORIA MULTI-FAMILY DEVELOPMENT

INTERSECTION	INTERSECTION CONTROL	2017 EXISTING TRAFFIC		2019 BACKGROUND TRAFFIC		2019 TOTAL TRAFFIC		2040 BACKGROUND TRAFFIC		2040 TOTAL TRAFFIC	
		AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS
1. E 17th Ave / Paris St	TWSC	-	-	-	-	-	-	-	-	-	-
a. EB L/T/R		A	A	A	A	A	A	A	A	A	A
b. WB L/T/R		A	A	A	A	A	A	A	A	A	A
c. NB L/T/R	STOP	B	C	B	C	B	C	B	D	B	D
d. SB L/T/R	STOP	B	C	B	C	B	C	C	D	C	D
2. E 17th Ave / South Driveway	TWSC	-	-	-	-	-	-	-	-	-	-
a. EB L/T		-	-	-	-	A	A	-	-	A	A
b. SB L/R	STOP	-	-	-	-	B	C	-	-	C	D
3. E 17th Ave / Peoria St	SIGNALIZED	-	-	-	-	-	-	-	-	-	-
a. EB L (perm)		D	D	D	D	D	D	D	F	D	F
b. EB T/R		D	D	D	C	D	C	D	D	E	D
c. WB L (perm)		D	D	D	D	D	D	D	E	E	F
d. WB T		C	C	C	C	C	C	D	D	D	D
e. WB R		D	D	D	D	C	D	D	F	D	F
f. NB L (prot-perm)		B	A	B	B	B	C	C	F	C	F
g. NB T/R		B	B	B	B	B	B	D	B	D	B
h. SB L (prot-perm)		B	B	B	B	B	B	E	B	E	B
i. SB T/R		B	A	B	C	B	C	B	F	B	F
j. INTERSECTION		B	B	B	C	B	C	D	E	D	E
3a. E 17th Ave / Peoria St	SIGNALIZED	-	-	-	-	-	-	-	-	-	-
a. EB L (prot-perm)		-	-	-	-	C	C	D	F	D	F
b. EB T/R		-	-	-	-	D	D	D	D	E	E
c. WB L (prot-perm)		-	-	-	-	C	C	D	D	D	E
d. WB T		-	-	-	-	D	D	D	D	D	D
e. WB R		-	-	-	-	D	F	D	F	D	F
f. NB L (prot-perm)		-	-	-	-	B	C	C	F	C	F
g. NB T/R		-	-	-	-	C	C	F	C	F	C
h. SB L (prot-perm)		-	-	-	-	B	B	F	B	F	C
i. SB T/R		-	-	-	-	B	C	C	F	C	F
j. INTERSECTION		-	-	-	-	C	D	D	F	E	F
3b. E 17th Ave / Peoria St	SIGNALIZED	-	-	-	-	-	-	-	-	-	-
a. EB L (prot-perm)		-	-	-	-	C	C	-	-	D	F
b. EB T		-	-	-	-	D	C	-	-	D	D
c. EB R		-	-	-	-	D	D	-	-	D	D
d. WB L (prot-perm)		-	-	-	-	C	C	-	-	D	D
e. WB T		-	-	-	-	D	D	-	-	D	D
f. WB R		-	-	-	-	D	F	-	-	D	F
g. NB L (prot-perm)		-	-	-	-	B	C	-	-	C	F
h. NB T/R		-	-	-	-	C	C	-	-	E	C
i. SB L (prot-perm)		-	-	-	-	B	B	-	-	F	C
j. SB T/R		-	-	-	-	B	C	-	-	C	F
k. INTERSECTION		-	-	-	-	C	D	-	-	D	F





Plotted: TUE 03/13/18 4:06:59P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\concept plan.dwg Layout: concept

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

ISSUE DATE: 07-28-2017		PROJECT #: 170602	
DATE		REVISION COMMENTS	

OVIS CAPITAL LLC

1725 PEORIA ST
CONCEPTUAL PLAN

HKS **HARRIS KOCHER SMITH**
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P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

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CHK'D BY:
DRAWN BY:

SHEET NO.

2

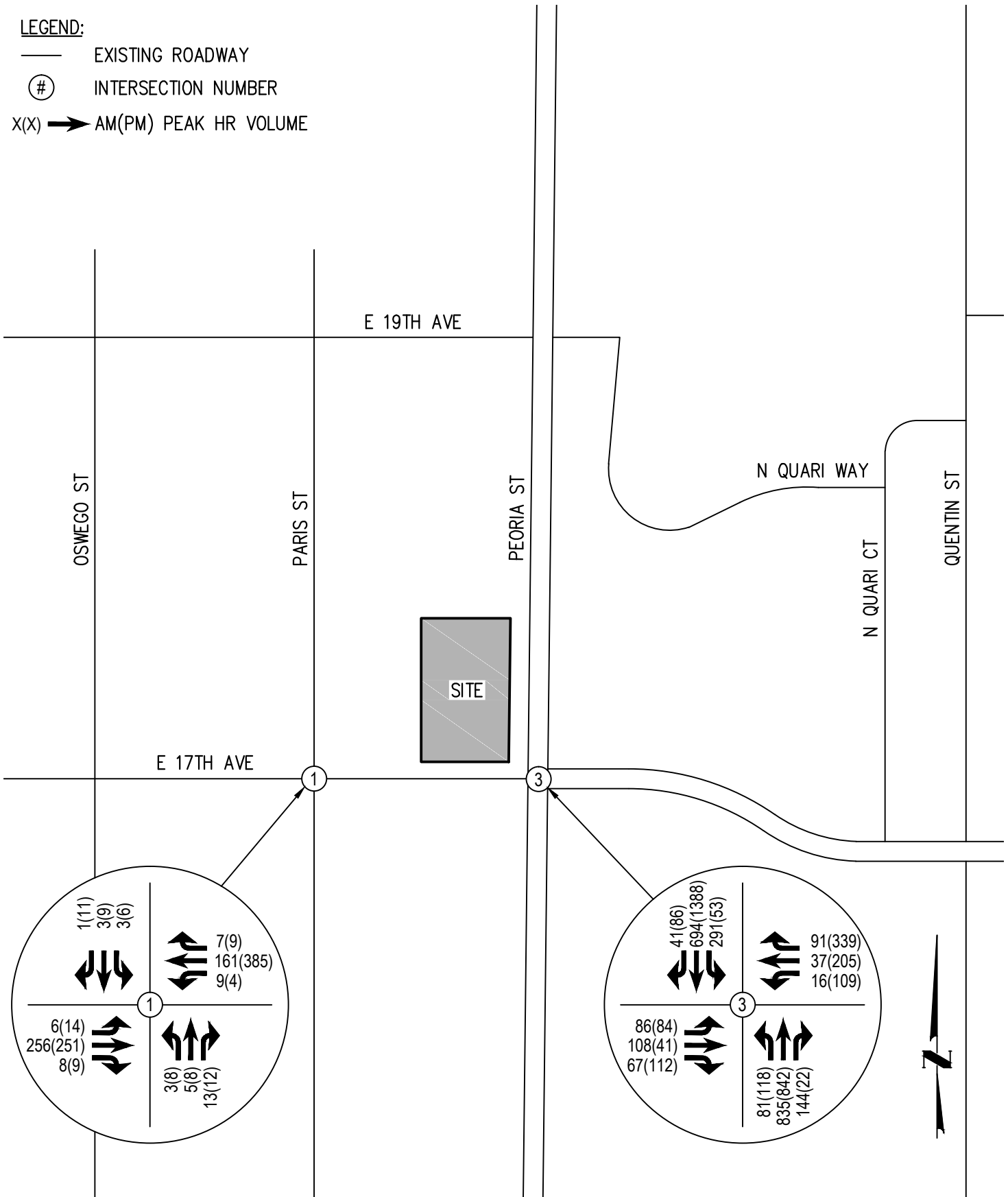
2 OF 14

LEGEND:

— EXISTING ROADWAY

⊕ INTERSECTION NUMBER

X(X) → AM(PM) PEAK HR VOLUME



Plotted: TUE 03/13/18 4:07:04P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\ex-back traff vol.dwg Layout: 2017

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1725 PEORIA ST
2017 EXISTING TRAFFIC
VOLUMES

HKS HARRIS KOCHER SMITH
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CHK'D BY:
DRAWN BY:

SHEET NO.

3

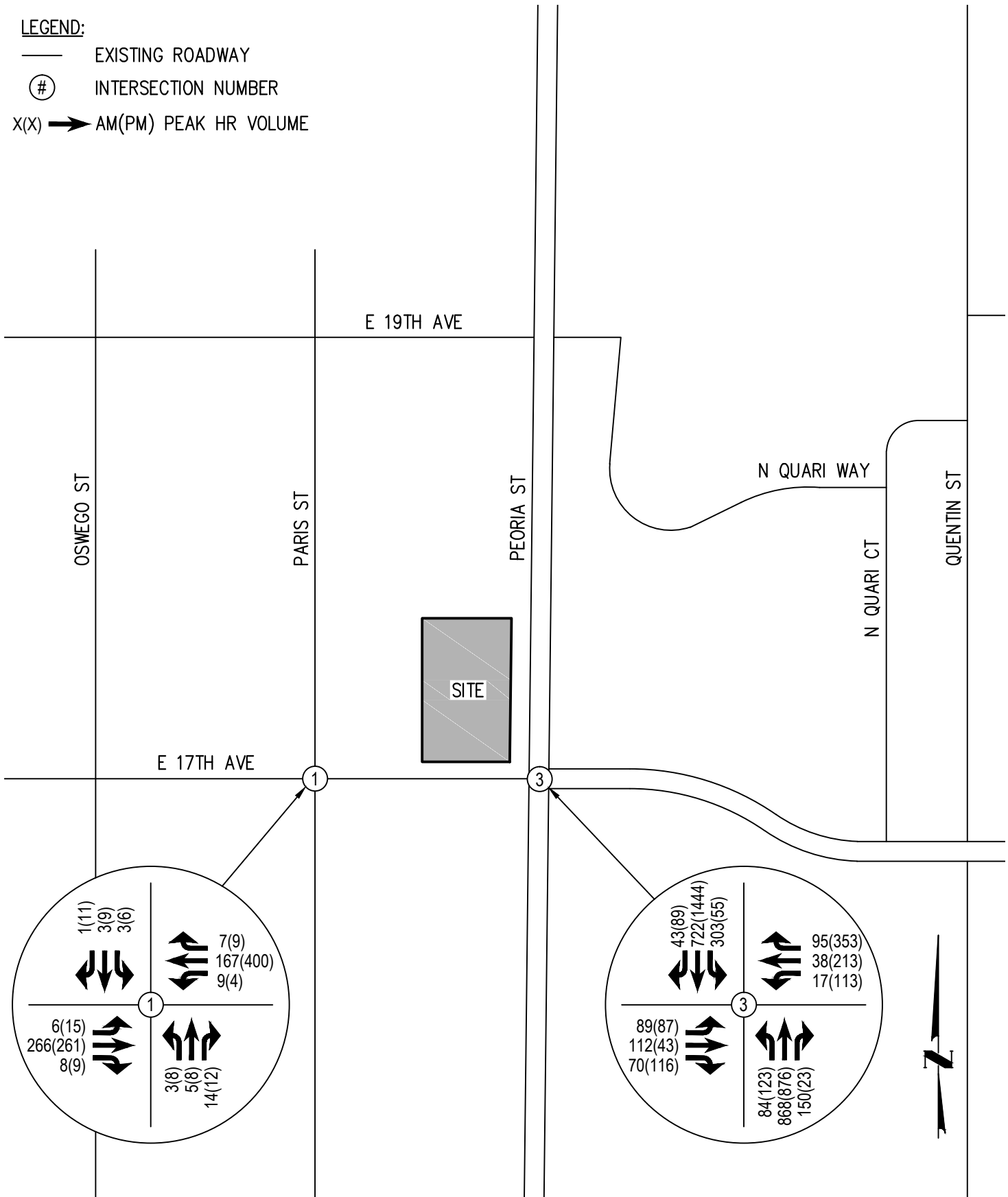
3 OF 14

LEGEND:

— EXISTING ROADWAY

⊙ INTERSECTION NUMBER

X(X) → AM(PM) PEAK HR VOLUME



Plotted: TUE 03/13/18 4:07:08P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\ex-back traff vol.dwg Layout: 2019

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ISSUE DATE:	PROJECT #:
07-28-2017	170602
DATE	REVISION COMMENTS

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1725 PEORIA ST
2019 BACKGROUND TRAFFIC
VOLUMES

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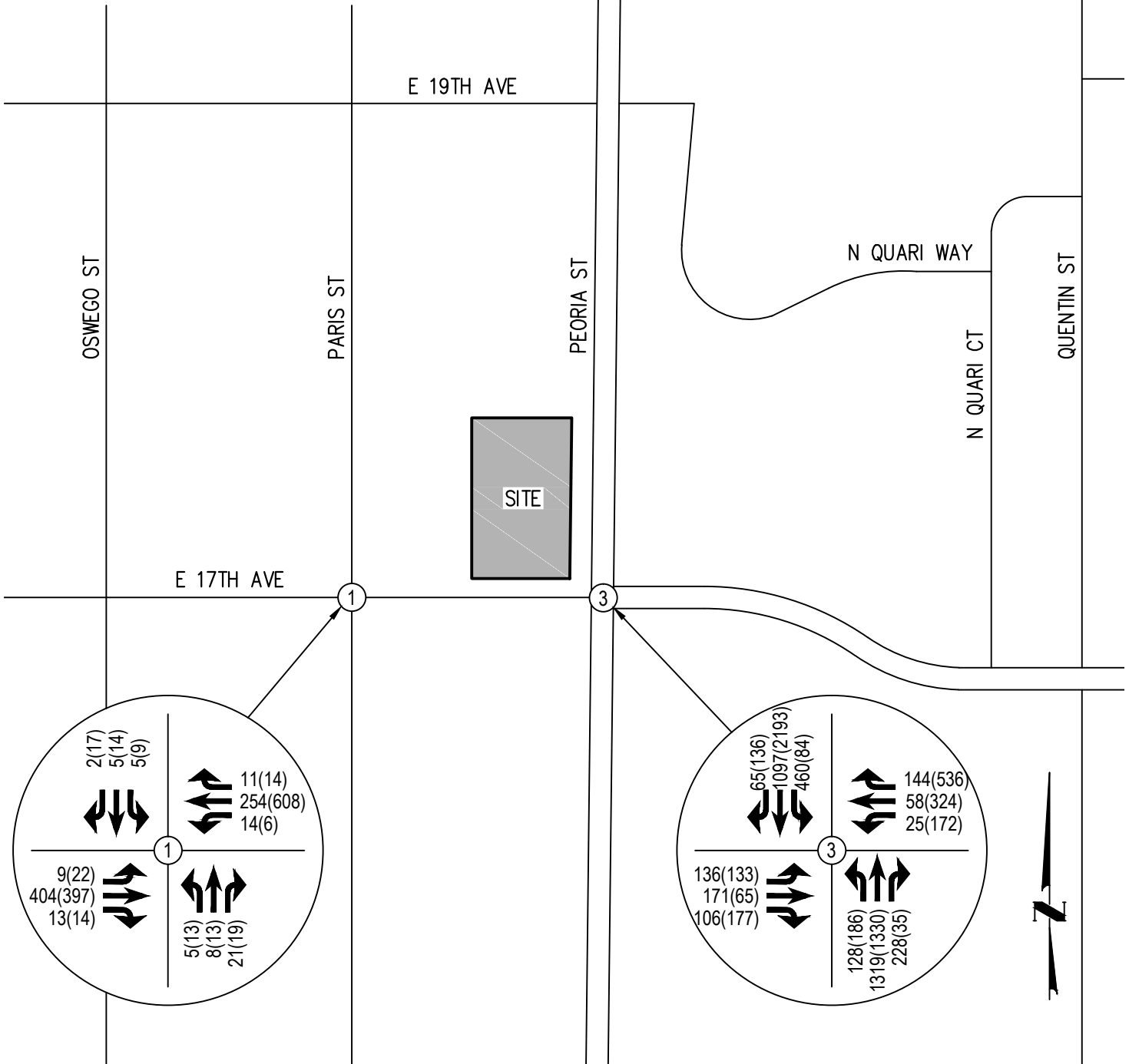
DSN'D BY:	4
CHK'D BY:	
DRAWN BY:	
SHEET NO.	4 OF 14

LEGEND:

— EXISTING ROADWAY

⊙ INTERSECTION NUMBER

X(X) → AM(PM) PEAK HR VOLUME



Plotted: TUE 03/13/18 4:07:13P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\ex-back traff vol.dwg Layout: 2035

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OVIS CAPITAL LLC

1725 PEORIA ST
2040 BACKGROUND TRAFFIC
VOLUMES

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CHK'D BY:
DRAWN BY:

SHEET NO.

5

5 OF 14

LEGEND:

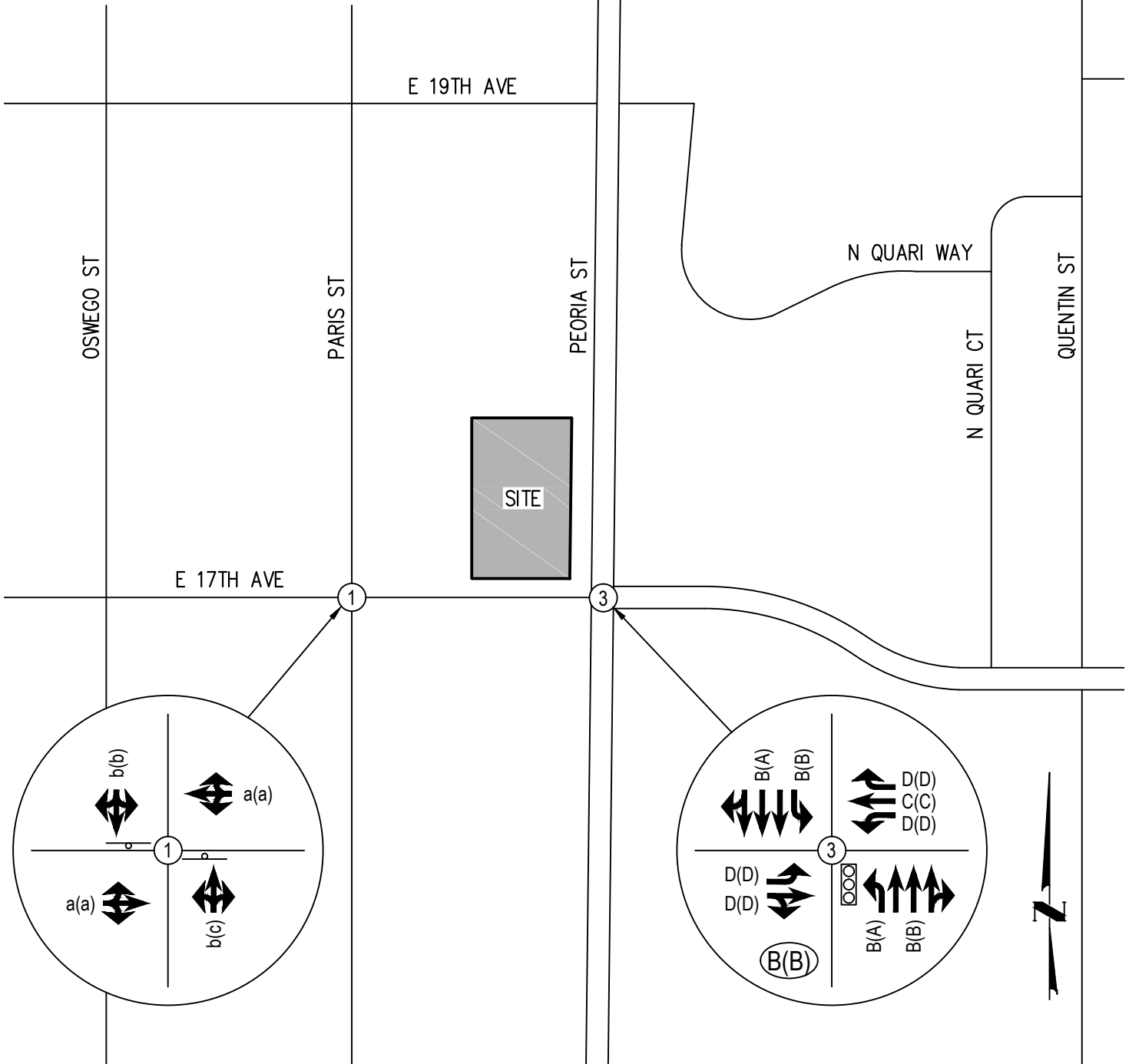
— EXISTING ROADWAY

⊕ INTERSECTION NUMBER

X(X) → LANE GROUP LOS AM(PM)

⊙ STOP SIGN

⊞ SIGNALIZED INTERSECTION



Plotted: TUE 03/13/18 4:07:19P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\ex-back traff op.dwg Layout: 2017

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1725 PEORIA ST
2017 EXISTING TRAFFIC
OPERATIONAL CONDITIONS

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CHK'D BY:
DRAWN BY:

SHEET NO.

