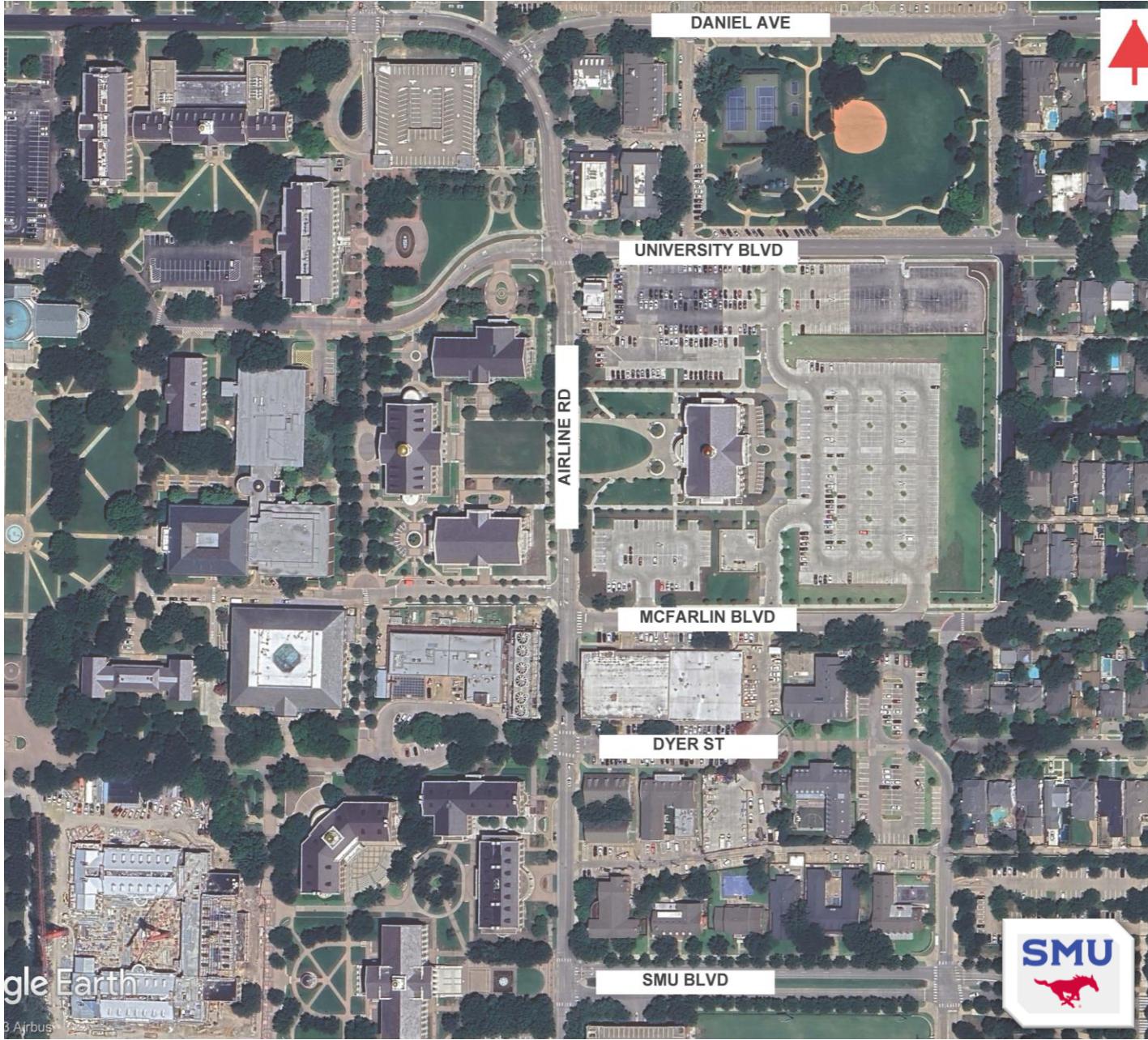


AIRLINE ROAD SIGNAL WARRANT ANALYSIS & PEDESTRIAN CROSSWALK MOBILITY STUDY

OCTOBER 2023

CITY OF UNIVERSITY PARK, TX



PREPARED BY:
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Signal Warrant Analysis & Pedestrian Crosswalk Mobility Study

FOR

Airline Road | University Blvd & McFarlin Blvd

University Park, Texas

PREPARED FOR:

**City of University Park
&
Southern Methodist University**

OCTOBER 23rd, 2023



Firm Registration #: F-5332

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1. Introduction

Urban Engineers Group (UEG) was retained in July 2023 to perform signal warrant analysis and to study pedestrian crosswalk mobility along Airline Road in City of University Park, Texas. The report is divided into two parts: **Task A**, which pertains to traffic signal warrants analysis at the intersection of Airline Road and University Boulevard, and **Task B**, which studied pedestrian crosswalk mobility of an existing crosswalk situated north of McFarlin Boulevard intersection.

Airline Road is a two-way street that runs north-south with one lane in each direction from Daniel Avenue to Binkley Avenue, along Southern Methodist University (SMU) campus. Daniel Avenue becomes Airline Road about 300 feet north of the University Boulevard intersection. Airline Road terminates at Binkley Avenue, which runs east-west. Airline Road is stop-controlled at all intersections except for McFarlin Boulevard.

McFarlin Boulevard is a two-way street east of Airline Road and a one-way street west of Airline Road. There are crosswalks across McFarlin Boulevard at the intersection, but there is no crosswalk across Airline Road at the intersection. To cross Airline Road at the intersection, pedestrians must use an existing crosswalk about 180 feet north of the intersection of Airline Road and McFarlin Boulevard.

University Boulevard is a two-way street that runs east-west with one lane in each direction. West of the Airline Road intersection, it becomes a one-way street with two lanes, both of which are for eastbound traffic. One lane is for through traffic and the other is for left turn only traffic. There are "Do Not Enter" and "One-way" signs at the intersection to inform drivers. All traffic on University Boulevard is stop-controlled.

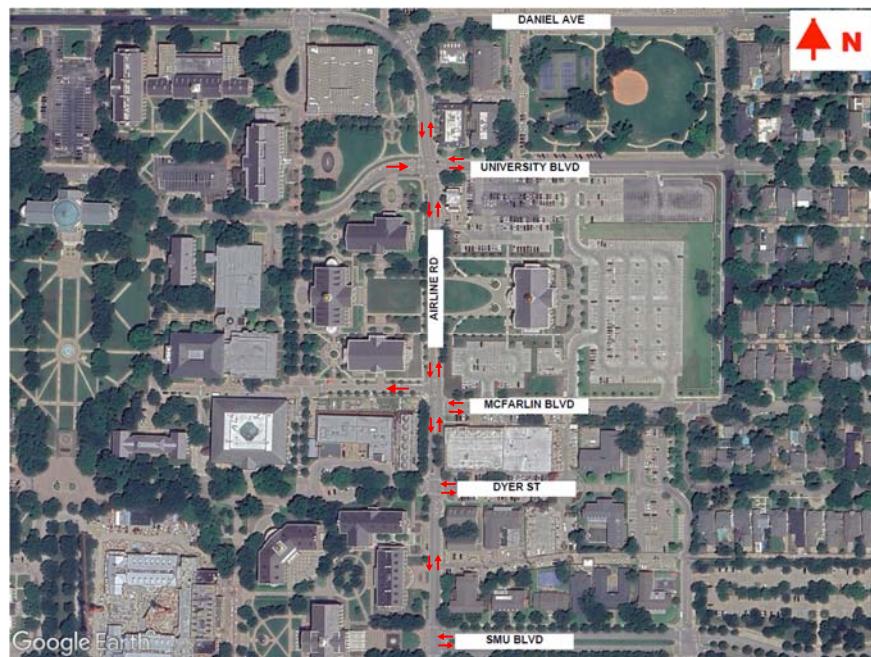


Figure 1 - Airline Road Aerial View

2. Executive Summary

Urban Engineers Group (UEG) was retained in July 2023 to perform signal warrant analysis and to study pedestrian crosswalk mobility along Airline Road in City of University Park, Texas.

The signal warrant analysis is performed at the intersection of Airline Road and University Boulevard using turning movement counts collected over a 24-hour period on multiple days in early September 2023. The study intersection fully met one of the four reviewed warrants (Warrant 3) on Sept 12th, 2023, and partially met another warrant (Combination A&B of Warrant 1) on multiple days; therefore, installation of a traff03ic signal is recommended at this intersection.

The existing crosswalk conditions at or near McFarlin Boulevard intersection are studied and recommendations are made in the report. Task B discusses recommended improvements and future considerations along the corridor.

It is recommended under paving Improvements to replace the ramp at the northeast corner with a perpendicular curb ramp to direct pedestrian traffic parallel to vehicular movement for increased safety. The signage improvements' recommendations include installation of a 'Stop for Pedestrians' (R1-6a) sign in the middle of the crosswalk. The marking improvements' recommendations include installation of advance pedestrian crossing markings for both northbound and southbound traffic on Airline Road and painting the crosswalk in high-visibility and contrasting paint. It is also recommended to install a stop-bar located at a minimum distance of 4-ft from the crosswalk with a R1-6a sign, to enforce stop when pedestrians are present in the crosswalk.

If the recommended traffic calming measures do not adequately address safety concerns, additional measures listed below can be adapted for future considerations.

Future considerations can include installation of a stop-control measure at McFarlin Boulevard to slow down traffic, installing a speed hump for southbound traffic leaving University Boulevard, transforming the mid-block crosswalk from at-grade to raised table-top condition crosswalk (elevated to the level of the sidewalk), constructing curb-extensions at the mid-block crosswalk location. The signage improvements include installation of stop signs at McFarlin Boulevard intersection for northbound and southbound traffic along Airline Road, and a 'Speed Hump' (W17-1) sign adjacent to the speed hump.

3. Task A: Signal Warrant Study

Signal warrant analysis is performed at the intersection of Airline Road and University Boulevard, shown in **Figure 2**, using turning movement counts collected over a 24-hour period on following days:

- Saturday Sept 09th, 2023, Tuesday Sept 12th, 2023, & Wednesday Sept 13th, 2023

The raw traffic data is included in **Appendix A**.

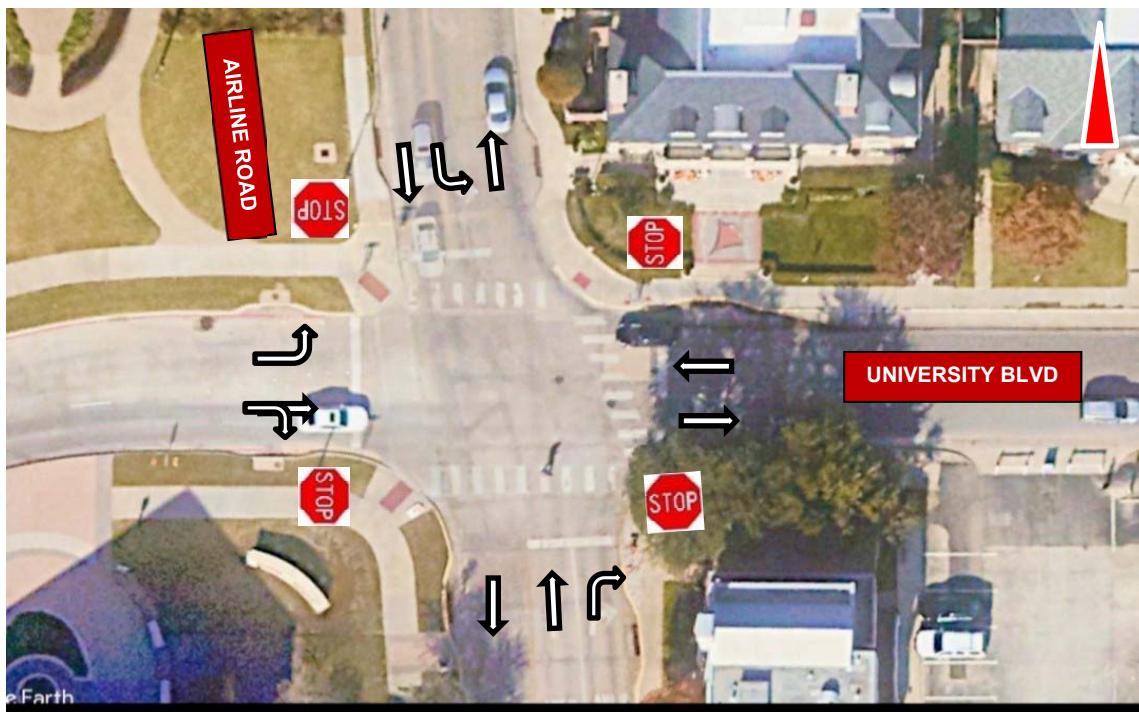


Figure 2 – University Blvd & Airline Road

a. Study Procedure

The 2011 Texas Manual on Uniform Traffic Control Devices (TMUTCD) requires that an installation of a traffic signal meet certain warrants prior to the installation. The TMUTCD outlines nine warrants, one of which must be fully met for an installation to be justified. The warrants are listed and summarized below:

- Warrant 1: Eight-Hour Vehicular Volume
- Warrant 2: Four-Hour Vehicular Volume
- Warrant 3: Peak Hour
- Warrant 4: Pedestrian Volume
- Warrant 5: School Crossing
- Warrant 6: Coordinated Signal System
- Warrant 7: Crash Experience
- Warrant 8: Roadway Network
- Warrant 9: Intersection Near a Grade Crossing

Warrant 1, Eight-Hour Vehicular Volume - It is intended that Warrant 1 be treated as a single warrant with three conditions (Condition A, Condition B, and combination of Conditions A & B). If a single condition is met in at least eight different hours in one day, then the warrant is met.

- *Condition A* (Minimum Vehicular Volume) is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.
- *Condition B* (Interruption of Continuous Traffic) is intended for application where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.
- The combination of conditions A and B is intended for application at locations where condition A is not satisfied, and condition B is not satisfied and should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four-Hour Vehicular Volume - This warrant is intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Warrant 3, Peak Hour - This warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

Warrant 4, Pedestrian Volume - This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Warrant 5, School Crossing - This warrant is intended for application where school children cross the major street to a school is the principal reason to consider installing a traffic control signal.

Warrant 6, Coordinated Signal System - This warrant is intended where progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles.

Warrant 7, Crash Experience - This warrant is intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Warrant 8, Roadway Network - This warrant is analyzed when installing a traffic control signal at some intersection might be justified to encourage concentration and organization of traffic flow on a roadway network.

Warrant 9, Intersection Near a Grade Crossing - This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of a grade crossing on an intersection approach controlled by a "stop" or "yield" sign is a principal reason to consider. This warrant should be applied only after adequate consideration has been given to other alternatives or after a trial of an alternative has failed to alleviate the safety concerns associated with the grade crossing.

b. Signal Warrant Analysis Results

The intersection of Airline Road and University Blvd was evaluated for a possible signal installation for four applicable warrants (Warrants 1-4). **Table 1** outlines the results.

Table 1 - Warrant Results

Day	Warrant	Warrant Met:	Notes
Sept 09 th , 2023 (Saturday)	Warrant 1	No	Condition A – 0 hours met (8 required) Condition B – 0 hours met (8 required) Combination A & B – 2 hours met (8 req.)
	Warrant 2	No	0 hour met (4 required)
	Warrant 3	No	0 hour met (1 required)
	Warrant 4	No	0 hour met (4 required)
Sept 12 th , 2023 (Tuesday)	Warrant 1	No	Condition A – 5 hours met (8 required) Condition B – 0 hours met (8 required) Combination A & B – 9 hours met (8 req.)
	Warrant 2	No	3 hour met (4 required)
	Warrant 3	Yes	1 hour met (1 required)
	Warrant 4	No	1 hour met (4 required)
Sept 13 th , 2023 (Wednesday)	Warrant 1	No	Condition A – 5 hours met (8 required) Condition B – 0 hours met (8 required) Combination A & B – 9 hours met (8 req.)
	Warrant 2	No	2 hour met (4 required)
	Warrant 3	No	0 hour met (1 required)
	Warrant 4	No	2 hour met (4 required)

Traffic signal warrant worksheets are included in the **Appendix**.

c. Findings and Recommendations

Based on existing traffic volumes a traffic signal is warranted at the intersection of Airline Road and University Blvd. The TMUTCD requires one warrant to meet to justify a traffic signal. The study intersection fully meets one of the four reviewed warrants (Warrant 3) on Sept 12th, 2023, and partially meets combination A&B of Warrant 1 on multiple days. Based on these findings; installation of a traffic signal is recommended at this intersection.

4. **Task B: Pedestrian Crosswalk Mobility Study**

The section studies the existing crosswalk conditions at or near McFarlin Boulevard intersection and make recommendations to improve pedestrian mobility and safety at these crosswalks. If the recommended traffic calming measures do not adequately address safety concerns, this study also offers recommendations for future consideration.

a. Existing Conditions

Airline Road, which runs in north-south direction, intersects numerous streets from Daniel Avenue to Binkley Avenue. All these intersections except McFarlin Boulevard are all-way stop-controlled with pedestrian crosswalks. At the intersection of Airline Road and McFarlin Boulevard, Airline Road traffic flows freely while McFarlin Boulevard traffic is stop-controlled. There is a pedestrian crosswalk at the intersection to cross McFarlin Boulevard but none to cross Airline Road. To cross Airline Road, pedestrians must use a mid-block crosswalk that is 180 feet north of the intersection, shown in **Figure 3**. The crosswalk is 10-ft wide and is of continental style markings with barrier free ramps and landing on either side of the Airline Road. There are "crosswalk ahead" signs approximately 120 feet north and south of the crosswalk. The crosswalk also has pedestrian push-button flashers to alert drivers of pedestrians in the crosswalk.



Figure 3 – Crosswalk across Airline Road (180 feet north of McFarlin Blvd)

b. Recommendation of Improvements

All the recommended improvement discussed below are shown under Appendix C.

- **Paving Improvements**

Barrier Free Ramps: The crosswalk at the McFarlin Boulevard intersection is designed to cross McFarlin Boulevard only. All the ramps at the intersection are directional, meaning they promote north-south pedestrian movement, except for the ramp at the northeast corner. It is recommended to replace the ramp at the northeast corner with a perpendicular curb ramp, which in this case will act as a directional ramp. Directional pedestrian ramps improve the pedestrian experience by making it safer for pedestrians to cross the street, as they enter the roadway in a parallel direction to vehicles in motion.

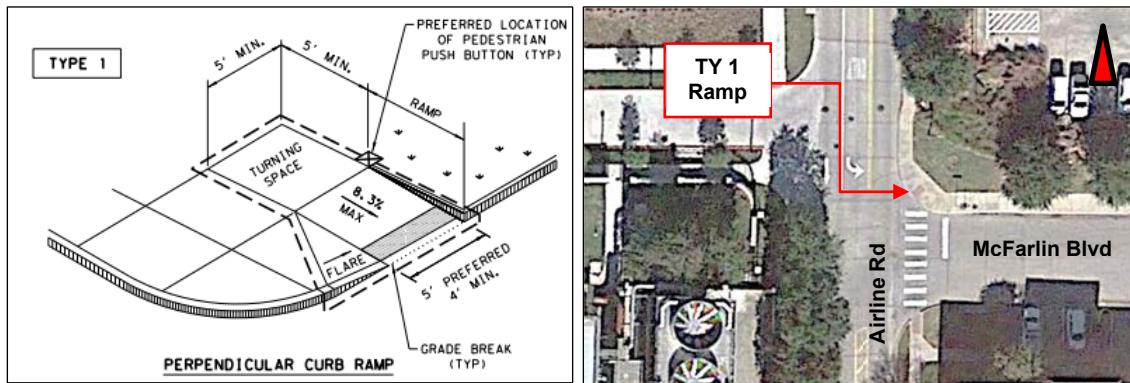


Figure 4 – TxDOT PED-18 Ramp Detail & Google Earth Aerial

- **Pavement Marking & Signage Improvements**

It is recommended that following signage improvements are made to Airline Road.

Stop for Pedestrians Sign: Although there is a pedestrian controlled flashing beacon at the crosswalk for both northbound and southbound traffic, it is recommended to install a 'Stop for Pedestrians' (R1-6a) sign in the middle of the crosswalk. The sign regulates the vehicular traffic to stop for pedestrians present in the crosswalk.

In addition to signage improvements, it is recommended that following marking improvements are made to Airline Road:

Pedestrian Crossing Markings: There are currently no advance warning markings associated with mid-block crossing between McFarlin Boulevard and University Boulevard. It is recommended to install advance pedestrian crossing markings for both northbound and southbound traffic on Airline Road, **shown in Figure 5**. The marking will improve pedestrian safety by increasing driver awareness of a pedestrian crossing.



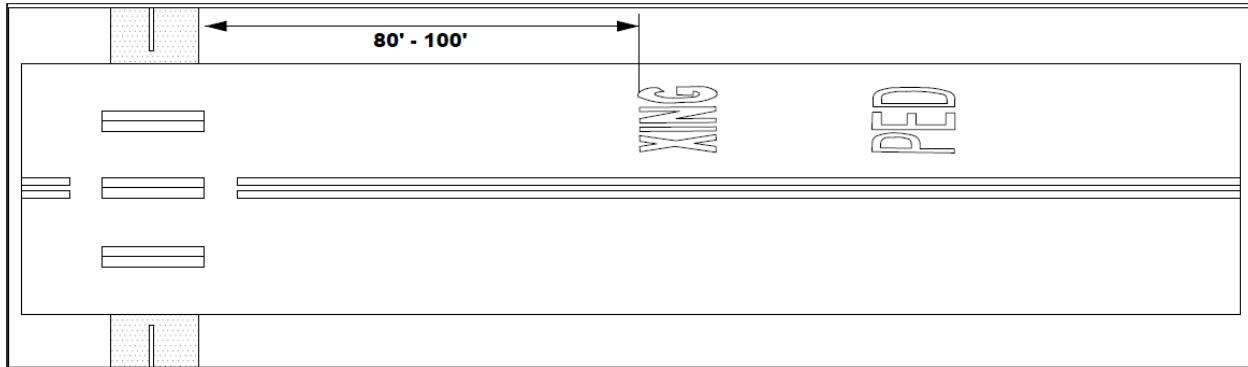


Figure 5 - Crosswalk Ahead Markings

Colored Crosswalk: In addition to above recommended marking, it is recommended to paint the crosswalk in high-visibility paint and contrasting paint such as red, orange, yellow, green or others. It is important to choose a color that is highly visible to drivers in all weather conditions.

High-visibility paint is more visible to drivers than traditional crosswalk paint, especially in low-light conditions. This can help to reduce the risk of accidents between pedestrians and vehicles. High-visibility crosswalks can help to reduce vehicle speeds as drivers approach crosswalks. This is because drivers are more likely to slow down when they can clearly see a crosswalk ahead.



Figure 6 – Colored Crosswalk

Stop Bar: Since the crosswalk will have a stop-sign in the middle of it, it is recommended to install a stop-bar located at a minimum distance of 4-ft from the crosswalk to enforce stop when pedestrians are present in the crosswalk.

c. Future Considerations

If the recommended traffic calming measures above do not adequately address safety concerns, additional recommendations are listed below for further consideration.

- **Traffic Flow improvements**

Stop Control: Airline Road traffic at the McFarlin Boulevard intersection is the only intersection along the corridor that is not stop-controlled. As a result, northbound traffic leaving Dyer Street, which is located approximately 220 feet south of the intersection, can gain speed by the time it reaches the pedestrian crosswalk, shown in **Figure 3**. It is recommended that an additional stop-control measure be installed at McFarlin Boulevard to slow down traffic. The

transformation from free-flow to stop-controlled will give pedestrians a chance to cross the road using mid-block crosswalk safely without having to worry about oncoming traffic. It will also force vehicles to slow down, which can help reduce the severity of accidents.

- **Paving Improvements**

Speed Humps: Transforming the McFarlin Boulevard intersection from free-flow to stop-controlled will slow down northbound traffic. To slow down southbound traffic leaving the University Boulevard intersection, it is recommended to install a speed hump. Speed humps are an effective way to slow down traffic on roads because they force vehicles to slow down significantly, in order to cross them. This can help reduce the risk of accidents, especially in areas with high pedestrian and cyclist traffic.



Figure 7 - NACTO | Speed Humps

Raised Crosswalk: Another recommended measure to improve crosswalk conditions across Airline Road is to transform the mid-block crosswalk from at-grade to raised. A raised crosswalk is usually elevated to the level of the sidewalk. This makes it easier for pedestrians to cross the street, especially those with disabilities, and it also forces vehicles to slow down as they

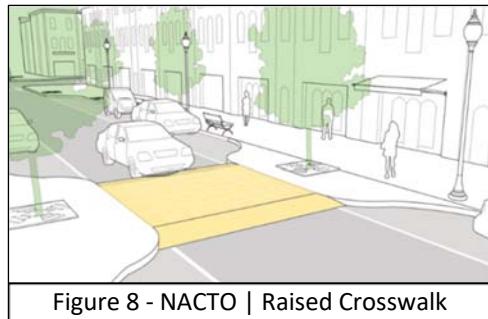


Figure 8 - NACTO | Raised Crosswalk

approach the crosswalk. A raised crosswalk promotes pedestrian crosswalk safety by improving visibility, reducing vehicle speeds, and increase accessibility especially for pedestrians with disabilities. A raised crosswalk improvement will require replacing the barrier free ramps, adjusting minor adjacent sidewalk grades, additional signage, and marking improvements.

Curb Extensions / Bump-outs: It is also recommended to construct curb extension/bump-out at the existing crosswalk location to improve crosswalk conditions for pedestrians. Curb extensions make pedestrian crossing better by reducing the crossing distance, improving visibility, and reducing vehicular speeds. Curb extensions decrease the overall width of the roadway and can serve as a visual cue to drivers that they are entering a neighborhood street or area. It forces vehicles to move laterally thus reducing driving speeds.

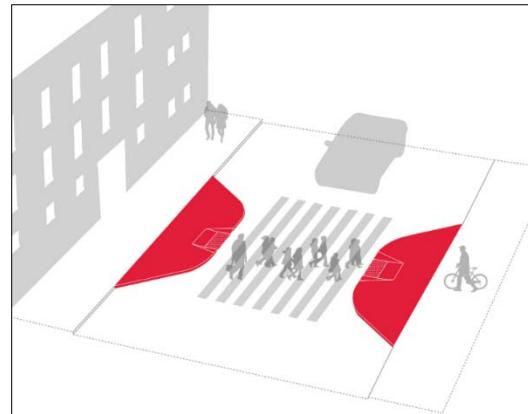


Figure 9 - Curb Extension

- **Pavement Marking & Signage Improvements**

It is recommended that following marking and signage improvements are made to Airline Road to support above mentioned traffic and paving improvements:

Stop Sign: Since it is recommended to transform the traffic flow at the McFarlin Boulevard intersection from free-flow to stop-control. It is essential to install Stop signs at McFarlin Boulevard intersection for northbound and southbound traffic along Airline Road.

Speed Hump Sign: Speed humps are usually aided with a speed hump sign and in some cases with a speed hump and speed sign. At minimum, it is recommended to Install a 'Speed Hump' (W17-1) sign adjacent to the speed hump, if a speed hump is installed.



Figure 10 – Stop & Speed Hump Sign

Colored Raised Crosswalk: In case of the raised crosswalk, the whole pavement of crosswalk can be painted in a high-visibility and contrasting paint.



Figure 11 - Colored Raised Crosswalk

Appendix A

Traffic Counts

1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-09 12:00AM	0	8	4	0	12	0	6	0	3	0	9	2	5	9	0	0	14	0	0	2	0	0	2	0	37
12:15AM	0	10	7	0	17	1	5	0	2	0	7	1	7	16	0	0	23	0	0	0	0	0	0	0	47
12:30AM	0	4	6	0	10	0	3	0	1	0	4	4	2	4	0	0	6	0	1	0	0	0	1	0	21
12:45AM	0	9	3	0	12	0	6	0	1	0	7	3	1	8	0	0	9	3	0	1	0	0	1	0	29
Hourly Total	0	31	20	0	51	1	20	0	7	0	27	10	15	37	0	0	52	3	1	3	0	0	4	0	134
1:00AM	0	10	1	0	11	0	1	0	0	0	1	0	2	5	0	0	7	0	0	2	1	0	3	0	22
1:15AM	0	9	3	0	12	0	3	0	0	0	3	0	2	10	1	0	13	0	0	2	1	0	3	2	31
1:30AM	0	5	1	0	6	0	1	0	3	0	4	4	5	12	0	0	17	0	2	0	0	0	2	0	29
1:45AM	0	7	0	0	7	0	3	0	4	0	7	0	4	3	0	0	7	0	1	2	0	0	3	0	24
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2:15AM	0	1	1	0	2	0	0	0	0	0	0	2	0	3	0	0	0	3	0	0	1	0	0	1	6
2:30AM	0	1	2	0	3	0	1	0	0	0	1	2	0	4	0	0	4	0	0	1	0	0	1	0	9
2:45AM	0	0	1	0	1	0	2	0	2	0	4	1	0	1	0	0	1	0	0	1	0	0	1	0	7
Hourly Total	0	5	5	0	10	0	4	0	2	0	6	5	1	11	0	0	12	0	0	4	0	0	4	2	32
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3:15AM	0	1	1	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:30AM	0	0	0	0	0	0	2	0	1	0	3	0	0	1	0	0	1	2	0	0	1	0	1	0	5
3:45AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	6	1	0	7	0	5	0	1	0	6	0	0	1	0	0	1	2	0	0	1	0	1	0	15
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10:00AM	0	14	10	0	24	10	28	0	9	0	37	5	9	33	0	0	42	2	1	8	3	0	12	3	115
10:15AM	0	19	16	0	35	3	15	0	4	0	19	3	3	22	0	0	25	6	3	9	2	0	14	2	93
10:30AM	0	12	15	0	27	3	16	0	8	0	24	0	6	23	0	0	29	2	2	11	3	0	16	1	96
10:45AM	0	31	11	0	42	1	20	0	6	1	27	1	1	33	0	0	34	4	9	9	2	0	20	0	123
Hourly Total	0	76	52	0	128	17	79	0	27	1	107	9	19	111	0	0	130	14	15	37	10	0	62	6	427
11:00AM	0	16	14	0	30	6	35	0	9	0	44	4	5	24	0	0	29	6	4	11	1	0	16	1	119
11:15AM	0	11	17	0	28	5	30	0	5	0	35	0	4	22	0	0	26	2	0	12	1	0	13	5	102
11:30AM	1	18	9	0	28	1	30	0	10	0	40	1	5	25	0	0	30	3	10	9	3	0	22	2	120
11:45AM	0	26	16	0	42	1	32	0	11	0	43	1	2	28	0	0	30	3	7	14	5	0	26	1	141
Hourly Total	1	71	56	0	128	13	127	0	35	0	162	6	16	99	0	0	115	14							

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
12:00PM	0	23	15	0	38	1	32	0	5	0	37	0	4	26	0	0	30	3	6	17	2	0	25	0	130
12:15PM	0	28	16	0	44	1	22	0	6	0	28	1	5	40	0	0	45	1	12	18	1	0	31	0	148
12:30PM	0	25	22	0	47	4	22	0	9	0	31	0	4	27	0	0	31	6	8	28	3	0	39	8	148
12:45PM	0	13	23	0	36	3	26	0	11	0	37	3	5	38	0	0	43	5	10	26	7	0	43	6	159
Hourly Total	0	89	76	0	165	9	102	0	31	0	133	4	18	131	0	0	149	15	36	89	13	0	138	14	585
1:00PM	0	23	20	0	43	1	25	0	13	0	38	5	8	52	0	0	60	10	2	25	6	0	33	2	174
1:15PM	0	20	18	0	38	2	18	0	11	0	29	0	3	26	1	0	30	2	7	14	7	0	28	1	125
1:30PM	0	27	14	0	41	3	27	0	10	0	37	3	3	30	0	0	33	7	10	14	6	0	30	2	141
1:45PM	1	19	10	0	30	2	18	0	6	0	24	1	13	30	0	0	43	10	4	12	0	0	16	2	113
Hourly Total	1	89	62	0	152	8	88	0	40	0	128	9	27	138	1	0	166	29	23	65	19	0	107	7	553
2:00PM	0	21	13	0	34	6	24	0	11	0	35	1	7	24	0	0	31	1	2	21	4	0	27	1	127
2:15PM	0	16	20	0	36	1	23	0	10	0	33	0	2	23	1	0	26	2	5	19	2	0	26	2	121
2:30PM	0	22	15	0	37	1	23	0	10	0	33	0	2	28	0	0	30	0	6	19	1	0	26	0	126
2:45PM	0	21	15	0	36	0	21	0	9	0	30	3	6	13	0	0	19	0	6	11	3	0	20	0	105
Hourly Total	0	80	63	0	143	8	91	0	40	0	131	4	17	88	1	0	106	3	19	70	10	0	99	3	479
3:00PM	0	23	12	0	35	0	21	0	4	0	25	0	4	18	0	0	22	2	2	12	2	0	16	0	98
3:15PM	0	12	12	0	24	0	29	0	9	0	38	3	3	23	0	0	26	2	5	17	1	0	23	1	111
3:30PM	0	16	21	0	37	3	19	0	7	0	26	1	3	17	0	0	20	4	10	15	2	0	27	2	110
3:45PM	0	11	17	0	28	0	21	0	10	0	31	0	10	17	0	0	27	3	4	13	1	0	18	1	104
Hourly Total	0	62	62	0	124	3	90	0	30	0	120	4	20	75	0	0	95	11	21	57	6	0	84	4	423
4:00PM	0	21	22	0	43	0	21	0	5	0	26	1	3	35	0	0	38	4	5	14	2	0	21	2	128
4:15PM	0	19	14	0	33	3	19	0	5	0	24	1	1	18	0	0	19	1	7	11	0	0	18	0	94
4:30PM	0	17	17	0	34	2	21	0	7	0	28	2	4	17	0	0	21	2	4	10	0	0	14	1	97
4:45PM	0	17	16	0	33	5	20	1	8	0	29	2	9	29	0	0	38	0	9	11	5	0	25	0	125
Hourly Total	0	74	69	0	143	10	81	1	25	0	107	6	17	99	0	0	116	7	25	46	7	0	78	3	444
5:00PM	0	19	18	0	37	3	27	0	4	0	31	5	5	26	0	0	31	10	3	15	5	0	23	1	122
5:15PM	0	20	14	0	34	2	20	0	4	0	24	3	3	17	0	0	20	5	2	12	4	0	18	0	96
5:30PM	0	11	9	0	20	4	30	0	8	0	38	1	5	16	0	0	21	20	5	6	3	0	14	0	93
5:45PM	0	13	10	0	23	3	24	0	11	0	35	2	4	13	0	0	17	5	3	11	3	0	17	7	92
Hourly Total	0	63	51	0	114	12	101	0	27	0	128	11	17	72	0	0	89	40	13	44	15	0	72	8	403
6:00PM	1	26	20	0	47	0	15	0	1	0	16	4	4	17	0	0	21	4	5	9	1	0	15	0	99
6:15PM	0	19	16	0	35	0	17	0	3	0	20	2	3	14	0	0	17	0	6	12	1	0	19	1	91
6:30PM	0	15	11	0	26	1	16	0	8	0	24	0	3	18	0	0	21	0	3	6	1	0	10	0	81
6:45PM	0	18	14	0	32	1	15	0	4	0	19	1	3	19	0	0	22	0	2	5	1	0	8	0	81
Hourly Total	1	78	61	0	140	2	63	0	16	0	79	7	13	68	0	0	81	4	16	32	4	0	52	1	352
7:00PM	0	14	7	0	21	0	15	0	7	0	22	2	4	28	0	0	32	0	3	6	0	0	9	0	84
7:15PM	0	15	12	0	27	1	19	0	7	0	26	1	5	15	0	0	20	1	2	12	0	0	14	2	87
7:30PM	0	18	9	0	27	3	15	0	7	0	22	1	4	16	0	0	20	0	3	8	1	0	12	0	81
7:45PM	0	13	13	0	26	0	7	0	3	0	10	4	5	26	0	0	31	0	2	1	3	0	6	4	73
Hourly Total	0	60	41	0	101	4	56	0	24	0	80	8	18	85	0	0	103	1	10	27	4	0	41	6	325
8:00PM	0	17	13	0	30	2	21	0	1	0	22	3	2	24	0	0	26	2	0	2	1	0	3	0	81
8:15PM	0	13	8	0	21	0	10	0	7	0	17	1	3	28	1	0	32	1	4	6	1	0	11	0	81
8:30PM	0	12	10	0	22	0	14	0	4	0	18	2	6	24	0	0	30	1	0	3	0	0	3	0	73
8:45PM	0	16	8	0	24	0	10	0	8	0	18	1	1	19	0	0	20	1	1	5	0	0	6	0	68
Hourly Total	0	58	39	0	97	2	55	0	20	0	75	7	12	95	1	0	108	5	5	16	2	0	23	0	303
9:00PM	0	14	7	0	21	0	7	0	4	0	11	2	3	12	0	0	15	2	1	4	0	0	5	0	52
9:15PM	0	9	3	0	12	1	9	0	1	0	10	1	1	7	0	0	8	1	2	2	0	0	4	1	34
9:30PM	0	11	2	0	13	0	6	0	4	0	10	0	4	11	0	0	15	0	1	4	1	0	6	3	44
9:45PM	0	8	9	0	17	3	5	0	2	0	7	3	2	15	0	0	17	3	2	1	1	0	4	1	45
Hourly Total	0	42	21	0	63	4	27	0	11	0	38	6	10	45	0	0	55	6	6	11	2	0	19	5	175
10:00PM	0	10	9	0	19	0	5	0	7	0	12	0	2	10	0	0	12	0	1	5	1	0	7	0	50
10:15PM	0	13	3	0	16	0	12	0	1	0	13	0	1	9	0	0	10	1	1	0	0	0	1	0	40
10:30PM	0	10	6	0	16	0	8	1	6	0	15	1	1	12	0	0	13	0	0	4	1	0	5	0	49
10:45PM	1	7	8	0	16	3	3	0	2	0	5	5	2	12	0	0	14	3	2	4	0	0	6	0	41
Hourly Total	1	40	26	0	67	3	28	1	16	0	45	6	6	43	0	0	49	4	4	13	2	0	19	0	180
11:00PM	0	4	7	0	11	0	7	0	1	0	8	0	1	11	0	0	12	0	0	1	0	0	1	2	32
11:15PM	0	10	5	0	15	0	6	0	4	0	10	0	1	5	0	0	6	0	0	3	1	0	4	0	35
11:30PM	0	5	4	0	9	0	4	1	0	0	5	0	1	4	1	1	7	1	2	1	2	0	5	1	26
11:45PM	0	6	2	0	8	0	2	0	2	0	4	0	6	5	0	0	11	0	1	2	0	0	3	2	26
Hourly Total	0	25	18	0	43	0	19	1	7	0	27	0	9	25	1	1	36	1	3	7	3	0	13	5	119
Total	5	1119	831	0	1955	143	1250	3	431																

Leg Direction	Airline Road Southbound					University Boulevard Westbound					Airline Road Northbound					University Boulevard Eastbound									
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Buses and Single-Unit Trucks	0	11	7	0	18	-	9	0	1	0	10	-	0	4	0	0	4	-	5	4	3	0	12	-	44
% Buses and Single-Unit Trucks	0%	1.0%	0.8%	0%	0.9%	-	0.7%	0%	0.2%	0%	0.6%	-	0%	0.3%	0%	0%	0.2%	-	1.9%	0.6%	2.4%	0%	1.1%	-	0.7%
Pedestrians	-	-	-	-	-	136	-	-	-	-	-	152	-	-	-	-	-	178	-	-	-	-	-	95	
% Pedestrians	-	-	-	-	-	95.1%	-	-	-	-	-	98.7%	-	-	-	-	-	95.7%	-	-	-	-	-	90.5%	
Bicycles on Crosswalk	-	-	-	-	-	7	-	-	-	-	-	2	-	-	-	-	-	8	-	-	-	-	-	10	
% Bicycles on Crosswalk	-	-	-	-	-	4.9%	-	-	-	-	-	1.3%	-	-	-	-	-	4.3%	-	-	-	-	-	9.5%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

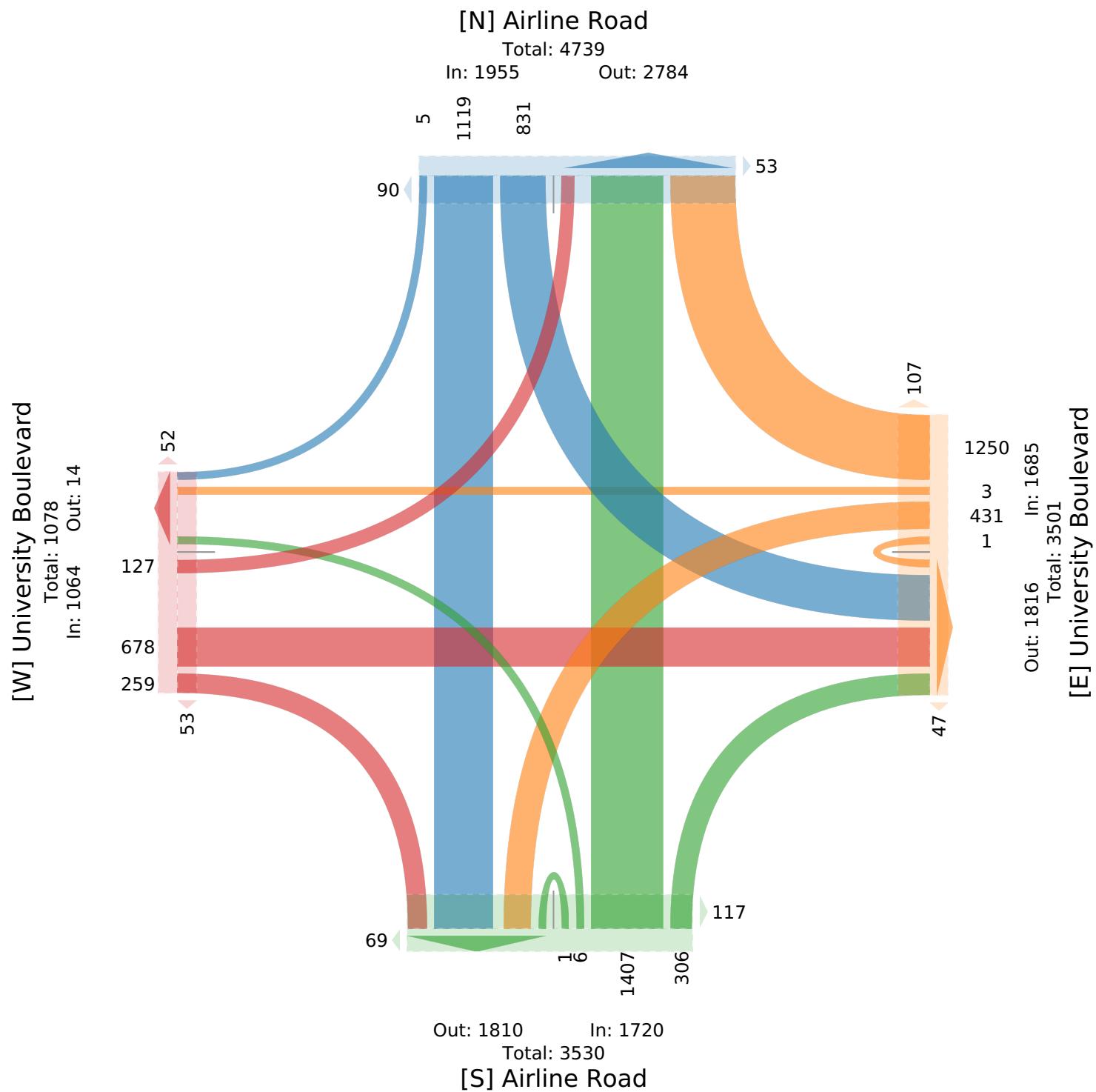
ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

AM Peak (WKND) (10 AM - 11 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-09 10:00AM	0	14	10	0	24	10	28	0	9	0	37	5	9	33	0	0	42	2	1	8	3	0	12	3	115
10:15AM	0	19	16	0	35	3	15	0	4	0	19	3	3	22	0	0	25	6	3	9	2	0	14	2	93
10:30AM	0	12	15	0	27	3	16	0	8	0	24	0	6	23	0	0	29	2	2	11	3	0	16	1	96
10:45AM	0	31	11	0	42	1	20	0	6	1	27	1	1	33	0	0	34	4	9	9	2	0	20	0	123
Total	0	76	52	0	128	17	79	0	27	1	107	9	19	111	0	0	130	14	15	37	10	0	62	6	427
% Approach	0%	59.4%	40.6%	0%	-	-	73.8%	0%	25.2%	0.9%	-	-	14.6%	85.4%	0%	0%	-	-	24.2%	59.7%	16.1%	0%	-	-	-
% Total	0%	17.8%	12.2%	0%	30.0%	-	18.5%	0%	6.3%	0.2%	25.1%	-	4.4%	26.0%	0%	0%	30.4%	-	3.5%	8.7%	2.3%	0%	14.5%	-	-
PHF	-	0.613	0.813	-	0.762	-	0.705	-	0.750	0.250	0.723	-	0.528	0.841	-	-	0.774	-	0.417	0.841	0.833	-	0.775	-	0.868
Lights	0	75	52	0	127	-	77	0	27	1	105	-	19	111	0	0	130	-	14	37	9	0	60	-	422
% Lights	0%	98.7%	100%	0%	99.2%	-	97.5%	0%	100%	100%	98.1%	-	100%	100%	0%	0%	100%	-	93.3%	100%	90.0%	0%	96.8%	-	98.8%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	1	0	0	1	-	2	0	0	0	2	-	0	0	0	0	0	-	1	0	1	0	2	-	5
% Buses and Single-Unit Trucks	0%	1.3%	0%	0%	0.8%	-	2.5%	0%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	6.7%	0%	10.0%	0%	3.2%	-	1.2%
Pedestrians	-	-	-	-	-	13	-	-	-	-	-	9	-	-	-	-	-	14	-	-	-	-	-	6	
% Pedestrians	-	-	-	-	-	76.5%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	23.5%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

AM Peak (WKND) (10 AM - 11 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch
Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

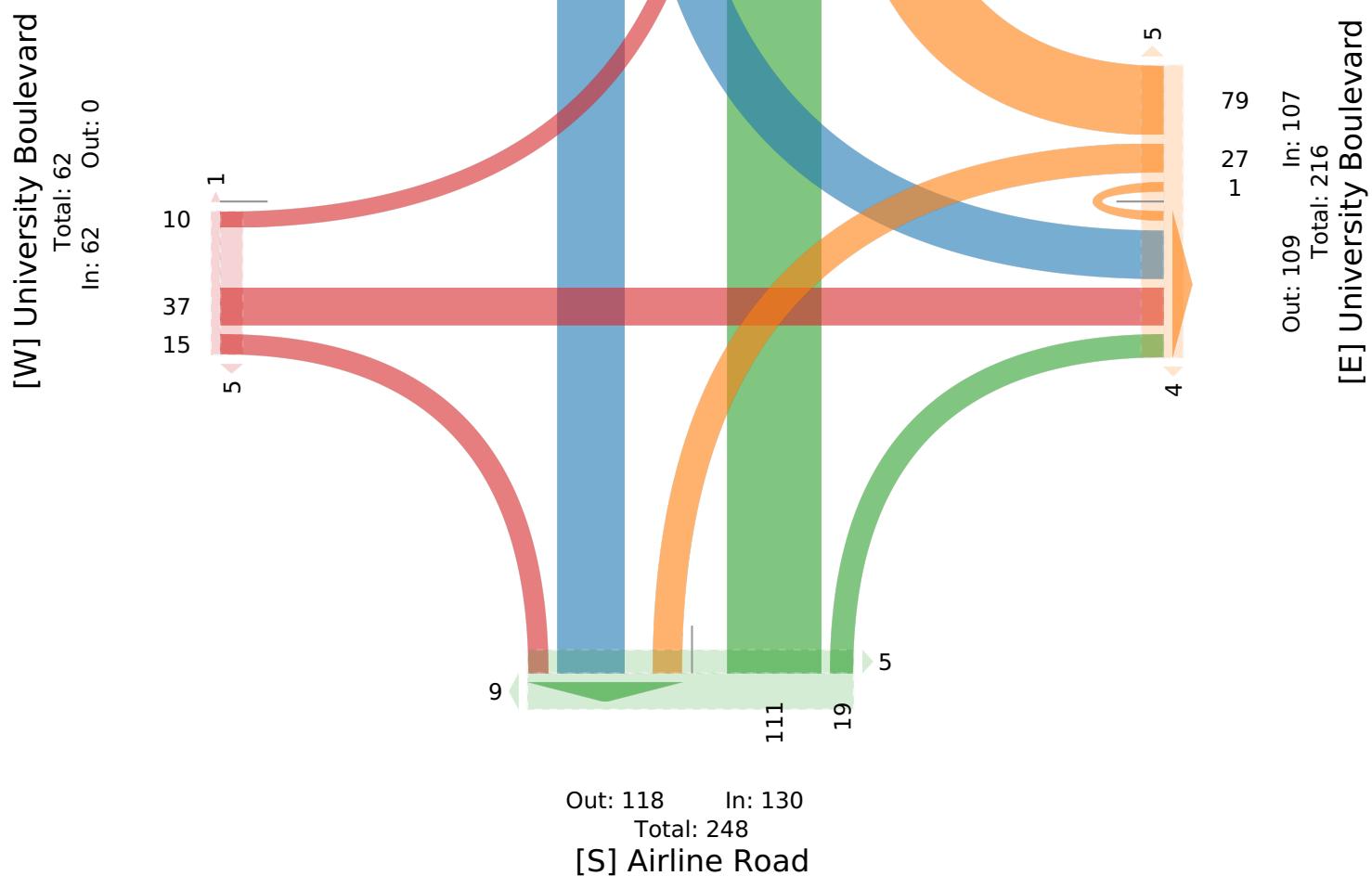
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 328