6

6 OF 14

LEGEND:

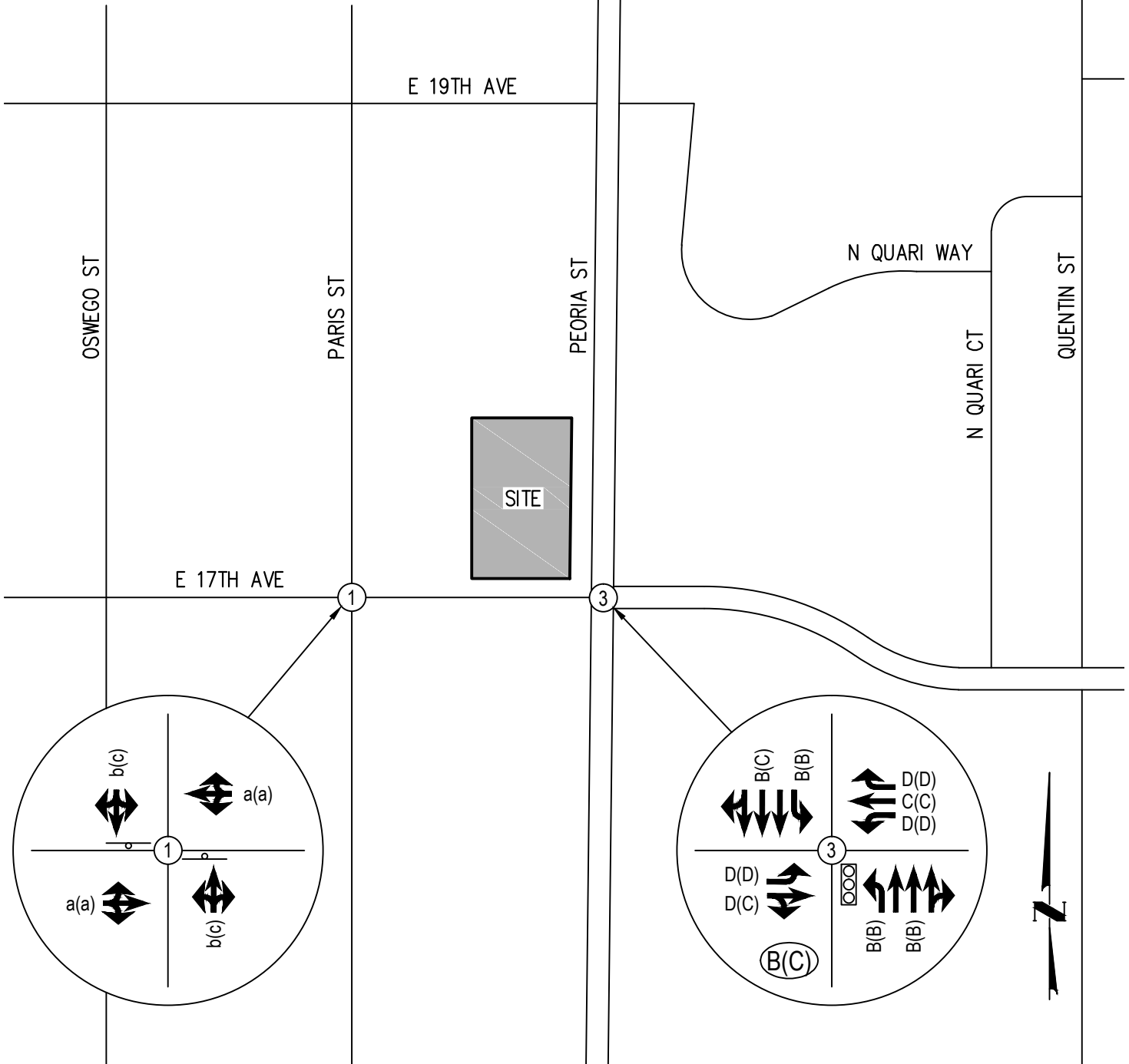
— EXISTING ROADWAY

⊕ INTERSECTION NUMBER

X(X) → LANE GROUP LOS AM(PM)

○ STOP SIGN

⓪ SIGNALIZED INTERSECTION



Plotted: TUE 03/13/18 4:07:23P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\ex-back traff op.dwg Layout: 2019

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ISSUE DATE: 07-28-2017		PROJECT #: 170602
DATE	REVISION COMMENTS	

OVIS CAPITAL LLC

1725 PEORIA ST
2019 BACKGROUND TRAFFIC
OPERATIONAL CONDITIONS

HKS HARRIS KOCHER SMITH
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CHK'D BY:
DRAWN BY:

SHEET NO.

7

7 OF 14

LEGEND:

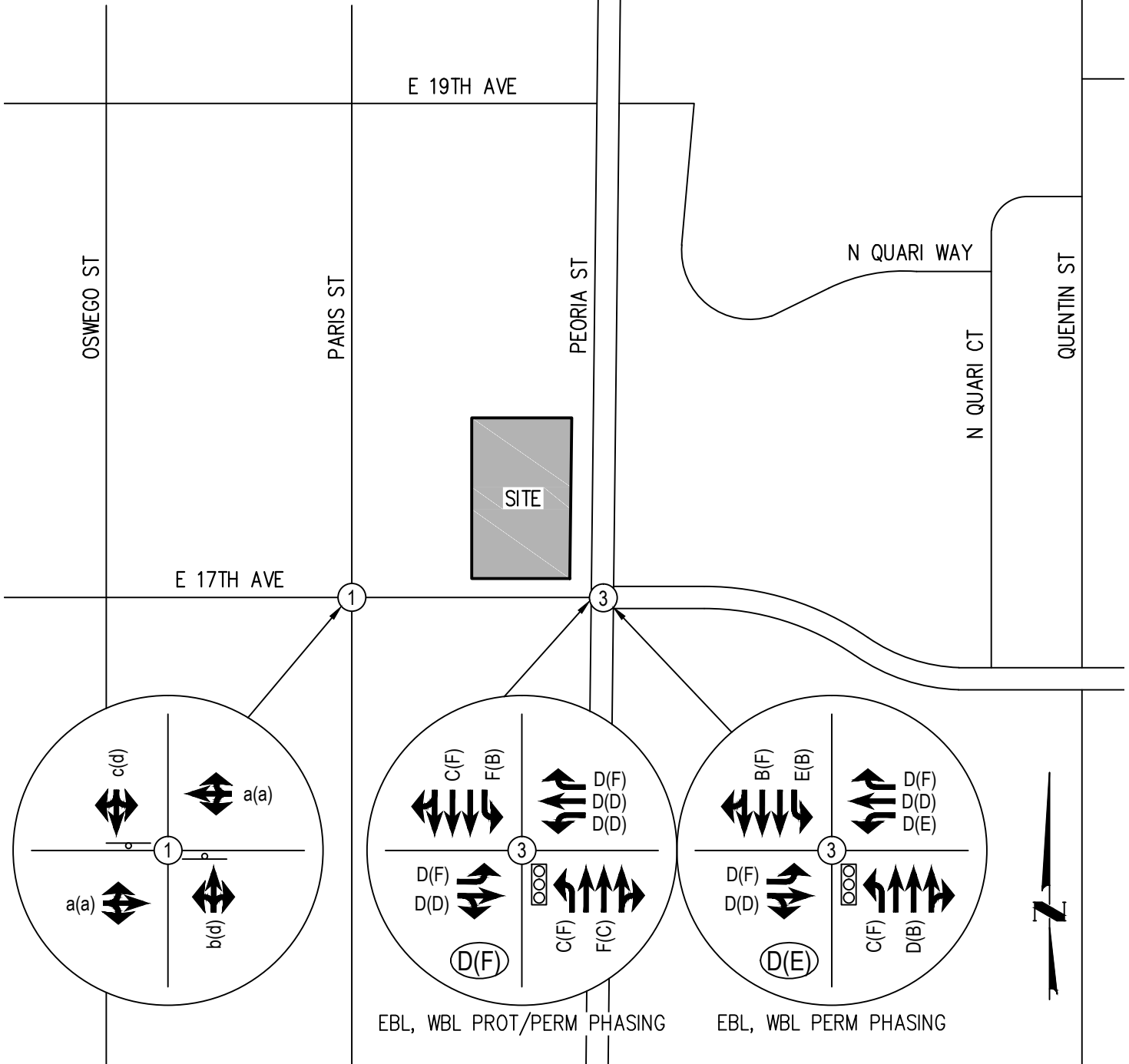
— EXISTING ROADWAY

⊕ INTERSECTION NUMBER

X(X) → LANE GROUP LOS AM(PM)

— STOP SIGN

⊞ SIGNALIZED INTERSECTION



Plotted: TUE 03/13/18 4:07:28P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\ex-back traff op.dwg Layout: 2035

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DATE		REVISION COMMENTS	

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1725 PEORIA ST
2040 BACKGROUND TRAFFIC
OPERATIONAL CONDITIONS

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CHK'D BY:
DRAWN BY:

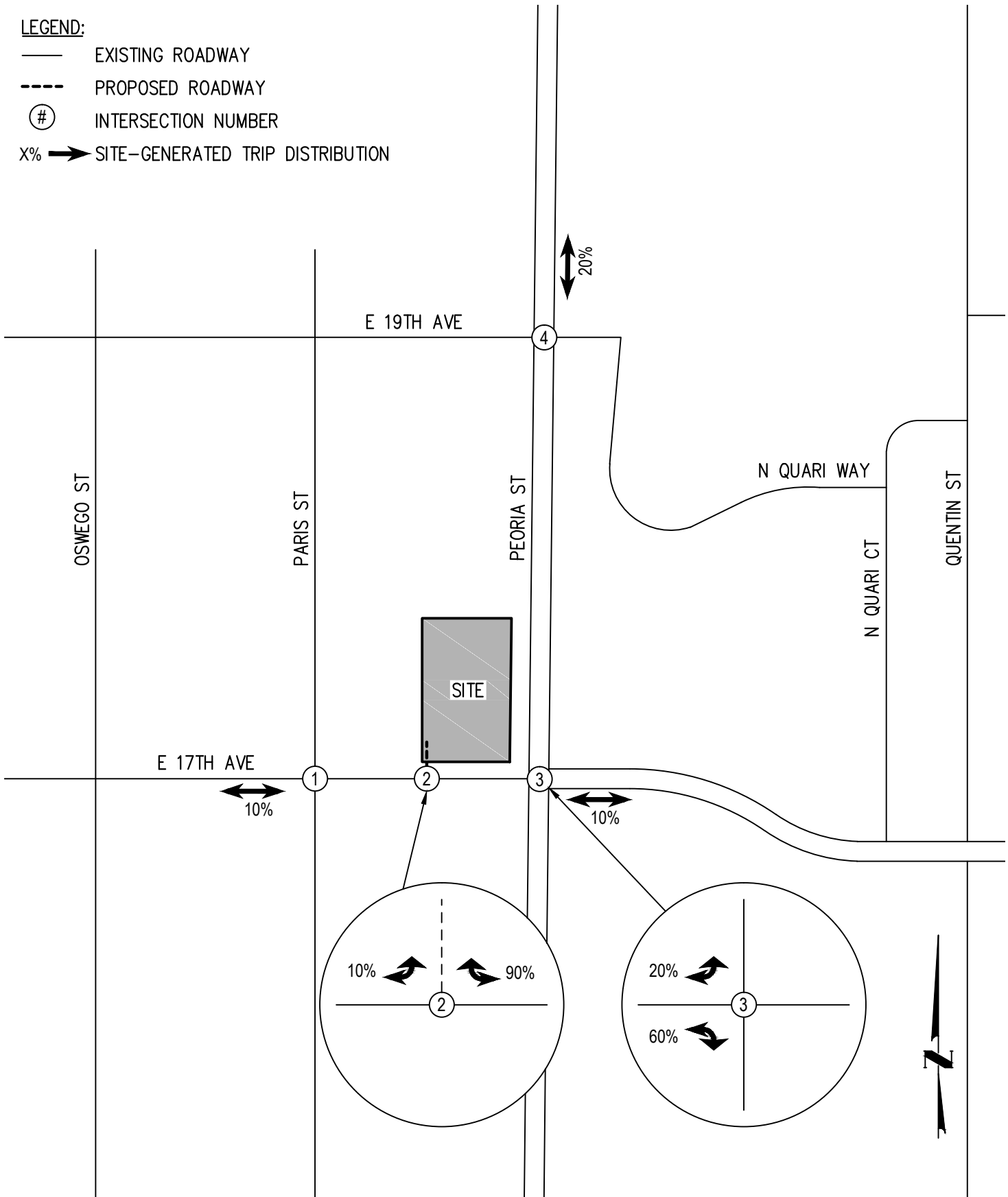
SHEET NO.

8

8 OF 14

LEGEND:

- EXISTING ROADWAY
- - - PROPOSED ROADWAY
- ⊕ INTERSECTION NUMBER
- X% → SITE-GENERATED TRIP DISTRIBUTION



Plotted: TUE 03/13/18 4:07:34P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\site gen.dwg Layout: dist

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ISSUE DATE: 07-28-2017		PROJECT #: 170602	
DATE		REVISION COMMENTS	

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SITE-GENERATED TRIP
DISTRIBUTION

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CHKD BY:
DRAWN BY:

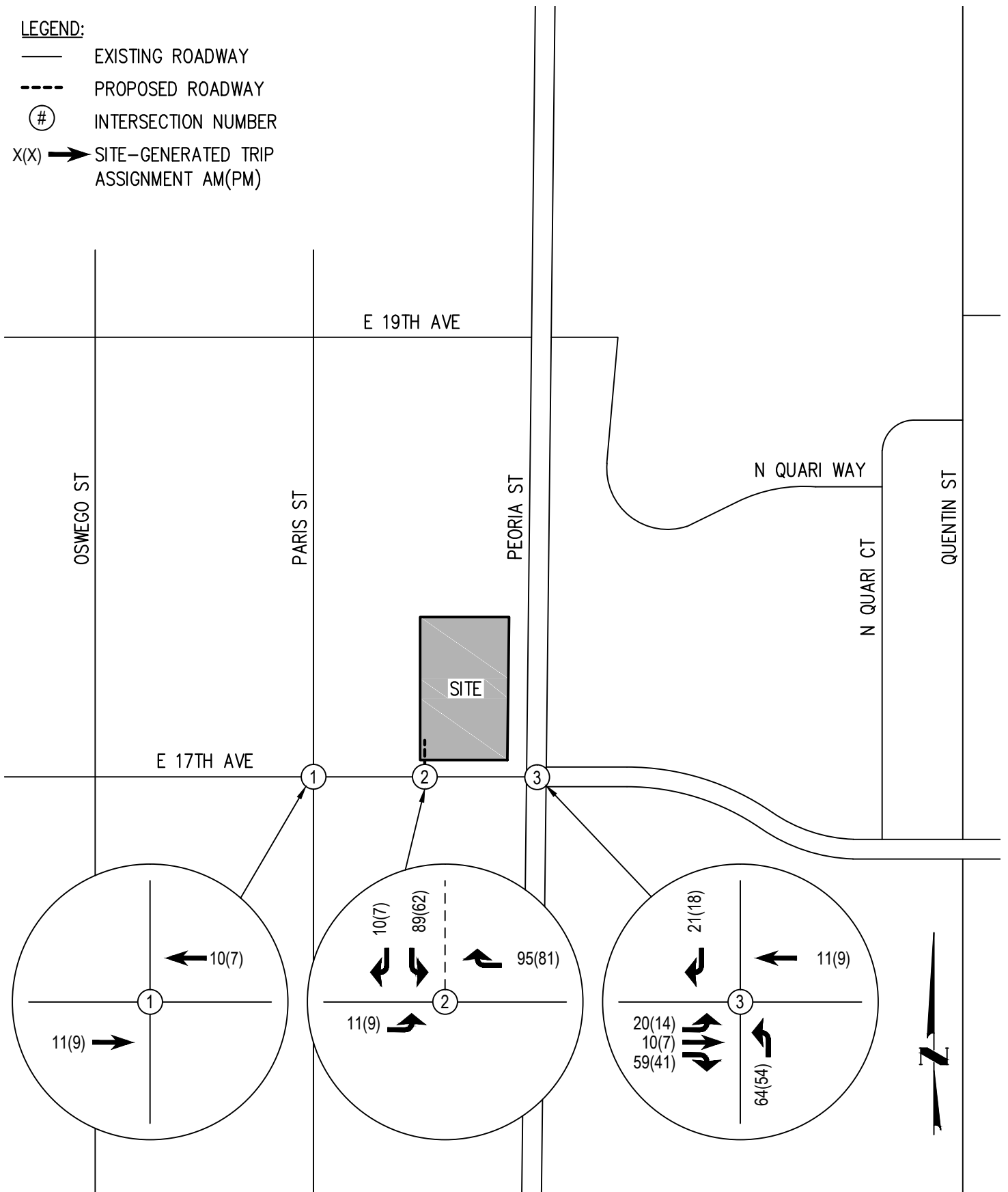
SHEET NO.

9

9 OF 14

LEGEND:

- EXISTING ROADWAY
- - - PROPOSED ROADWAY
- ⊙ # INTERSECTION NUMBER
- X(X) → SITE-GENERATED TRIP ASSIGNMENT AM(PM)



Plotted: TUE 03/13/18 4:07:38P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\site gen.dwg Layout: assign

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DATE	REVISION COMMENTS	

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1725 PEORIA ST
SITE-GENERATED TRIP
ASSIGNMENT

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CHK'D BY:
DRAWN BY:

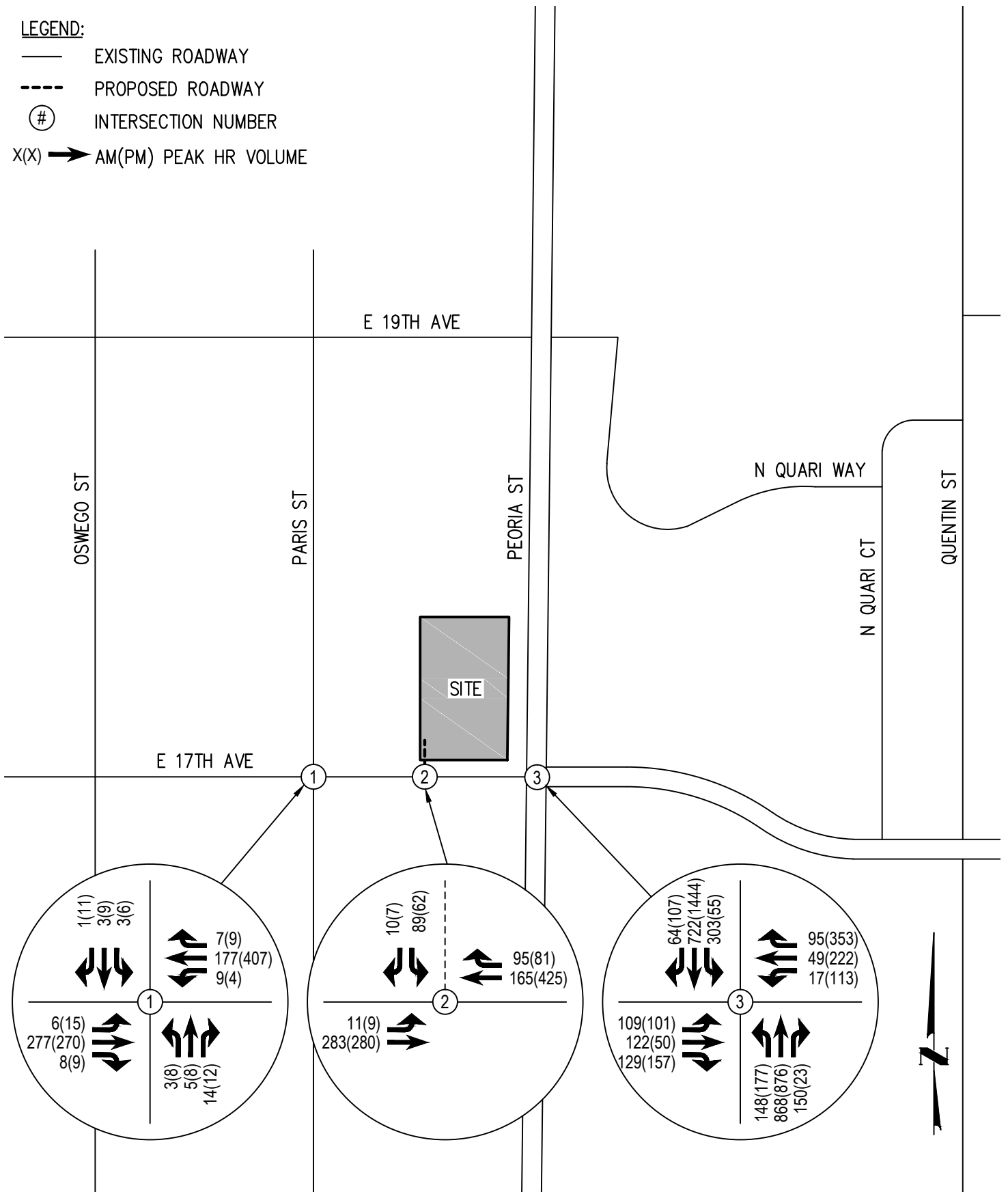
SHEET NO.