In: 128

Out: 200



1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

Midday Peak (WKND) (12:15 PM - 1:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-09 12:15PM	0	28	16	0	44	1	22	0	6	0	28	1	5	40	0	0	45	1	12	18	1	0	31	0	148
12:30PM	0	25	22	0	47	4	22	0	9	0	31	0	4	27	0	0	31	6	8	28	3	0	39	8	148
12:45PM	0	13	23	0	36	3	26	0	11	0	37	3	5	38	0	0	43	5	10	26	7	0	43	6	159
1:00PM	0	23	20	0	43	1	25	0	13	0	38	5	8	52	0	0	60	10	2	25	6	0	33	2	174
Total	0	89	81	0	170	9	95	0	39	0	134	9	22	157	0	0	179	22	32	97	17	0	146	16	629
% Approach	0%	52.4%	47.6%	0%	-	-	70.9%	0%	29.1%	0%	-	-	12.3%	87.7%	0%	0%	-	-	21.9%	66.4%	11.6%	0%	-	-	-
% Total	0%	14.1%	12.9%	0%	27.0%	-	15.1%	0%	6.2%	0%	21.3%	-	3.5%	25.0%	0%	0%	28.5%	-	5.1%	15.4%	2.7%	0%	23.2%	-	-
PHF	-	0.795	0.880	-	0.904	-	0.913	-	0.750	-	0.882	-	0.688	0.755	-	-	0.746	-	0.667	0.866	0.607	-	0.849	-	0.904
Lights	0	89	81	0	170	-	94	0	39	0	133	-	22	157	0	0	179	-	30	97	17	0	144	-	626
% Lights	0%	100%	100%	0%	100%	-	98.9%	0%	100%	0%	99.3%	-	100%	100%	0%	0%	100%	-	93.8%	100%	100%	0%	98.6%	-	99.5%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	0	0	0	0	-	1	0	0	0	1	-	0	0	0	0	0	-	2	0	0	0	2	-	3
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	1.1%	0%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	6.3%	0%	0%	0%	1.4%	-	0.5%
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	8	-	-	-	-	-	22	-	-	-	-	-	14	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	88.9%	-	-	-	-	-	100%	-	-	-	-	-	87.5%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	11.1%	-	-	-	-	-	0%	-	-	-	-	-	12.5%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

Midday Peak (WKND) (12:15 PM - 1:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 439

In: 170

Out: 269

89 81

7 2

[W] University Boulevard

Total: 146
In: 146
Out: 0

17
8
97
32
8

95
39
Out: 200
Total: 334
In: 134

[E] University Boulevard

17 5
157 22
Out: 160 In: 179

Total: 339

[S] Airline Road

1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-09 1:00PM	0	23	20	0	43	1	25	0	13	0	38	5	8	52	0	0	60	10	2	25	6	0	33	2	174
1:15PM	0	20	18	0	38	2	18	0	11	0	29	0	3	26	1	0	30	2	7	14	7	0	28	1	125
1:30PM	0	27	14	0	41	3	27	0	10	0	37	3	3	30	0	0	33	7	10	14	6	0	30	2	141
1:45PM	1	19	10	0	30	2	18	0	6	0	24	1	13	30	0	0	43	10	4	12	0	0	16	2	113
Total	1	89	62	0	152	8	88	0	40	0	128	9	27	138	1	0	166	29	23	65	19	0	107	7	553
% Approach	0.7%	58.6%	40.8%	0%	-	-	68.8%	0%	31.3%	0%	-	-	16.3%	83.1%	0.6%	0%	-	-	21.5%	60.7%	17.8%	0%	-	-	-
% Total	0.2%	16.1%	11.2%	0%	27.5%	-	15.9%	0%	7.2%	0%	23.1%	-	4.9%	25.0%	0.2%	0%	30.0%	-	4.2%	11.8%	3.4%	0%	19.3%	-	-
PHF	0.250	0.824	0.775	-	0.884	-	0.815	-	0.769	-	0.842	-	0.519	0.663	0.250	-	0.692	-	0.575	0.650	0.679	-	0.811	-	0.795
Lights	1	89	62	0	152	-	87	0	40	0	127	-	27	137	1	0	165	-	23	65	19	0	107	-	551
% Lights	100%	100%	100%	0%	100%	-	98.9%	0%	100%	0%	99.2%	-	100%	99.3%	100%	0%	99.4%	-	100%	100%	100%	0%	100%	-	99.6%
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	0	0	0	0	0	1	0	0	0	1	-	0	1	0	0	1	-	0	0	0	0	0	-	2
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	1.1%	0%	0%	0%	0.8%	-	0%	0.7%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.4%
Pedestrians	-	-	-	-	-	8	-	-	-	-	-	8	-	-	-	-	-	29	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	88.9%	-	-	-	-	-	100%	-	-	-	-	-	71.4%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	11.1%	-	-	-	-	-	0%	-	-	-	-	-	28.6%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Sat Sep 9, 2023

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105019, Location: 32.845585, -96.781698, Site Code: Sat

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 397

In: 152

Out: 245

[W] University Boulevard

Total: 109

In: 107

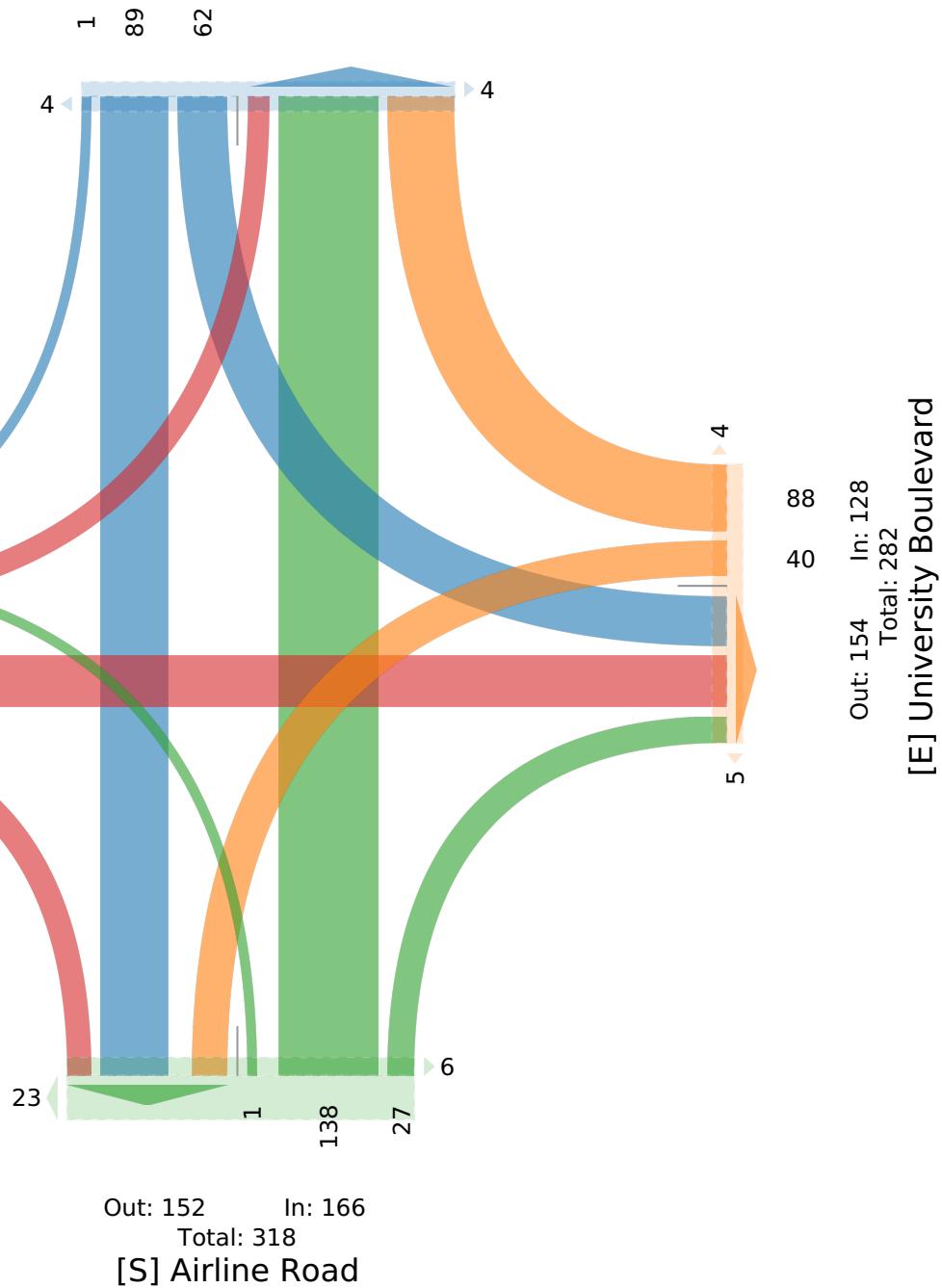
Out: 2

Out: 154

In: 128

Total: 282

[E] University Boulevard



1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound							
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int	
2023-09-12 12:00AM	0	2	1	0	3	1	1	0	1	0	2	1	0	2	0	0	2	0	0	1	0	0	1	2	8	
12:15AM	0	2	2	0	4	0	2	0	2	0	4	0	0	1	0	0	1	2	4	1	0	0	5	0	14	
12:30AM	0	0	1	0	1	0	3	0	0	0	3	0	1	0	0	0	1	2	0	0	1	0	1	0	6	
12:45AM	0	2	0	0	2	0	1	0	1	0	2	0	0	5	0	0	5	2	5	1	0	0	6	0	15	
Hourly Total	0	6	4	0	10	1	7	0	4	0	11	1	1	8	0	0	9	6	9	3	1	0	13	2	43	
1:00AM	0	0	0	0	0	1	2	0	0	0	2	1	1	1	0	0	2	1	0	0	0	0	0	0	4	
1:15AM	0	0	1	0	1	0	1	0	2	0	3	0	0	1	0	0	1	1	0	0	1	0	1	0	6	
1:30AM	0	2	0	0	2	0	1	0	0	0	1	0	1	2	1	0	4	0	1	2	0	0	3	0	10	
1:45AM	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	3	
Hourly Total	0	2	2	0	4	1	4	0	3	0	7	1	2	4	1	0	7	2	2	2	1	0	5	0	23	
2:00AM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	2	0	1	0	0	0	1	0	4	
2:15AM	0	0	2	0	2	0	2	0	0	0	2	0	1	0	0	0	1	0	1	0	0	0	1	0	6	
2:30AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
2:45AM	0	0	0	0	0	2	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	2	
Hourly Total	0	0	2	0	2	2	3	0	2	0	5	1	3	0	0	0	3	0	3	0	0	0	0	3	0	13
3:00AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	2	
3:15AM	0	0	1	0	1	0	0	0	3	0	3	0	0	1	0	0	1	0	0	0	0	0	0	0	5	
3:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	2	0	3	
3:45AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Hourly Total	0	0	1	0	1	0	1	0	4	0	5	0	0	2	0	0	2	0	1	2	0	0	3	0	11	
4:00AM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	2	0	4	
4:15AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	
4:45AM	0	1	0	0	1	0	0	0	1	0	1	0	0	2	0	0	2	0	0	0	0	0	0	1	4	
Hourly Total	0	2	0	0	2	0	0	0	1	0	1	0	1	2	0	0	3	0	3	0	0	0	3	1	9	
5:00AM	0	0	0	0	0	0	3	0	2	0	5	0	0	1	0	0	1	0	2	0	0	0	2	0	8	
5:15AM	0	0	0	0	0	0	3	0	4	0	7	0	0	1	0	0	1	1	2	1	0	0	3	0	11	
5:30AM	0	5	0	0	5	0	2	0	3	0	5	0	0	2	0	0	2	0	3	0	1	0	4	1	16	
5:45AM	0	2	2	0	4	1	5	0	2	0	7	0	2	1	0	0	3	0	1	3	0	0	4	1	18	
Hourly Total	0	7	2	0	9	1	13	0	11	0	24	0	2	5	0	0	7	1	8	4	1	0	13	2	53	
6:00AM	0	8	1	0	9	0	3	0	6	0	9	5	6	2	0	0	8	0	4	2	0	0	6	0	32	
6:15AM	0	9	1	0	10	1	5	0	7	0	12	2	0	4	0	0	4	0	2	3	1	0	6	1	32	
6:30AM	0	8	4	0	12	4	17	0	6	0	23	4	1	8	0	0	9	2	4	4	0	0	8	3	52	
6:45AM	0	7	6	0	13	1	19	0	4	0	23	5	3	6	0	0	9	4	2	2	0	0	4	1	49	
Hourly Total	0	32	12	0	44	6	44	0	23	0	67	16	10	20	0	0	30	6	12	11	1	0	24	5	165	
7:00AM	0	9	7	0	16	1	38	0	9	0	47	5	5	23	0	0	28	4	3	2	0	0	5	1	96	
7:15AM	0	7	10	0	17	5	47	0	11	0	58	2	4	22	0	0	26	8	1	10	2	0	13	1	114	
7:30AM	0	6	8	0	14	11	58	0	13	0	71	0	20	41	0	0	61	18	6	11	1	0	18	3	164	
7:45AM	0	24	11	0	35	36	65	0	18	0	83	10	21	45	0	0	66	57	3	22	4	0	29	22	213	
Hourly Total	0	46	36	0	82	53	208	0	51	0	259	17	50	131	0	0	181	87	13	45	7	0	65	27	587	
8:00AM	0	20	16	0	36	4	68	0	11	0	79	6	8	34	0	0	42	15	6	33	1	0	40	5	197	
8:15AM	0	29	13	0	42	4	60	0	17	0	77	3	7	30	0	0	37	14	17	22	4	0	43	4	199	
8:30AM	0	25	12	0	37	2	48	0	17	0	65	10	8	41	0	0	49	11	18	15	3	0	36	2	187	
8:45AM	0	40	13	0	53	5	51	0	11	0	62	5	15	31	0	0	46	23	10	15	4	0	29	3	190	
Hourly Total	0	114	54	0	168	15	227	0	56	0	283	24	38	136	0	0	174	63	51	85	12	0	148	14	773	
9:00AM	0	30	19	0	49	21	47	0	29	0	76	5	23	41	0	0	64	37	10	13	5	0	28	6	217	
9:15AM	0	42	24	0	66	94	44	0	31	0	75	13	32	41	0	0	73	86	11	36	10	0	57	29	271	
9:30AM	0	32	15	0	47	12	28	0	18	0	46	5	5	30	0	0	35	10	11	23	4	0	38	8	166	
9:45AM	0	17	14	0	31	9	23	0	15	0	38	8	3	20	0	0	23	7	8	7	7	0	22	6	114	
Hourly Total	0	121	72	0	193	136	142	0	93	0	235	31	63	132	0	0	195	140	40	79	26	0	145	49	768	
10:00AM	0	17	17	0	34	6	35	0	12	0	47	10	9	19	0	0	28	5	9	9	6	0	24	6	133	
10:15AM	0	25	15	0	40	9	38	0	25	0	63	8	17	26	1	0	44	15	6	8	3	0	17	1	164	
10:30AM	0	26	15	0	41	18	37	0	33	0	70	11	29	42	0	0	71	23	12	19	4	0	35	6	217	
10:45AM	0	42	30	0	72	67	39	0	36	0	75	14	28	47	0	0	75	77	17	24	10	0	51	31	273	
Hourly Total	0	110	77	0	187	100	149	0	106	0	255	43	83	134	1	0	218	120	44	60	23	0	127	44	787	
11:00AM	0	27	24	0	51	8	20	0	11	0	31	7	11	31	0	0	42	25	16	13	6	0	35	3	159	
11:15AM	0	32	19	0	51	8	21	0	11	0	32	7	9	28	0	0	37	7	2	15	4	0	21	2	141	
11:30AM	0	33	16	0	49	7	23	0	17	0	40	5	11	27	0	0	38	15	9	9	4	1	23	5	150	
11:45AM	0	42	29	0	71	9	39	0	13	0	52	5	12	31	1	0	44	10	10	15	7	0	32	2	199	

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
12:15PM	0	38	28	1	67	68	39	0	28	0	67	26	29	35	0	0	64	104	22	21	14	0	57	22	255
12:30PM	0	33	29	0	62	11	42	0	12	0	54	6	17	40	0	0	57	26	15	36	11	0	62	7	235
12:45PM	0	24	27	0	51	11	28	0	18	0	46	9	9	38	0	0	47	28	9	20	5	0	34	8	178
Hourly Total	0	133	106	1	240	104	145	1	88	0	234	47	77	155	0	0	232	189	63	100	36	0	199	42	905
1:00PM	0	34	22	0	56	10	33	0	15	0	48	5	6	30	0	0	36	13	13	13	4	0	30	4	170
1:15PM	0	38	21	0	59	9	27	0	18	0	45	4	10	54	0	0	64	16	19	26	3	0	48	4	216
1:30PM	0	32	20	0	52	23	31	0	22	0	53	3	25	47	0	0	72	48	16	19	11	0	46	8	223
1:45PM	0	38	41	0	79	47	47	0	26	0	73	18	21	45	0	0	66	100	26	34	15	0	75	13	293
Hourly Total	0	142	104	0	246	89	138	0	81	0	219	30	62	176	0	0	238	177	74	92	33	0	199	29	902
2:00PM	0	32	29	0	61	11	24	0	13	0	37	7	18	40	0	0	58	17	19	18	7	0	44	4	200
2:15PM	0	32	23	0	55	7	27	0	9	0	36	5	6	31	0	0	37	15	18	19	3	0	40	3	168
2:30PM	0	27	27	0	54	8	27	0	13	0	40	5	13	32	0	0	45	4	8	34	3	0	45	2	184
2:45PM	0	33	24	0	57	15	29	0	15	0	44	6	11	20	0	0	31	26	7	25	3	0	35	10	167
Hourly Total	0	124	103	0	227	41	107	0	50	0	157	23	48	123	0	0	171	62	52	96	16	0	164	19	719
3:00PM	0	36	25	0	61	36	43	0	17	0	60	7	27	32	0	0	59	55	15	26	8	0	49	5	229
3:15PM	0	51	37	0	88	43	33	0	21	0	54	18	27	50	0	0	77	93	18	30	11	0	59	9	278
3:30PM	0	35	35	0	70	15	37	0	13	0	50	8	21	41	0	0	62	24	12	38	5	0	55	0	237
3:45PM	0	37	25	0	62	6	31	0	11	0	42	8	10	40	0	0	50	17	13	63	13	0	89	2	243
Hourly Total	0	159	122	0	281	100	144	0	62	0	206	41	85	163	0	0	248	189	58	157	37	0	252	16	987
4:00PM	0	44	36	0	80	8	25	0	9	0	34	2	9	47	0	0	56	10	19	38	5	0	62	2	232
4:15PM	0	47	43	0	90	12	30	0	17	0	47	6	15	38	0	0	53	22	14	42	7	0	63	5	253
4:30PM	0	39	36	0	75	9	44	0	13	0	57	8	16	38	0	0	54	19	19	32	10	0	61	6	247
4:45PM	0	44	50	0	94	42	41	0	32	0	73	19	23	41	0	0	64	101	16	31	22	0	69	18	300
Hourly Total	0	174	165	0	339	71	140	0	71	0	211	35	63	164	0	0	227	152	68	143	44	0	255	31	1032
5:00PM	0	54	48	0	102	27	38	0	25	0	63	22	22	59	0	0	81	28	31	45	16	0	92	12	338
5:15PM	0	60	45	0	105	7	28	0	18	0	46	9	15	60	0	0	75	8	22	51	13	0	86	2	312
5:30PM	0	63	28	0	91	10	36	0	16	0	52	12	23	47	0	0	70	41	29	48	5	0	82	8	295
5:45PM	0	46	23	0	69	7	34	0	22	0	56	10	32	70	0	0	102	33	19	63	14	0	96	3	323
Hourly Total	0	223	144	0	367	51	136	0	81	0	217	53	92	236	0	0	328	110	101	207	48	0	356	25	1268
6:00PM	0	54	27	0	81	11	43	1	15	0	59	4	15	58	0	0	73	33	19	60	8	0	87	4	300
6:15PM	0	61	51	0	112	17	48	0	25	0	73	7	29	49	0	0	78	52	30	42	20	0	92	3	355
6:30PM	0	44	27	0	71	9	29	1	14	0	44	15	16	52	0	0	68	17	16	34	9	0	59	4	242
6:45PM	0	29	22	0	51	6	27	0	16	0	43	9	8	37	0	0	45	16	11	24	3	0	38	3	177
Hourly Total	0	188	127	0	315	43	147	2	70	0	219	35	68	196	0	0	264	118	76	160	40	0	276	14	1074
7:00PM	0	29	15	0	44	5	28	0	12	0	40	11	10	38	0	1	49	16	4	19	10	0	33	4	166
7:15PM	0	25	17	0	42	9	29	0	12	0	41	6	12	36	0	0	48	9	8	11	7	0	26	0	157
7:30PM	0	22	19	0	41	10	33	0	11	0	44	7	4	36	0	0	40	15	7	13	7	0	27	6	152
7:45PM	0	34	14	0	48	20	19	0	9	0	28	16	5	31	0	0	36	36	12	27	13	0	52	6	164
Hourly Total	0	110	65	0	175	44	109	0	44	0	153	40	31	141	0	1	173	76	31	70	37	0	138	16	639
8:00PM	0	35	20	0	55	11	16	1	22	0	39	9	10	44	0	0	54	18	10	15	6	0	31	12	179
8:15PM	0	26	18	0	44	5	11	0	9	0	20	11	7	28	0	0	35	10	8	12	10	0	30	4	129
8:30PM	0	30	18	0	48	2	16	0	10	0	26	8	9	25	0	0	34	25	5	8	4	0	17	2	125
8:45PM	1	16	16	0	33	5	13	0	2	0	15	9	17	26	0	0	43	16	10	12	6	0	28	2	119
Hourly Total	1	107	72	0	180	23	56	1	43	0	100	37	43	123	0	0	166	69	33	47	26	0	106	20	552
9:00PM	0	27	32	0	59	9	9	0	23	0	32	9	9	19	1	0	29	25	17	25	16	0	58	0	178
9:15PM	0	22	31	0	53	0	12	0	10	0	22	13	21	20	0	0	41	22	8	15	3	0	26	0	142
9:30PM	0	11	9	0	20	0	12	0	11	0	23	6	7	24	0	0	31	14	9	11	1	0	21	0	95
9:45PM	0	12	7	0	19	1	3	0	10	0	13	6	5	16	0	0	21	5	4	7	1	0	12	0	65
Hourly Total	0	72	79	0	151	10	36	0	54	0	90	34	42	79	1	0	122	66	38	58	21	0	117	0	480
10:00PM	0	5	5	0	10	0	5	0	5	0	10	1	10	14	0	0	24	2	4	5	1	0	10	0	54
10:15PM	0	8	3	0	11	2	9	0	12	0	21	12	4	7	1	0	12	7	2	1	1	0	4	3	48
10:30PM	0	12	4	0	16	0	9	0	10	0	19	5	3	7	0	0	10	2	1	1	1	0	3	0	48
10:45PM	0	6	2	0	8	0	4	0	5	0	9	2	5	1	0	0	6	2	0	2	1	0	3	0	26
Hourly Total	0	31	14	0	45	2	27	0	32	0	59	20	22	29	1	0	52	13	7	9	4	0	20	3	176
11:00PM	0	4	2	0	6	0	1	0	0	0	1	1	9	5	0	1	15	2	2	2	0	0	4	1	26
11:15PM	0	3	0	0	3	0	6	0	0	0	6	2	3	8	0	0	11	2	1	2	0	0	3	0	23
11:30PM	0	6	1	0	7	0	1	0	2	0	3	1	2	2	0	0	4	1	0	3	2	0	5	0	19
11:45PM	0	5	6	0	11	0	2	0	2	0	4	0	4	3	0	0	7	4	4	0	0	0	4	0	26
Hourly Total	0	18	9	0	27	0	10	0	4	0	14	4	18	18	0										

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
% Buses and Single-Unit Trucks	0%	2.6%	0.8%	0%	1.8%	-	1.1%	0%	0.8%	0%	1.0%	-	0.4%	1.3%	0%	0%	1.0%	-	2.9%	0.6%	4.1%	0%	1.8%	-	1.4%
Pedestrians	-	-	-	-	-	900	-	-	-	-	-	548	-	-	-	-	-	1696	-	-	-	-	-	370	-
% Pedestrians	-	-	-	-	-	97.3%	-	-	-	-	-	98.4%	-	-	-	-	-	99.1%	-	-	-	-	-	99.5%	-
Bicycles on Crosswalk	-	-	-	-	-	25	-	-	-	-	-	9	-	-	-	-	-	16	-	-	-	-	-	2	-
% Bicycles on Crosswalk	-	-	-	-	-	2.7%	-	-	-	-	-	1.6%	-	-	-	-	-	0.9%	-	-	-	-	-	0.5%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