10

10 OF 14

LEGEND:

- EXISTING ROADWAY
- - - PROPOSED ROADWAY
- ⊙ # INTERSECTION NUMBER
- X(X) → AM(PM) PEAK HR VOLUME



Plotted: TUE 03/13/18 4:07:44P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\tot traff vol.dwg Layout: 2019

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DATE		REVISION COMMENTS	

OVIS CAPITAL LLC

1725 PEORIA ST
2019 TOTAL TRAFFIC VOLUMES

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CHK'D BY:
DRAWN BY:

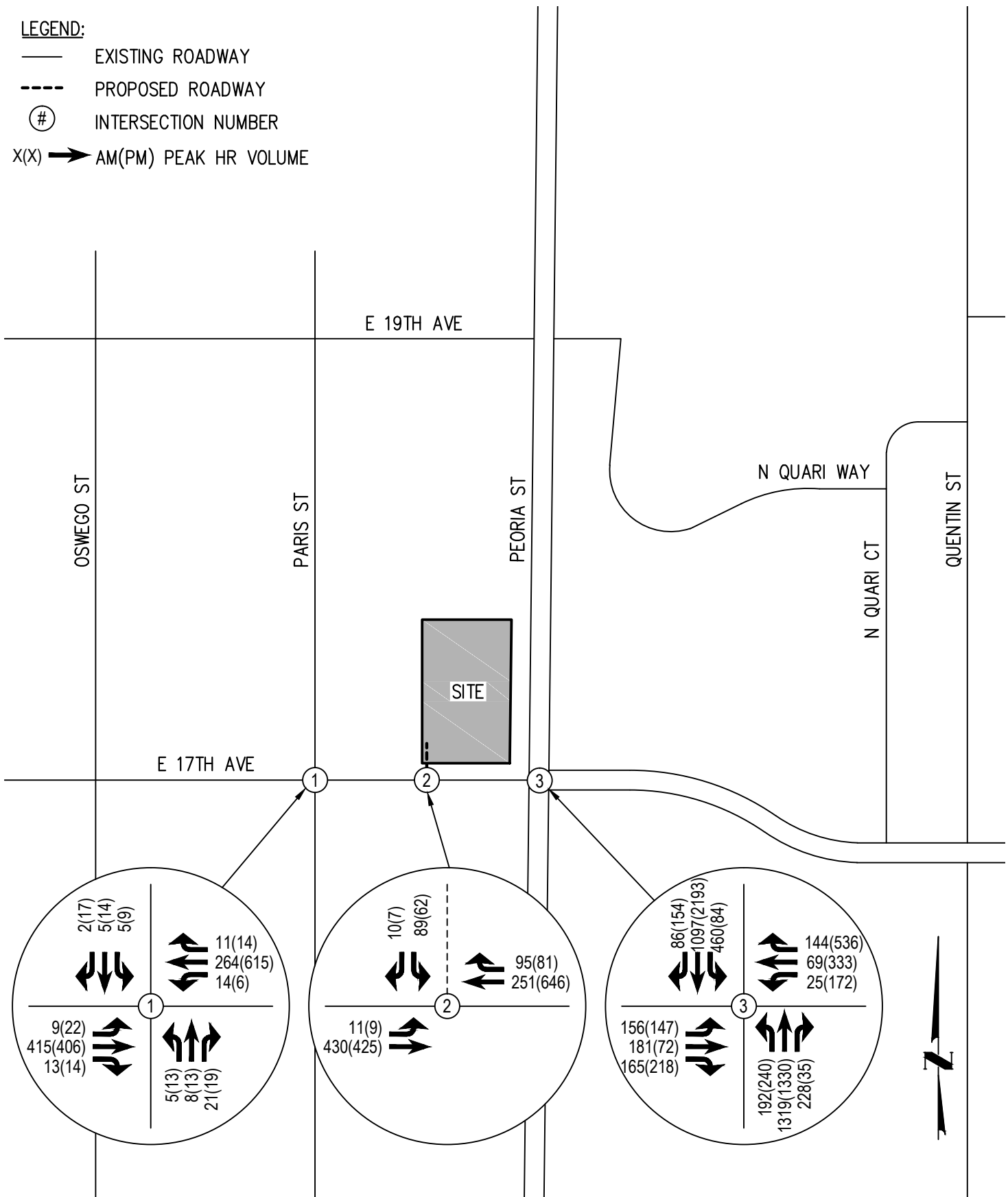
SHEET NO.

11

11 OF 14

LEGEND:

- EXISTING ROADWAY
 - - - PROPOSED ROADWAY
 (#) INTERSECTION NUMBER
 X(X) → AM(PM) PEAK HR VOLUME



Plotted: TUE 03/13/18 4:07:48P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\tot traff vol.dwg Layout: 2035

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DATE	REVISION COMMENTS

OVIS CAPITAL LLC

1725 PEORIA ST
 2040 TOTAL TRAFFIC VOLUMES

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 DRAWN BY:

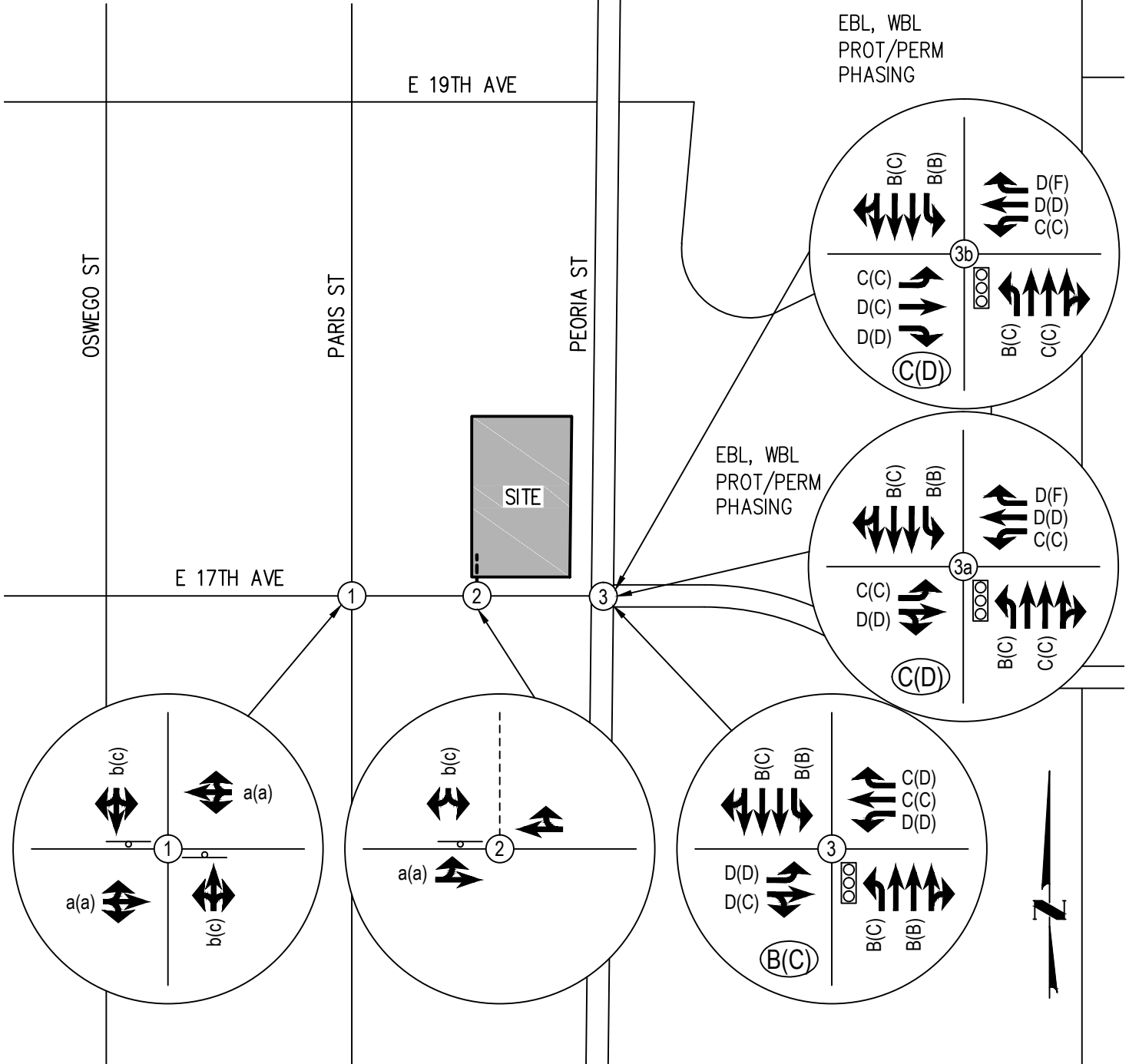
SHEET NO.

12

12 OF 14

LEGEND:

- EXISTING ROADWAY
- - - PROPOSED ROADWAY
- ⊙ INTERSECTION NUMBER
- X(X) → LANE GROUP LOS AM(PM)
- ⊙ STOP SIGN
- ⊙ SIGNALIZED INTERSECTION



Plotted: TUE 03/13/18 4:07:54P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\tot traff op.dwg Layout: 2019

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ISSUE DATE: 07-28-2017	PROJECT #: 170602
DATE	REVISION COMMENTS

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1725 PEORIA ST
2019 TOTAL TRAFFIC
OPERATIONAL CONDITIONS

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CHK'D BY:
DRAWN BY:

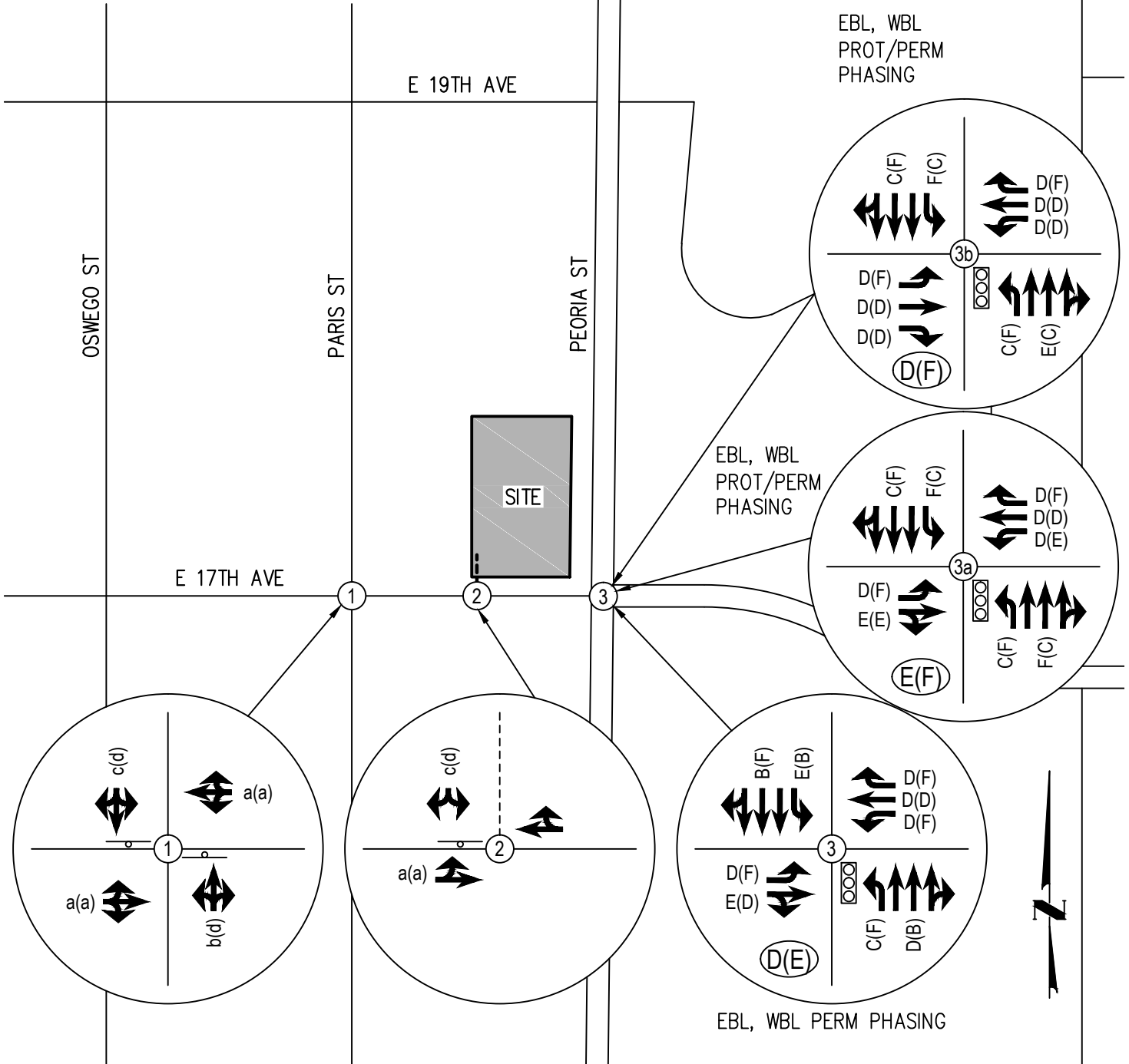
SHEET NO.

13

13 OF 14

LEGEND:

- EXISTING ROADWAY
- - - PROPOSED ROADWAY
- ⊙ INTERSECTION NUMBER
- X(X) → LANE GROUP LOS AM(PM)
- ⊙ STOP SIGN
- ⊞ SIGNALIZED INTERSECTION



Plotted: TUE 03/13/18 4:07:58P By: Ethan Rogers Filepath: p:\170602\engineering\exhibit\traffic study figures\tot traff op.dwg Layout: 2035

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ISSUE DATE: 07-28-2017	PROJECT #: 170602
DATE	REVISION COMMENTS

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1725 PEORIA ST
2040 TOTAL TRAFFIC
OPERATIONAL CONDITIONS

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14

14 OF 14

APPENDIX “A”

**2017 EXISTING
TRAFFIC VOLUME COUNTS**



(303) 216-2439
www.alltrafficdata.net

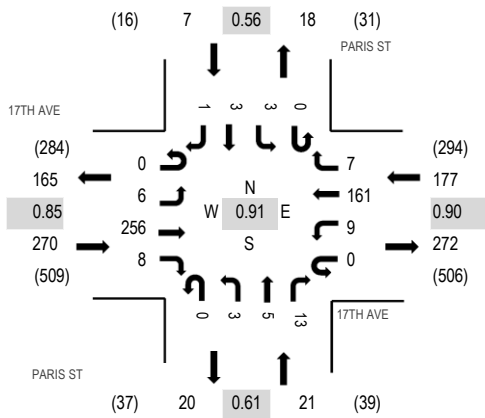
Location: 1 PARIS ST & 17TH AVE AM

Date and Start Time: Wednesday, June 28, 2017

Peak Hour: 07:30 AM - 08:30 AM

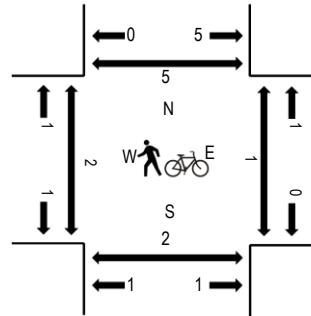
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

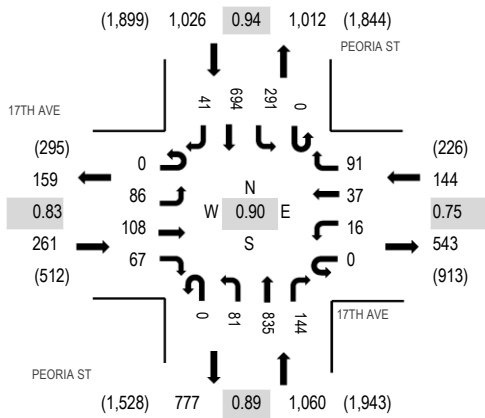
Interval Start Time	17TH AVE Eastbound				17TH AVE Westbound				PARIS ST Northbound				PARIS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	51	2	0	1	27	1	0	2	0	0	0	0	1	1	87	437	0	1	0	0
7:15 AM	0	2	58	2	0	0	27	1	0	3	1	0	0	0	0	0	94	439	0	1	1	0
7:30 AM	0	1	74	4	0	0	41	2	0	0	2	1	0	2	0	0	127	475	0	1	0	2
7:45 AM	0	3	72	1	0	1	43	3	0	1	0	2	0	1	1	1	129	456	2	0	0	1
8:00 AM	0	2	43	2	0	4	34	0	0	1	0	3	0	0	0	0	89	421	0	0	1	1
8:15 AM	0	0	67	1	0	4	43	2	0	1	3	7	0	0	2	0	130		0	0	1	1
8:30 AM	0	0	68	1	0	3	26	2	0	2	0	2	0	0	3	1	108		0	0	0	1
8:45 AM	0	4	49	2	0	2	25	2	0	4	0	4	0	1	0	1	94		0	1	1	1
Count Total	0	12	482	15	0	15	266	13	0	14	6	19	0	5	7	4	858		2	4	4	7
Peak Hour	0	6	256	8	0	9	161	7	0	3	5	13	0	3	3	1	475		2	1	2	5



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www.alltrafficdata.net

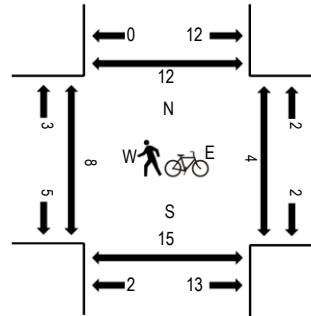
Location: 2 PEORIA ST & 17TH AVE AM
Date and Start Time: Wednesday, June 28, 2017
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	17TH AVE Eastbound				17TH AVE Westbound				PEORIA ST Northbound				PEORIA ST 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	14	21	18	0	1	11	21	0	14	195	29	0	56	137	4	521	2,484	1	1	1	2
7:15 AM	0	18	26	13	0	4	4	21	0	15	216	35	0	75	182	9	618	2,491	0	0	2	1
7:30 AM	0	29	35	19	0	5	14	31	0	23	229	48	0	76	176	8	693	2,401	2	3	4	4
7:45 AM	0	23	35	17	0	4	11	22	0	19	209	40	0	89	169	14	652	2,233	2	0	1	2
8:00 AM	0	16	12	18	0	3	8	17	0	24	181	21	0	51	167	10	528	2,096	1	1	2	5
8:15 AM	0	21	26	24	0	1	3	8	0	28	181	22	0	37	164	13	528		2	0	3	0
8:30 AM	0	21	19	25	0	1	8	7	0	16	170	33	0	38	181	6	525		3	2	2	4
8:45 AM	0	29	16	17	0	3	2	16	0	22	149	24	0	49	179	9	515		1	2	5	3
Count Total	0	171	190	151	0	22	61	143	0	161	1,530	252	0	471	1,355	73	4,580		12	9	20	21
Peak Hour	0	86	108	67	0	16	37	91	0	81	835	144	0	291	694	41	2,491		5	4	9	12



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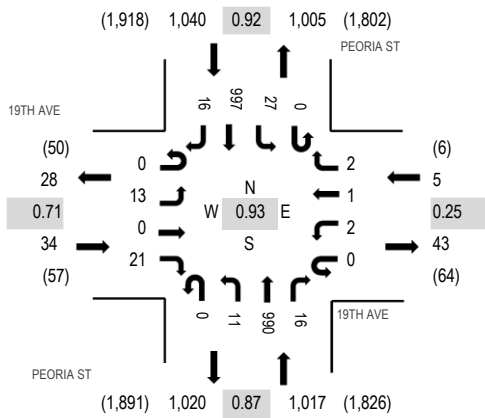
Location: 3 PEORIA ST & 19TH AVE AM

Date and Start Time: Wednesday, June 28, 2017

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

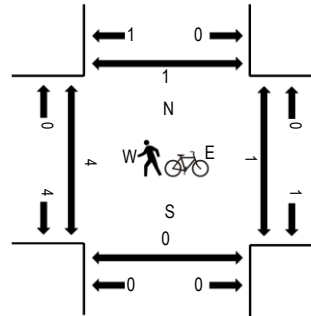
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

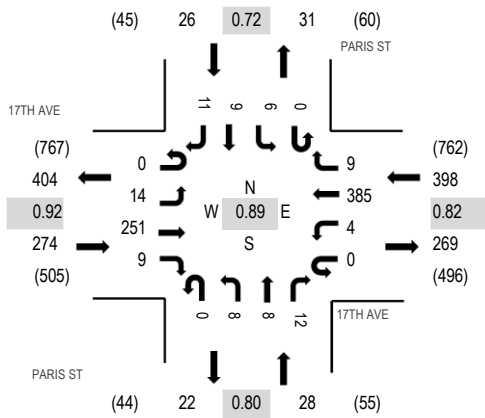
Interval Start Time	19TH AVE Eastbound				19TH AVE Westbound				PEORIA ST Northbound				PEORIA ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	0	4	0	1	0	0	0	3	221	5	0	2	186	4	428	2,076	0	1	0	1
7:15 AM	0	3	0	5	0	0	0	0	0	1	239	4	0	6	262	4	524	2,096	0	0	0	0
7:30 AM	0	2	0	5	0	0	0	0	0	5	291	3	0	6	249	2	563	1,980	0	0	0	0
7:45 AM	0	5	0	7	0	0	0	0	0	4	255	6	0	10	266	8	561	1,867	2	1	0	0
8:00 AM	0	3	0	4	0	2	1	2	0	1	205	3	0	5	220	2	448	1,731	0	0	0	0
8:15 AM	0	2	0	2	0	0	0	0	0	0	192	3	0	1	208	0	408		0	0	2	1
8:30 AM	0	2	0	4	0	0	0	0	0	5	199	1	1	3	229	6	450		0	2	0	0
8:45 AM	0	3	0	4	0	0	0	0	0	2	175	3	0	3	233	2	425		0	0	1	0
Count Total	0	22	0	35	0	3	1	2	0	21	1,777	28	1	36	1,853	28	3,807		2	4	3	2
Peak Hour	0	13	0	21	0	2	1	2	0	11	990	16	0	27	997	16	2,096		2	1	0	0



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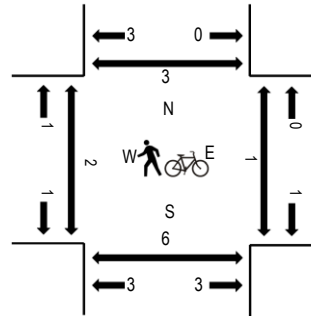
Location: 1 PARIS ST & 17TH AVE PM
Date and Start Time: Wednesday, June 28, 2017
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