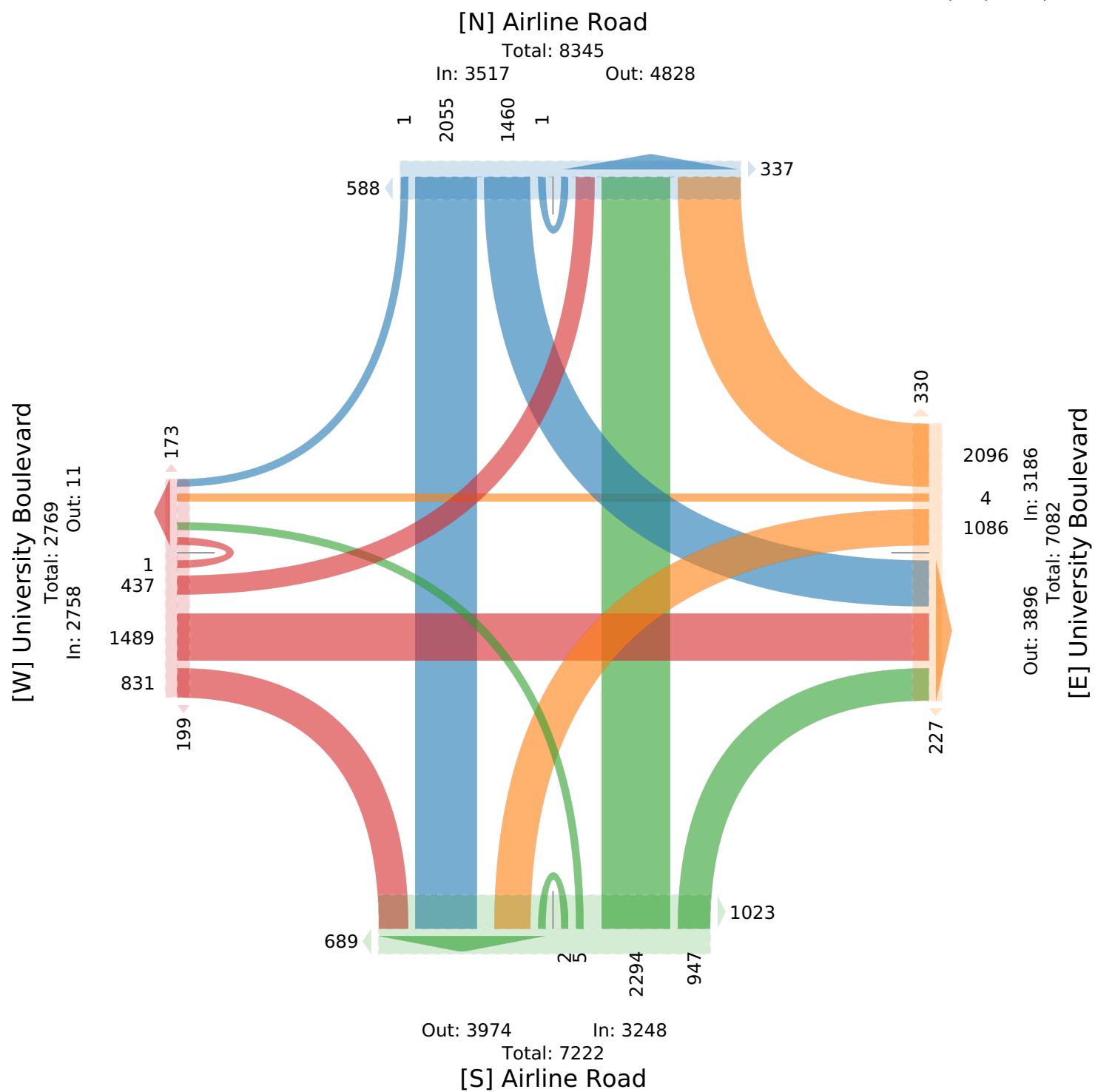
ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

AM Peak (8:30 AM - 9:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-12 8:30AM	0	25	12	0	37	2	48	0	17	0	65	10	8	41	0	0	49	11	18	15	3	0	36	2	187
8:45AM	0	40	13	0	53	5	51	0	11	0	62	5	15	31	0	0	46	23	10	15	4	0	29	3	190
9:00AM	0	30	19	0	49	21	47	0	29	0	76	5	23	41	0	0	64	37	10	13	5	0	28	6	217
9:15AM	0	42	24	0	66	94	44	0	31	0	75	13	32	41	0	0	73	86	11	36	10	0	57	29	271
Total	0	137	68	0	205	122	190	0	88	0	278	33	78	154	0	0	232	157	49	79	22	0	150	40	865
% Approach	0%	66.8%	33.2%	0%	-	-	68.3%	0%	31.7%	0%	-	-	33.6%	66.4%	0%	0%	-	-	32.7%	52.7%	14.7%	0%	-	-	-
% Total	0%	15.8%	7.9%	0%	23.7%	-	22.0%	0%	10.2%	0%	32.1%	-	9.0%	17.8%	0%	0%	26.8%	-	5.7%	9.1%	2.5%	0%	17.3%	-	-
PHF	-	0.815	0.708	-	0.777	-	0.931	-	0.710	-	0.914	-	0.609	0.939	-	-	0.795	-	0.681	0.549	0.550	-	0.658	-	0.798
Lights	0	131	67	0	198	-	185	0	88	0	273	-	78	149	0	0	227	-	46	78	20	0	144	-	842
% Lights	0%	95.6%	98.5%	0%	96.6%	-	97.4%	0%	100%	0%	98.2%	-	100%	96.8%	0%	0%	97.8%	-	93.9%	98.7%	90.9%	0%	96.0%	-	97.3%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	6	1	0	7	-	5	0	0	0	5	-	0	5	0	0	5	-	3	1	2	0	6	-	23
% Buses and Single-Unit Trucks	0%	4.4%	1.5%	0%	3.4%	-	2.6%	0%	0%	0%	1.8%	-	0%	3.2%	0%	0%	2.2%	-	6.1%	1.3%	9.1%	0%	4.0%	-	2.7%
Pedestrians	-	-	-	-	-	118	-	-	-	-	32	-	-	-	-	-	156	-	-	-	-	-	-	40	
% Pedestrians	-	-	-	-	-	96.7%	-	-	-	-	97.0%	-	-	-	-	-	99.4%	-	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	4	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	3.3%	-	-	-	-	3.0%	-	-	-	-	-	0.6%	-	-	-	-	-	-	0%	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

AM Peak (8:30 AM - 9:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch
Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

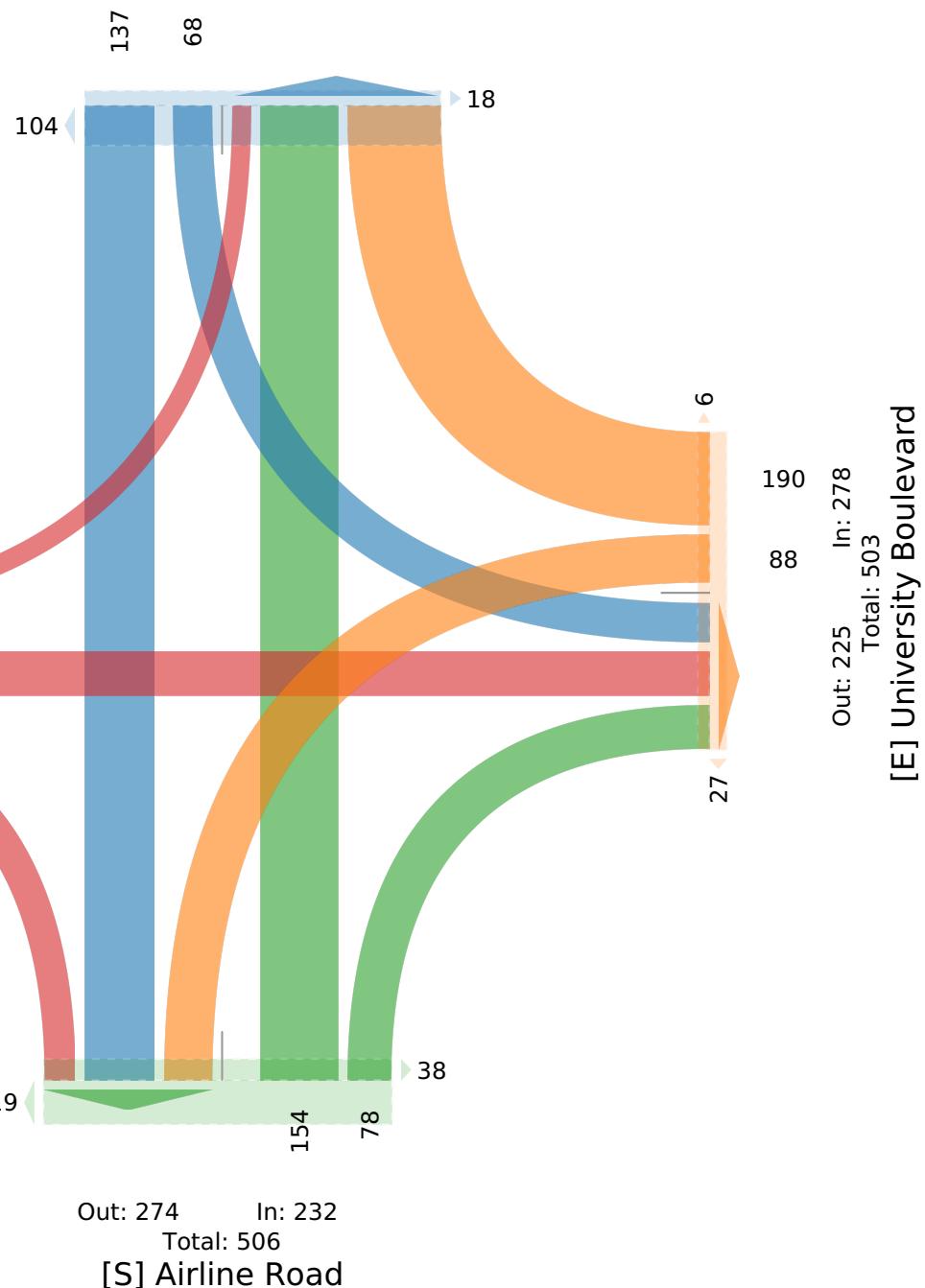
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 571

In: 205

Out: 366



1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

Midday Peak (11:45 AM - 12:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound							
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int	
2023-09-12 11:45AM	0	42	29	0	71	9	39	0	13	0	52	5	12	31	1	0	44	10	10	15	7	0	32	2	199	
12:00PM	0	38	22	0	60	14	36	1	30	0	67	6	22	42	0	0	64	31	17	23	6	0	46	5	237	
12:15PM	0	38	28	1	67	68	39	0	28	0	67	26	29	35	0	0	64	104	22	21	14	0	57	22	255	
12:30PM	0	33	29	0	62	11	42	0	12	0	54	6	17	40	0	0	57	26	15	36	11	0	62	7	235	
Total	0	151	108	1	260	102	156	1	83	0	240	43	80	148	1	0	229	171	64	95	38	0	197	36	926	
% Approach	0%	58.1%	41.5%	0.4%	-	-	65.0%	0.4%	34.6%	0%	-	-	34.9%	64.6%	0.4%	0%	-	-	32.5%	48.2%	19.3%	0%	-	-	-	
% Total	0%	16.3%	11.7%	0.1%	28.1%	-	16.8%	0.1%	9.0%	0%	25.9%	-	8.6%	16.0%	0.1%	0%	24.7%	-	6.9%	10.3%	4.1%	0%	21.3%	-	-	
PHF	-	0.899	0.931	0.250	0.915	-	0.929	0.250	0.692	-	0.896	-	0.690	0.881	0.250	-	0.895	-	0.727	0.660	0.679	-	0.794	-	0.908	
Lights	0	148	104	1	253	-	154	1	83	0	238	-	80	147	1	0	228	-	60	94	35	0	189	-	908	
% Lights	0%	98.0%	96.3%	100%	97.3%	-	98.7%	100%	100%	0%	99.2%	-	100%	99.3%	100%	0%	99.6%	-	93.8%	98.9%	92.1%	0%	95.9%	-	98.1%	
Articulated Trucks	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	3	4	0	7	-	2	0	0	0	2	-	0	1	0	0	1	-	4	1	3	0	8	-	18	
% Buses and Single-Unit Trucks	0%	2.0%	3.7%	0%	2.7%	-	1.3%	0%	0%	0%	0.8%	-	0%	0.7%	0%	0%	0.4%	-	6.3%	1.1%	7.9%	0%	4.1%	-	1.9%	
Pedestrians	-	-	-	-	-	-	102	-	-	-	-	-	43	-	-	-	-	-	171	-	-	-	-	-	-	36
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	0%

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

Midday Peak (11:45 AM - 12:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

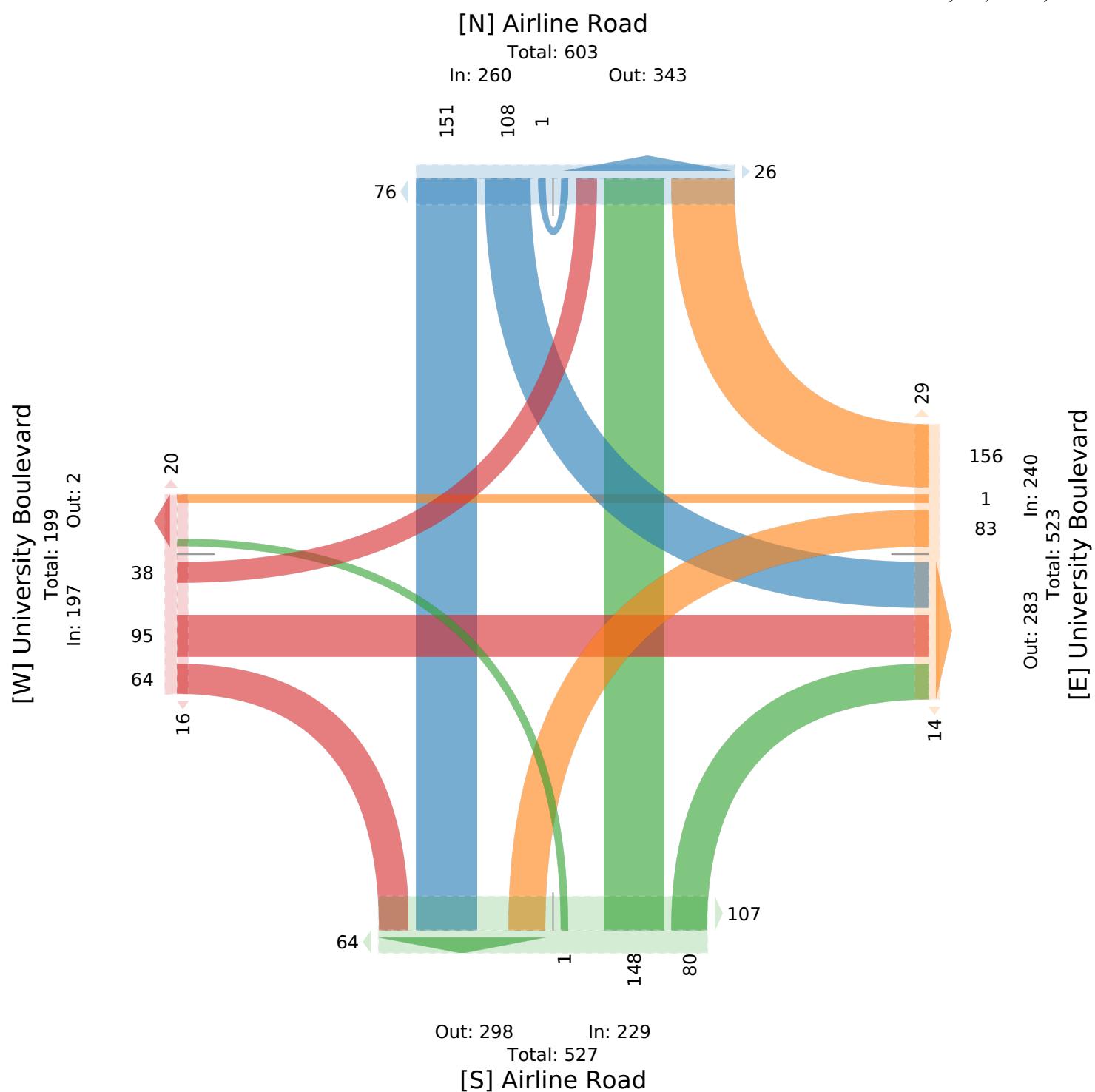
ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

PM Peak (5:30 PM - 6:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-12 5:30PM	0	63	28	0	91	10	36	0	16	0	52	12	23	47	0	0	70	41	29	48	5	0	82	8	295
5:45PM	0	46	23	0	69	7	34	0	22	0	56	10	32	70	0	0	102	33	19	63	14	0	96	3	323
6:00PM	0	54	27	0	81	11	43	1	15	0	59	4	15	58	0	0	73	33	19	60	8	0	87	4	300
6:15PM	0	61	51	0	112	17	48	0	25	0	73	7	29	49	0	0	78	52	30	42	20	0	92	3	355
Total	0	224	129	0	353	45	161	1	78	0	240	33	99	224	0	0	323	159	97	213	47	0	357	18	1273
% Approach	0%	63.5%	36.5%	0%	-	-	67.1%	0.4%	32.5%	0%	-	-	30.7%	69.3%	0%	0%	-	-	27.2%	59.7%	13.2%	0%	-	-	-
% Total	0%	17.6%	10.1%	0%	27.7%	-	12.6%	0.1%	6.1%	0%	18.9%	-	7.8%	17.6%	0%	0%	25.4%	-	7.6%	16.7%	3.7%	0%	28.0%	-	-
PHF	-	0.889	0.632	-	0.788	-	0.839	0.250	0.780	-	0.822	-	0.773	0.800	-	-	0.792	-	0.808	0.845	0.588	-	0.930	-	0.896
Lights	0	222	129	0	351	-	161	1	78	0	240	-	99	223	0	0	322	-	97	213	47	0	357	-	1270
% Lights	0%	99.1%	100%	0%	99.4%	-	100%	100%	100%	0%	100%	-	100%	99.6%	0%	0%	99.7%	-	100%	100%	100%	0%	100%	-	99.8%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	2	0	0	2	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	3
% Buses and Single-Unit Trucks	0%	0.9%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	44	-	-	-	-	-	31	-	-	-	-	-	154	-	-	-	-	-	-	18
% Pedestrians	-	-	-	-	-	97.8%	-	-	-	-	-	93.9%	-	-	-	-	-	96.9%	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	2.2%	-	-	-	-	-	6.1%	-	-	-	-	-	3.1%	-	-	-	-	-	-	0%

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Tue Sep 12, 2023

PM Peak (5:30 PM - 6:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105020, Location: 32.845585, -96.781698

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

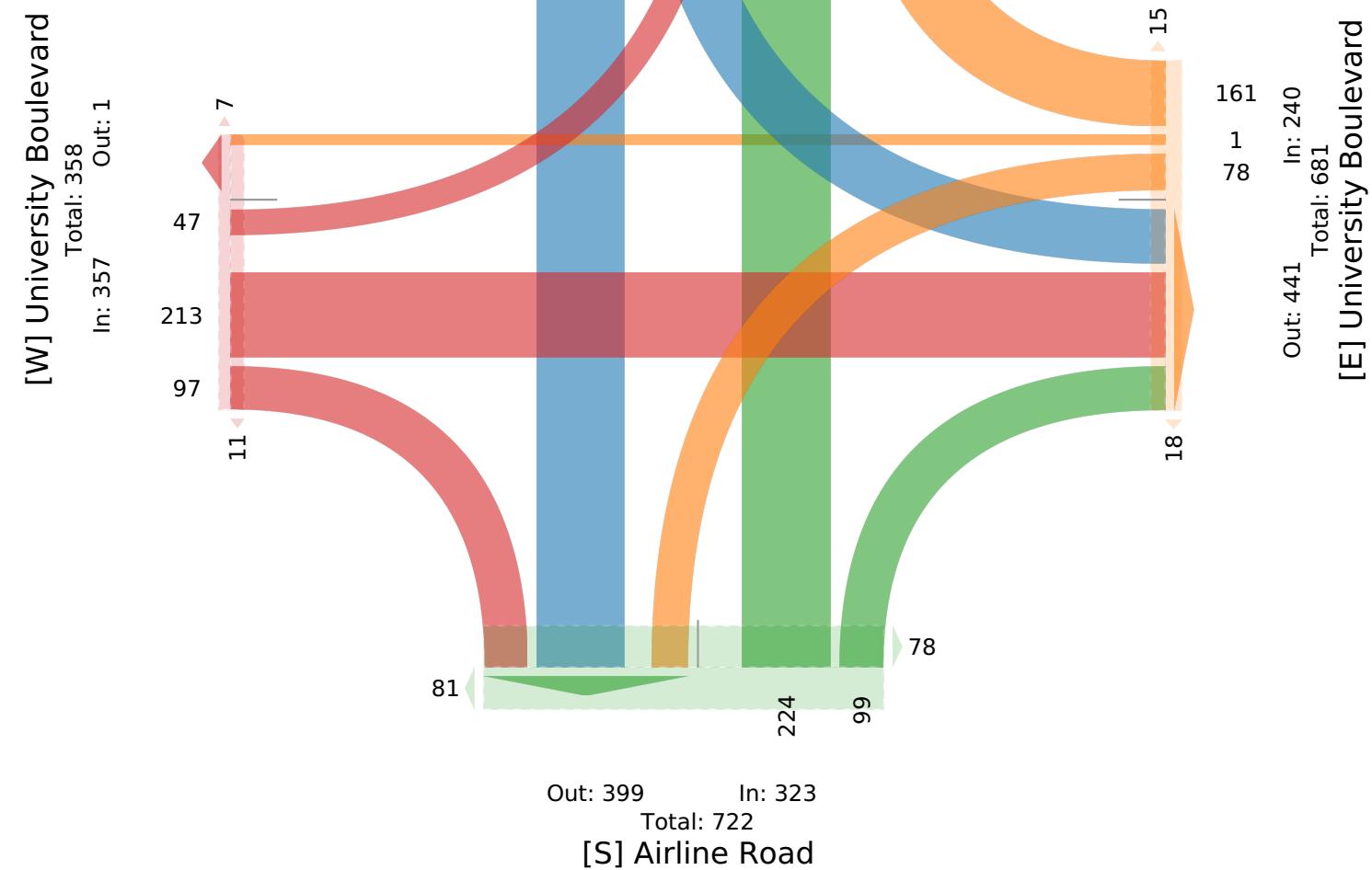
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 785

In: 353

Out: 432



1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105018, Location: 32.845589, -96.781665



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-13 12:00AM	0	2	3	0	5	0	2	0	3	0	5	0	2	5	0	0	7	2	0	3	0	0	3	0	20
12:15AM	0	4	1	0	5	0	0	0	1	0	1	0	1	3	0	0	4	0	3	0	0	0	3	1	13
12:30AM	0	1	2	0	3	1	0	0	1	0	1	0	0	0	0	0	0	0	3	2	0	0	5	0	9
12:45AM	0	2	0	0	2	2	3	0	0	0	3	1	0	1	0	0	1	0	0	1	0	0	1	0	7
Hourly Total	0	9	6	0	15	3	5	0	5	0	10	1	3	9	0	0	12	2	6	6	0	0	12	1	49
1:00AM	0	2	0	0	2	0	0	0	0	0	0	0	2	4	1	0	7	0	2	4	1	0	7	0	16
1:15AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
1:30AM	0	2	0	0	2	0	1	0	1	0	2	0	1	2	0	0	3	0	1	0	0	0	1	0	8
1:45AM	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	3
Hourly Total	0	5	0	0	5	1	2	0	1	0	3	0	3	7	1	0	11	0	4	4	1	0	9	1	28
2:00AM	0	2	0	0	2	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	0	2	0	7
2:15AM	0	0	3	0	3	0	2	0	1	0	3	0	1	1	0	0	2	0	1	1	0	0	2	0	10
2:30AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5
2:45AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	5	3	0	8	0	2	0	4	0	6	0	2	3	0	0	5	0	3	3	0	0	6	0	25
3:00AM	0	1	0	0	1	0	0	0	1	0	1	0	2	1	0	0	3	0	1	0	0	0	1	0	6
3:15AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30AM	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:45AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
Hourly Total	0	1	1	0	2	0	0	0	2	0	2	0	3	1	0	0	4	0	1	0	0	0	1	0	9
4:00AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
4:15AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	3	0	4
4:30AM	0	1	1	0	2	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	4
4:45AM	0	2	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	4
Hourly Total	0	4	1	0	5	0	3	0	0	0	3	0	0	1	0	0	1	0	2	2	0	0	4	2	13
5:00AM	0	0	0	0	0	0	1	0	1	0	2	0	0	1	0	0	1	0	2	0	0	0	2	0	5
5:15AM	0	1	0	0	1	0	1	0	7	0	8	0	0	0	0	0	0	0	2	0	0	0	2	0	11
5:30AM	0	7	1	0	8	0	4	0	6	0	10	0	1	2	0	0	3	0	3	1	0	0	4	0	25
5:45AM	0	5	1	0	6	0	3	1	4	0	8	1	2	3	0	0	5	0	6	5	1	0	12	0	31
Hourly Total	0	13	2	0	15	0	9	1	18	0	28	1	3	6	0	0	9	0	13	6	1	0	20	0	72
6:00AM	0	7	1	0	8	0	12	0	2	0	14	0	5	3	0	0	8	1	4	3	2	0	9	0	39
6:15AM	0	4	1	0	5	2	8	0	2	0	10	1	2	4	0	0	6	1	1	4	0	0	5	2	26
6:30AM	0	5	6	0	11	3	11	0	7	0	18	2	1	8	0	0	9	1	4	4	0	0	8	1	46
6:45AM	0	6	5	0	11	0	14	0	11	0	25	0	0	14	0	0	14	1	3	1	0	0	4	0	54
Hourly Total	0	22	13	0	35	5	45	0	22	0	67	3	8	29	0	0	37	4	12	12	2	0	26	3	165
7:00AM	1	7	6	0	14	2	41	0	6	0	47	6	3	18	0	0	21	2	4	7	0	0	11	1	93
7:15AM	0	23	9	0	32	1	52	0	12	0	64	3	5	30	0	0	35	2	2	5	0	0	7	0	138
7:30AM	0	26	9	0	35	11	65	2	21	0	88	5	11	22	0	0	33	20	10	14	2	0	26	0	182
7:45AM	0	42	20	0	62	31	59	0	21	0	80	8	21	45	0	0	66	37	12	20	4	0	36	7	244
Hourly Total	1	98	44	0	143	45	217	2	60	0	279	22	40	115	0	0	155	61	28	46	6	0	80	8	657
8:00AM	0	36	11	0	47	10	91	0	13	0	104	6	10	33	0	0	43	15	12	30	10	0	52	3	246
8:15AM	0	30	21	0	51	14	77	0	21	0	98	10	4	36	0	1	41	7	12	24	4	0	40	3	230
8:30AM	0	35	19	0	54	12	65	0	18	0	83	2	26	50	0	0	76	29	14	26	2	0	42	2	255
8:45AM	0	35	25	0	60	74	46	0	26	0	72	17	25	46	0	0	71	104	15	20	5	0	40	35	243
Hourly Total	0	136	76	0	212	110	279	0	78	0	357	35	65	165	0	1	231	155	53	100	21	0	174	43	974
9:00AM	0	22	9	0	31	13	53	0	26	0	79	6	19	35	0	0	54	7	19	18	10	0	47	7	211
9:15AM	0	16	19	0	35	8	32	0	15	0	47	2	5	25	0	0	30	2	10	8	6	0	24	5	136
9:30AM	0	30	11	0	41	11	32	0	37	0	69	7	25	30	0	0	55	19	4	11	5	0	20	12	185
9:45AM	0	18	17	0	35	59	48	0	40	0	88	8	27	37	0	0	64	79	22	27	16	0	65	21	252
Hourly Total	0	86	56	0	142	91	165	0	118	0	283	23	76	127	0	0	203	107	55	64	37	0	156	45	784
10:00AM	0	30	17	0	47	8	30	0	17	0	47	5	14	30	0	0	44	21	16	13	5	0	34	3	172
10:15AM	0	26	19	0	45	13	23	0	17	0	40	2	8	19	0	0	27	7	10	19	4	0	33	0	145
10:30AM	0	25	16	0	41	24	40	0	26	0	66	6	14	29	0	0	43	14	15	11	9	0	35	10	185
10:45AM	0	38	21	0	59	47	38	0	29	0	67	11	28	28	0	0	56	91	17	19	6	0	42	16	224
Hourly Total	0	119	73	0	192	92	131	0	89	0	220	24	64	106	0	0	170	133	58	62	24	0	144	29	726
11:00AM	0	24	17	0	41	15	21	0	14	0	35	11	17	29	1	0	47	24	6	15	6	0	27	2	150
11:15AM	0	26	12	0	38	2	22	0	12	0	34	5	5	34	0	0	39	16	3	17	3	0	23	3	134
11:30AM	0	31	22	0	53	12	43	0	18	0	61	10	20	32	0	0	52	30	11	12	5	0	28	10	194
11:45AM	0	34	20	0	54	73	48	0	36	0	84	15	24	37	0	0	61	83	19	24	11	0</			

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
12:00PM	0	49	26	0	75	6	47	2	16	0	65	7	16	57	0	1	74	22	16	25	6	0	47	4	261
12:15PM	0	29	21	0	50	13	27	0	15	0	42	4	9	38	1	0	48	24	9	24	5	0	38	7	178
12:30PM	0	37	13	0	50	26	32	0	17	0	49	8	15	50	0	0	65	28	6	24	7	0	37	7	201
12:45PM	0	42	29	0	71	51	38	0	20	0	58	19	20	55	0	0	75	85	17	35	5	0	57	23	261
Hourly Total	0	157	89	0	246	96	144	2	68	0	214	38	60	200	1	1	262	159	48	108	23	0	179	41	901
1:00PM	0	44	32	0	76	9	41	0	24	0	65	2	9	47	0	0	56	20	12	22	6	0	40	4	237
1:15PM	0	26	16	0	42	6	18	0	10	0	28	6	13	33	0	0	46	9	13	25	5	0	43	3	159
1:30PM	0	31	26	0	57	18	32	0	25	0	57	5	23	46	0	0	69	23	14	19	5	0	38	12	221
1:45PM	0	47	43	0	90	59	37	0	29	0	66	20	29	44	0	0	73	83	16	31	12	0	59	20	288
Hourly Total	0	148	117	0	265	92	128	0	88	0	216	33	74	170	0	0	244	135	55	97	28	0	180	39	905
2:00PM	0	37	26	0	63	9	25	0	18	0	43	3	18	54	0	0	72	29	16	12	9	0	37	5	215
2:15PM	0	41	23	0	64	4	29	0	13	0	42	6	6	24	0	0	30	13	10	23	9	0	42	6	178
2:30PM	0	34	22	0	56	17	29	0	22	0	51	6	13	42	0	0	55	21	13	30	6	0	49	7	211
2:45PM	0	52	30	0	82	29	31	0	41	0	72	10	16	38	0	0	54	54	18	24	9	0	51	8	259
Hourly Total	0	164	101	0	265	59	114	0	94	0	208	25	53	158	0	0	211	117	57	89	33	0	179	26	863
3:00PM	0	35	37	0	72	14	26	1	15	0	42	11	18	45	1	0	64	9	25	28	9	0	62	6	240
3:15PM	0	26	33	0	59	13	38	0	22	0	60	5	15	40	0	0	55	28	11	21	10	0	42	3	216
3:30PM	0	23	22	0	45	7	38	0	22	0	60	6	23	37	0	0	60	27	16	48	4	0	68	1	233
3:45PM	0	33	33	0	66	23	30	0	24	0	54	10	9	39	0	0	48	46	12	49	12	0	73	9	241
Hourly Total	0	117	125	0	242	57	132	1	83	0	216	32	65	161	1	0	227	110	64	146	35	0	245	19	930
4:00PM	0	39	34	0	73	3	41	0	19	0	60	3	14	46	0	0	60	16	6	39	6	0	51	6	244
4:15PM	0	42	48	0	90	12	27	1	10	0	38	3	11	48	0	0	59	10	7	34	5	0	46	5	233
4:30PM	0	40	42	0	82	13	25	0	16	0	41	4	30	40	0	0	70	30	19	46	5	0	70	5	263
4:45PM	0	40	35	0	75	36	40	0	18	0	58	20	34	58	0	0	92	79	21	36	12	0	69	31	294
Hourly Total	0	161	159	0	320	64	133	1	63	0	197	30	89	192	0	0	281	135	53	155	28	0	236	47	1034
5:00PM	0	53	45	0	98	18	31	0	18	0	49	52	27	57	1	0	85	60	17	49	18	0	84	8	316
5:15PM	0	50	37	0	87	21	42	0	23	0	65	13	20	52	1	0	73	21	19	57	23	0	99	42	324
5:30PM	0	41	38	0	79	14	43	0	21	0	64	18	20	53	0	0	73	37	18	47	4	0	69	17	285
5:45PM	0	55	29	0	84	27	38	0	27	0	65	13	20	49	0	0	69	49	21	49	9	0	79	16	297
Hourly Total	0	199	149	0	348	80	154	0	89	0	243	96	87	211	2	0	300	167	75	202	54	0	331	83	1222
6:00PM	0	56	44	0	100	37	47	0	15	0	62	17	25	42	0	0	67	17	19	36	8	0	63	11	292
6:15PM	1	40	32	0	73	20	34	0	27	0	61	18	25	52	0	0	77	29	18	40	8	0	66	7	277
6:30PM	0	26	19	0	45	14	30	1	19	0	50	22	15	34	0	0	49	15	7	29	2	0	38	9	182
6:45PM	0	27	24	0	51	25	25	0	20	0	45	11	12	31	0	0	43	12	5	34	7	0	46	4	185
Hourly Total	1	149	119	0	269	96	136	1	81	0	218	68	77	159	0	0	236	73	49	139	25	0	213	31	936
7:00PM	0	32	23	0	55	14	37	0	20	0	57	12	10	39	0	0	49	30	10	31	2	0	43	8	204
7:15PM	0	28	23	0	51	28	29	0	16	0	45	15	16	35	0	0	51	34	11	44	7	0	62	7	209
7:30PM	0	30	35	0	65	13	25	0	16	0	41	12	11	39	0	0	50	21	11	23	0	0	34	8	190
7:45PM	0	40	27	0	67	3	18	0	14	0	32	2	8	39	0	0	47	27	9	22	6	0	37	4	183
Hourly Total	0	130	108	0	238	58	109	0	66	0	175	41	45	152	0	0	197	112	41	120	15	0	176	27	786
8:00PM	0	26	18	0	44	7	19	0	17	0	36	6	13	26	0	0	39	32	4	18	4	0	26	2	145
8:15PM	0	35	11	0	46	3	16	0	9	0	25	4	12	23	0	0	35	35	4	15	4	0	23	4	129
8:30PM	0	27	23	0	50	3	12	0	15	0	27	11	6	25	0	1	32	17	6	6	4	0	16	1	125
8:45PM	1	12	10	0	23	7	14	0	6	0	20	5	9	23	0	0	32	19	7	13	5	0	25	3	100
Hourly Total	1	100	62	0	163	20	61	0	47	0	108	26	40	97	0	1	138	103	21	52	17	0	90	10	499
9:00PM	0	16	15	0	31	1	15	0	18	0	33	4	7	21	0	0	28	12	9	16	3	0	28	2	120
9:15PM	0	16	20	0	36	1	14	0	8	0	22	1	9	14	0	0	23	12	2	13	1	0	16	0	97
9:30PM	0	18	9	0	27	6	9	0	7	0	16	4	13	20	0	0	33	8	4	14	2	0	20	0	96
9:45PM	0	15	8	0	23	5	5	0	10	0	15	3	2	18	0	0	20	5	6	7	2	0	15	1	73
Hourly Total	0	65	52	0	117	13	43	0	43	0	86	12	31	73	0	0	104	37	21	50	8	0	79	3	386
10:00PM	0	7	7	0	14	2	10	0	3	0	13	1	4	16	0	0	20	6	4	7	2	0	13	0	60
10:15PM	0	11	8	0	19	0	15	0	4	0	19	1	7	11	0	0	18	3	2	1	1	0	4	0	60
10:30PM	0	6	0	0	6	1	4	0	4	0	8	3	2	15	0	0	17	0	2	2	1	0	5	0	36
10:45PM	0	4	2	0	6	0	1	0	3	0	4	3	5	13	0	0	18	3	4	2	1	0	7	0	35
Hourly Total	0	28	17	0	45	3	30	0	14	0	44	8	18	55	0	0	73	12	12	12	5	0	29	0	191
11:00PM	0	7	7	0	14	0	7	0	1	0	8	2	5	3	0	0	8	2	4	0	2	1	7	1	37
11:15PM	0	8	4	0	12	1	5	0	2	0	7	0	4	4	0	0	8	1	0	0	0	0	0	2	27
11:30PM	0	4	1	0	5	2	0	0	4	0	4	0	5	8	0	0	13	0	4	1	0	0	5	0	27
11:45PM	0	3	3	0	6	0	1	0	2	0	3	3	4	9											

Leg Direction	Airline Road Southbound					University Boulevard Westbound					Airline Road Northbound					University Boulevard Eastbound									
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Buses and Single-Unit Trucks	0	56	9	0	65	-	18	0	9	0	27	-	2	25	0	0	27	-	20	15	13	0	48	-	167
% Buses and Single-Unit Trucks	0%	2.7%	0.6%	0%	1.8%	-	0.8%	0%	0.7%	0%	0.8%	-	0.2%	1.1%	0%	0%	0.8%	-	2.6%	1.0%	3.3%	0%	1.8%	-	1.3%
Pedestrians	-	-	-	-	-	1065	-	-	-	-	-	557	-	-	-	-	-	1761	-	-	-	-	-	490	
% Pedestrians	-	-	-	-	-	97.7%	-	-	-	-	-	98.8%	-	-	-	-	-	98.9%	-	-	-	-	-	99.2%	
Bicycles on Crosswalk	-	-	-	-	-	25	-	-	-	-	-	7	-	-	-	-	-	20	-	-	-	-	-	4	
% Bicycles on Crosswalk	-	-	-	-	-	2.3%	-	-	-	-	-	1.2%	-	-	-	-	-	1.1%	-	-	-	-	-	0.8%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

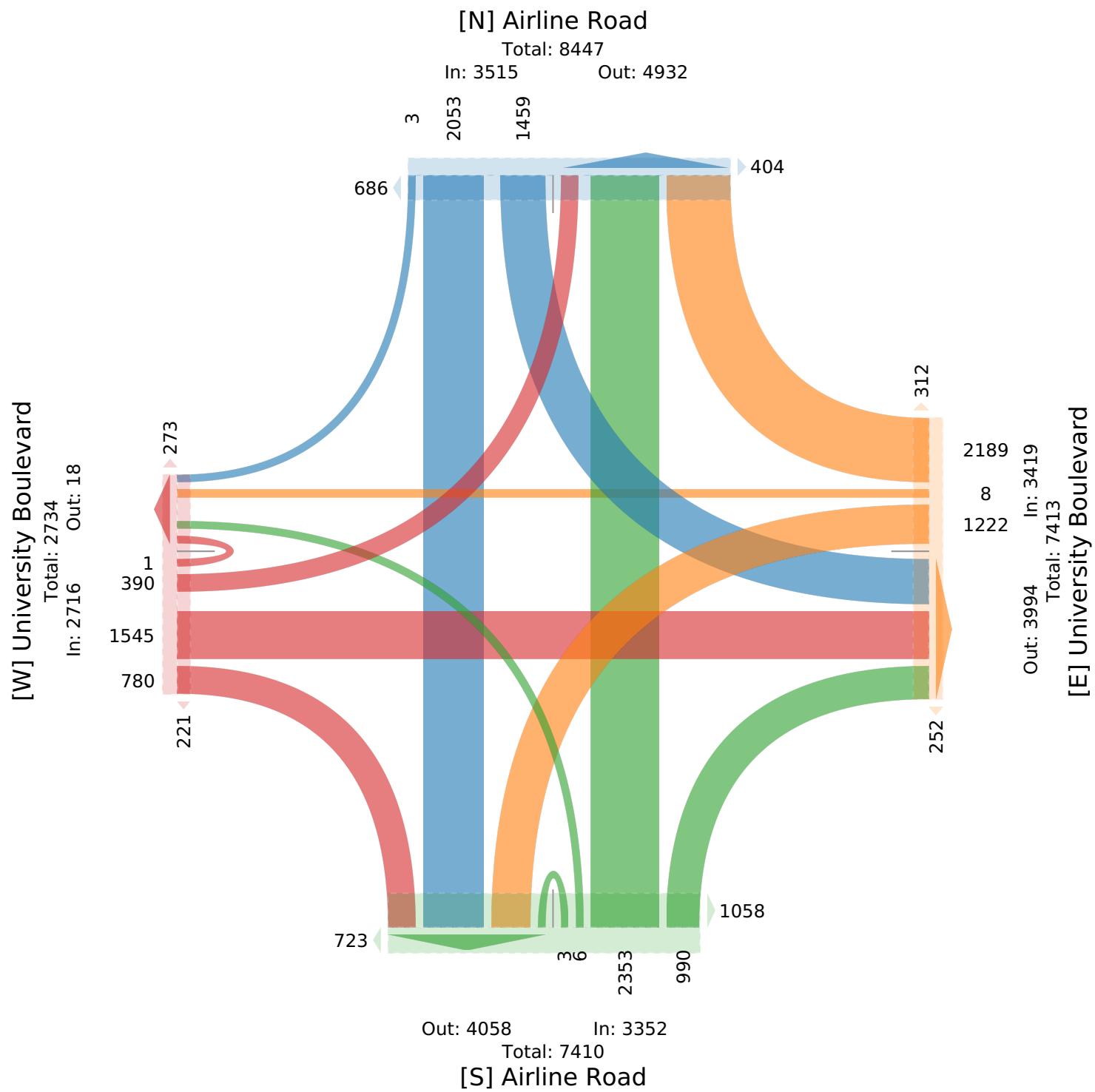
ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-13 7:45AM	0	42	20	0	62	31	59	0	21	0	80	8	21	45	0	0	66	37	12	20	4	0	36	7	244
8:00AM	0	36	11	0	47	10	91	0	13	0	104	6	10	33	0	0	43	15	12	30	10	0	52	3	246
8:15AM	0	30	21	0	51	14	77	0	21	0	98	10	4	36	0	1	41	7	12	24	4	0	40	3	230
8:30AM	0	35	19	0	54	12	65	0	18	0	83	2	26	50	0	0	76	29	14	26	2	0	42	2	255
Total	0	143	71	0	214	67	292	0	73	0	365	26	61	164	0	1	226	88	50	100	20	0	170	15	975
% Approach	0%	66.8%	33.2%	0%	-	-	80.0%	0%	20.0%	0%	-	-	27.0%	72.6%	0%	0.4%	-	-	29.4%	58.8%	11.8%	0%	-	-	-
% Total	0%	14.7%	7.3%	0%	21.9%	-	29.9%	0%	7.5%	0%	37.4%	-	6.3%	16.8%	0%	0.1%	23.2%	-	5.1%	10.3%	2.1%	0%	17.4%	-	-
PHF	-	0.851	0.845	-	0.863	-	0.802	-	0.869	-	0.877	-	0.587	0.820	-	0.250	0.743	-	0.893	0.833	0.500	-	0.817	-	0.956
Lights	0	140	71	0	211	-	290	0	73	0	363	-	61	160	0	1	222	-	49	99	19	0	167	-	963
% Lights	0%	97.9%	100%	0%	98.6%	-	99.3%	0%	100%	0%	99.5%	-	100%	97.6%	0%	100%	98.2%	-	98.0%	99.0%	95.0%	0%	98.2%	-	98.8%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.6%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.1%
Buses and Single-Unit Trucks	0	3	0	0	3	-	2	0	0	0	2	-	0	3	0	0	3	-	1	1	1	0	3	-	11
% Buses and Single-Unit Trucks	0%	2.1%	0%	0%	1.4%	-	0.7%	0%	0%	0%	0.5%	-	0%	1.8%	0%	0%	1.3%	-	2.0%	1.0%	5.0%	0%	1.8%	-	1.1%
Pedestrians	-	-	-	-	-	61	-	-	-	-	26	-	-	-	-	-	88	-	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	-	91.0%	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	6	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	9.0%	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 690

In: 214

Out: 476

143
59
71
8

[W] University Boulevard

Total: 170
In: 170
Out: 0

20
11
4
1.1

292
73
Out: 232
In: 597
Total: 365
[E] University Boulevard

87
1
164
61
Out: 267
In: 226
Total: 493
[S] Airline Road

1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-09-13 1:00PM	0	44	32	0	76	9	41	0	24	0	65	2	9	47	0	0	56	20	12	22	6	0	40	4	237
1:15PM	0	26	16	0	42	6	18	0	10	0	28	6	13	33	0	0	46	9	13	25	5	0	43	3	159
1:30PM	0	31	26	0	57	18	32	0	25	0	57	5	23	46	0	0	69	23	14	19	5	0	38	12	221
1:45PM	0	47	43	0	90	59	37	0	29	0	66	20	29	44	0	0	73	83	16	31	12	0	59	20	288
Total	0	148	117	0	265	92	128	0	88	0	216	33	74	170	0	0	244	135	55	97	28	0	180	39	905
% Approach	0%	55.8%	44.2%	0%	-	-	59.3%	0%	40.7%	0%	-	-	30.3%	69.7%	0%	0%	-	-	30.6%	53.9%	15.6%	0%	-	-	-
% Total	0%	16.4%	12.9%	0%	29.3%	-	14.1%	0%	9.7%	0%	23.9%	-	8.2%	18.8%	0%	0%	27.0%	-	6.1%	10.7%	3.1%	0%	19.9%	-	-
PHF	-	0.787	0.680	-	0.736	-	0.780	-	0.759	-	0.818	-	0.638	0.904	-	-	0.836	-	0.859	0.782	0.583	-	0.763	-	0.786
Lights	0	142	116	0	258	-	124	0	88	0	212	-	74	168	0	0	242	-	54	96	28	0	178	-	890
% Lights	0%	95.9%	99.1%	0%	97.4%	-	96.9%	0%	100%	0%	98.1%	-	100%	98.8%	0%	0%	99.2%	-	98.2%	99.0%	100%	0%	98.9%	-	98.3%
Articulated Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0.7%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Buses and Single-Unit Trucks	0	5	1	0	6	-	4	0	0	0	4	-	0	2	0	0	2	-	1	1	0	0	2	-	14
% Buses and Single-Unit Trucks	0%	3.4%	0.9%	0%	2.3%	-	3.1%	0%	0%	0%	1.9%	-	0%	1.2%	0%	0%	0.8%	-	1.8%	1.0%	0%	0%	1.1%	-	1.5%
Pedestrians	-	-	-	-	-	92	-	-	-	-	33	-	-	-	-	-	134	-	-	-	-	-	-	38	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	99.3%	-	-	-	-	-	-	97.4%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	0.7%	-	-	-	-	-	-	2.6%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Airline Road

Total: 591

In: 265

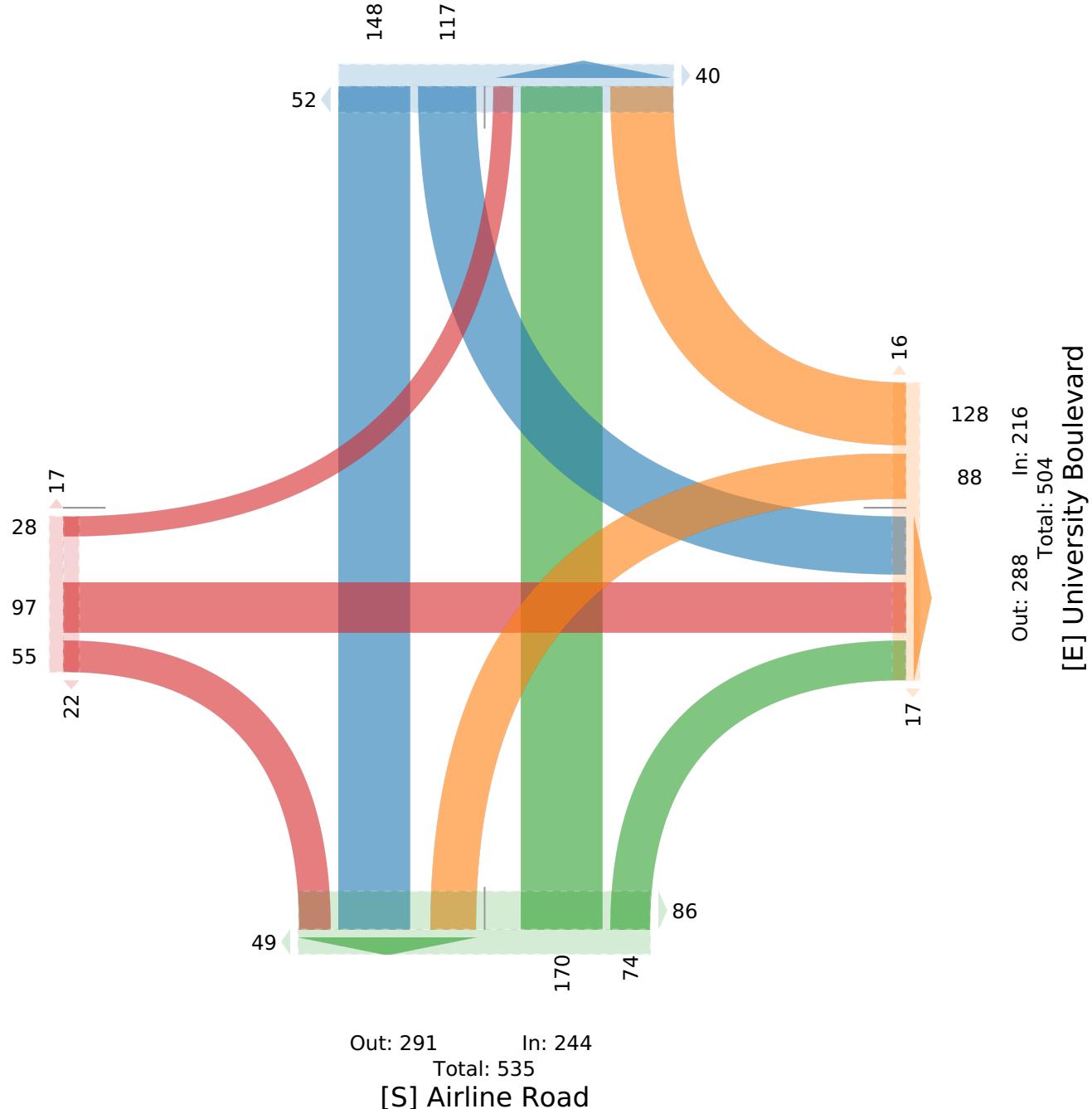
Out: 326

[W] University Boulevard

Total: 180

In: 180

Out: 0



1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Airline Road Southbound						University Boulevard Westbound						Airline Road Northbound						University Boulevard Eastbound							
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int	
2023-09-13 5:00PM	0	53	45	0	98	18	31	0	18	0	49	52	27	57	1	0	85	60	17	49	18	0	84	8	316	
5:15PM	0	50	37	0	87	21	42	0	23	0	65	13	20	52	1	0	73	21	19	57	23	0	99	42	324	
5:30PM	0	41	38	0	79	14	43	0	21	0	64	18	20	53	0	0	73	37	18	47	4	0	69	17	285	
5:45PM	0	55	29	0	84	27	38	0	27	0	65	13	20	49	0	0	69	49	21	49	9	0	79	16	297	
Total	0	199	149	0	348	80	154	0	89	0	243	96	87	211	2	0	300	167	75	202	54	0	331	83	1222	
% Approach	0%	57.2%	42.8%	0%	-	-	63.4%	0%	36.6%	0%	-	-	29.0%	70.3%	0.7%	0%	-	-	22.7%	61.0%	16.3%	0%	-	-	-	
% Total	0%	16.3%	12.2%	0%	28.5%	-	12.6%	0%	7.3%	0%	19.9%	-	7.1%	17.3%	0.2%	0%	24.5%	-	6.1%	16.5%	4.4%	0%	27.1%	-	-	
PHF	-	0.905	0.828	-	0.888	-	0.895	-	0.824	-	0.935	-	0.806	0.925	0.500	-	0.882	-	0.893	0.886	0.587	-	0.836	-	0.943	
Lights	0	196	149	0	345	-	154	0	88	0	242	-	87	211	2	0	300	-	75	202	53	0	330	-	1217	
% Lights	0%	98.5%	100%	0%	99.1%	-	100%	0%	98.9%	0%	99.6%	-	100%	100%	100%	0%	100%	-	100%	100%	98.1%	0%	99.7%	-	99.6%	
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	
Buses and Single-Unit Trucks	0	3	0	0	3	-	0	0	1	0	1	-	0	0	0	0	0	-	0	0	1	0	1	-	5	
% Buses and Single-Unit Trucks	0%	1.5%	0%	0%	0.9%	-	0%	0%	1.1%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	1.9%	0%	0.3%	-	0.4%	
Pedestrians	-	-	-	-	-	-	79	-	-	-	-	-	96	-	-	-	-	-	166	-	-	-	-	-	-	82
% Pedestrians	-	-	-	-	-	-	98.8%	-	-	-	-	-	100%	-	-	-	-	-	99.4%	-	-	-	-	-	-	98.8%
Bicycles on Crosswalk	-	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	1
% Bicycles on Crosswalk	-	-	-	-	-	-	1.3%	-	-	-	-	-	0%	-	-	-	-	-	0.6%	-	-	-	-	-	-	1.2%