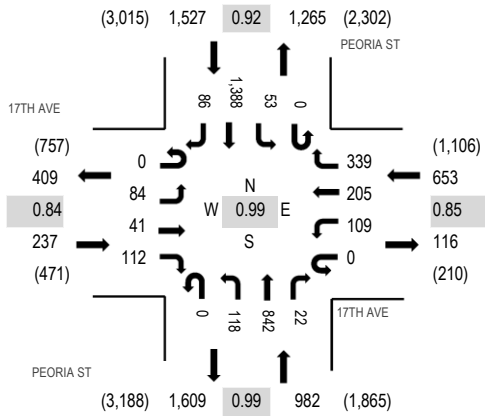
Interval Start Time	17TH AVE Eastbound				17TH AVE Westbound				PARIS ST Northbound				PARIS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	2	67	2	0	1	77	1	0	1	5	0	0	0	1	3	160	682	0	0	2	0
4:15 PM	0	6	65	6	0	1	80	2	0	1	2	3	0	2	2	3	173	726	0	0	2	0
4:30 PM	0	2	62	0	0	0	95	1	0	2	0	2	0	1	2	2	169	709	0	0	0	0
4:45 PM	0	3	67	2	0	2	89	2	0	3	3	4	0	2	3	0	180	705	2	1	0	1
5:00 PM	0	3	57	1	0	1	121	4	0	2	3	3	0	1	2	6	204	685	0	0	4	2
5:15 PM	0	3	45	3	0	2	93	2	0	1	1	2	0	1	1	2	156		0	0	4	1
5:30 PM	0	3	47	2	0	4	89	3	0	1	3	6	0	1	3	3	165		0	0	0	0
5:45 PM	0	1	55	1	0	1	88	3	0	3	2	2	0	1	1	2	160		0	0	3	1
Count Total	0	23	465	17	0	12	732	18	0	14	19	22	0	9	15	21	1,367		2	1	15	5
Peak Hour	0	14	251	9	0	4	385	9	0	8	8	12	0	6	9	11	726		2	1	6	3



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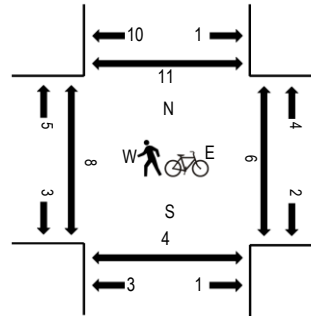
Location: 2 PEORIA ST & 17TH AVE PM
Date and Start Time: Wednesday, June 28, 2017
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

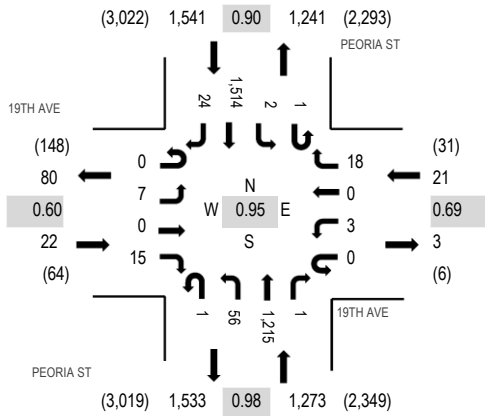
Interval Start Time	17TH AVE Eastbound				17TH AVE Westbound				PEORIA ST Northbound				PEORIA ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	12	11	38	0	17	39	55	0	30	193	3	0	9	341	12	760	3,205	1	1	1	4
4:15 PM	0	25	10	36	0	19	35	48	0	27	212	5	0	8	327	18	770	3,307	2	1	1	2
4:30 PM	0	22	14	21	0	29	44	85	0	29	214	6	0	13	334	24	835	3,399	3	2	2	3
4:45 PM	0	26	8	46	0	27	51	85	0	33	205	8	0	17	323	11	840	3,344	2	4	1	2
5:00 PM	0	16	9	29	0	27	65	100	0	33	206	1	0	13	339	24	862	3,252	2	0	0	2
5:15 PM	0	20	10	16	0	26	45	69	0	23	217	7	0	10	392	27	862		0	0	1	1
5:30 PM	0	14	7	27	0	20	43	58	0	41	180	4	0	12	360	14	780		0	0	1	0
5:45 PM	0	20	10	24	0	16	40	63	0	28	157	3	0	12	354	21	748		0	0	4	0
Count Total	0	155	79	237	0	181	362	563	0	244	1,584	37	0	94	2,770	151	6,457		10	8	11	14
Peak Hour	0	84	41	112	0	109	205	339	0	118	842	22	0	53	1,388	86	3,399		7	6	4	8



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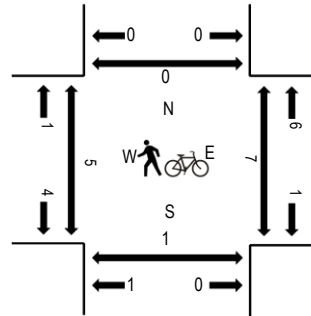
Location: 3 PEORIA ST & 19TH AVE PM
Date and Start Time: Wednesday, June 28, 2017
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	19TH AVE Eastbound				19TH AVE Westbound				PEORIA ST Northbound				PEORIA ST 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	3	0	8	0	1	0	2	0	9	269	1	0	0	353	10	656	2,686	1	0	0	0
4:15 PM	0	1	0	5	0	1	0	3	0	12	263	0	0	2	345	7	639	2,745	0	1	0	0
4:30 PM	0	3	0	6	0	1	0	7	1	14	306	0	0	0	364	5	707	2,857	1	1	0	0
4:45 PM	0	0	0	2	0	1	0	4	0	16	304	1	0	1	351	4	684	2,826	0	1	1	0
5:00 PM	0	3	0	4	0	1	0	4	0	14	310	0	0	1	371	7	715	2,780	2	2	0	0
5:15 PM	0	1	0	3	0	0	0	3	0	12	295	0	1	0	428	8	751		1	1	0	0
5:30 PM	0	3	0	12	0	1	0	1	0	14	238	0	1	0	397	9	676		0	1	0	1
5:45 PM	0	2	0	8	0	0	0	1	0	5	265	0	0	0	355	2	638		0	0	0	0
Count Total	0	16	0	48	0	6	0	25	1	96	2,250	2	2	4	2,964	52	5,466		5	7	1	1
Peak Hour	0	7	0	15	0	3	0	18	1	56	1,215	1	1	2	1,514	24	2,857		4	5	1	0

















APPENDIX “B”

**INTERSECTION
CAPACITY ANALYSIS
WORKSHEETS**

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.995			0.917			0.977	
Flt Protected		0.999			0.997			0.993			0.980	
Satd. Flow (prot)	0	1853	0	0	1848	0	0	1696	0	0	1784	0
Flt Permitted		0.999			0.997			0.993			0.980	
Satd. Flow (perm)	0	1853	0	0	1848	0	0	1696	0	0	1784	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			338			425			385	
Travel Time (s)		12.2			9.2			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	1.2											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	256	8	9	161	7	3	5	13	3	3	1
Conflicting Peds, #/hr	5	0	2	2	0	5	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	61	61	61	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	301	9	10	179	8	5	8	21	5	5	2



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	189	0	0	313	0	0	530	531	313	542	532	190
Stage 1	-	-	-	-	-	-	322	322	-	205	205	-
Stage 2	-	-	-	-	-	-	208	209	-	337	327	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1385	-	-	1247	-	-	460	454	727	451	453	852
Stage 1	-	-	-	-	-	-	690	651	-	797	732	-
Stage 2	-	-	-	-	-	-	794	729	-	677	648	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1379	-	-	1242	-	-	447	446	723	424	445	847
Mov Cap-2 Maneuver	-	-	-	-	-	-	447	446	-	424	445	-
Stage 1	-	-	-	-	-	-	685	646	-	791	724	-
Stage 2	-	-	-	-	-	-	776	721	-	642	643	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	11.5	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	585	1379	-	-	1242	-	-	467
HCM Lane V/C Ratio	0.059	0.005	-	-	0.008	-	-	0.027
HCM Control Delay (s)	11.5	7.6	0	-	7.9	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Timings 3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018





									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	86	108	16	37	91	81	835	291	694
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	37.0	37.0	37.0	37.0	37.0	14.0	46.0	37.0	69.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	38.3%	30.8%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	17.3	17.3	17.3	17.3	17.3	61.2	53.7	74.3	64.2
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.59	0.52	0.72	0.62
v/c Ratio	0.47	0.68	0.17	0.16	0.34	0.20	0.42	0.67	0.25
Control Delay	46.1	46.9	39.9	37.8	9.0	8.0	17.4	15.2	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	46.9	39.9	37.8	9.0	8.0	17.4	15.2	10.2
LOS	D	D	D	D	A	A	B	B	B
Approach Delay		46.6		19.8			16.7		11.6
Approach LOS		D		B			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 103
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 18.3
 Intersection Capacity Utilization 66.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C























Splits and Phases: 3: Peoria St & E 17th Ave

		
37 s	46 s	37 s
		
14 s	69 s	37 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	86	108	67	16	37	91	81	835	144	291	694	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	104	130	81	21	49	121	91	938	162	310	738	44
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.83	0.83	0.83	0.75	0.75	0.75	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	219	137	178	384	319	500	2351	405	455	2939	174
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.04	0.54	0.54	0.10	0.60	0.60
Sat Flow, veh/h	1190	1065	663	1152	1863	1549	1774	4365	751	1774	4908	291
Grp Volume(v), veh/h	104	0	211	21	49	121	91	728	372	310	509	273
Grp Sat Flow(s),veh/h/ln	1190	0	1728	1152	1863	1549	1774	1695	1726	1774	1695	1809
Q Serve(g_s), s	8.3	0.0	11.7	1.8	2.3	7.1	2.4	13.4	13.5	7.7	7.5	7.6
Cycle Q Clear(g_c), s	10.5	0.0	11.7	13.5	2.3	7.1	2.4	13.4	13.5	7.7	7.5	7.6
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.44	1.00		0.16
Lane Grp Cap(c), veh/h	288	0	356	178	384	319	500	1826	930	455	2030	1083
V/C Ratio(X)	0.36	0.00	0.59	0.12	0.13	0.38	0.18	0.40	0.40	0.68	0.25	0.25
Avail Cap(c_a), veh/h	396	0	513	283	553	460	572	1826	930	805	2030	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	0.0	38.1	44.2	34.3	36.2	10.0	14.4	14.4	10.4	10.0	10.0
Incr Delay (d2), s/veh	0.8	0.0	1.6	0.3	0.1	0.7	0.2	0.7	1.3	1.8	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	5.7	0.6	1.2	3.1	1.2	6.4	6.7	3.8	3.5	3.9
LnGrp Delay(d),s/veh	39.4	0.0	39.6	44.4	34.5	37.0	10.1	15.0	15.7	12.2	10.3	10.6
LnGrp LOS	D		D	D	C	D	B	B	B	B	B	B
Approach Vol, veh/h		315			191			1191			1092	
Approach Delay, s/veh		39.5			37.2			14.9			10.9	
Approach LOS		D			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.1	62.6		27.4	9.7	69.0		27.4				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	31.5	40.5		31.5	8.5	63.5		31.5				
Max Q Clear Time (g_c+I1), s	9.7	15.5		13.7	4.4	9.6		15.5				
Green Ext Time (p_c), s	0.9	14.2		2.4	0.1	20.0		2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			17.6									
HCM 2010 LOS			B									

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.995			0.997			0.942			0.942	
Flt Protected		0.997			0.999			0.986			0.989	
Satd. Flow (prot)	0	1848	0	0	1855	0	0	1730	0	0	1735	0
Flt Permitted		0.997			0.999			0.986			0.989	
Satd. Flow (perm)	0	1848	0	0	1855	0	0	1730	0	0	1735	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			338			425			385	
Travel Time (s)		12.2			9.2			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	1.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	251	9	4	385	9	8	8	12	6	9	11
Conflicting Peds, #/hr	3	0	6	6	0	3	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	82	82	82	80	80	80	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	273	10	5	470	11	10	10	15	8	12	15



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	482	0	0	285	0	0	811	802	286	810	802	483
Stage 1	-	-	-	-	-	-	310	310	-	487	487	-
Stage 2	-	-	-	-	-	-	501	492	-	323	315	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1081	-	-	1277	-	-	298	317	753	298	317	584
Stage 1	-	-	-	-	-	-	700	659	-	562	550	-
Stage 2	-	-	-	-	-	-	552	548	-	689	656	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1076	-	-	1271	-	-	275	309	748	278	309	580
Mov Cap-2 Maneuver	-	-	-	-	-	-	275	309	-	278	309	-
Stage 1	-	-	-	-	-	-	687	647	-	552	546	-
Stage 2	-	-	-	-	-	-	520	544	-	650	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	15	15.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	394	1076	-	-	1271	-	-	373
HCM Lane V/C Ratio	0.089	0.014	-	-	0.004	-	-	0.097
HCM Control Delay (s)	15	8.4	0	-	7.8	0	-	15.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018




									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	86	108	16	37	91	81	835	291	694
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	13.0	43.0	39.0	69.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	31.7%	10.8%	35.8%	32.5%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	16.9	16.9	16.9	16.9	16.9	61.2	54.1	73.6	64.3
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.60	0.53	0.72	0.63
v/c Ratio	0.46	0.67	0.15	0.14	0.30	0.18	0.37	0.64	0.25
Control Delay	45.7	46.3	39.0	37.3	7.1	7.8	16.2	12.7	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	46.3	39.0	37.3	7.1	7.8	16.2	12.7	9.9
LOS	D	D	D	D	A	A	B	B	A
Approach Delay		46.1		18.5			15.6		10.7
Approach LOS		D		B			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 102.2
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 17.3
 Intersection Capacity Utilization 65.9%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C























Splits and Phases: 3: Peoria St & E 17th Ave

 ø1	 ø2	 ø4
39 s	43 s	38 s
 ø5	 ø6	 ø8
13 s	69 s	38 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	86	108	67	16	37	91	81	835	144	291	694	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	102	129	80	19	44	107	82	843	145	316	754	45
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.99	0.99	0.99	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	211	131	170	367	307	496	2377	407	494	2987	178
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.04	0.54	0.54	0.10	0.61	0.61
Sat Flow, veh/h	1215	1069	663	1157	1863	1557	1774	4370	747	1774	4908	292
Grp Volume(v), veh/h	102	0	209	19	44	107	82	653	335	316	520	279
Grp Sat Flow(s),veh/h/ln	1215	0	1732	1157	1863	1557	1774	1695	1727	1774	1695	1809
Q Serve(g_s), s	7.9	0.0	11.5	1.6	2.0	6.2	2.1	11.3	11.5	7.6	7.4	7.4
Cycle Q Clear(g_c), s	9.9	0.0	11.5	13.1	2.0	6.2	2.1	11.3	11.5	7.6	7.4	7.4
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.43	1.00		0.16
Lane Grp Cap(c), veh/h	285	0	341	170	367	307	496	1844	940	494	2063	1101
V/C Ratio(X)	0.36	0.00	0.61	0.11	0.12	0.35	0.17	0.35	0.36	0.64	0.25	0.25
Avail Cap(c_a), veh/h	424	0	540	302	580	485	560	1844	940	885	2063	1101
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	0.0	38.2	44.2	34.4	36.1	9.6	13.4	13.5	9.1	9.4	9.5
Incr Delay (d2), s/veh	0.8	0.0	1.8	0.3	0.1	0.7	0.2	0.5	1.1	1.4	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	5.7	0.5	1.1	2.7	1.0	5.4	5.7	3.9	3.6	3.9
LnGrp Delay(d),s/veh	39.3	0.0	40.0	44.5	34.6	36.8	9.8	14.0	14.5	10.5	9.7	10.0
LnGrp LOS	D		D	D	C	D	A	B	B	B	A	B
Approach Vol, veh/h		311			170			1070			1115	
Approach Delay, s/veh		39.8			37.1			13.8			10.0	
Approach LOS		D			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	62.3		26.1	9.3	69.0		26.1				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	33.5	37.5		32.5	7.5	63.5		32.5				
Max Q Clear Time (g_c+I1), s	9.6	13.5		13.5	4.1	9.4		15.1				
Green Ext Time (p_c), s	0.9	13.1		2.3	0.0	18.3		2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			16.7									
HCM 2010 LOS			B									

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.995			0.914			0.977	
Flt Protected		0.999			0.998			0.993			0.980	
Satd. Flow (prot)	0	1853	0	0	1850	0	0	1691	0	0	1784	0
Flt Permitted		0.999			0.998			0.993			0.980	
Satd. Flow (perm)	0	1853	0	0	1850	0	0	1691	0	0	1784	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			338			425			385	
Travel Time (s)		12.2			9.2			11.6			10.5	

Intersection Summary

Area Type: Other



















Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	266	8	9	167	7	3	5	14	3	3	1
Conflicting Peds, #/hr	5	0	2	2	0	5	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	61	61	61	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	313	9	10	186	8	5	8	23	5	5	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	195	0	0	324	0	0	549	549	325	560	549	196
Stage 1	-	-	-	-	-	-	334	334	-	211	211	-
Stage 2	-	-	-	-	-	-	215	215	-	349	338	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1378	-	-	1236	-	-	446	443	716	439	443	845
Stage 1	-	-	-	-	-	-	680	643	-	791	728	-
Stage 2	-	-	-	-	-	-	787	725	-	667	641	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1372	-	-	1231	-	-	433	435	712	412	435	840
Mov Cap-2 Maneuver	-	-	-	-	-	-	433	435	-	412	435	-
Stage 1	-	-	-	-	-	-	675	638	-	785	720	-
Stage 2	-	-	-	-	-	-	769	717	-	631	636	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.4			11.6			13.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	578	1372	-	-	1231	-	-	455				
HCM Lane V/C Ratio	0.062	0.005	-	-	0.008	-	-	0.027				
HCM Control Delay (s)	11.6	7.6	0	-	7.9	0	-	13.1				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1				

Timings

3: Peoria St & E 17th Ave

1725 Peoria

3/2/2018

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	89	112	17	38	95	84	868	303	722
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	37.0	37.0	37.0	37.0	37.0	13.2	46.0	37.0	69.8
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	11.0%	38.3%	30.8%	58.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	17.8	17.8	17.8	17.8	17.8	60.0	52.7	75.0	65.0
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.58	0.51	0.72	0.63
v/c Ratio	0.47	0.69	0.19	0.16	0.35	0.22	0.45	0.69	0.26
Control Delay	46.3	47.8	40.6	37.9	9.1	8.7	18.8	17.6	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	47.8	40.6	37.9	9.1	8.7	18.8	17.6	10.1
LOS	D	D	D	D	A	A	B	B	B
Approach Delay		47.3		20.0			18.0		12.3
Approach LOS		D		C			B		B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 103.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 19.2





Intersection LOS: B

Intersection Capacity Utilization 68.2%

ICU Level of Service C

Analysis Period (min) 15























Splits and Phases: 3: Peoria St & E 17th Ave

		
37 s	46 s	37 s
		
13.2 s	69.8 s	37 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	112	70	17	38	95	84	868	150	303	722	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	107	135	84	23	51	127	94	975	169	322	768	46
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.83	0.83	0.83	0.75	0.75	0.75	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	223	139	175	389	324	487	2331	403	446	2931	175
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.04	0.53	0.53	0.10	0.60	0.60
Sat Flow, veh/h	1182	1066	663	1144	1863	1549	1774	4362	754	1774	4906	293
Grp Volume(v), veh/h	107	0	219	23	51	127	94	757	387	322	530	284
Grp Sat Flow(s),veh/h/ln	1182	0	1729	1144	1863	1549	1774	1695	1726	1774	1695	1809
Q Serve(g_s), s	8.7	0.0	12.4	2.0	2.4	7.6	2.6	14.4	14.5	8.2	8.0	8.1
Cycle Q Clear(g_c), s	11.1	0.0	12.4	14.4	2.4	7.6	2.6	14.4	14.5	8.2	8.0	8.1
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.44	1.00		0.16
Lane Grp Cap(c), veh/h	288	0	361	175	389	324	487	1812	922	446	2026	1081
V/C Ratio(X)	0.37	0.00	0.61	0.13	0.13	0.39	0.19	0.42	0.42	0.72	0.26	0.26
Avail Cap(c_a), veh/h	387	0	506	270	545	453	542	1812	922	782	2026	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	0.0	38.6	45.1	34.6	36.7	10.3	15.0	15.0	11.4	10.3	10.3
Incr Delay (d2), s/veh	0.8	0.0	1.6	0.3	0.2	0.8	0.2	0.7	1.4	2.2	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	6.1	0.6	1.2	3.3	1.3	6.9	7.2	4.4	3.8	4.2
LnGrp Delay(d),s/veh	39.9	0.0	40.2	45.4	34.8	37.5	10.5	15.7	16.4	13.7	10.6	10.9
LnGrp LOS	D		D	D	C	D	B	B	B	B	B	B
Approach Vol, veh/h		326			201			1238			1136	
Approach Delay, s/veh		40.1			37.7			15.5			11.6	
Approach LOS		D			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.6	63.0		28.0	9.8	69.8		28.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	31.5	40.5		31.5	7.7	64.3		31.5				
Max Q Clear Time (g_c+I1), s	10.2	16.5		14.4	4.6	10.1		16.4				
Green Ext Time (p_c), s	0.9	14.5		2.5	0.1	21.4		2.4				
Intersection Summary												
HCM 2010 Ctrl Delay			18.3									
HCM 2010 LOS			B									

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.997			0.942			0.942	
Flt Protected		0.997						0.986			0.989	
Satd. Flow (prot)	0	1850	0	0	1857	0	0	1730	0	0	1735	0
Flt Permitted		0.997						0.986			0.989	
Satd. Flow (perm)	0	1850	0	0	1857	0	0	1730	0	0	1735	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			338			425			385	
Travel Time (s)		12.2			9.2			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	1.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	261	9	4	400	9	8	8	12	6	9	11
Conflicting Peds, #/hr	3	0	6	6	0	3	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	82	82	82	80	80	80	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	284	10	5	488	11	10	10	15	8	12	15



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	501	0	0	295	0	0	842	834	297	841	833	501
Stage 1	-	-	-	-	-	-	323	323	-	505	505	-
Stage 2	-	-	-	-	-	-	519	511	-	336	328	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1063	-	-	1266	-	-	284	304	742	284	304	570
Stage 1	-	-	-	-	-	-	689	650	-	549	540	-
Stage 2	-	-	-	-	-	-	540	537	-	678	647	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1058	-	-	1260	-	-	261	296	737	265	296	566
Mov Cap-2 Maneuver	-	-	-	-	-	-	261	296	-	265	296	-
Stage 1	-	-	-	-	-	-	675	637	-	538	536	-
Stage 2	-	-	-	-	-	-	508	533	-	639	634	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	15.5	16.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	1058	-	-	1260	-	-	359
HCM Lane V/C Ratio	0.092	0.015	-	-	0.004	-	-	0.101
HCM Control Delay (s)	15.5	8.5	0	-	7.9	0	-	16.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018







									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	87	43	113	213	353	123	876	55	1444
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	44.2	44.2	44.2	44.2	44.2	18.7	64.4	11.4	57.1
Total Split (%)	36.8%	36.8%	36.8%	36.8%	36.8%	15.6%	53.7%	9.5%	47.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	24.7	24.7	24.7	24.7	24.7	67.8	60.7	60.8	54.9
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.64	0.58	0.58	0.52
v/c Ratio	0.58	0.40	0.58	0.58	0.81	0.53	0.31	0.15	0.63
Control Delay	48.7	15.1	45.4	40.5	32.4	21.2	13.7	10.0	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	15.1	45.4	40.5	32.4	21.2	13.7	10.0	21.2
LOS	D	B	D	D	C	C	B	A	C
Approach Delay		27.0		37.1			14.6		20.8
Approach LOS		C		D			B		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 105.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 23.0
 Intersection Capacity Utilization 75.1%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service D























Splits and Phases: 3: Peoria St & E 17th Ave

 ø1	 ø2	 ø4
11.4 s	64.4 s	44.2 s
 ø5	 ø6	 ø8
18.7 s	57.1 s	44.2 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

																
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Volume (veh/h)	87	43	116	113	213	353	123	876	23	55	1444	89				
Number	7	4	14	3	8	18	5	2	12	1	6	16				
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		0.99				
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900				
Adj Flow Rate, veh/h	104	51	138	133	251	415	124	885	23	60	1570	97				
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0				
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.99	0.99	0.99	0.92	0.92	0.92				
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2				
Cap, veh/h	212	133	361	313	563	473	234	2659	69	375	2448	151				
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.05	0.52	0.52	0.03	0.50	0.50				
Sat Flow, veh/h	765	442	1195	1182	1863	1566	1774	5097	132	1774	4894	302				
Grp Volume(v), veh/h	104	0	189	133	251	415	124	588	320	60	1087	580				
Grp Sat Flow(s),veh/h/ln	765	0	1636	1182	1863	1566	1774	1695	1839	1774	1695	1807				
Q Serve(g_s), s	14.3	0.0	10.3	11.3	12.3	28.4	3.8	11.3	11.4	1.9	26.6	26.7				
Cycle Q Clear(g_c), s	26.6	0.0	10.3	21.6	12.3	28.4	3.8	11.3	11.4	1.9	26.6	26.7				
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.07	1.00		0.17				
Lane Grp Cap(c), veh/h	212	0	494	313	563	473	234	1769	959	375	1695	903				
V/C Ratio(X)	0.49	0.00	0.38	0.42	0.45	0.88	0.53	0.33	0.33	0.16	0.64	0.64				
Avail Cap(c_a), veh/h	243	0	561	361	639	537	349	1769	959	414	1695	903				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	42.5	0.0	31.1	39.6	31.8	37.4	17.6	15.6	15.6	13.3	20.8	20.8				
Incr Delay (d2), s/veh	1.8	0.0	0.5	0.9	0.6	14.0	1.9	0.5	0.9	0.2	1.9	3.5				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	3.1	0.0	4.7	3.8	6.4	14.1	1.9	5.4	6.0	0.9	12.8	14.1				
LnGrp Delay(d),s/veh	44.3	0.0	31.6	40.5	32.3	51.4	19.5	16.1	16.6	13.5	22.6	24.3				
LnGrp LOS	D		C	D	C	D	B	B	B	B	C	C				
Approach Vol, veh/h	293				799		1032				1727					
Approach Delay, s/veh	36.1				43.6		16.7				22.9					
Approach LOS	D				D		B				C					
Timer	1	2	3	4	5	6	7	8								
Assigned Phs	1	2			4	5	6	8								
Phs Duration (G+Y+Rc), s	8.9	64.4			39.6	11.3	62.0	39.6								
Change Period (Y+Rc), s	5.5	5.5			5.5	5.5	5.5	5.5								
Max Green Setting (Gmax), s	5.9	58.9			38.7	13.2	51.6	38.7								
Max Q Clear Time (g_c+I1), s	3.9	13.4			28.6	5.8	28.7	30.4								
Green Ext Time (p_c), s	0.0	29.6			4.2	0.2	18.0	3.7								
Intersection Summary																
HCM 2010 Ctrl Delay			26.5													
HCM 2010 LOS			C													

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/3/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.995			0.912			0.981	
Flt Protected		0.999			0.998			0.994			0.979	
Satd. Flow (prot)	0	1853	0	0	1850	0	0	1689	0	0	1789	0
Flt Permitted		0.999			0.998			0.994			0.979	
Satd. Flow (perm)	0	1853	0	0	1850	0	0	1689	0	0	1789	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			169			425			385	
Travel Time (s)		12.2			4.6			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	0.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	277	8	9	177	7	3	5	14	3	3	1
Conflicting Peds, #/hr	5	0	2	2	0	5	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	301	9	10	192	8	3	5	15	3	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	312	0	0	540	542	312	549	543	203
Stage 1	-	-	-	-	-	-	320	320	-	218	218	-
Stage 2	-	-	-	-	-	-	220	222	-	331	325	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1370	-	-	1248	-	-	453	447	728	446	447	838
Stage 1	-	-	-	-	-	-	692	652	-	784	723	-
Stage 2	-	-	-	-	-	-	782	720	-	682	649	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1364	-	-	1243	-	-	442	439	724	425	439	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	439	-	425	439	-
Stage 1	-	-	-	-	-	-	687	647	-	778	715	-
Stage 2	-	-	-	-	-	-	767	712	-	655	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	11.4	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	586	1364	-	-	1243	-	-	464
HCM Lane V/C Ratio	0.041	0.005	-	-	0.008	-	-	0.016
HCM Control Delay (s)	11.4	7.7	0	-	7.9	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Lanes and Geometrics

2: E 17th Ave & South Driveway

1725 Peoria
3/3/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔		↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.986	
Flt Protected		0.998			0.957	
Satd. Flow (prot)	0	3532	1771	0	1758	0
Flt Permitted		0.998			0.957	
Satd. Flow (perm)	0	3532	1771	0	1758	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		169	169		426	
Travel Time (s)		4.6	4.6		11.6	



















Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	283	165	95	89	10
Conflicting Peds, #/hr	5	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	308	179	103	97	11
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	283	0	-	0	409	236
Stage 1	-	-	-	-	231	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	4.12	-	-	-	6.63	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.218	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1279	-	-	-	584	802
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1274	-	-	-	578	799
Mov Cap-2 Maneuver	-	-	-	-	578	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	826	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		12.4	
HCM LOS					B	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1274	-	-	-	595	
HCM Lane V/C Ratio	0.009	-	-	-	0.181	
HCM Control Delay (s)	7.9	0	-	-	12.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Timings 3: Peoria St & E 17th Ave

1725 Peoria
3/3/2018






									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	109	122	17	49	95	148	868	303	722
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	37.0	37.0	37.0	37.0	37.0	19.0	45.0	38.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	15.8%	37.5%	31.7%	53.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	20.0	20.0	20.0	20.0	20.0	61.1	51.3	73.0	58.9
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.58	0.49	0.69	0.56
v/c Ratio	0.47	0.77	0.17	0.15	0.26	0.36	0.45	0.71	0.30
Control Delay	44.0	48.4	39.0	35.8	5.8	10.1	20.4	19.0	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	48.4	39.0	35.8	5.8	10.1	20.4	19.0	13.4
LOS	D	D	D	D	A	B	C	B	B
Approach Delay		47.0		18.4			19.1		15.0
Approach LOS		D		B			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 105.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 21.1
 Intersection Capacity Utilization 69.4%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C























Splits and Phases: 3: Peoria St & E 17th Ave

		
38 s	45 s	37 s
		
19 s	64 s	37 s

HCM 2010 Signalized Intersection Summary



















3: Peoria St & E 17th Ave

1725 Peoria
3/3/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	109	122	129	17	49	95	148	868	150	303	722	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	118	133	140	18	53	103	161	943	163	329	785	70
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	189	199	157	428	357	477	2194	378	452	2619	232
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.06	0.50	0.50	0.11	0.55	0.55
Sat Flow, veh/h	1207	823	866	1092	1863	1552	1774	4364	752	1774	4753	422
Grp Volume(v), veh/h	118	0	273	18	53	103	161	732	374	329	559	296
Grp Sat Flow(s),veh/h/ln	1207	0	1690	1092	1863	1552	1774	1695	1726	1774	1695	1785
Q Serve(g_s), s	9.1	0.0	15.8	1.6	2.4	5.8	4.6	14.5	14.6	8.9	9.4	9.5
Cycle Q Clear(g_c), s	11.5	0.0	15.8	17.4	2.4	5.8	4.6	14.5	14.6	8.9	9.4	9.5
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.44	1.00		0.24
Lane Grp Cap(c), veh/h	318	0	389	157	428	357	477	1704	867	452	1868	983
V/C Ratio(X)	0.37	0.00	0.70	0.11	0.12	0.29	0.34	0.43	0.43	0.73	0.30	0.30
Avail Cap(c_a), veh/h	399	0	501	230	553	461	590	1704	867	796	1868	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	37.5	45.5	32.4	33.7	11.1	16.7	16.8	12.5	12.8	12.8
Incr Delay (d2), s/veh	0.7	0.0	3.1	0.3	0.1	0.4	0.4	0.8	1.6	2.3	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	7.7	0.5	1.3	2.5	2.2	7.0	7.3	4.5	4.5	4.8
LnGrp Delay(d),s/veh	37.7	0.0	40.6	45.8	32.5	34.2	11.5	17.5	18.3	14.7	13.2	13.6
LnGrp LOS	D		D	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		391			174			1267			1184	
Approach Delay, s/veh		39.7			34.9			17.0			13.7	
Approach LOS		D			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	58.9		29.9	12.3	64.0		29.9				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	32.5	39.5		31.5	13.5	58.5		31.5				
Max Q Clear Time (g_c+I1), s	10.9	16.6		17.8	6.6	11.5		19.4				
Green Ext Time (p_c), s	0.9	14.1		2.6	0.2	20.4		2.4				
Intersection Summary												
HCM 2010 Ctrl Delay			19.7									
HCM 2010 LOS			B									

Timings 3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018








									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	109	122	17	49	95	148	868	303	722
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	11.0	36.0	9.6	34.6	34.6	18.5	40.4	34.0	55.9
Total Split (%)	9.2%	30.0%	8.0%	28.8%	28.8%	15.4%	33.7%	28.3%	46.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	23.3	21.3	17.7	13.6	13.6	52.4	42.6	65.8	51.0
Actuated g/C Ratio	0.23	0.21	0.17	0.13	0.13	0.51	0.42	0.64	0.50
v/c Ratio	0.42	0.71	0.11	0.21	0.29	0.39	0.53	0.73	0.34
Control Delay	36.4	43.0	29.8	40.1	2.1	13.3	26.0	25.7	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	43.0	29.8	40.1	2.1	13.3	26.0	25.7	17.2
LOS	D	D	C	D	A	B	C	C	B
Approach Delay		41.0		16.5			24.4		19.6
Approach LOS		D		B			C		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 102.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 24.2
 Intersection Capacity Utilization 69.4%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C























Splits and Phases: 3: Peoria St & E 17th Ave

			
34 s	40.4 s	9.6 s	36 s
			
18.5 s	55.9 s	11 s	34.6 s

HCM 2010 Signalized Intersection Summary























3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	109	122	129	17	49	95	148	868	150	303	722	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	118	133	140	18	53	103	161	943	163	329	785	70
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	181	191	173	342	283	438	1868	322	428	2294	204
Arrive On Green	0.05	0.22	0.22	0.02	0.18	0.18	0.07	0.43	0.43	0.12	0.48	0.48
Sat Flow, veh/h	1774	823	866	1774	1863	1545	1774	4364	752	1774	4753	422
Grp Volume(v), veh/h	118	0	273	18	53	103	161	732	374	329	559	296
Grp Sat Flow(s),veh/h/ln	1774	0	1689	1774	1863	1545	1774	1695	1725	1774	1695	1784
Q Serve(g_s), s	5.5	0.0	15.7	0.9	2.5	6.1	5.2	16.4	16.5	10.2	10.7	10.8
Cycle Q Clear(g_c), s	5.5	0.0	15.7	0.9	2.5	6.1	5.2	16.4	16.5	10.2	10.7	10.8
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.44	1.00		0.24
Lane Grp Cap(c), veh/h	355	0	373	173	342	283	438	1452	739	428	1637	861
V/C Ratio(X)	0.33	0.00	0.73	0.10	0.16	0.36	0.37	0.50	0.51	0.77	0.34	0.34
Avail Cap(c_a), veh/h	355	0	493	215	519	430	534	1452	739	690	1637	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	37.8	34.5	35.8	37.3	14.6	21.8	21.8	16.3	16.7	16.7
Incr Delay (d2), s/veh	0.5	0.0	3.9	0.3	0.2	0.8	0.5	1.3	2.5	3.0	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	7.7	0.4	1.3	2.7	2.6	7.9	8.4	5.3	5.1	5.5
LnGrp Delay(d),s/veh	33.0	0.0	41.7	34.8	36.0	38.1	15.1	23.0	24.3	19.3	17.3	17.8
LnGrp LOS	C		D	C	D	D	B	C	C	B	B	B
Approach Vol, veh/h		391			174			1267			1184	
Approach Delay, s/veh		39.1			37.1			22.4			18.0	
Approach LOS		D			D			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.5	50.2	7.1	28.5	12.8	55.9	11.0	24.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	28.5	34.9	4.1	30.5	13.0	50.4	5.5	29.1				
Max Q Clear Time (g_c+I1), s	12.2	18.5	2.9	17.7	7.2	12.8	7.5	8.1				
Green Ext Time (p_c), s	0.9	11.2	0.0	2.0	0.2	18.6	0.0	2.4				
Intersection Summary												
HCM 2010 Ctrl Delay			23.7									
HCM 2010 LOS			C									

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018







											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	
Lane Configurations											
Volume (vph)	109	122	129	17	49	95	148	868	303	722	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8	2		6		
Detector Phase	7	4	4	3	8	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	34.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5	
Total Split (s)	11.0	36.0	36.0	9.6	34.6	34.6	18.5	40.4	34.0	55.9	
Total Split (%)	9.2%	30.0%	30.0%	8.0%	28.8%	28.8%	15.4%	33.7%	28.3%	46.6%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
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)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	21.4	19.4	19.4	15.9	11.8	11.8	52.4	42.7	65.5	50.9	
Actuated g/C Ratio	0.21	0.19	0.19	0.16	0.12	0.12	0.52	0.43	0.65	0.51	
v/c Ratio	0.45	0.37	0.32	0.08	0.24	0.31	0.38	0.52	0.73	0.34	
Control Delay	37.9	39.2	4.7	29.9	41.5	2.5	12.4	24.3	24.0	16.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.9	39.2	4.7	29.9	41.5	2.5	12.4	24.3	24.0	16.1	
LOS	D	D	A	C	D	A	B	C	C	B	
Approach Delay		26.5			17.2			22.7		18.3	
Approach LOS		C			B			C		B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 100.1
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 21.2
 Intersection Capacity Utilization 68.2%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

























Splits and Phases: 3: Peoria St & E 17th Ave

 ø1	 ø2	 ø3	 ø4
34 s	40.4 s	9.6 s	36 s
 ø5	 ø6	 ø7	 ø8
18.5 s	55.9 s	11 s	34.6 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	109	122	129	17	49	95	148	868	150	303	722	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	118	133	140	18	53	103	161	943	163	329	785	70
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	377	313	251	305	252	448	1931	333	435	2357	209
Arrive On Green	0.05	0.20	0.20	0.02	0.16	0.16	0.07	0.44	0.44	0.12	0.50	0.50
Sat Flow, veh/h	1774	1863	1548	1774	1863	1540	1774	4364	752	1774	4753	422
Grp Volume(v), veh/h	118	133	140	18	53	103	161	732	374	329	559	296
Grp Sat Flow(s),veh/h/ln	1774	1863	1548	1774	1863	1540	1774	1695	1725	1774	1695	1784
Q Serve(g_s), s	5.5	6.2	8.1	0.9	2.5	6.1	4.9	15.6	15.7	9.6	10.1	10.2
Cycle Q Clear(g_c), s	5.5	6.2	8.1	0.9	2.5	6.1	4.9	15.6	15.7	9.6	10.1	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		0.24
Lane Grp Cap(c), veh/h	334	377	313	251	305	252	448	1500	763	435	1681	885
V/C Ratio(X)	0.35	0.35	0.45	0.07	0.17	0.41	0.36	0.49	0.49	0.76	0.33	0.33
Avail Cap(c_a), veh/h	334	559	465	295	533	441	552	1500	763	715	1681	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	34.8	35.5	34.6	36.6	38.1	13.5	20.1	20.2	15.1	15.5	15.5
Incr Delay (d2), s/veh	0.6	0.6	1.0	0.1	0.3	1.1	0.5	1.1	2.2	2.7	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.3	3.5	0.4	1.3	2.7	2.4	7.6	8.0	5.0	4.9	5.3
LnGrp Delay(d),s/veh	33.7	35.4	36.5	34.7	36.8	39.1	13.9	21.3	22.4	17.8	16.0	16.5
LnGrp LOS	C	D	D	C	D	D	B	C	C	B	B	B
Approach Vol, veh/h		391			174			1267			1184	
Approach Delay, s/veh		35.3			38.0			20.7			16.6	
Approach LOS		D			D			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	50.5	7.1	26.1	12.6	55.9	11.0	22.2				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	28.5	34.9	4.1	30.5	13.0	50.4	5.5	29.1				
Max Q Clear Time (g_c+I1), s	11.6	17.7	2.9	10.1	6.9	12.2	7.5	8.1				
Green Ext Time (p_c), s	0.9	11.6	0.0	1.9	0.2	18.7	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			22.0									
HCM 2010 LOS			C									

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.997			0.942			0.942	
Flt Protected		0.997						0.986			0.989	
Satd. Flow (prot)	0	1850	0	0	1857	0	0	1730	0	0	1735	0
Flt Permitted		0.997						0.986			0.989	
Satd. Flow (perm)	0	1850	0	0	1857	0	0	1730	0	0	1735	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			169			425			385	
Travel Time (s)		12.2			4.6			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	1.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	270	9	4	407	9	8	8	12	6	9	11
Conflicting Peds, #/hr	3	0	6	6	0	3	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	82	82	82	80	80	80	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	293	10	5	496	11	10	10	15	8	12	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	509	0	0	305	0	0	860	852	306	859	852	510
Stage 1	-	-	-	-	-	-	333	333	-	514	514	-
Stage 2	-	-	-	-	-	-	527	519	-	345	338	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1056	-	-	1256	-	-	276	297	734	277	297	563
Stage 1	-	-	-	-	-	-	681	644	-	543	535	-
Stage 2	-	-	-	-	-	-	535	533	-	671	641	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1051	-	-	1250	-	-	253	289	729	258	289	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	253	289	-	258	289	-
Stage 1	-	-	-	-	-	-	668	631	-	532	531	-
Stage 2	-	-	-	-	-	-	503	529	-	632	628	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	15.7	16.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	370	1051	-	-	1250	-	-	351
HCM Lane V/C Ratio	0.095	0.016	-	-	0.004	-	-	0.103
HCM Control Delay (s)	15.7	8.5	0	-	7.9	0	-	16.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Lanes and Geometrics

2: E 17th Ave & South Driveway

1725 Peoria
3/2/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔		↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.978		0.986	
Flt Protected		0.998			0.957	
Satd. Flow (prot)	0	3532	1822	0	1758	0
Flt Permitted		0.998			0.957	
Satd. Flow (perm)	0	3532	1822	0	1758	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		169	169		426	
Travel Time (s)		4.6	4.6		11.6	



















Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	9	280	425	81	62	7
Conflicting Peds, #/hr	3	0	0	3	3	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	304	462	88	67	8
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	553	0	-	0	681	512
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	172	-
Critical Hdwy	4.12	-	-	-	6.63	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.218	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1017	-	-	-	400	561
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1014	-	-	-	393	558
Mov Cap-2 Maneuver	-	-	-	-	393	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	829	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		15.9	
HCM LOS					C	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1014	-	-	-	405	
HCM Lane V/C Ratio	0.01	-	-	-	0.185	
HCM Control Delay (s)	8.6	0	-	-	15.9	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018






									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	101	50	113	222	353	177	876	55	1444
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	42.0	42.0	42.0	42.0	42.0	22.0	66.7	11.3	56.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	18.3%	55.6%	9.4%	46.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	24.5	24.5	24.5	24.5	24.5	70.5	62.4	59.9	54.1
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.66	0.58	0.56	0.51
v/c Ratio	0.73	0.52	0.76	0.61	0.82	0.68	0.31	0.16	0.66
Control Delay	63.6	19.8	64.5	42.9	33.4	33.8	13.2	10.0	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	19.8	64.5	42.9	33.4	33.8	13.2	10.0	23.0
LOS	E	B	E	D	C	C	B	B	C
Approach Delay		34.1		41.6			16.6		22.6
Approach LOS		C		D			B		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 106.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 25.9
 Intersection Capacity Utilization 79.6%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service D
























Splits and Phases: 3: Peoria St & E 17th Ave

 ø1	 ø2	 ø4
11.3 s	66.7 s	42 s
 ø5	 ø6	 ø8
22 s	56 s	42 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave



