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. University Boulevard at Airline Road - TMC

Wed Sep 13, 2023

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

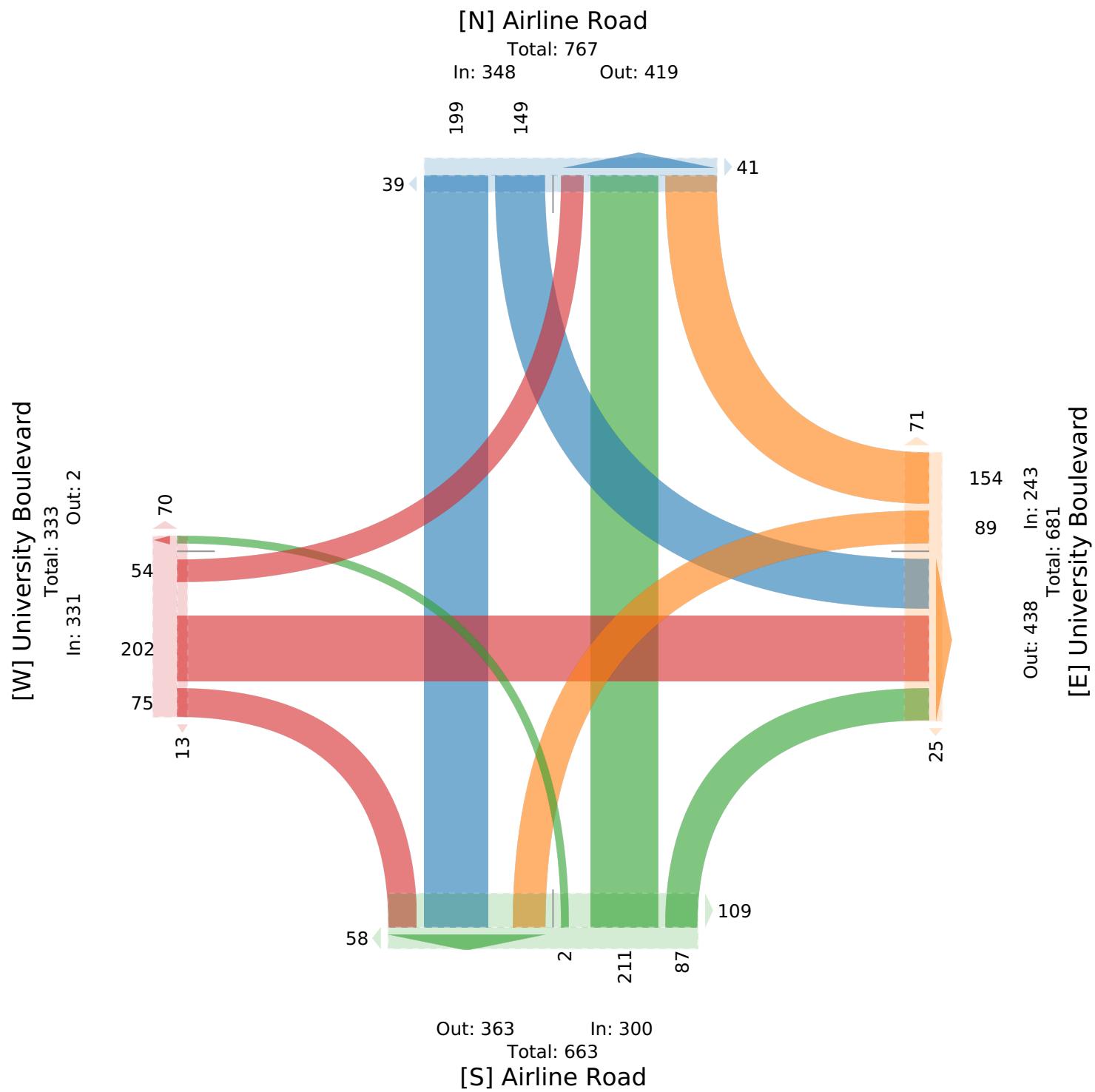
ID: 1105018, Location: 32.845589, -96.781665

CJ Hensch & Associates, Inc.

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Appendix B

Traffic Signal Warrant Worksheets

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street? No

*Only applicable after an adequate trial of other alternatives (

Lanes Major/ Minor	Adjusted Volumes		Condition A				Condition B				Combination A/B*							
			100%		70%		100%		70%		80%		80%		56%		56%	
	Major	Minor	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.
1 / 1	X		500	150	350	105	750	75	525	53	400	120	600	60	280	84	420	42
2+ / 1			600	150	420	105	900	75	630	53	480	120	720	60	336	84	504	42
2+ / 2+			600	200	420	140	900	100	630	70	480	160	720	80	336	112	504	56
1 / 2+			500	200	350	140	750	100	525	70	400	160	600	80	280	112	420	56
12:00 AM	103	15																
12:15 AM	95	10																
12:30 AM	80	8																
12:45 AM	87	9																
1:00 AM	80	12																
1:15 AM	70	12																
1:30 AM	50	10																
1:45 AM	34	7																
2:00 AM	22	5																
2:15 AM	16	4																
2:30 AM	13	5																
2:45 AM	7	8																
3:00 AM	8	3																
3:15 AM	11	3																
3:30 AM	12	4																
3:45 AM	13	3																
4:00 AM	12	4																
4:15 AM	11	4																
4:30 AM	12	3																
4:45 AM	13	4																
5:00 AM	17	5																
5:15 AM	18	6																
5:30 AM	17	10																
5:45 AM	20	14																
6:00 AM	21	16																
6:15 AM	26	19																
6:30 AM	42	18																
6:45 AM	55	22																
7:00 AM	59	26																
7:15 AM	89	34																
7:30 AM	97	42																
7:45 AM	118	56																
8:00 AM	153	62																
8:15 AM	156	71																
8:30 AM	172	71																
8:45 AM	175	61																
9:00 AM	194	59																
9:15 AM	217	66																
9:30 AM	234	63																
9:45 AM	247	60																

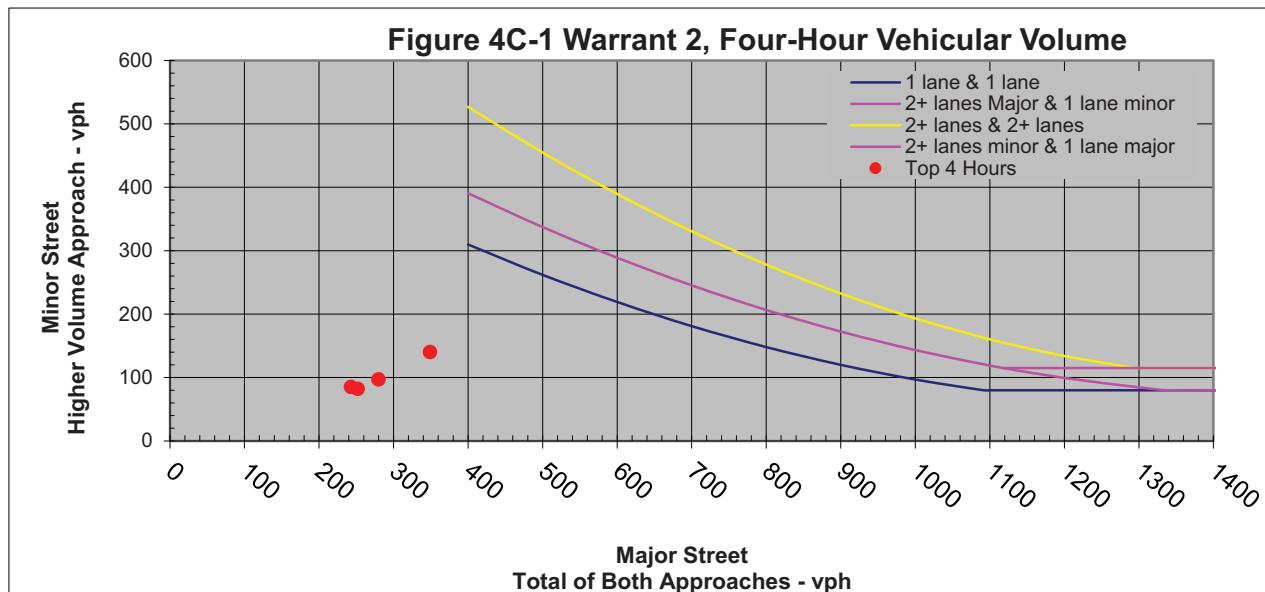
Warrant Met: No

Notes:

Warrant 1

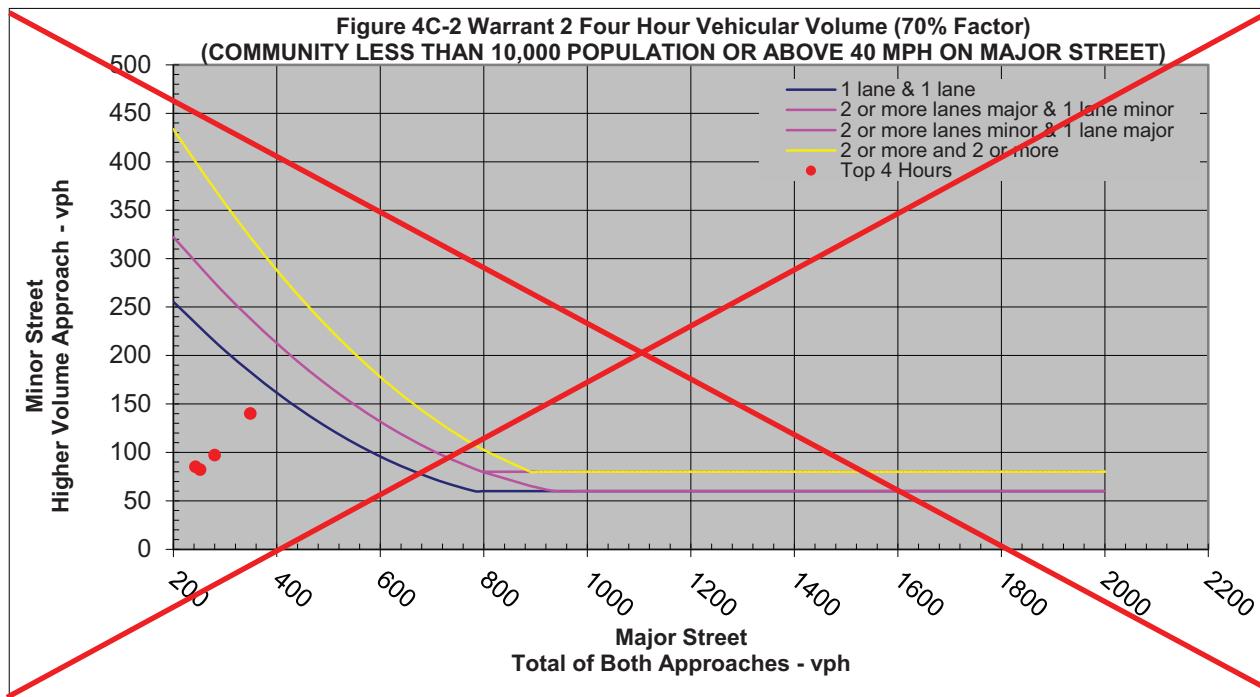
WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach		Total Number of Unique Hours Met on Figure 4C-1				0				
Major street: 1 Lane		Total Number of Unique Hours Met on Figure 4C-2 (70% Factor)				0				
Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street? No										
Hour Interval Beginning At	Raw Traffic Counts				Total Major Approach Volumes	Highest Actual Minor Street Approach Volumes	Hour Met?			
	Major - Airline Road		Minor - University Blvd							
	N-Bound	S-Bound	W-Bound	E-Bound						
6:00 AM	10	11	16	6	21	16				
6:15 AM	10	16	19	10	26	19				
6:30 AM	20	22	18	10	42	18				
6:45 AM	26	29	22	11	55	22				
7:00 AM	29	30	26	16	59	26				
7:15 AM	42	47	34	22	89	34				
7:30 AM	42	55	42	33	97	42				
7:45 AM	52	66	46	56	118	56				
8:00 AM	69	84	51	62	153	62				
8:15 AM	70	86	47	71	156	71				
8:30 AM	78	94	49	71	172	71				
8:45 AM	73	102	56	61	175	61				
9:00 AM	83	111	58	59	194	59				
9:15 AM	107	110	66	53	217	66				
9:30 AM	113	121	63	53	234	63				
9:45 AM	130	117	60	55	247	60				
10:00 AM	130	128	60	59	258	60				
10:15 AM	117	134	63	63	251	63				
10:30 AM	118	127	70	62	245	70				
10:45 AM	119	128	77	67	247	77				
11:00 AM	115	128	86	73	243	86				
11:15 AM	116	136	81	82	252	82				
11:30 AM	135	152	79	97	287	97				
11:45 AM	136	171	75	115	307	115				
12:00 PM	149	165	72	131	314	131				
12:15 PM	179	170	77	140	349	140				
12:30 PM	164	164	99	138	328	138				
12:45 PM	166	158	103	129	324	129				
1:00 PM	166	152	93	103	318	103				
1:15 PM	137	143	91	97	280	97				
1:30 PM	133	141	74	95	274	95				
1:45 PM	130	137	73	92	267	92				
2:00 PM	106	143	95	96	249	96				
2:15 PM	97	144	69	85	241	85				
2:30 PM	97	132	70	82	229	82				
2:45 PM	87	132	65	82	219	82				
3:00 PM	95	124	66	80	219	80				
3:15 PM	111	132	67	85	243	85				
3:30 PM	104	141	59	79	245	79				
3:45 PM	105	138	60	67	243	67				
4:00 PM	116	143	59	73	259	73				
4:15 PM	109	137	60	76	246	76				
4:30 PM	110	138	60	77	248	77				
4:45 PM	110	124	64	77	234	77				
5:00 PM	89	114	68	70	203	70				
5:15 PM	79	124	60	61	203	61				
5:30 PM	76	125	58	62	201	62				
5:45 PM	76	131	52	58	207	58				
6:00 PM	81	140	42	49	221	49				
6:15 PM	92	114	48	44	206	48				
6:30 PM	95	106	52	39	201	52				
6:45 PM	94	107	51	41	201	51				
7:00 PM	103	101	58	39	204	58				
7:15 PM	97	110	43	34	207	43				
7:30 PM	109	104	40	31	213	40				
7:45 PM	119	99	36	22	218	36				
8:00 PM	108	97	42	22	205	42				



Major Street Total of Both Approaches - vph				
Top Hours for Figure 4C-1	Start Time	End Time	Major Street	Minor Street
Top Hour	12:15 PM	1:15 PM	349	140
2nd Highest Hour	1:15 PM	2:15 PM	280	97
3rd Highest Hour	11:15 AM	12:15 PM	252	82
4th Highest Hour	3:15 PM	4:15 PM	243	85

Major Street Total of Both Approaches - vph				
Top Hours for Figure 4C-2	Start Time	End Time	Major Street	Minor Street
Top Hour	12:15 PM	1:15 PM	349	140
2nd Highest Hour	1:15 PM	2:15 PM	280	97
3rd Highest Hour	11:15 AM	12:15 PM	252	82
4th Highest Hour	3:15 PM	4:15 PM	243	85



Are the requirements for Warrant 2 met?: No

WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach		Peak Hour Start time	12:15 PM
Major Street:	1 Lane	Peak Hour End Time	1:15 PM
Minor Street:	1 Lane		

Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street?

No

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

No

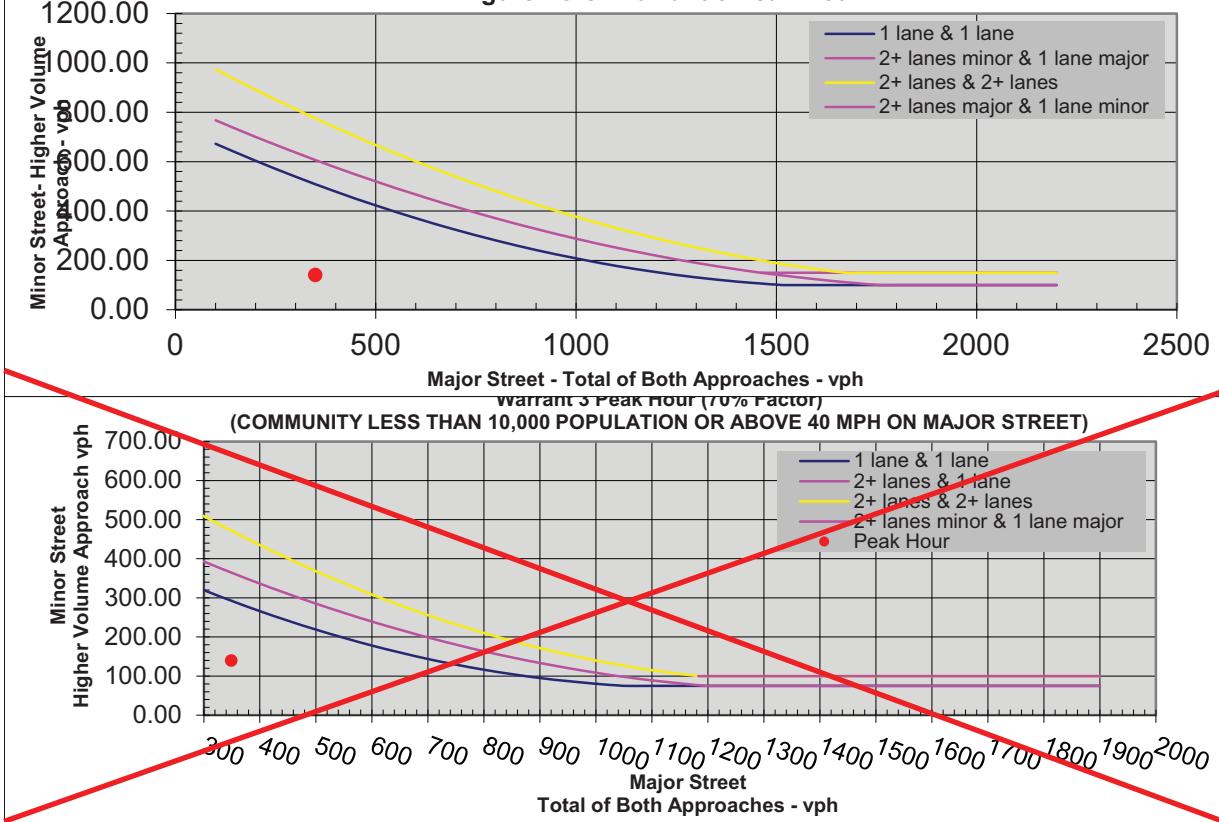
Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	No

*If applicable, attach all supporting calculations and documentation.

Are the requirements for Warrant 3 met?: No

Figure 4C-3. Warrant 3 Peak Hour



Hour Vehicular Volume					Actual Peak Hour Major Traffic Volume	Actual Peak Hour Minor Traffic Volume	Required Peak Hour Minor Traffic Volume for Fig. 4C-3	Required Peak Hour Minor Traffic Volume for Fig. 4C-4
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Sum of Major Street and Highest Minor Street	Sum of Major Street and Combined Minor Street				
6:00 AM	21	16	37	43				
6:15 AM	26	19	45	55				
6:30 AM	42	18	60	70				
6:45 AM	55	22	77	88				
7:00 AM	59	26	85	101				
7:15 AM	89	34	123	145				
7:30 AM	97	42	139	172				
7:45 AM	118	56	174	220				
8:00 AM	153	62	215	266				
8:15 AM	156	71	227	274				
8:30 AM	172	71	243	292				
8:45 AM	175	61	236	292				
9:00 AM	194	59	253	311				
9:15 AM	217	66	283	336				
9:30 AM	234	63	297	350				
9:45 AM	247	60	307	362				
10:00 AM	258	60	318	377				
10:15 AM	251	63	314	377				
10:30 AM	245	70	315	377				
10:45 AM	247	77	324	391				
11:00 AM	243	86	329	402				
11:15 AM	252	82	334	415				
11:30 AM	287	97	384	463				
11:45 AM	307	115	422	497				
12:00 PM	314	131	445	517				
12:15 PM	349	140	489	566				
12:30 PM	328	138	466	565				
12:45 PM	324	129	453	556				
1:00 PM	318	103	421	514				
1:15 PM	280	97	377	468				
1:30 PM	274	95	369	443				
1:45 PM	267	92	359	432				
2:00 PM	249	96	345	440				
2:15 PM	241	85	326	395				
2:30 PM	229	82	311	381				
2:45 PM	219	82	301	366				
3:00 PM	219	80	299	365				
3:15 PM	243	85	328	395				
3:30 PM	245	79	324	383				
3:45 PM	243	67	310	370				
4:00 PM	259	73	332	391				
4:15 PM	246	76	322	382				
4:30 PM	248	77	325	385				
4:45 PM	234	77	311	375				
5:00 PM	203	70	273	341				
5:15 PM	203	61	264	324				
5:30 PM	201	62	263	321				
5:45 PM	207	58	265	317				
6:00 PM	221	49	270	312				
6:15 PM	206	48	254	298				
6:30 PM	201	52	253	292				
6:45 PM	201	51	252	293				
7:00 PM	204	58	262	301				
7:15 PM	207	43	250	284				
7:30 PM	213	40	253	284				
7:45 PM	218	36	254	276				
8:00 PM	205	42	247	269				

WARRANT 4, PEDESTRIAN VOLUME

Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Total of All Pedestrians Crossing Major Street Pedestrians Per Hour (PPH)
6:00 AM	21	4
6:15 AM	26	12
6:30 AM	42	12
6:45 AM	55	13
7:00 AM	59	14
7:15 AM	89	9
7:30 AM	97	16
7:45 AM	118	16
8:00 AM	153	25
8:15 AM	156	29
8:30 AM	172	28
8:45 AM	175	37
9:00 AM	194	30
9:15 AM	217	35
9:30 AM	234	38
9:45 AM	247	31
10:00 AM	258	31
10:15 AM	251	31
10:30 AM	245	29
10:45 AM	247	28
11:00 AM	243	27
11:15 AM	252	19
11:30 AM	287	14
11:45 AM	307	20
12:00 PM	314	24
12:15 PM	349	31
12:30 PM	328	33
12:45 PM	324	33
1:00 PM	318	37
1:15 PM	280	33
1:30 PM	274	32
1:45 PM	267	23
2:00 PM	249	11
2:15 PM	241	6
2:30 PM	229	5
2:45 PM	219	11
3:00 PM	219	14
3:15 PM	243	16
3:30 PM	245	18
3:45 PM	243	15
4:00 PM	259	17
4:15 PM	246	26
4:30 PM	248	29
4:45 PM	234	49
5:00 PM	203	52
5:15 PM	203	43
5:30 PM	201	36
5:45 PM	207	13
6:00 PM	221	6
6:15 PM	206	2
6:30 PM	201	4
6:45 PM	201	6
7:00 PM	204	5
7:15 PM	207	9
7:30 PM	213	8
7:45 PM	218	6
8:00 PM	205	7

Built-up Isolated Community With Less Than 10,000 Population or Above 35 MPH on Major Street? No

15th Percentile Pedestrian Crossing Speed Less than 3.5 f/s?* No

*If applicable, attach all supporting calculations, documentation, and findings.

If 15th Percentile Pedestrian Crossing Speed is Less than 3.5 f/s, Reduce Criterion by (up to 50%):

Is the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross less than 300 feet? No

If the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross is less than 300 feet, will the proposed traffic control signal restrict the progressive movement of traffic? If applicable, attach supporting justification.