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	50	157	113	222	353	177	876	23	55	1444	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	120	60	187	133	261	415	179	885	23	60	1570	116
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.99	0.99	0.99	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	119	372	261	562	472	253	2685	70	375	2357	174
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.07	0.53	0.53	0.03	0.49	0.49
Sat Flow, veh/h	758	396	1233	1123	1863	1566	1774	5097	132	1774	4830	357
Grp Volume(v), veh/h	120	0	247	133	261	415	179	588	320	60	1102	584
Grp Sat Flow(s),veh/h/ln	758	0	1629	1123	1863	1566	1774	1695	1839	1774	1695	1796
Q Serve(g_s), s	17.8	0.0	14.5	12.9	13.2	29.2	5.7	11.5	11.6	2.0	28.6	28.7
Cycle Q Clear(g_c), s	31.0	0.0	14.5	27.3	13.2	29.2	5.7	11.5	11.6	2.0	28.6	28.7
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.07	1.00		0.20
Lane Grp Cap(c), veh/h	204	0	491	261	562	472	253	1786	969	375	1654	876
V/C Ratio(X)	0.59	0.00	0.50	0.51	0.46	0.88	0.71	0.33	0.33	0.16	0.67	0.67
Avail Cap(c_a), veh/h	214	0	512	275	585	492	384	1786	969	412	1654	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	33.4	44.6	32.9	38.5	21.1	15.7	15.7	14.2	22.6	22.6
Incr Delay (d2), s/veh	3.8	0.0	0.8	1.5	0.6	16.1	3.6	0.5	0.9	0.2	2.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	6.6	4.1	6.9	14.7	3.1	5.5	6.1	1.0	13.8	15.1
LnGrp Delay(d),s/veh	49.4	0.0	34.2	46.2	33.5	54.6	24.6	16.2	16.7	14.4	24.7	26.6
LnGrp LOS	D		C	D	C	D	C	B	B	B	C	C
Approach Vol, veh/h		367			809			1087			1746	
Approach Delay, s/veh		39.1			46.4			17.7			25.0	
Approach LOS		D			D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	66.7		40.5	13.4	62.2		40.5				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	5.8	61.2		36.5	16.5	50.5		36.5				
Max Q Clear Time (g_c+I1), s	4.0	13.6		33.0	7.7	30.7		31.2				
Green Ext Time (p_c), s	0.0	30.8		2.1	0.3	16.1		2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			28.6									
HCM 2010 LOS			C									

Timings

3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018




									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	101	50	113	222	353	177	876	55	1444
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	11.2	35.6	11.6	36.0	36.0	19.0	61.6	11.2	53.8
Total Split (%)	9.3%	29.7%	9.7%	30.0%	30.0%	15.8%	51.3%	9.3%	44.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	28.4	22.6	29.2	23.0	23.0	66.1	57.7	55.3	49.6
Actuated g/C Ratio	0.25	0.20	0.26	0.21	0.21	0.59	0.52	0.49	0.44
v/c Ratio	0.54	0.58	0.57	0.68	0.87	0.74	0.35	0.18	0.76
Control Delay	39.6	24.5	40.2	50.3	40.4	42.5	17.8	13.2	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	24.5	40.2	50.3	40.4	42.5	17.8	13.2	29.8
LOS	D	C	D	D	D	D	B	B	C
Approach Delay		29.5		43.6			21.8		29.3
Approach LOS		C		D			C		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 111.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 30.2
 Intersection Capacity Utilization 79.6%
 Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service D























Splits and Phases: 3: Peoria St & E 17th Ave

 Ø1	 Ø2	 Ø3	 Ø4
11.2 s	61.6 s	11.6 s	35.6 s
 Ø5	 Ø6	 Ø7	 Ø8
19 s	53.8 s	11.2 s	36 s

HCM 2010 Signalized Intersection Summary























3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	50	157	113	222	353	177	876	23	55	1444	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	120	60	187	133	261	415	179	885	23	60	1570	116
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.99	0.99	0.99	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	101	314	289	482	404	237	2424	63	339	2096	155
Arrive On Green	0.05	0.26	0.26	0.05	0.26	0.26	0.07	0.48	0.48	0.03	0.43	0.43
Sat Flow, veh/h	1774	395	1231	1774	1863	1563	1774	5097	132	1774	4829	357
Grp Volume(v), veh/h	120	0	247	133	261	415	179	588	320	60	1102	584
Grp Sat Flow(s),veh/h/ln	1774	0	1626	1774	1863	1563	1774	1695	1839	1774	1695	1796
Q Serve(g_s), s	5.7	0.0	15.7	6.1	14.2	30.5	6.4	13.0	13.0	2.2	32.1	32.2
Cycle Q Clear(g_c), s	5.7	0.0	15.7	6.1	14.2	30.5	6.4	13.0	13.0	2.2	32.1	32.2
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.07	1.00		0.20
Lane Grp Cap(c), veh/h	251	0	415	289	482	404	237	1613	875	339	1471	779
V/C Ratio(X)	0.48	0.00	0.59	0.46	0.54	1.03	0.76	0.36	0.37	0.18	0.75	0.75
Avail Cap(c_a), veh/h	251	0	415	289	482	404	311	1613	875	370	1471	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	38.6	32.8	37.7	43.7	24.4	19.6	19.6	17.8	28.0	28.0
Incr Delay (d2), s/veh	1.4	0.0	2.3	1.1	1.2	51.7	7.4	0.6	1.2	0.2	3.5	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	7.3	1.0	7.5	19.0	3.6	6.2	6.9	1.1	15.7	17.3
LnGrp Delay(d),s/veh	33.6	0.0	40.9	33.9	38.9	95.4	31.9	20.3	20.8	18.0	31.5	34.5
LnGrp LOS	C		D	C	D	F	C	C	C	B	C	C
Approach Vol, veh/h		367			809			1087			1746	
Approach Delay, s/veh		38.5			67.1			22.3			32.1	
Approach LOS		D			E			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	61.6	11.6	35.6	14.0	56.7	11.2	36.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	5.7	56.1	6.1	30.1	13.5	48.3	5.7	30.5				
Max Q Clear Time (g_c+I1), s	4.2	15.0	8.1	17.7	8.4	34.2	7.7	32.5				
Green Ext Time (p_c), s	0.0	28.0	0.0	4.1	0.2	12.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			37.1									
HCM 2010 LOS			D									

Timings 3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	
Lane Configurations											
Volume (vph)	101	50	157	113	222	353	177	876	55	1444	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8	2		6		
Detector Phase	7	4	4	3	8	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	34.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5	
Total Split (s)	11.2	35.4	35.4	11.8	36.0	36.0	19.0	61.6	11.2	53.8	
Total Split (%)	9.3%	29.5%	29.5%	9.8%	30.0%	30.0%	15.8%	51.3%	9.3%	44.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
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)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	28.1	22.4	22.4	29.4	23.0	23.0	66.1	57.7	55.3	49.6	
Actuated g/C Ratio	0.25	0.20	0.20	0.26	0.21	0.21	0.59	0.52	0.49	0.44	
v/c Ratio	0.54	0.16	0.41	0.36	0.68	0.87	0.74	0.35	0.18	0.76	
Control Delay	39.6	37.2	7.9	32.6	50.3	40.4	42.5	17.8	13.2	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.6	37.2	7.9	32.6	50.3	40.4	42.5	17.8	13.2	29.8	
LOS	D	D	A	C	D	D	D	B	B	C	
Approach Delay		23.1			42.3			21.8		29.3	
Approach LOS		C			D			C		C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 111.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 29.3







Intersection LOS: C

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15























Splits and Phases: 3: Peoria St & E 17th Ave

			
11.2 s	61.6 s	11.8 s	35.4 s
			
19 s	53.8 s	11.2 s	36 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	50	157	113	222	353	177	876	23	55	1444	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	120	60	187	133	261	415	179	885	23	60	1570	116
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.84	0.84	0.84	0.85	0.85	0.85	0.99	0.99	0.99	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	472	396	412	482	404	237	2424	63	339	2096	155
Arrive On Green	0.05	0.25	0.25	0.05	0.26	0.26	0.07	0.48	0.48	0.03	0.43	0.43
Sat Flow, veh/h	1774	1863	1563	1774	1863	1563	1774	5097	132	1774	4829	357
Grp Volume(v), veh/h	120	60	187	133	261	415	179	588	320	60	1102	584
Grp Sat Flow(s),veh/h/ln	1774	1863	1563	1774	1863	1563	1774	1695	1839	1774	1695	1796
Q Serve(g_s), s	5.7	2.9	12.0	6.3	14.2	30.5	6.4	13.0	13.0	2.2	32.1	32.2
Cycle Q Clear(g_c), s	5.7	2.9	12.0	6.3	14.2	30.5	6.4	13.0	13.0	2.2	32.1	32.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.20
Lane Grp Cap(c), veh/h	251	472	396	412	482	404	237	1613	875	339	1471	779
V/C Ratio(X)	0.48	0.13	0.47	0.32	0.54	1.03	0.76	0.36	0.37	0.18	0.75	0.75
Avail Cap(c_a), veh/h	251	472	396	412	482	404	311	1613	875	370	1471	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	33.9	37.3	30.8	37.7	43.7	24.4	19.6	19.6	17.8	28.0	28.0
Incr Delay (d2), s/veh	1.4	0.1	0.9	0.5	1.2	51.7	7.4	0.6	1.2	0.2	3.5	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.5	5.2	0.3	7.5	19.0	3.6	6.2	6.9	1.1	15.7	17.3
LnGrp Delay(d),s/veh	33.7	34.1	38.2	31.2	38.9	95.4	31.9	20.3	20.8	18.0	31.5	34.5
LnGrp LOS	C	C	D	C	D	F	C	C	C	B	C	C
Approach Vol, veh/h	367				809				1087			
Approach Delay, s/veh	36.0				66.6				22.3			
Approach LOS	D				E				C			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	61.6	11.8	35.4	14.0	56.7	11.2	36.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	5.7	56.1	6.3	29.9	13.5	48.3	5.7	30.5				
Max Q Clear Time (g_c+I1), s	4.2	15.0	8.3	14.0	8.4	34.2	7.7	32.5				
Green Ext Time (p_c), s	0.0	28.0	0.0	4.0	0.2	12.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	36.8											
HCM 2010 LOS	D											

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.982			0.918			0.976	
Flt Protected		0.999			0.998			0.992			0.980	
Satd. Flow (prot)	0	1853	0	0	1826	0	0	1696	0	0	1782	0
Flt Permitted		0.999			0.998			0.992			0.980	
Satd. Flow (perm)	0	1853	0	0	1826	0	0	1696	0	0	1782	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			338			425			385	
Travel Time (s)		12.2			9.2			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	1.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	404	13	14	254	11	5	8	21	5	5	2
Conflicting Peds, #/hr	8	0	3	3	0	8	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	91	91	25	76	76	76	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	459	15	15	279	44	7	11	28	7	7	3



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	477	0	0	830	847	477	844	832	312
Stage 1	-	-	-	-	-	-	490	490	-	335	335	-
Stage 2	-	-	-	-	-	-	340	357	-	509	497	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1234	-	-	1085	-	-	289	299	588	283	305	728
Stage 1	-	-	-	-	-	-	560	549	-	679	643	-
Stage 2	-	-	-	-	-	-	675	628	-	547	545	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1226	-	-	1078	-	-	274	289	583	254	295	721
Mov Cap-2 Maneuver	-	-	-	-	-	-	274	289	-	254	295	-
Stage 1	-	-	-	-	-	-	552	542	-	670	630	-
Stage 2	-	-	-	-	-	-	650	616	-	502	538	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	14.7	17.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	415	1226	-	-	1078	-	-	305
HCM Lane V/C Ratio	0.108	0.008	-	-	0.014	-	-	0.053
HCM Control Delay (s)	14.7	8	0	-	8.4	0	-	17.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.2

Timings 3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018





									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	136	171	25	58	144	128	1319	460	1097
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	34.8	34.8	34.8	34.8	34.8	17.7	48.2	37.0	67.5
Total Split (%)	29.0%	29.0%	29.0%	29.0%	29.0%	14.8%	40.2%	30.8%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	23.7	23.7	23.7	23.7	23.7	52.1	43.4	78.8	64.6
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.46	0.38	0.69	0.57
v/c Ratio	0.57	0.83	0.32	0.18	0.38	0.50	0.89	0.93	0.44
Control Delay	49.3	58.0	48.1	37.7	8.0	18.3	40.1	57.6	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	58.0	48.1	37.7	8.0	18.3	40.1	57.6	15.3
LOS	D	E	D	D	A	B	D	E	B
Approach Delay		55.1		20.0			38.5		27.3
Approach LOS		E		C			D		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 113.5
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 34.6
 Intersection Capacity Utilization 92.3%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service F























Splits and Phases: 3: Peoria St & E 17th Ave

		
37 s	48.2 s	34.8 s
		
17.7 s	67.5 s	34.8 s

HCM 2010 Signalized Intersection Summary



















3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	171	106	25	58	144	128	1319	228	460	1097	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	155	194	120	30	69	171	141	1449	251	495	1180	70
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	296	255	158	135	446	368	342	1599	277	523	2708	161
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.07	0.37	0.37	0.25	0.55	0.55
Sat Flow, veh/h	1112	1064	658	1048	1863	1536	1774	4357	754	1774	4907	291
Grp Volume(v), veh/h	155	0	314	30	69	171	141	1127	573	495	815	435
Grp Sat Flow(s),veh/h/ln	1112	0	1723	1048	1863	1536	1774	1695	1720	1774	1695	1807
Q Serve(g_s), s	14.9	0.0	19.7	3.2	3.4	11.1	5.7	36.7	36.8	26.7	16.5	16.5
Cycle Q Clear(g_c), s	18.3	0.0	19.7	22.9	3.4	11.1	5.7	36.7	36.8	26.7	16.5	16.5
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.44	1.00		0.16
Lane Grp Cap(c), veh/h	296	0	413	135	446	368	342	1244	631	523	1871	998
V/C Ratio(X)	0.52	0.00	0.76	0.22	0.15	0.46	0.41	0.91	0.91	0.95	0.44	0.44
Avail Cap(c_a), veh/h	310	0	434	148	469	387	410	1244	631	557	1871	998
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	0.0	41.1	51.8	34.9	37.8	20.3	34.9	34.9	33.9	15.4	15.4
Incr Delay (d2), s/veh	1.4	0.0	7.3	0.8	0.2	0.9	0.8	11.0	19.2	24.9	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	10.3	1.0	1.8	4.8	2.9	19.0	20.9	19.2	7.9	8.6
LnGrp Delay(d),s/veh	43.6	0.0	48.5	52.6	35.1	38.8	21.1	45.9	54.1	58.8	16.1	16.8
LnGrp LOS	D		D	D	D	D	C	D	D	E	B	B
Approach Vol, veh/h		469			270			1841			1745	
Approach Delay, s/veh		46.9			39.4			46.6			28.4	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	34.8	48.2		33.4	13.2	69.7		33.4				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	31.5	42.7		29.3	12.2	62.0		29.3				
Max Q Clear Time (g_c+I1), s	28.7	38.8		21.7	7.7	18.5		24.9				
Green Ext Time (p_c), s	0.5	3.7		2.4	0.1	33.3		1.6				
Intersection Summary												
HCM 2010 Ctrl Delay			38.8									
HCM 2010 LOS			D									

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018







									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	136	171	25	58	144	128	1319	460	1097
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	10.0	35.0	9.6	34.6	34.6	17.9	42.8	32.6	57.5
Total Split (%)	8.3%	29.2%	8.0%	28.8%	28.8%	14.9%	35.7%	27.2%	47.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	25.9	23.4	22.8	18.6	18.6	46.8	37.6	70.5	55.8
Actuated g/C Ratio	0.23	0.21	0.21	0.17	0.17	0.42	0.34	0.64	0.51
v/c Ratio	0.52	0.82	0.20	0.22	0.43	0.50	1.00	0.98	0.49
Control Delay	40.8	55.7	31.9	39.2	8.7	19.9	57.5	68.2	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	55.7	31.9	39.2	8.7	19.9	57.5	68.2	20.4
LOS	D	E	C	D	A	B	E	E	C
Approach Delay		50.8		19.1			54.7		34.0
Approach LOS		D		B			D		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 110.3
 Natural Cycle: 130
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 43.7
 Intersection Capacity Utilization 92.3%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F























Splits and Phases: 3: Peoria St & E 17th Ave

 $\phi 1$	 $\phi 2$	 $\phi 3$	 $\phi 4$
32.6 s	42.8 s	9.6 s	35 s
 $\phi 5$	 $\phi 6$	 $\phi 7$	 $\phi 8$
17.9 s	57.5 s	10 s	34.6 s

HCM 2010 Signalized Intersection Summary

















3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	171	106	25	58	144	128	1319	228	460	1097	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	155	194	120	30	69	171	141	1449	251	495	1180	70
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	245	152	162	396	326	329	1407	243	479	2393	142
Arrive On Green	0.04	0.23	0.23	0.02	0.21	0.21	0.07	0.32	0.32	0.23	0.49	0.49
Sat Flow, veh/h	1774	1064	658	1774	1863	1530	1774	4356	753	1774	4906	291
Grp Volume(v), veh/h	155	0	314	30	69	171	141	1127	573	495	815	435
Grp Sat Flow(s),veh/h/ln	1774	0	1722	1774	1863	1530	1774	1695	1719	1774	1695	1807
Q Serve(g_s), s	4.5	0.0	19.8	1.5	3.5	11.4	6.1	37.3	37.3	27.1	18.7	18.7
Cycle Q Clear(g_c), s	4.5	0.0	19.8	1.5	3.5	11.4	6.1	37.3	37.3	27.1	18.7	18.7
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.44	1.00		0.16
Lane Grp Cap(c), veh/h	334	0	397	162	396	326	329	1095	555	479	1653	881
V/C Ratio(X)	0.46	0.00	0.79	0.19	0.17	0.53	0.43	1.03	1.03	1.03	0.49	0.49
Avail Cap(c_a), veh/h	334	0	440	187	469	386	395	1095	555	479	1653	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	41.8	35.9	37.2	40.3	23.1	39.1	39.1	36.0	20.0	20.0
Incr Delay (d2), s/veh	1.0	0.0	8.7	0.5	0.2	1.3	0.9	35.0	46.5	50.2	1.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	10.4	0.8	1.8	5.0	3.0	22.7	24.8	21.8	9.0	9.8
LnGrp Delay(d),s/veh	38.3	0.0	50.5	36.4	37.4	41.6	24.0	74.1	85.6	86.2	21.0	21.9
LnGrp LOS	D		D	D	D	D	C	F	F	F	C	C
Approach Vol, veh/h		469			270			1841			1745	
Approach Delay, s/veh		46.5			39.9			73.8			39.7	
Approach LOS		D			D			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.6	42.8	8.0	32.1	13.6	61.8	10.0	30.1				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	27.1	37.3	4.1	29.5	12.4	52.0	4.5	29.1				
Max Q Clear Time (g_c+I1), s	29.1	39.3	3.5	21.8	8.1	20.7	6.5	13.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.1	25.6	0.0	2.8				
Intersection Summary												
HCM 2010 Ctrl Delay			55.0									
HCM 2010 LOS			D									

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria
3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.997			0.943			0.942	
Flt Protected		0.997						0.986			0.989	
Satd. Flow (prot)	0	1850	0	0	1857	0	0	1732	0	0	1735	0
Flt Permitted		0.997						0.986			0.989	
Satd. Flow (perm)	0	1850	0	0	1857	0	0	1732	0	0	1735	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			338			425			385	
Travel Time (s)		12.2			9.2			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	397	14	6	608	14	13	13	19	9	14	17
Conflicting Peds, #/hr	5	0	10	10	0	5	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	87	87	87	86	86	86	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	432	15	7	699	16	15	15	22	11	17	21



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	718	0	0	450	0	0	1233	1222	452	1233	1222	720
Stage 1	-	-	-	-	-	-	490	490	-	724	724	-
Stage 2	-	-	-	-	-	-	743	732	-	509	498	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	883	-	-	1110	-	-	154	180	608	154	180	428
Stage 1	-	-	-	-	-	-	560	549	-	417	430	-
Stage 2	-	-	-	-	-	-	407	427	-	547	544	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	876	-	-	1101	-	-	129	171	601	132	171	423
Mov Cap-2 Maneuver	-	-	-	-	-	-	129	171	-	132	171	-
Stage 1	-	-	-	-	-	-	538	527	-	401	424	-
Stage 2	-	-	-	-	-	-	364	421	-	489	523	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	26.9	27.3
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	876	-	-	1101	-	-	210
HCM Lane V/C Ratio	0.242	0.027	-	-	0.006	-	-	0.232
HCM Control Delay (s)	26.9	9.2	0	-	8.3	0	-	27.3
HCM Lane LOS	D	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	0.9

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018







									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	133	65	172	324	536	186	1330	84	2193
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	41.3	41.3	41.3	41.3	41.3	15.5	63.9	14.8	63.2
Total Split (%)	34.4%	34.4%	34.4%	34.4%	34.4%	12.9%	53.3%	12.3%	52.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	35.8	35.8	35.8	35.8	35.8	69.8	59.8	65.6	57.7
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.58	0.50	0.55	0.48
v/c Ratio	0.92	0.48	0.82	0.66	1.06	0.93	0.56	0.40	1.05
Control Delay	94.5	22.6	66.7	43.6	84.1	75.8	22.1	15.3	62.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.5	22.6	66.7	43.6	84.1	75.8	22.1	15.3	62.9
LOS	F	C	E	D	F	E	C	B	E
Approach Delay		48.1		68.5			28.6		61.3
Approach LOS		D		E			C		E

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 52.7
 Intersection Capacity Utilization 101.7%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service G























Splits and Phases: 3: Peoria St & E 17th Ave

		
14.8 s	63.9 s	41.3 s
		
15.5 s	63.2 s	41.3 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave



















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	133	65	177	172	324	536	186	1330	35	84	2193	136
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	151	74	201	195	368	609	194	1385	36	91	2384	148
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	131	355	230	556	464	208	2666	69	262	2354	144
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.08	0.52	0.52	0.04	0.48	0.48
Sat Flow, veh/h	572	438	1189	1092	1863	1555	1774	5096	132	1774	4895	300
Grp Volume(v), veh/h	151	0	275	195	368	609	194	921	500	91	1643	889
Grp Sat Flow(s),veh/h/ln	572	0	1627	1092	1863	1555	1774	1695	1838	1774	1695	1805
Q Serve(g_s), s	15.1	0.0	17.1	18.7	20.7	35.8	8.9	21.4	21.4	3.1	57.7	57.7
Cycle Q Clear(g_c), s	35.8	0.0	17.1	35.8	20.7	35.8	8.9	21.4	21.4	3.1	57.7	57.7
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.07	1.00		0.17
Lane Grp Cap(c), veh/h	132	0	485	230	556	464	208	1774	962	262	1630	868
V/C Ratio(X)	1.15	0.00	0.57	0.85	0.66	1.31	0.93	0.52	0.52	0.35	1.01	1.02
Avail Cap(c_a), veh/h	132	0	485	230	556	464	208	1774	962	327	1630	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	0.0	35.5	51.9	36.8	42.1	37.4	18.7	18.7	15.9	31.2	31.2
Incr Delay (d2), s/veh	122.7	0.0	1.5	24.5	2.9	155.6	44.0	1.1	2.0	0.8	24.2	37.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.0	7.9	8.0	11.1	35.4	8.9	10.3	11.4	1.6	32.4	37.6
LnGrp Delay(d),s/veh	178.6	0.0	37.1	76.3	39.7	197.7	81.5	19.8	20.7	16.7	55.3	68.2
LnGrp LOS	F		D	E	D	F	F	B	C	B	F	F
Approach Vol, veh/h		426			1172			1615			2623	
Approach Delay, s/veh		87.2			127.9			27.5			58.3	
Approach LOS		F			F			C			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	68.3		41.3	15.5	63.2		41.3				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.3	58.4		35.8	10.0	57.7		35.8				
Max Q Clear Time (g_c+I1), s	5.1	23.4		37.8	10.9	59.7		37.8				
Green Ext Time (p_c), s	0.1	33.2		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			65.9									
HCM 2010 LOS			E									

Timings

3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	133	65	172	324	536	186	1330	84	2193
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	9.5	35.3	12.2	38.0	38.0	13.0	57.5	15.0	59.5
Total Split (%)	7.9%	29.4%	10.2%	31.7%	31.7%	10.8%	47.9%	12.5%	49.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	33.8	29.8	39.2	32.5	32.5	60.9	53.4	62.1	54.0
Actuated g/C Ratio	0.28	0.25	0.33	0.27	0.27	0.51	0.44	0.52	0.45
v/c Ratio	0.80	0.57	0.72	0.73	1.16	1.13	0.63	0.44	1.12
Control Delay	65.1	28.5	47.2	49.5	123.7	134.1	27.4	19.4	91.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	28.5	47.2	49.5	123.7	134.1	27.4	19.4	91.9
LOS	E	C	D	D	F	F	C	B	F
Approach Delay		41.5		87.7			40.2		89.4
Approach LOS		D		F			D		F

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 71.9









Intersection LOS: E

Intersection Capacity Utilization 101.7%

ICU Level of Service G

Analysis Period (min) 15























Splits and Phases: 3: Peoria St & E 17th Ave

			
15 s	57.5 s	12.2 s	35.3 s
			
13 s	59.5 s	9.5 s	38 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	133	65	177	172	324	536	186	1330	35	84	2193	136
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	151	74	201	195	368	609	194	1385	36	91	2384	148
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	108	294	262	504	420	171	2395	62	238	2203	135
Arrive On Green	0.03	0.25	0.25	0.06	0.27	0.27	0.06	0.47	0.47	0.04	0.45	0.45
Sat Flow, veh/h	1774	437	1186	1774	1863	1552	1774	5096	132	1774	4894	300
Grp Volume(v), veh/h	151	0	275	195	368	609	194	921	500	91	1643	889
Grp Sat Flow(s),veh/h/ln	1774	0	1622	1774	1863	1552	1774	1695	1838	1774	1695	1805
Q Serve(g_s), s	4.0	0.0	18.4	6.7	21.5	32.5	7.5	23.7	23.7	3.3	54.0	54.0
Cycle Q Clear(g_c), s	4.0	0.0	18.4	6.7	21.5	32.5	7.5	23.7	23.7	3.3	54.0	54.0
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.07	1.00		0.17
Lane Grp Cap(c), veh/h	171	0	403	262	504	420	171	1593	864	238	1526	812
V/C Ratio(X)	0.88	0.00	0.68	0.74	0.73	1.45	1.14	0.58	0.58	0.38	1.08	1.10
Avail Cap(c_a), veh/h	171	0	403	262	504	420	171	1593	864	303	1526	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	0.0	40.8	40.2	39.8	43.8	34.4	23.1	23.1	18.8	33.0	33.0
Incr Delay (d2), s/veh	37.4	0.0	4.7	10.8	5.3	215.1	109.9	1.5	2.8	1.0	46.8	60.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	8.8	3.9	11.8	39.1	10.9	11.3	12.6	1.7	35.1	40.6
LnGrp Delay(d),s/veh	83.1	0.0	45.5	51.0	45.1	258.8	144.3	24.7	26.0	19.8	79.8	93.8
LnGrp LOS	F		D	D	D	F	F	C	C	B	F	F
Approach Vol, veh/h		426			1172			1615			2623	
Approach Delay, s/veh		58.8			157.1			39.4			82.4	
Approach LOS		E			F			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	61.9	12.2	35.3	13.0	59.5	9.5	38.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	52.0	6.7	29.8	7.5	54.0	4.0	32.5				
Max Q Clear Time (g_c+I1), s	5.3	25.7	8.7	20.4	9.5	56.0	6.0	34.5				
Green Ext Time (p_c), s	0.1	25.2	0.0	4.7	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			83.8									
HCM 2010 LOS			F									

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.995			0.918			0.976	
Flt Protected		0.999			0.998			0.992			0.980	
Satd. Flow (prot)	0	1853	0	0	1850	0	0	1696	0	0	1782	0
Flt Permitted		0.999			0.998			0.992			0.980	
Satd. Flow (perm)	0	1853	0	0	1850	0	0	1696	0	0	1782	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			169			425			385	
Travel Time (s)		12.2			4.6			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	415	13	14	264	11	5	8	21	5	5	2
Conflicting Peds, #/hr	8	0	3	3	0	8	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	91	91	91	76	76	76	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	472	15	15	290	12	7	11	28	7	7	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	305	0	0	489	0	0	837	838	490	852	840	307
Stage 1	-	-	-	-	-	-	502	502	-	330	330	-
Stage 2	-	-	-	-	-	-	335	336	-	522	510	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1256	-	-	1074	-	-	286	302	578	280	302	733
Stage 1	-	-	-	-	-	-	552	542	-	683	646	-
Stage 2	-	-	-	-	-	-	679	642	-	538	538	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1248	-	-	1067	-	-	271	292	573	251	292	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	271	292	-	251	292	-
Stage 1	-	-	-	-	-	-	545	535	-	674	633	-
Stage 2	-	-	-	-	-	-	653	630	-	493	531	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	14.8	17.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	412	1248	-	-	1067	-	-	302
HCM Lane V/C Ratio	0.109	0.008	-	-	0.014	-	-	0.054
HCM Control Delay (s)	14.8	7.9	0	-	8.4	0	-	17.6
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.2

Lanes and Geometrics

2: E 17th Ave & South Driveway

1725 Peoria
3/2/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔		↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.963		0.986	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	3536	1794	0	1758	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	3536	1794	0	1758	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		169	169		426	
Travel Time (s)		4.6	4.6		11.6	



















Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	430	251	95	89	10
Conflicting Peds, #/hr	8	0	0	8	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	467	273	103	97	11
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	384	0	-	0	590	340
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	258	-
Critical Hdwy	4.12	-	-	-	6.63	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.218	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1174	-	-	-	454	702
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1166	-	-	-	442	693
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	746	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		15.2	
HCM LOS					C	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1166	-	-	-	459	
HCM Lane V/C Ratio	0.01	-	-	-	0.234	
HCM Control Delay (s)	8.1	0.1	-	-	15.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.9	

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018





									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	156	181	25	69	144	192	1319	460	1097
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	35.0	35.0	35.0	35.0	35.0	23.7	48.4	36.6	61.3
Total Split (%)	29.2%	29.2%	29.2%	29.2%	29.2%	19.8%	40.3%	30.5%	51.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	28.0	28.0	28.0	28.0	28.0	55.0	43.0	78.5	61.0
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.47	0.37	0.67	0.52
v/c Ratio	0.59	0.93	0.45	0.19	0.35	0.66	0.94	0.96	0.49
Control Delay	48.6	68.6	62.8	37.1	7.4	25.4	46.9	65.0	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	68.6	62.8	37.1	7.4	25.4	46.9	65.0	19.5
LOS	D	E	E	D	A	C	D	E	B
Approach Delay		62.4		21.8			44.5		32.3
Approach LOS		E		C			D		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 117.5
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 40.6
 Intersection Capacity Utilization 92.5%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F























Splits and Phases: 3: Peoria St & E 17th Ave

 p1	 p2	 p4
36.6 s	48.4 s	35 s
 p5	 p6	 p8
23.7 s	61.3 s	35 s

HCM 2010 Signalized Intersection Summary



















3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	181	165	25	69	144	192	1319	228	460	1097	86
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	179	208	190	30	83	173	213	1466	253	495	1180	92
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	219	200	77	462	381	383	1572	271	519	2497	195
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.09	0.36	0.36	0.25	0.52	0.52
Sat Flow, veh/h	1098	884	808	976	1863	1537	1774	4360	751	1774	4807	375
Grp Volume(v), veh/h	179	0	398	30	83	173	213	1139	580	495	832	440
Grp Sat Flow(s),veh/h/ln	1098	0	1692	976	1863	1537	1774	1695	1721	1774	1695	1791
Q Serve(g_s), s	18.2	0.0	27.5	2.0	4.2	11.3	8.9	38.5	38.7	27.8	18.6	18.6
Cycle Q Clear(g_c), s	22.4	0.0	27.5	29.5	4.2	11.3	8.9	38.5	38.7	27.8	18.6	18.6
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.44	1.00		0.21
Lane Grp Cap(c), veh/h	294	0	419	77	462	381	383	1222	620	519	1761	930
V/C Ratio(X)	0.61	0.00	0.95	0.39	0.18	0.45	0.56	0.93	0.93	0.95	0.47	0.47
Avail Cap(c_a), veh/h	294	0	419	77	462	381	488	1222	620	534	1761	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	0.0	44.0	59.0	35.2	37.9	20.1	36.6	36.7	35.3	18.2	18.2
Incr Delay (d2), s/veh	3.6	0.0	31.2	3.2	0.2	0.8	1.3	13.9	23.2	27.3	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	16.5	1.1	2.2	4.9	4.5	20.4	22.3	19.9	8.9	9.6
LnGrp Delay(d),s/veh	47.6	0.0	75.2	62.2	35.4	38.8	21.4	50.6	59.9	62.6	19.1	19.9
LnGrp LOS	D		E	E	D	D	C	D	E	E	B	B
Approach Vol, veh/h		577			286			1932			1767	
Approach Delay, s/veh		66.6			40.3			50.1			31.5	
Approach LOS		E			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	35.6	48.4		35.0	16.7	67.3		35.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	31.1	42.9		29.5	18.2	55.8		29.5				
Max Q Clear Time (g_c+I1), s	29.8	40.7		29.5	10.9	20.6		31.5				
Green Ext Time (p_c), s	0.3	2.2		0.0	0.3	28.5		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			44.4									
HCM 2010 LOS			D									

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018






									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	156	181	25	67	144	192	1319	460	1097
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	9.5	34.5	9.5	34.5	34.5	25.2	44.0	32.0	50.8
Total Split (%)	7.9%	28.8%	7.9%	28.8%	28.8%	21.0%	36.7%	26.7%	42.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	29.6	27.3	27.3	23.2	23.2	52.3	38.7	70.8	51.6
Actuated g/C Ratio	0.26	0.24	0.24	0.20	0.20	0.46	0.34	0.62	0.45
v/c Ratio	0.54	0.92	0.25	0.21	0.39	0.66	1.02	1.04	0.56
Control Delay	41.7	67.6	33.8	38.5	8.1	26.2	63.9	86.5	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	67.6	33.8	38.5	8.1	26.2	63.9	86.5	26.0
LOS	D	E	C	D	A	C	E	F	C
Approach Delay		59.6		19.5			59.7		42.9
Approach LOS		E		B			E		D

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 114.6
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 50.7
 Intersection Capacity Utilization 92.5%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F























Splits and Phases: 3: Peoria St & E 17th Ave

			
32 s	44 s	9.5 s	34.5 s
			
25.2 s	50.8 s	9.5 s	34.5 s

HCM 2010 Signalized Intersection Summary























3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	181	165	25	67	144	192	1319	228	460	1097	86
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	179	208	190	30	81	173	213	1466	253	495	1180	92
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	216	198	110	432	356	353	1416	244	457	2162	169
Arrive On Green	0.03	0.24	0.24	0.02	0.23	0.23	0.10	0.32	0.32	0.22	0.45	0.45
Sat Flow, veh/h	1774	884	807	1774	1863	1534	1774	4359	751	1774	4806	375
Grp Volume(v), veh/h	179	0	398	30	81	173	213	1140	579	495	832	440
Grp Sat Flow(s),veh/h/ln	1774	0	1691	1774	1863	1534	1774	1695	1720	1774	1695	1790
Q Serve(g_s), s	4.0	0.0	27.5	1.5	4.1	11.6	9.3	38.5	38.5	26.5	21.2	21.2
Cycle Q Clear(g_c), s	4.0	0.0	27.5	1.5	4.1	11.6	9.3	38.5	38.5	26.5	21.2	21.2
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.44	1.00		0.21
Lane Grp Cap(c), veh/h	337	0	414	110	432	356	353	1101	559	457	1525	805
V/C Ratio(X)	0.53	0.00	0.96	0.27	0.19	0.49	0.60	1.03	1.04	1.08	0.55	0.55
Avail Cap(c_a), veh/h	337	0	414	133	456	375	473	1101	559	457	1525	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	0.0	44.2	36.6	36.5	39.4	22.7	40.0	40.0	37.4	23.8	23.8
Incr Delay (d2), s/veh	1.6	0.0	34.3	1.3	0.2	1.0	1.7	36.5	48.1	66.0	1.4	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	16.8	0.8	2.2	5.0	4.7	23.5	25.6	23.3	10.2	11.1
LnGrp Delay(d),s/veh	40.2	0.0	78.5	37.9	36.7	40.4	24.4	76.5	88.1	103.4	25.2	26.4
LnGrp LOS	D		E	D	D	D	C	F	F	F	C	C
Approach Vol, veh/h		577			284			1932			1767	
Approach Delay, s/veh		66.6			39.1			74.2			47.4	
Approach LOS		E			D			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.0	44.0	8.0	34.5	17.2	58.8	9.5	33.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	26.5	38.5	4.0	29.0	19.7	45.3	4.0	29.0				
Max Q Clear Time (g_c+I1), s	28.5	40.5	3.5	29.5	11.3	23.2	6.0	13.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.4	19.2	0.0	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay			60.7									
HCM 2010 LOS			E									

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018








											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	
Lane Configurations											
Volume (vph)	156	181	165	25	67	144	192	1319	460	1097	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8	2		6		
Detector Phase	7	4	4	3	8	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	34.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5	
Total Split (s)	9.5	34.5	34.5	9.5	34.5	34.5	25.2	44.0	32.0	50.8	
Total Split (%)	7.9%	28.8%	28.8%	7.9%	28.8%	28.8%	21.0%	36.7%	26.7%	42.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
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)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	23.7	21.5	21.5	21.3	17.3	17.3	51.7	38.8	71.1	52.6	
Actuated g/C Ratio	0.22	0.20	0.20	0.20	0.16	0.16	0.47	0.36	0.65	0.48	
v/c Ratio	0.64	0.57	0.42	0.15	0.27	0.45	0.62	0.96	0.99	0.53	
Control Delay	47.9	46.3	8.2	31.2	40.9	9.3	22.2	49.4	69.8	22.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	47.9	46.3	8.2	31.2	40.9	9.3	22.2	49.4	69.8	22.8	
LOS	D	D	A	C	D	A	C	D	E	C	
Approach Delay		34.3			20.6			46.4		36.0	
Approach LOS		C			C			D		D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 109
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 39.2
 Intersection Capacity Utilization 92.3%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F

























Splits and Phases: 3: Peoria St & E 17th Ave

			
32 s	44 s	9.5 s	34.5 s
			
25.2 s	50.8 s	9.5 s	34.5 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

















1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	181	165	25	67	144	192	1319	228	460	1097	86
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.98		0.96	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	179	208	190	30	81	173	213	1466	253	495	1180	92
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	404	332	216	379	310	366	1469	253	475	2265	177
Arrive On Green	0.04	0.22	0.22	0.02	0.20	0.20	0.10	0.34	0.34	0.23	0.47	0.47
Sat Flow, veh/h	1774	1863	1531	1774	1863	1527	1774	4359	751	1774	4806	375
Grp Volume(v), veh/h	179	208	190	30	81	173	213	1140	579	495	832	440
Grp Sat Flow(s),veh/h/ln	1774	1863	1531	1774	1863	1527	1774	1695	1720	1774	1695	1790
Q Serve(g_s), s	4.0	11.2	12.7	1.5	4.1	11.6	8.8	38.3	38.5	26.5	19.6	19.7
Cycle Q Clear(g_c), s	4.0	11.2	12.7	1.5	4.1	11.6	8.8	38.3	38.5	26.5	19.6	19.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		0.21
Lane Grp Cap(c), veh/h	308	404	332	216	379	310	366	1143	580	475	1598	844
V/C Ratio(X)	0.58	0.52	0.57	0.14	0.21	0.56	0.58	1.00	1.00	1.04	0.52	0.52
Avail Cap(c_a), veh/h	308	473	389	240	473	388	498	1143	580	475	1598	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	39.4	40.0	35.3	37.9	40.9	20.9	37.8	37.8	35.8	21.2	21.2
Incr Delay (d2), s/veh	2.7	1.0	1.6	0.3	0.3	1.6	1.5	25.9	37.3	52.9	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	5.9	5.5	0.8	2.2	5.0	4.4	22.0	24.2	21.9	9.4	10.2
LnGrp Delay(d),s/veh	42.9	40.5	41.6	35.6	38.2	42.5	22.4	63.7	75.1	88.7	22.4	23.5
LnGrp LOS	D	D	D	D	D	D	C	E	E	F	C	C
Approach Vol, veh/h	577				284				1932			
Approach Delay, s/veh	41.6				40.5				62.6			
Approach LOS	D				D				E			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.0	44.0	8.0	30.3	16.7	59.3	9.5	28.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	26.5	38.5	4.0	29.0	19.7	45.3	4.0	29.0				
Max Q Clear Time (g_c+I1), s	28.5	40.5	3.5	14.7	10.8	21.7	6.0	13.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.7	0.4	20.4	0.0	2.8				
Intersection Summary												
HCM 2010 Ctrl Delay	50.3											
HCM 2010 LOS	D											

Lanes and Geometrics
1: Paris St & E 17th Ave

1725 Peoria

3/2/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			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
Ped Bike Factor												
Frt		0.996			0.997			0.943			0.942	
Flt Protected		0.998						0.986			0.989	
Satd. Flow (prot)	0	1852	0	0	1857	0	0	1732	0	0	1735	0
Flt Permitted		0.998						0.986			0.989	
Satd. Flow (perm)	0	1852	0	0	1857	0	0	1732	0	0	1735	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		447			169			425			385	
Travel Time (s)		12.2			4.6			11.6			10.5	

Intersection Summary

Area Type: Other

Intersection												
Int Delay, s/veh	2.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	407	14	6	616	14	13	13	19	9	14	17
Conflicting Peds, #/hr	5	0	10	10	0	5	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	87	87	87	86	86	86	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	442	15	7	708	16	15	15	22	11	17	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	727	0	0	461	0	0	1253	1242	463	1252	1241	729
Stage 1	-	-	-	-	-	-	501	501	-	733	733	-
Stage 2	-	-	-	-	-	-	752	741	-	519	508	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	876	-	-	1100	-	-	149	175	599	149	175	423
Stage 1	-	-	-	-	-	-	552	543	-	412	426	-
Stage 2	-	-	-	-	-	-	402	423	-	540	539	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	869	-	-	1091	-	-	124	166	593	127	166	418
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	166	-	127	166	-
Stage 1	-	-	-	-	-	-	530	522	-	396	420	-
Stage 2	-	-	-	-	-	-	359	417	-	482	518	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	27.9	28.1
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	209	869	-	-	1091	-	-	204
HCM Lane V/C Ratio	0.25	0.028	-	-	0.006	-	-	0.239
HCM Control Delay (s)	27.9	9.3	0	-	8.3	0	-	28.1
HCM Lane LOS	D	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.9

Lanes and Geometrics

2: E 17th Ave & South Driveway

1725 Peoria
3/2/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔		↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.983		0.985	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	3536	1831	0	1756	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	3536	1831	0	1756	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		169	169		426	
Travel Time (s)		4.6	4.6		11.6	

Intersection Summary

Area Type: Other

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	425	646	90	68	8
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	462	702	98	74	9



















Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	805	0	1009
Stage 1	-	-	756
Stage 2	-	-	253
Critical Hdwy	4.12	-	6.63
Critical Hdwy Stg 1	-	-	5.43
Critical Hdwy Stg 2	-	-	5.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	819	-	251
Stage 1	-	-	463
Stage 2	-	-	767
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	816	-	244
Mov Cap-2 Maneuver	-	-	244
Stage 1	-	-	461
Stage 2	-	-	750