Does the intersection meet the 4-Hour Volume? No

Does the intersection meet the Peak Hour? No

Are the Requirements for Warrant 4 Satisfied? No

Top Hours for Figure 4C-5	Start Time	End Time	Vehicles	Pedestrians
Top Hour	12:15 PM	1:15 PM	349	31
2nd Highest Hour	1:15 PM	2:15 PM	280	33
3rd Highest Hour	10:00 AM	11:00 AM	258	31
4th Highest Hour	9:30 AM	10:30 AM	234	49

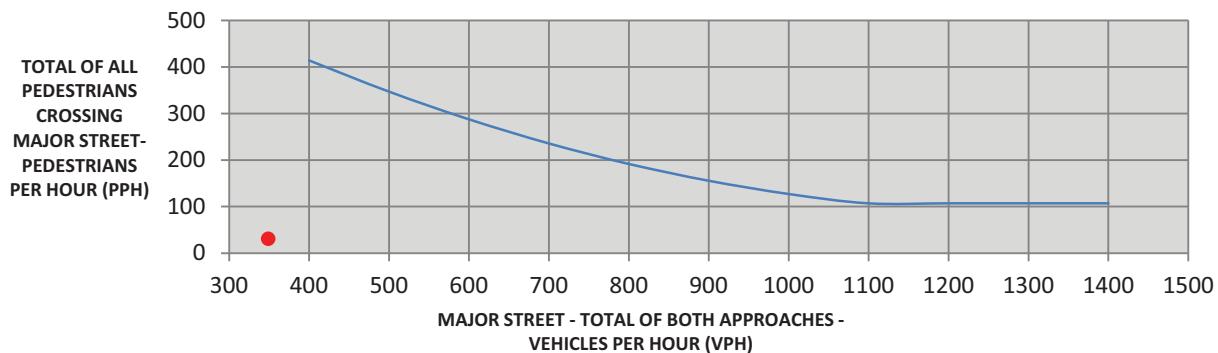
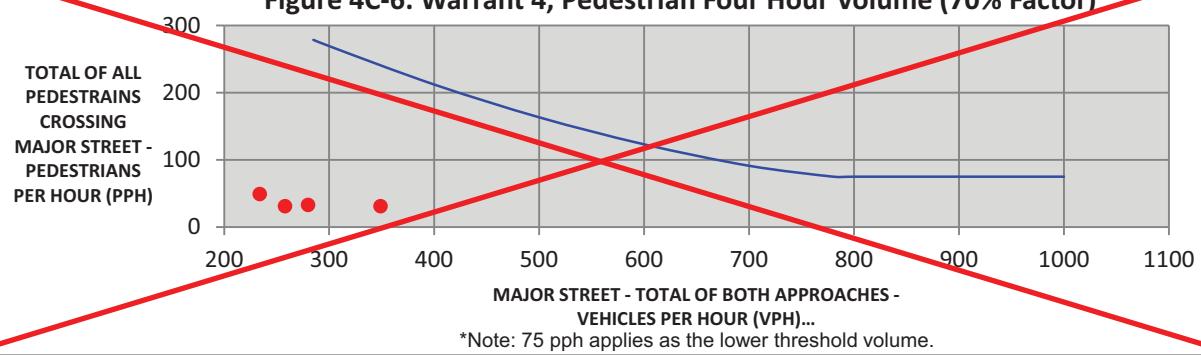
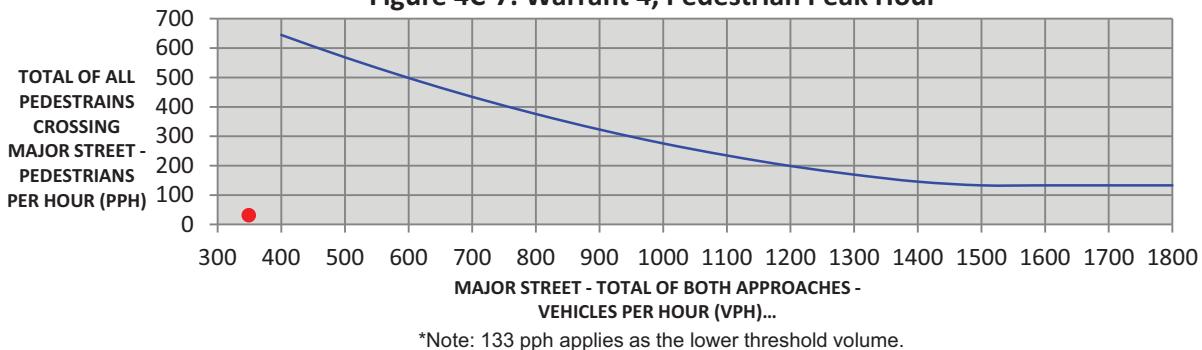
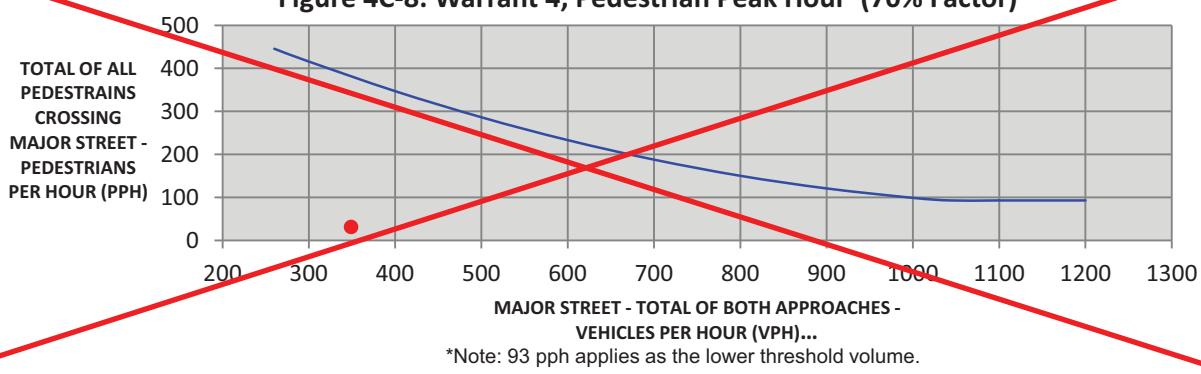
Top Hours for Figure 4C-6	Start Time	End Time	Vehicles	Pedestrians
Top Hour	12:15 PM	1:15 PM	349	31
2nd Highest Hour	1:15 PM	2:15 PM	280	33
3rd Highest Hour	9:30 AM	10:30 AM	234	49
4th Highest Hour	10:00 AM	11:00 AM	258	31

Peak Hour Used for Graphs 4C-7 & 4C-8

Top Hour			
Start Time	End Time	Vehicles	Pedestrians
12:15 PM	1:15 PM	349	31

Number of Hours That Met the 4-Hour Criteria 4C-5 0

Number of Hours That Met the 4-Hour Criteria 4C-6 0

Figure 4C-5. Warrant 4, Pedestrians Four-Hour Volume**Figure 4C-6. Warrant 4, Pedestrian Four Hour Volume (70% Factor)****Figure 4C-7. Warrant 4, Pedestrian Peak Hour****Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street? No

*Only applicable after an adequate trial of other alternatives

Lanes Major/ Minor	Adjusted Volumes		Condition A				Condition B				Combination A/B*							
			100%		70%		100%		70%		80%		80%		56%		56%	
	Major	Minor	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.
1 / 1	X		500	150	350	105	750	75	525	53	400	120	600	60	280	84	420	42
2+ / 1			600	150	420	105	900	75	630	53	480	120	720	60	336	84	504	42
2+ / 2+			600	200	420	140	900	100	630	70	480	160	720	80	336	112	504	56
1 / 2+			500	200	350	140	750	100	525	70	400	160	600	80	280	112	420	56
12:00 AM	19	10																
12:15 AM	16	7																
12:30 AM	13	8																
12:45 AM	17	8																
1:00 AM	11	6																
1:15 AM	11	6																
1:30 AM	12	5																
1:45 AM	6	5																
2:00 AM	5	4																
2:15 AM	3	4																
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3:45 AM	2	2																
4:00 AM	5	2																
4:15 AM	4	5																
4:30 AM	5	11																
4:45 AM	12	15																
5:00 AM	16	19																
5:15 AM	32	23																
5:30 AM	45	27																
5:45 AM	59	39																
6:00 AM	74	50																
6:15 AM	101	58																
6:30 AM	130	79																
6:45 AM	184	102																
7:00 AM	263	135																
7:15 AM	297	149													1	1		
7:30 AM	333	160																
7:45 AM	344	160																
8:00 AM	342	147																
8:15 AM	377	157		1	1										1	1		
8:30 AM	437	202												1	1			1
8:45 AM	433	191																
9:00 AM	388	179																
9:15 AM	337	154													1	1		
9:30 AM	282	145																
9:45 AM	312	165																

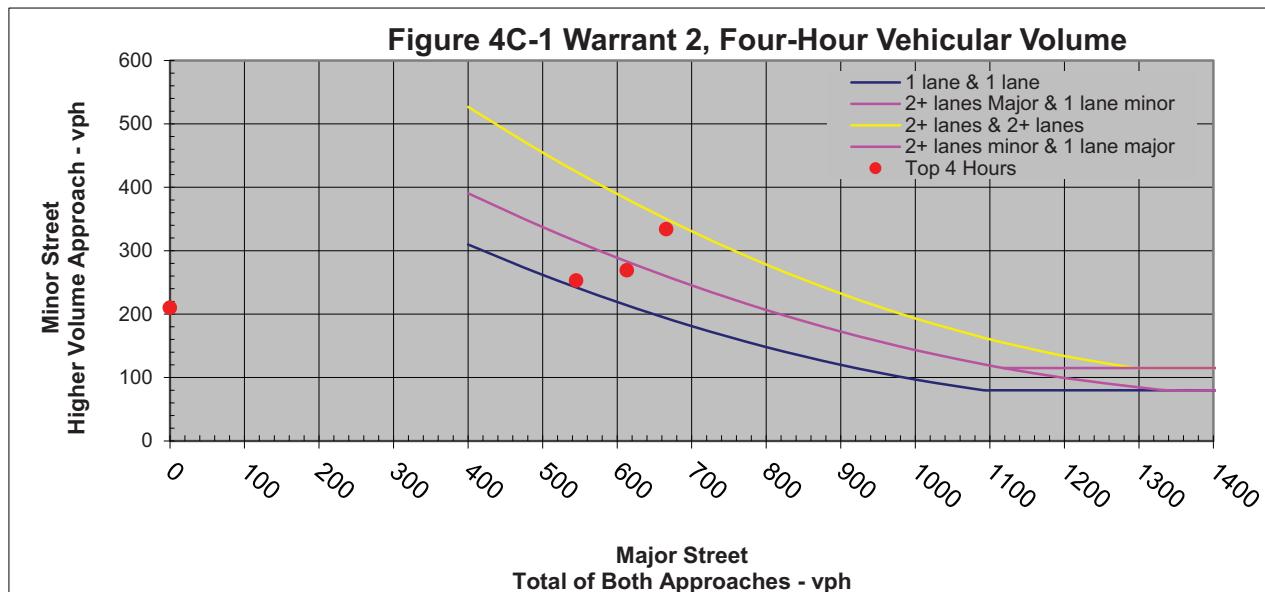
10:00 AM	405	196		1	1				1	1								
10:15 AM	436	186											1	1	1	1		
10:30 AM	440	162																
10:45 AM	415	137																
11:00 AM	383	114		1	1								1	1				
11:15 AM	414	144							1	1			1	1				
11:30 AM	457	172												1	1			
11:45 AM	489	185																
12:00 PM	472	187		1	1								1	1				
12:15 PM	440	172							1	1			1	1				
12:30 PM	432	163													1	1		
12:45 PM	437	145																
1:00 PM	484	170		1	1													
1:15 PM	511	181	1	1					1	1			1	1				
1:30 PM	480	174												1	1			
1:45 PM	455	190																
2:00 PM	398	154		1	1													
2:15 PM	399	160											1	1				
2:30 PM	472	179							1	1					1	1		
2:45 PM	505	188	1	1														
3:00 PM	529	241		1	1			1	1									
3:15 PM	545	253											1	1				
3:30 PM	523	258							1	1					1	1		
3:45 PM	520	262	1	1														
4:00 PM	566	242		1	1			1	1									
4:15 PM	613	269											1	1	1	1		
4:30 PM	650	291							1	1					1	1		
4:45 PM	682	310	1	1														
5:00 PM	695	336		1	1			1	1									
5:15 PM	666	334											1	1	1	1		
5:30 PM	676	338							1	1					1	1		
5:45 PM	654	318	1	1														
6:00 PM	579	261		1	1			1	1									
6:15 PM	518	210												1	1			
6:30 PM	418	149							1	1								
6:45 PM	360	122																
7:00 PM	348	132																
7:15 PM	364	129		1	1									1	1			
7:30 PM	353	133																
7:45 PM	354	123																
8:00 PM	346	100																
8:15 PM	325	125											1	1				
8:30 PM	340	121																
8:45 PM	309	125																
9:00 PM	273	110																
9:15 PM	219	59																
9:30 PM	148	56																
9:45 PM	123	53																
HOURS MET			5	5	11	11	0	0	4	4	10	10	2	2	14	14	9	9
WARRANT SATISFIED?			NO		N/A		NO		N/A		NO				YES			

Warrant Met: **No**

Notes:

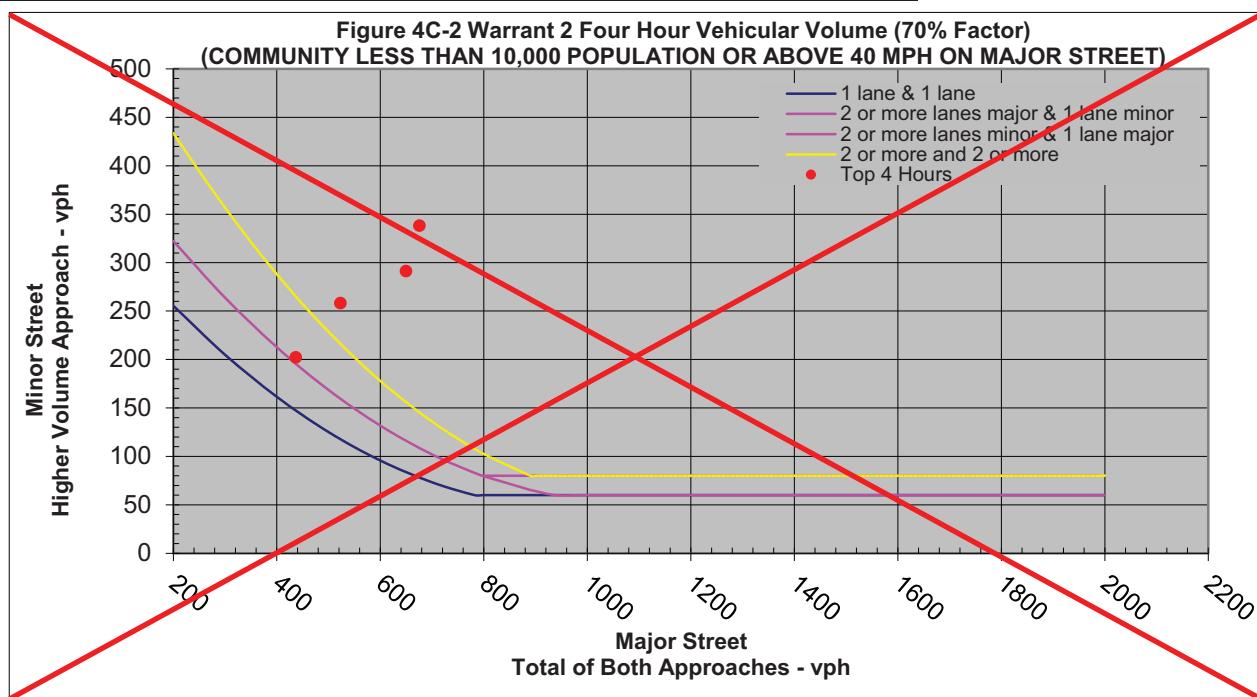
WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach		Total Number of Unique Hours Met on Figure 4C-1				3				
Major street: 1 Lane		Total Number of Unique Hours Met on Figure 4C-2 (70% Factor)				9				
Minor Street: 1 Lane										
Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street?						No				
Hour Interval Beginning At	Raw Traffic Counts				Total Major Approach Volumes	Highest Actual Minor Street Approach Volumes	Hour Met? (70% Factor)			
	Major - Airline Road		Minor - University Blvd							
	N-Bound	S-Bound	W-Bound	E-Bound						
6:00 AM	30	44	50	20	74	50				
6:15 AM	50	51	58	19	101	58				
6:30 AM	72	58	79	28	130	79				
6:45 AM	124	60	102	38	184	102				
7:00 AM	181	82	135	63	263	135				
7:15 AM	195	102	149	97	297	149				
7:30 AM	206	127	160	124	333	160				
7:45 AM	194	150	160	140	344	160				
8:00 AM	174	168	147	138	342	147				
8:15 AM	196	181	157	114	377	157				
8:30 AM	232	205	202	141	437	202	Met			
8:45 AM	218	215	191	144	433	191				
9:00 AM	195	193	179	137	388	179				
9:15 AM	159	178	154	134	337	154				
9:30 AM	130	152	145	95	282	145				
9:45 AM	166	146	165	84	312	165				
10:00 AM	218	187	196	119	405	196	Met			
10:15 AM	232	204	186	118	436	186				
10:30 AM	225	215	162	133	440	162				
10:45 AM	192	223	137	122	415	137				
11:00 AM	161	222	114	104	383	114				
11:15 AM	183	231	144	115	414	144				
11:30 AM	210	247	172	135	457	172	Met			
11:45 AM	229	260	178	185	489	185				
12:00 PM	232	240	176	187	472	187				
12:15 PM	204	236	159	172	440	172				
12:30 PM	204	228	141	163	432	163	Met			
12:45 PM	219	218	145	136	437	145				
1:00 PM	238	246	164	170	484	170				
1:15 PM	260	251	157	181	511	181				
1:30 PM	233	247	148	174	480	174	Met			
1:45 PM	206	249	136	190	455	190				
2:00 PM	171	227	115	154	398	154				
2:15 PM	172	227	130	160	399	160				
2:30 PM	212	260	146	179	472	179	Met			
2:45 PM	229	276	152	188	505	188				
3:00 PM	248	281	149	241	529	241				
3:15 PM	245	300	130	253	545	253	Met			
3:30 PM	221	302	100	258	523	258	Met			
3:45 PM	213	307	102	262	520	262				
4:00 PM	227	339	155	242	566	242				
4:15 PM	252	361	179	269	613	269	Met			
4:30 PM	274	376	179	291	650	291	Met			
4:45 PM	290	392	177	310	682	310				
5:00 PM	328	367	163	336	695	336				
5:15 PM	320	346	157	334	666	334	Met			
5:30 PM	323	353	176	338	676	338	Met			
5:45 PM	321	333	171	318	654	318				
6:00 PM	264	315	161	261	579	261				
6:15 PM	240	278	148	210	518	210				
6:30 PM	210	208	123	149	418	149				
6:45 PM	182	178	122	118	360	122				
7:00 PM	173	175	88	132	348	132				
7:15 PM	178	186	114	129	364	129				
7:30 PM	165	188	100	133	353	133				
7:45 PM	159	195	89	123	354	123				
8:00 PM	166	180	78	100	346	100				



Top Hours for Figure 4C-1				
	Start Time	End Time	Major Street	Minor Street
Top Hour	5:15 PM	6:15 PM	666	334
2nd Highest Hour	4:15 PM	5:15 PM	613	269
3rd Highest Hour	3:15 PM	4:15 PM	545	253
4th Highest Hour	12:00 AM	1:00 AM	0	210

Top Hours for Figure 4C-2				
	Start Time	End Time	Major Street	Minor Street
Top Hour	5:30 PM	6:30 PM	676	338
2nd Highest Hour	4:30 PM	5:30 PM	650	291
3rd Highest Hour	3:30 PM	4:30 PM	523	258
4th Highest Hour	8:30 AM	9:30 AM	437	202



Are the requirements for Warrant 2 met?: No

WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach		Peak Hour Start time	5:00 PM
Major Street:	1 Lane	Peak Hour End Time	6:00 PM
Minor Street:	1 Lane		

Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street?

No

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

No

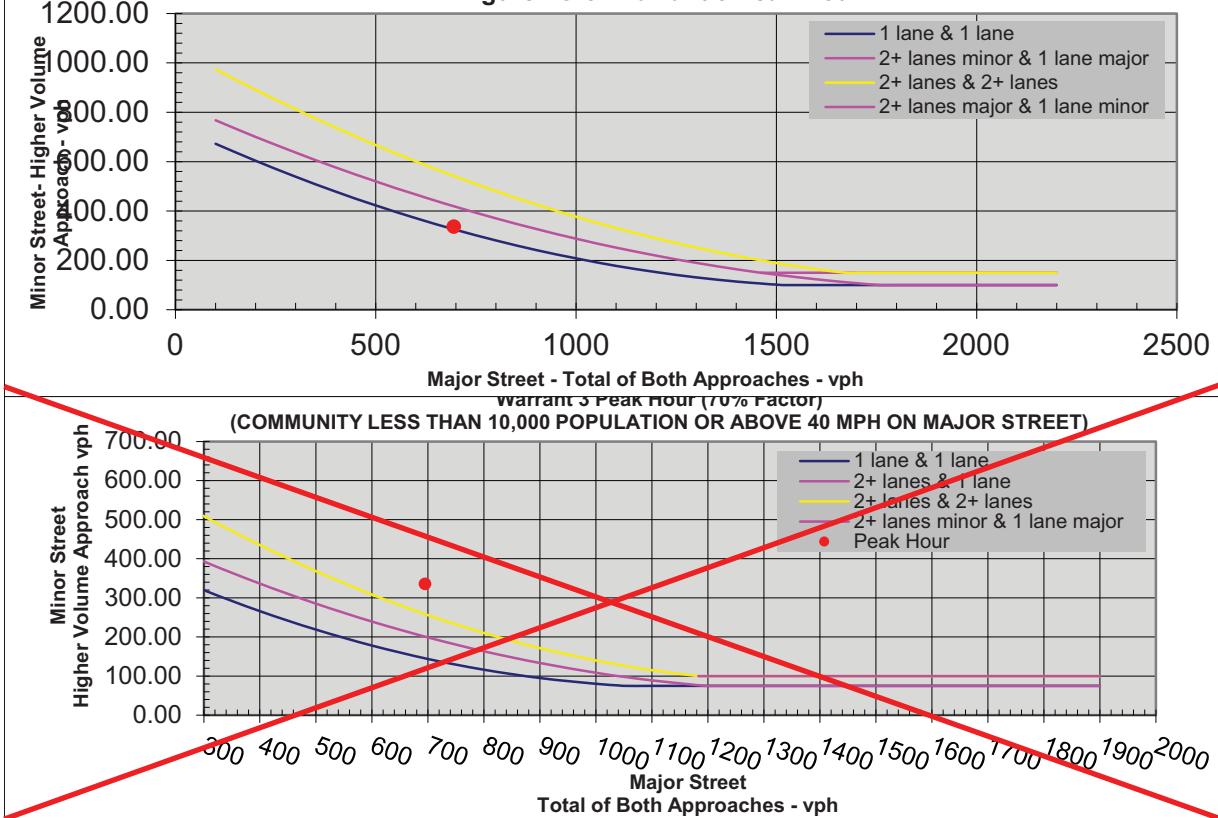
Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes

*If applicable, attach all supporting calculations and documentation.

Are the requirements for Warrant 3 met?: Yes

Figure 4C-3. Warrant 3 Peak Hour



Hour Vehicular Volume					Actual Peak Hour Major Traffic Volume	Actual Peak Hour Minor Traffic Volume	Required Peak Hour Minor Traffic Volume for Fig. 4C-3	Required Peak Hour Minor Traffic Volume for Fig. 4C-4
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Sum of Major Street and Highest Minor Street	Sum of Major Street and Combined Minor Street				
6:00 AM	74	50	124	144				
6:15 AM	101	58	159	178				
6:30 AM	130	79	209	237				
6:45 AM	184	102	286	324				
7:00 AM	263	135	398	461				
7:15 AM	297	149	446	543				
7:30 AM	333	160	493	617				
7:45 AM	344	160	504	644				
8:00 AM	342	147	489	627				
8:15 AM	377	157	534	648				
8:30 AM	437	202	639	780				
8:45 AM	433	191	624	768				
9:00 AM	388	179	567	704				
9:15 AM	337	154	491	625				
9:30 AM	282	145	427	522				
9:45 AM	312	165	477	561				
10:00 AM	405	196	601	720				
10:15 AM	436	186	622	740				
10:30 AM	440	162	602	735				
10:45 AM	415	137	552	674				
11:00 AM	383	114	497	601				
11:15 AM	414	144	558	673				
11:30 AM	457	172	629	764				
11:45 AM	489	185	674	852				
12:00 PM	472	187	659	835				
12:15 PM	440	172	612	771				
12:30 PM	432	163	595	736				
12:45 PM	437	145	582	718				
1:00 PM	484	170	654	818				
1:15 PM	511	181	692	849				
1:30 PM	480	174	654	802				
1:45 PM	455	190	645	781				
2:00 PM	398	154	552	667				
2:15 PM	399	160	559	689				
2:30 PM	472	179	651	797				
2:45 PM	505	188	693	845				
3:00 PM	529	241	770	919				
3:15 PM	545	253	798	928				
3:30 PM	523	258	781	881				
3:45 PM	520	262	782	884				
4:00 PM	566	242	808	963				
4:15 PM	613	269	882	1061				
4:30 PM	650	291	941	1120				
4:45 PM	682	310	992	1169				
5:00 PM	695	336	1031	1194				
5:15 PM	666	334	1000	1157				
5:30 PM	676	338	1014	1190				
5:45 PM	654	318	972	1143				
6:00 PM	579	261	840	1001				
6:15 PM	518	210	728	876				
6:30 PM	418	149	567	690				
6:45 PM	360	122	482	600				
7:00 PM	348	132	480	568				
7:15 PM	364	129	493	607				
7:30 PM	353	133	486	586				
7:45 PM	354	123	477	566				
8:00 PM	346	100	446	524				

WARRANT 4, PEDESTRIAN VOLUME

Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Total of All Pedestrians Crossing Major Street Pedestrians Per Hour (PPH)
6:00 AM	74	12
6:15 AM	101	17
6:30 AM	130	26
6:45 AM	184	45
7:00 AM	263	128
7:15 AM	297	142
7:30 AM	333	150
7:45 AM	344	138
8:00 AM	342	76
8:15 AM	377	114
8:30 AM	437	275
8:45 AM	433	284
9:00 AM	388	272
9:15 AM	337	226
9:30 AM	282	71
9:45 AM	312	90
10:00 AM	405	220
10:15 AM	436	242
10:30 AM	440	233
10:45 AM	415	214
11:00 AM	383	89
11:15 AM	414	101
11:30 AM	457	258
11:45 AM	489	273
12:00 PM	472	293
12:15 PM	440	271
12:30 PM	432	124
12:45 PM	437	158
1:00 PM	484	265
1:15 PM	511	270
1:30 PM	480	266
1:45 PM	455	207
2:00 PM	398	102
2:15 PM	399	164
2:30 PM	472	279
2:45 PM	505	306
3:00 PM	529	285
3:15 PM	545	213
3:30 PM	523	110
3:45 PM	520	99
4:00 PM	566	221
4:15 PM	613	258
4:30 PM	650	240
4:45 PM	682	263
5:00 PM	695	161
5:15 PM	666	149
5:30 PM	676	203
5:45 PM	654	178
6:00 PM	579	160
6:15 PM	518	137
6:30 PM	418	86
6:45 PM	360	85
7:00 PM	348	119
7:15 PM	364	128
7:30 PM	353	125
7:45 PM	354	127
8:00 PM	346	92

Built-up Isolated Community With Less Than 10,000 Population or Above 35 MPH on Major Street? No

15th Percentile Pedestrian Crossing Speed Less than 3.5 f/s?* No

*If applicable, attach all supporting calculations, documentation, and findings.