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	25.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	816	-	-	-	254
HCM Lane V/C Ratio	0.013	-	-	-	0.325
HCM Control Delay (s)	9.5	0.1	-	-	25.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.4

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018







									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	148	73	172	334	536	246	1330	84	2193
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	41.0	41.0	41.0	41.0	41.0	17.0	64.4	14.6	62.0
Total Split (%)	34.2%	34.2%	34.2%	34.2%	34.2%	14.2%	53.7%	12.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	35.5	35.5	35.5	35.5	35.5	71.7	60.2	64.3	56.5
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.60	0.50	0.54	0.47
v/c Ratio	1.11	0.59	1.04	0.69	1.07	1.10	0.57	0.41	1.08
Control Delay	147.0	26.3	119.7	45.0	86.6	120.6	22.1	15.7	75.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	147.0	26.3	119.7	45.0	86.6	120.6	22.1	15.7	75.3
LOS	F	C	F	D	F	F	C	B	E
Approach Delay		66.6		78.7			36.8		73.3
Approach LOS		E		E			D		E

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 63.5
 Intersection Capacity Utilization 106.6%
 Analysis Period (min) 15

Intersection LOS: E
 ICU Level of Service G























Splits and Phases: 3: Peoria St & E 17th Ave

		
14.6 s	64.4 s	41 s
		
17 s	62 s	41 s

HCM 2010 Signalized Intersection Summary



















3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	148	73	222	172	334	536	246	1330	35	84	2193	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	168	83	252	195	380	609	254	1415	36	91	2384	170
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.97	0.94	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	119	361	176	551	460	230	2678	68	259	2282	160
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.10	0.53	0.53	0.04	0.47	0.47
Sat Flow, veh/h	566	402	1219	1036	1863	1554	1774	5099	130	1774	4846	341
Grp Volume(v), veh/h	168	0	335	195	380	609	254	941	510	91	1658	896
Grp Sat Flow(s),veh/h/ln	566	0	1621	1036	1863	1554	1774	1695	1839	1774	1695	1797
Q Serve(g_s), s	13.8	0.0	22.0	13.5	21.7	35.5	11.5	21.9	21.9	3.2	56.5	56.5
Cycle Q Clear(g_c), s	35.5	0.0	22.0	35.5	21.7	35.5	11.5	21.9	21.9	3.2	56.5	56.5
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.07	1.00		0.19
Lane Grp Cap(c), veh/h	125	0	480	176	551	460	230	1781	966	259	1596	846
V/C Ratio(X)	1.34	0.00	0.70	1.11	0.69	1.32	1.10	0.53	0.53	0.35	1.04	1.06
Avail Cap(c_a), veh/h	125	0	480	176	551	460	230	1781	966	320	1596	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.4	0.0	37.5	55.5	37.4	42.2	39.7	18.7	18.7	16.4	31.8	31.8
Incr Delay (d2), s/veh	197.4	0.0	4.4	98.7	3.6	160.5	90.1	1.1	2.1	0.8	33.2	47.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	0.0	10.5	10.7	11.6	35.8	13.4	10.5	11.6	1.6	33.7	39.2
LnGrp Delay(d),s/veh	253.8	0.0	41.9	154.2	41.0	202.7	129.8	19.8	20.8	17.2	64.9	79.7
LnGrp LOS	F		D	F	D	F	F	B	C	B	F	F
Approach Vol, veh/h		503			1184			1705			2645	
Approach Delay, s/veh		112.7			142.8			36.5			68.3	
Approach LOS		F			F			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	68.5		41.0	17.0	62.0		41.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.1	58.9		35.5	11.5	56.5		35.5				
Max Q Clear Time (g_c+I1), s	5.2	23.9		37.5	13.5	58.5		37.5				
Green Ext Time (p_c), s	0.1	33.3		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			77.6									
HCM 2010 LOS			E									

Timings
3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018








									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	148	73	172	334	536	246	1330	84	2193
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5
Total Split (s)	9.5	34.6	12.9	38.0	38.0	16.0	57.5	15.0	56.5
Total Split (%)	7.9%	28.8%	10.8%	31.7%	31.7%	13.3%	47.9%	12.5%	47.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	33.1	29.1	39.9	32.5	32.5	63.9	53.4	59.1	51.0
Actuated g/C Ratio	0.28	0.24	0.33	0.27	0.27	0.53	0.44	0.49	0.42
v/c Ratio	0.94	0.69	0.86	0.75	1.12	1.18	0.64	0.45	1.20
Control Delay	90.7	34.5	64.5	50.9	106.0	145.7	27.6	20.3	124.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	34.5	64.5	50.9	106.0	145.7	27.6	20.3	124.9
LOS	F	C	E	D	F	F	C	C	F
Approach Delay		53.2		81.5			45.2		121.3
Approach LOS		D		F			D		F

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Natural Cycle: 130
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.20
 Intersection Signal Delay: 86.3
 Intersection Capacity Utilization 106.6%
 Analysis Period (min) 15

Intersection LOS: F
 ICU Level of Service G























Splits and Phases: 3: Peoria St & E 17th Ave

 ø1	 ø2	 ø3	 ø4
15 s	57.5 s	12.9 s	34.6 s
 ø5	 ø6	 ø7	 ø8
16 s	56.5 s	9.5 s	38 s

HCM 2010 Signalized Intersection Summary























3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	148	73	222	172	334	536	246	1330	35	84	2193	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	168	83	252	195	380	609	254	1415	36	91	2384	170
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.97	0.94	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	97	295	215	504	420	215	2391	61	234	2059	145
Arrive On Green	0.03	0.24	0.24	0.06	0.27	0.27	0.09	0.47	0.47	0.04	0.43	0.43
Sat Flow, veh/h	1774	400	1215	1774	1863	1552	1774	5099	130	1774	4846	341
Grp Volume(v), veh/h	168	0	335	195	380	609	254	941	510	91	1658	896
Grp Sat Flow(s),veh/h/ln	1774	0	1616	1774	1863	1552	1774	1695	1839	1774	1695	1796
Q Serve(g_s), s	4.0	0.0	23.8	7.4	22.4	32.5	10.5	24.5	24.5	3.4	51.0	51.0
Cycle Q Clear(g_c), s	4.0	0.0	23.8	7.4	22.4	32.5	10.5	24.5	24.5	3.4	51.0	51.0
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.07	1.00		0.19
Lane Grp Cap(c), veh/h	167	0	392	215	504	420	215	1589	862	234	1441	763
V/C Ratio(X)	1.01	0.00	0.86	0.91	0.75	1.45	1.18	0.59	0.59	0.39	1.15	1.17
Avail Cap(c_a), veh/h	167	0	392	215	504	420	215	1589	862	297	1441	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	43.4	41.0	40.1	43.8	37.5	23.4	23.4	19.9	34.5	34.5
Incr Delay (d2), s/veh	72.0	0.0	16.7	36.8	6.3	215.1	118.5	1.6	3.0	1.1	76.2	91.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	12.4	5.0	12.4	39.1	14.2	11.7	13.0	1.7	39.1	44.7
LnGrp Delay(d),s/veh	119.6	0.0	60.1	77.8	46.4	258.8	156.0	25.1	26.4	21.0	110.7	126.4
LnGrp LOS	F		E	E	D	F	F	C	C	C	F	F
Approach Vol, veh/h		503			1184			1705			2645	
Approach Delay, s/veh		80.0			160.8			45.0			112.9	
Approach LOS		E			F			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	61.8	12.9	34.6	16.0	56.5	9.5	38.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	52.0	7.4	29.1	10.5	51.0	4.0	32.5				
Max Q Clear Time (g_c+I1), s	5.4	26.5	9.4	25.8	12.5	53.0	6.0	34.5				
Green Ext Time (p_c), s	0.1	24.6	0.0	2.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			100.4									
HCM 2010 LOS			F									

Timings
3: Peoria St & E 17th Ave






1725 Peoria
3/2/2018

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	
Lane Configurations											
Volume (vph)	148	73	222	172	334	536	246	1330	84	2193	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	4		4	8		8	2		6		
Detector Phase	7	4	4	3	8	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	34.5	34.5	9.5	34.5	34.5	9.5	21.5	9.5	21.5	
Total Split (s)	9.5	35.5	35.5	12.0	38.0	38.0	16.0	57.5	15.0	56.5	
Total Split (%)	7.9%	29.6%	29.6%	10.0%	31.7%	31.7%	13.3%	47.9%	12.5%	47.1%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
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)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	34.0	30.0	30.0	39.0	32.5	32.5	63.9	53.4	59.1	51.0	
Actuated g/C Ratio	0.28	0.25	0.25	0.32	0.27	0.27	0.53	0.44	0.49	0.42	
v/c Ratio	0.94	0.18	0.48	0.46	0.75	1.12	1.18	0.64	0.45	1.20	
Control Delay	90.4	36.6	14.5	34.0	50.9	106.0	145.7	27.6	20.3	124.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	90.4	36.6	14.5	34.0	50.9	106.0	145.7	27.6	20.3	124.9	
LOS	F	D	B	C	D	F	F	C	C	F	
Approach Delay		43.5			76.4			45.2		121.3	
Approach LOS		D			E			D		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Natural Cycle: 130
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.20
 Intersection Signal Delay: 84.5
 Intersection Capacity Utilization 106.6%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service G
























Splits and Phases: 3: Peoria St & E 17th Ave

 Ø1	 Ø2	 Ø3	 Ø4
15 s	57.5 s	12 s	35.5 s
 Ø5	 Ø6	 Ø7	 Ø8
16 s	56.5 s	9.5 s	38 s

HCM 2010 Signalized Intersection Summary

3: Peoria St & E 17th Ave

1725 Peoria
3/2/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	148	73	222	172	334	536	246	1330	35	84	2193	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	168	83	252	195	380	609	254	1415	36	91	2384	170
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.97	0.94	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	466	387	377	504	420	215	2391	61	234	2059	145
Arrive On Green	0.03	0.25	0.25	0.05	0.27	0.27	0.09	0.47	0.47	0.04	0.43	0.43
Sat Flow, veh/h	1774	1863	1549	1774	1863	1552	1774	5099	130	1774	4846	341
Grp Volume(v), veh/h	168	83	252	195	380	609	254	941	510	91	1658	896
Grp Sat Flow(s),veh/h/ln	1774	1863	1549	1774	1863	1552	1774	1695	1839	1774	1695	1796
Q Serve(g_s), s	4.0	4.2	17.5	6.5	22.4	32.5	10.5	24.5	24.5	3.4	51.0	51.0
Cycle Q Clear(g_c), s	4.0	4.2	17.5	6.5	22.4	32.5	10.5	24.5	24.5	3.4	51.0	51.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.19
Lane Grp Cap(c), veh/h	167	466	387	377	504	420	215	1589	862	234	1441	763
V/C Ratio(X)	1.01	0.18	0.65	0.52	0.75	1.45	1.18	0.59	0.59	0.39	1.15	1.17
Avail Cap(c_a), veh/h	167	466	387	377	504	420	215	1589	862	297	1441	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	35.3	40.3	34.5	40.1	43.8	37.5	23.4	23.4	19.9	34.5	34.5
Incr Delay (d2), s/veh	72.0	0.2	3.8	1.2	6.3	215.1	118.5	1.6	3.0	1.1	76.2	91.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.2	7.9	2.5	12.4	39.1	14.2	11.7	13.0	1.7	39.1	44.7
LnGrp Delay(d),s/veh	119.2	35.5	44.1	35.7	46.4	258.8	156.0	25.1	26.4	21.0	110.7	126.4
LnGrp LOS	F	D	D	D	D	F	F	C	C	C	F	F
Approach Vol, veh/h	503		1184				1705				2645	
Approach Delay, s/veh	67.8		153.9				45.0				112.9	
Approach LOS	E		F				D				F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	61.8	12.0	35.5	16.0	56.5	9.5	38.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	52.0	6.5	30.0	10.5	51.0	4.0	32.5				
Max Q Clear Time (g_c+I1), s	5.4	26.5	8.5	19.5	12.5	53.0	6.0	34.5				
Green Ext Time (p_c), s	0.1	24.6	0.0	4.9	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	98.0											
HCM 2010 LOS	F											

APPENDIX “C”

SIMTRAFFIC ANALYSIS WORKSHEETS

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	8	11	25	15
Average Queue (ft)	2	3	8	7
95th Queue (ft)	19	20	29	27
Link Distance (ft)	419	118	383	357
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	42	84	8	83
Average Queue (ft)	12	45	2	50
95th Queue (ft)	50	101	19	91
Link Distance (ft)	118	118	75	397
Upstream Blk Time (%)	0	1		
Queuing Penalty (veh)	0	2		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	75	76	39	70	56	139	272	225	172	178	210	175
Average Queue (ft)	55	71	17	40	36	99	209	158	102	114	139	110
95th Queue (ft)	91	94	47	81	62	171	316	267	201	190	253	212
Link Distance (ft)	75	75		532	532		629	629	629		577	577
Upstream Blk Time (%)	12	24										
Queuing Penalty (veh)	22	44										
Storage Bay Dist (ft)			125			120				170		
Storage Blk Time (%)				0		0	27			3	2	
Queuing Penalty (veh)				0		0	40			6	5	

Intersection: 3: Peoria St & E 17th Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	92
Average Queue (ft)	44
95th Queue (ft)	103
Link Distance (ft)	577
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 119

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	9	22	29	21
Average Queue (ft)	2	5	13	6
95th Queue (ft)	13	28	35	26
Link Distance (ft)	419	118	366	357
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	EB	WB	SB
Directions Served	LT	T	T	TR	LR
Maximum Queue (ft)	52	56	5	2	70
Average Queue (ft)	16	19	1	0	44
95th Queue (ft)	56	68	13	6	79
Link Distance (ft)	118	118	118	74	397
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	TR	L	T
Maximum Queue (ft)	78	73	57	42	63	52	142	303	252	184	181	228
Average Queue (ft)	62	56	41	18	36	33	91	205	158	96	114	133
95th Queue (ft)	93	96	65	52	72	61	167	324	280	201	197	259
Link Distance (ft)	74	74	74		532	532		627	627	627		577
Upstream Blk Time (%)	15	14	0									
Queuing Penalty (veh)	19	17	0									
Storage Bay Dist (ft)				125			120				170	
Storage Blk Time (%)							1	26			4	1
Queuing Penalty (veh)							4	39			10	3

Intersection: 3: Peoria St & E 17th Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	145	86
Average Queue (ft)	92	45
95th Queue (ft)	162	109
Link Distance (ft)	577	577
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 92

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	8	35	36
Average Queue (ft)	1	2	16	20
95th Queue (ft)	11	19	42	48
Link Distance (ft)	419	118	383	357
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	40	82	3	56
Average Queue (ft)	15	36	1	32
95th Queue (ft)	54	97	8	66
Link Distance (ft)	118	118	75	397
Upstream Blk Time (%)	0	1		
Queuing Penalty (veh)	0	1		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	80	77	149	230	112	144	244	183	123	120	414	361
Average Queue (ft)	60	70	84	157	74	110	171	130	64	51	320	266
95th Queue (ft)	96	89	170	255	122	171	272	208	144	157	445	390
Link Distance (ft)	75	75		532	532		629	629	629		577	577
Upstream Blk Time (%)	16	21										
Queuing Penalty (veh)	27	36										
Storage Bay Dist (ft)			125			120				170		
Storage Blk Time (%)			2	16		5	15			0	29	
Queuing Penalty (veh)			3	18		15	26			0	16	

Intersection: 3: Peoria St & E 17th Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	244
Average Queue (ft)	169
95th Queue (ft)	278
Link Distance (ft)	577
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 143

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	20	5	32	33
Average Queue (ft)	6	1	14	17
95th Queue (ft)	29	10	40	43
Link Distance (ft)	419	118	366	357
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	EB	WB	SB
Directions Served	LT	T	T	TR	LR
Maximum Queue (ft)	41	16	24	3	55
Average Queue (ft)	15	3	5	1	35
95th Queue (ft)	57	23	33	11	65
Link Distance (ft)	118	118	118	74	397
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report

Baseline

3/3/2018

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	TR	L	T
Maximum Queue (ft)	76	65	69	144	220	132	141	275	244	115	118	439
Average Queue (ft)	61	37	51	83	146	87	103	176	136	51	50	350
95th Queue (ft)	90	72	78	166	235	155	159	313	270	124	150	478
Link Distance (ft)	74	74	74		532	532		627	627	627		577
Upstream Blk Time (%)	19	4	1									0
Queuing Penalty (veh)	21	5	1									0
Storage Bay Dist (ft)				125			120				170	
Storage Blk Time (%)				2	14		9	13				29
Queuing Penalty (veh)				4	16		25	23				16

Intersection: 3: Peoria St & E 17th Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	396	262
Average Queue (ft)	298	188
95th Queue (ft)	435	301
Link Distance (ft)	577	577
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 111

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	195	39	37	30
Average Queue (ft)	111	9	20	10
95th Queue (ft)	316	45	48	35
Link Distance (ft)	419	118	383	357
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	SB
Directions Served	LT	T	LR
Maximum Queue (ft)	77	124	204
Average Queue (ft)	38	105	132
95th Queue (ft)	104	147	300
Link Distance (ft)	118	118	397
Upstream Blk Time (%)	1	23	1
Queuing Penalty (veh)	3	51	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	82	98	53	78	80	145	586	529	444	195	567	489
Average Queue (ft)	69	83	24	50	49	119	484	429	330	189	449	359
95th Queue (ft)	94	104	66	92	84	183	658	602	499	226	698	585
Link Distance (ft)	75	75		532	532		629	629	629		577	577
Upstream Blk Time (%)	29	57					3	0	0		4	0
Queuing Penalty (veh)	76	148					0	0	0		0	0
Storage Bay Dist (ft)			125			120				170		
Storage Blk Time (%)			0			9	57			49	3	
Queuing Penalty (veh)			0			41	109			178	14	

Intersection: 3: Peoria St & E 17th Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	182
Average Queue (ft)	124
95th Queue (ft)	221
Link Distance (ft)	577
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 621

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	53	16	36	28
Average Queue (ft)	12	5	20	12
95th Queue (ft)	58	23	45	35
Link Distance (ft)	419	118	366	357
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	EB	SB
Directions Served	LT	T	T	LR
Maximum Queue (ft)	90	74	22	109
Average Queue (ft)	37	39	4	64
95th Queue (ft)	108	87	31	127
Link Distance (ft)	118	118	118	397
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	2	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	TR	L	T
Maximum Queue (ft)	77	76	71	49	88	69	141	586	509	386	195	511
Average Queue (ft)	67	71	52	25	60	50	109	479	408	304	192	378
95th Queue (ft)	90	90	79	63	108	80	176	640	539	426	208	611
Link Distance (ft)	74	74	74		532	532		627	627	627		577
Upstream Blk Time (%)	27	29	1					1				7
Queuing Penalty (veh)	47	50	2					0				0
Storage Bay Dist (ft)				125			120				170	
Storage Blk Time (%)					1		7	57			39	5
Queuing Penalty (veh)					0		30	109			143	22

Intersection: 3: Peoria St & E 17th Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	440	182
Average Queue (ft)	281	115
95th Queue (ft)	518	207
Link Distance (ft)	577	577
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 406

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	234	13	43	44
Average Queue (ft)	137	3	26	29
95th Queue (ft)	399	27	53	54
Link Distance (ft)	419	118	383	357
Upstream Blk Time (%)	8			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	113	116	3	186
Average Queue (ft)	82	82	1	123
95th Queue (ft)	149	148	8	249
Link Distance (ft)	118	118	75	397
Upstream Blk Time (%)	22	12		
Queuing Penalty (veh)	48	26		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

Baseline

1725 Peoria
3/3/2018

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	TR	L	T	T
Maximum Queue (ft)	83	83	150	365	267	144	529	446	248	165	600	594
Average Queue (ft)	77	74	123	262	184	139	411	330	186	97	592	571
95th Queue (ft)	90	93	193	415	309	165	617	521	277	224	619	649
Link Distance (ft)	75	75		532	532		629	629	629		577	577
Upstream Blk Time (%)	71	42		1			1				45	33
Queuing Penalty (veh)	175	103		0			0				0	0
Storage Bay Dist (ft)			125			120				170		
Storage Blk Time (%)			5	37		53	19				58	
Queuing Penalty (veh)			16	63		235	48				49	

Intersection: 3: Peoria St & E 17th Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	580
Average Queue (ft)	531
95th Queue (ft)	684
Link Distance (ft)	577
Upstream Blk Time (%)	32
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 763

Intersection: 1: Paris St & E 17th Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	241	3	58	48
Average Queue (ft)	100	1	31	24
95th Queue (ft)	337	7	83	62
Link Distance (ft)	419	118	366	357
Upstream Blk Time (%)	5			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: E 17th Ave & South Driveway

Movement	EB	EB	EB	WB	SB
Directions Served	LT	T	T	TR	LR
Maximum Queue (ft)	114	9	86	2	143
Average Queue (ft)	78	2	38	0	90
95th Queue (ft)	154	15	103	5	219
Link Distance (ft)	118	118	118	74	397
Upstream Blk Time (%)	27		1		
Queuing Penalty (veh)	39		2		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Peoria St & E 17th Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	TR	L	T
Maximum Queue (ft)	79	67	78	150	347	282	145	502	440	277	165	613
Average Queue (ft)	73	37	67	119	245	189	137	406	348	190	90	595
95th Queue (ft)	88	77	97	188	394	324	168	625	535	336	209	624
Link Distance (ft)	74	74	74		532	532		627	627	627		577
Upstream Blk Time (%)	61	5	20					1				46
Queuing Penalty (veh)	100	8	33					0				0
Storage Bay Dist (ft)				125			120				170	
Storage Blk Time (%)				10	31		48	19			0	57
Queuing Penalty (veh)				32	53		212	47			0	48

Intersection: 3: Peoria St & E 17th Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	603	606
Average Queue (ft)	577	543
95th Queue (ft)	639	680
Link Distance (ft)	577	577
Upstream Blk Time (%)	35	32
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 575