If 15th Percentile Pedestrian Crossing Speed is Less than 3.5 f/s, Reduce Criterion by (up to 50%):

Is the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross less than 300 feet? No

If the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross is less than 300 feet, will the proposed traffic control signal restrict the progressive movement of traffic? If applicable, attach supporting justification.

Does the intersection meet the 4-Hour Volume? No

Does the intersection meet the Peak Hour? No

Are the Requirements for Warrant 4 Satisfied? No

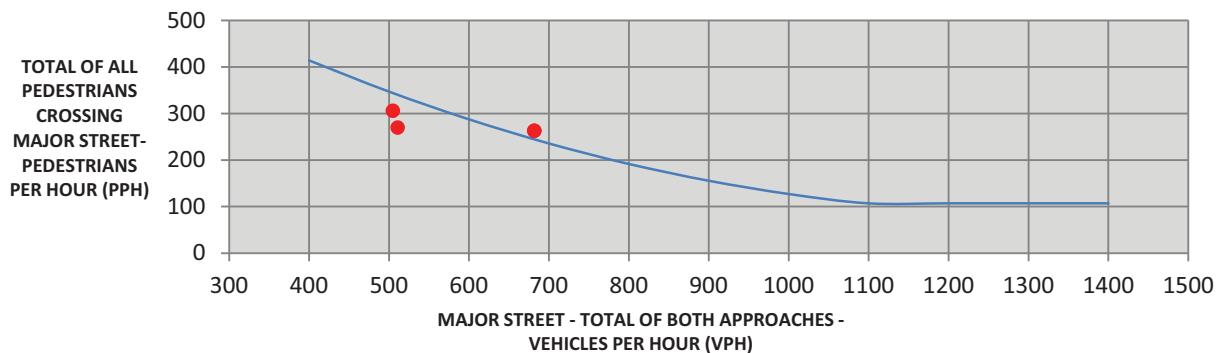
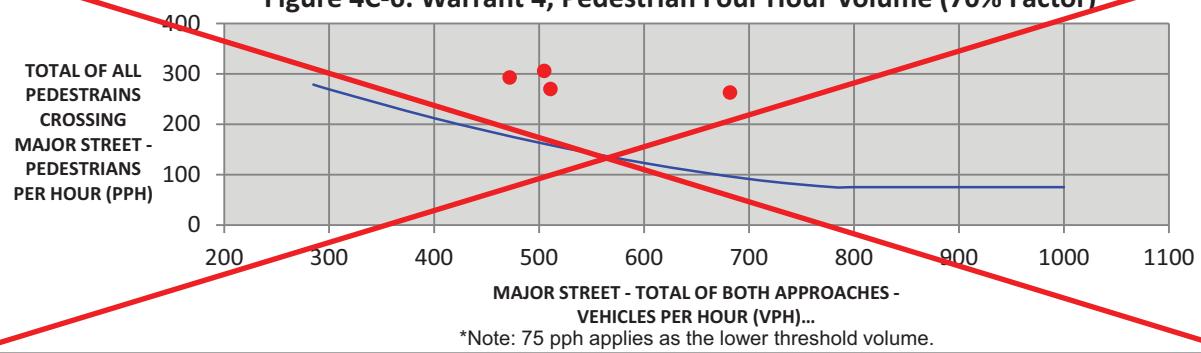
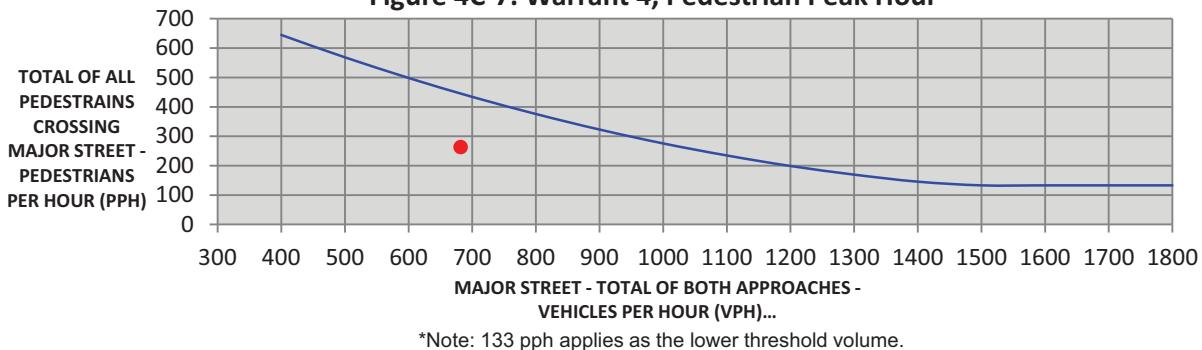
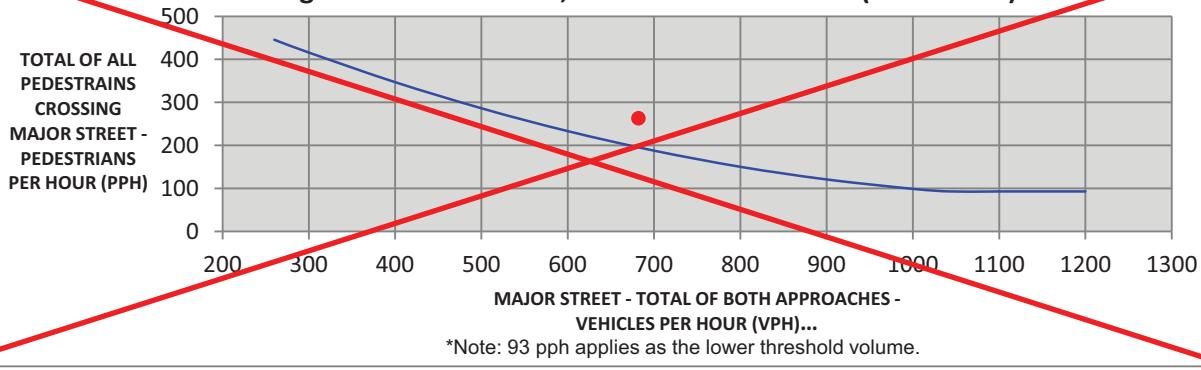
Top Hours for Figure 4C-5	Start Time	End Time	Vehicles	Pedestrians
Top Hour	4:45 PM	5:45 PM	682	263
2nd Highest Hour	4:45 PM	5:45 PM	682	263
3rd Highest Hour	2:45 PM	3:45 PM	505	306
4th Highest Hour	1:15 PM	2:15 PM	511	270

Peak Hour Used for Graphs 4C-7 & 4C-8

Top Hour			
Start Time	End Time	Vehicles	Pedestrians
4:45 PM	5:45 PM	682	263

Number of Hours That Met the 4-Hour Criteria 4C-5 1

Number of Hours That Met the 4-Hour Criteria 4C-6 1

Figure 4C-5. Warrant 4, Pedestrians Four-Hour Volume**Figure 4C-6. Warrant 4, Pedestrian Four Hour Volume (70% Factor)****Figure 4C-7. Warrant 4, Pedestrian Peak Hour****Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street? No

*Only applicable after an adequate trial of other alternatives

Lanes Major/ Minor	Adjusted Volumes		Condition A				Condition B				Combination A/B*							
			100%		70%		100%		70%		80%		80%		56%		56%	
	Major	Minor	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.
1 / 1	X		500	150	350	105	750	75	525	53	400	120	600	60	280	84	420	42
2+ / 1			600	150	420	105	900	75	630	53	480	120	720	60	336	84	504	42
2+ / 2+			600	200	420	140	900	100	630	70	480	160	720	80	336	112	504	56
1 / 2+			500	200	350	140	750	100	525	70	400	160	600	80	280	112	420	56
12:00 AM	27	10																
12:15 AM	24	13																
12:30 AM	16	11																
12:45 AM	18	9																
1:00 AM	16	8																
1:15 AM	12	3																
1:30 AM	16	5																
1:45 AM	14	6																
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6:00 AM	72	49																
6:15 AM	91	56																
6:30 AM	147	84																
6:45 AM	195	121																
7:00 AM	298	149													1	1		
7:15 AM	353	176			1	1												
7:30 AM	378	195																
7:45 AM	440	190															1	1
8:00 AM	443	190															1	1
8:15 AM	438	188			1	1												
8:30 AM	411	203																
8:45 AM	377	202																
9:00 AM	345	217														1	1	
9:15 AM	351	195			1	1												
9:30 AM	358	191																
9:45 AM	346	185																

10:00 AM	362	168										1	1		
10:15 AM	359	160		1	1										
10:30 AM	364	154													
10:45 AM	385	148													
11:00 AM	385	161									1	1			
11:15 AM	446	180		1	1				1	1			1	1	
11:30 AM	467	186													
11:45 AM	477	179													
12:00 PM	508	170	1	1								1	1		
12:15 PM	491	164		1	1				1	1			1	1	
12:30 PM	481	168													
12:45 PM	492	167													
1:00 PM	509	169	1	1							1	1			
1:15 PM	512	166		1	1				1	1			1	1	
1:30 PM	518	165													
1:45 PM	503	176													
2:00 PM	476	168										1	1		
2:15 PM	477	191		1	1				1	1			1	1	
2:30 PM	497	191													
2:45 PM	491	209													
3:00 PM	469	233										1	1		
3:15 PM	466	225		1	1				1	1			1	1	
3:30 PM	501	230	1	1											
3:45 PM	548	232						1	1						
4:00 PM	601	226									1	1	1	1	
4:15 PM	651	257		1	1				1	1			1	1	
4:30 PM	662	307	1	1											
4:45 PM	662	306					1	1							
5:00 PM	648	316									1	1	1	1	
5:15 PM	632	295		1	1				1	1			1	1	
5:30 PM	622	262	1	1											
5:45 PM	564	233						1	1						
6:00 PM	505	204										1	1		
6:15 PM	442	185		1	1				1	1			1	1	
6:30 PM	394	183													
6:45 PM	415	178													
7:00 PM	435	168										1	1		
7:15 PM	414	152		1	1				1	1					
7:30 PM	393	115													
7:45 PM	360	98													
8:00 PM	301	86										1	1		
8:15 PM	277	87													
8:30 PM	255	81													
8:45 PM	233	85													
9:00 PM	221	75													
9:15 PM	196	61													
9:30 PM	174	49													
9:45 PM	137	42													
HOURS MET			5	5	13	13	0	0	3	3	10	10	2	2	14
WARRANT SATISFIED?			NO		N/A		NO		N/A		NO				YES

Warrant Met: **No**

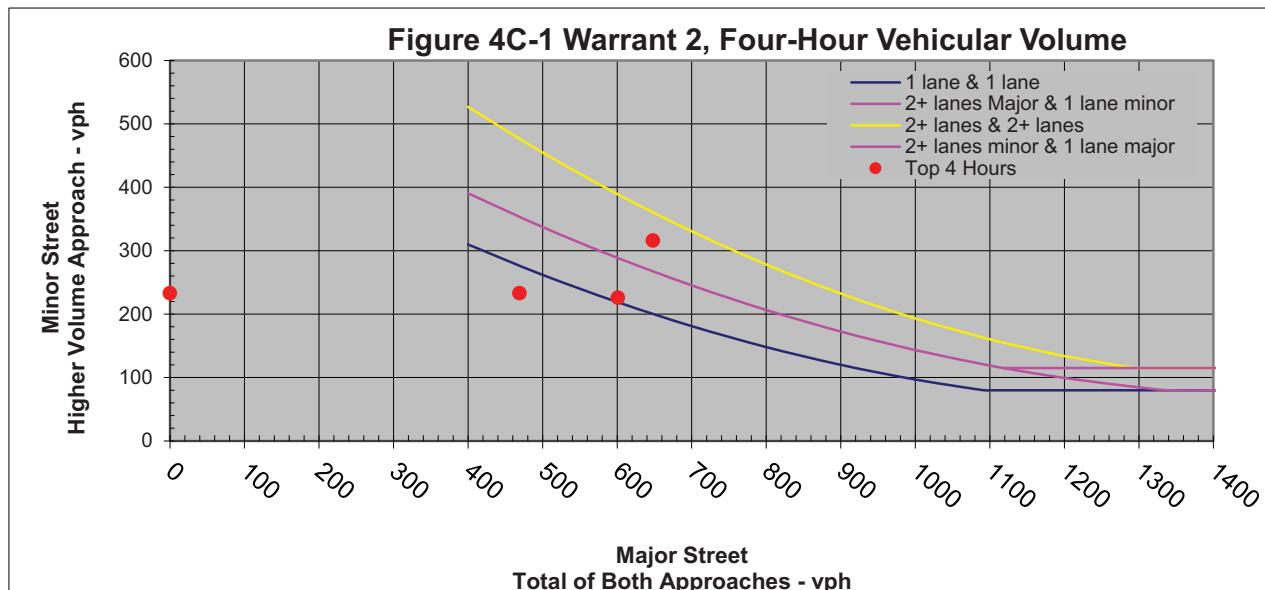
Notes:

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach		Total Number of Unique Hours Met on Figure 4C-1			2
Major street:	1 Lane	Total Number of Unique Hours Met on Figure 4C-2 (70% Factor)			11
Minor Street:	1 Lane				

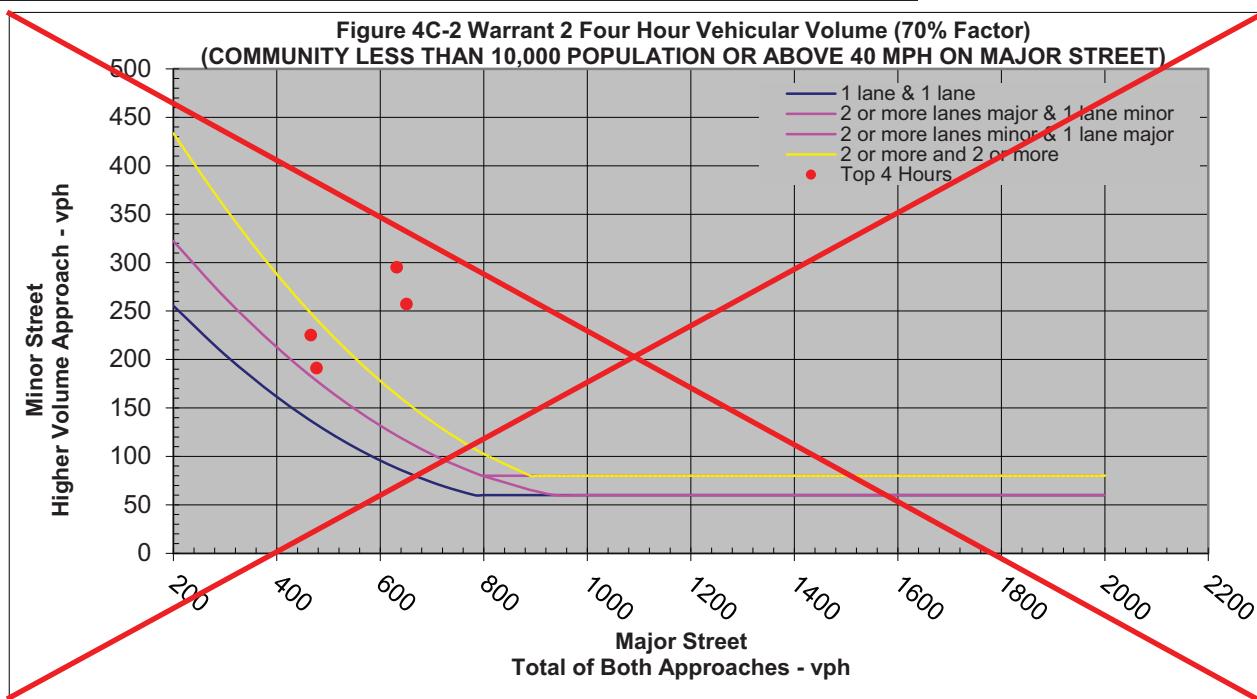
Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street? No

Hour Interval Beginning At	Raw Traffic Counts				Total Major Approach Volumes	Highest Actual Minor Street Approach Volumes	Hour Met?	Hour Met? (70% Factor)				
	Major - Airline Road		Minor - University Blvd									
	N-Bound	S-Bound	W-Bound	E-Bound								
6:00 AM	37	35	49	22	72	49						
6:15 AM	50	41	56	24	91	56						
6:30 AM	79	68	84	25	147	84						
6:45 AM	103	92	121	41	195	121						
7:00 AM	155	143	149	75	298	149						
7:15 AM	177	176	176	114	353	176						
7:30 AM	183	195	195	145	378	195						
7:45 AM	226	214	190	160	440	190						
8:00 AM	231	212	190	164	443	190						
8:15 AM	242	196	188	145	438	188						
8:30 AM	231	180	203	130	411	203						
8:45 AM	210	167	202	112	377	202						
9:00 AM	203	142	217	134	345	217						
9:15 AM	193	158	195	123	351	195						
9:30 AM	190	168	191	142	358	191						
9:45 AM	178	168	185	142	346	185						
10:00 AM	170	192	168	121	362	168						
10:15 AM	173	186	160	118	359	160						
10:30 AM	185	179	154	119	364	154						
10:45 AM	194	191	148	113	385	148						
11:00 AM	199	186	161	125	385	161						
11:15 AM	226	220	180	143	446	180						
11:30 AM	235	232	186	156	467	186						
11:45 AM	248	229	179	166	477	179						
12:00 PM	262	246	157	170	508	170						
12:15 PM	244	247	159	164	491	164						
12:30 PM	242	239	149	168	481	168						
12:45 PM	246	246	157	167	492	167						
1:00 PM	244	265	165	169	509	169						
1:15 PM	260	252	150	166	512	166						
1:30 PM	244	274	159	165	518	165						
1:45 PM	230	273	154	176	503	176						
2:00 PM	211	265	163	168	476	168						
2:15 PM	203	274	161	191	477	191						
2:30 PM	228	269	176	191	497	191						
2:45 PM	233	258	181	209	491	209						
3:00 PM	227	242	164	233	469	233						
3:15 PM	223	243	176	225	466	225						
3:30 PM	227	274	158	230	501	230						
3:45 PM	237	311	144	232	548	232						
4:00 PM	281	320	144	226	601	226						
4:15 PM	306	345	137	257	651	257						
4:30 PM	320	342	158	307	662	307						
4:45 PM	323	339	174	306	662	306						
5:00 PM	300	348	182	316	648	316						
5:15 PM	282	350	188	295	632	295						
5:30 PM	286	336	188	262	622	262						
5:45 PM	262	302	179	233	564	233						
6:00 PM	236	269	164	204	505	204						
6:15 PM	218	224	163	185	442	185						
6:30 PM	192	202	149	183	394	183						
6:45 PM	193	222	142	178	415	178						
7:00 PM	197	238	132	168	435	168						
7:15 PM	187	227	118	152	414	152						
7:30 PM	171	222	103	115	393	115						
7:45 PM	153	207	94	98	360	98						
8:00 PM	138	163	84	86	301	86						



Top Hours for Figure 4C-1				
	Start Time	End Time	Major Street	Minor Street
Top Hour	5:00 PM	6:00 PM	648	316
2nd Highest Hour	4:00 PM	5:00 PM	601	226
3rd Highest Hour	12:00 AM	1:00 AM	0	233
4th Highest Hour	3:00 PM	4:00 PM	469	233

Top Hours for Figure 4C-2				
	Start Time	End Time	Major Street	Minor Street
Top Hour	5:15 PM	6:15 PM	632	295
2nd Highest Hour	4:15 PM	5:15 PM	651	257
3rd Highest Hour	3:15 PM	4:15 PM	466	225
4th Highest Hour	2:15 PM	3:15 PM	477	191



Are the requirements for Warrant 2 met?: No

WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach		Peak Hour Start time	5:00 PM
Major Street:	1 Lane	Peak Hour End Time	6:00 PM
Minor Street:	1 Lane		

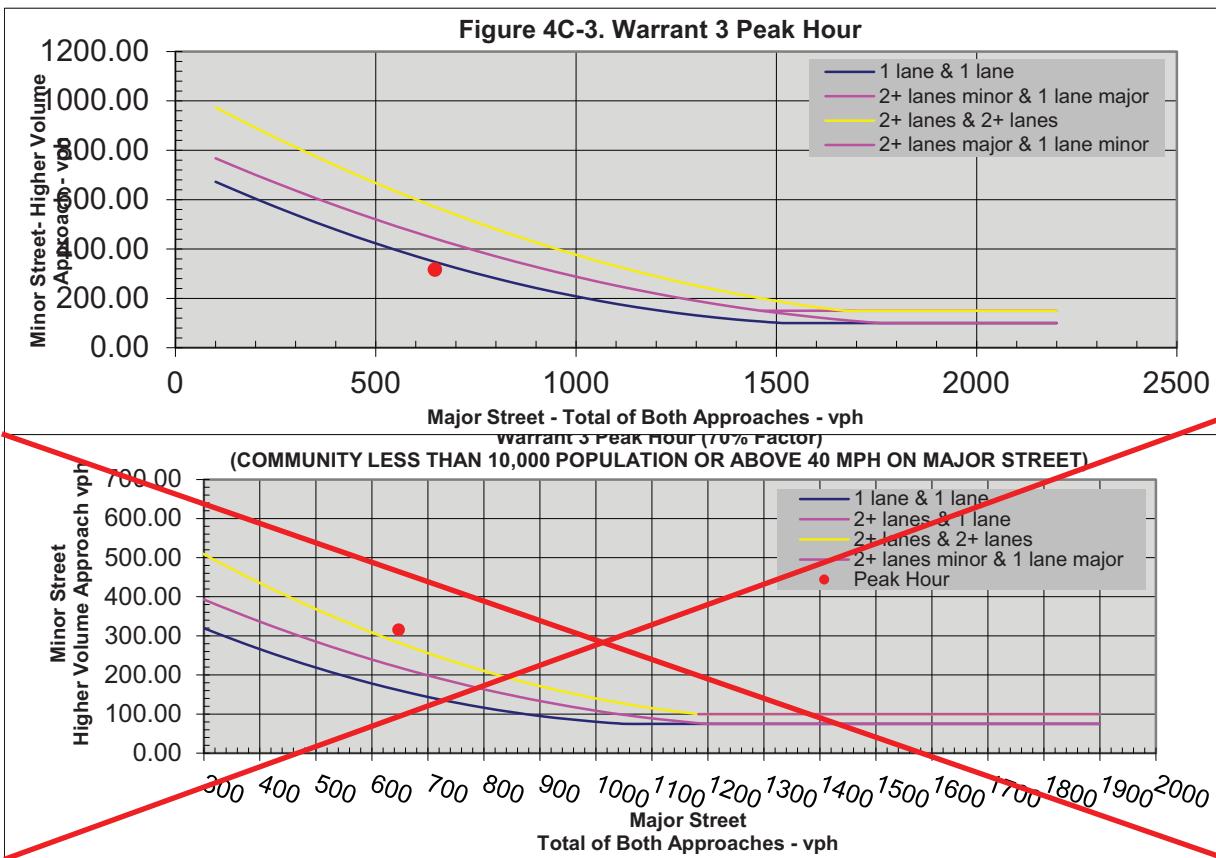
Built up Isolated Community with Less Than 10,000 Population or Above 40 MPH on Major Street?	No
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Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	No
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Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	Yes
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes

*If applicable, attach all supporting calculations and documentation.

Are the requirements for Warrant 3 met?: No



Hour Vehicular Volume					Actual Peak Hour Major Traffic Volume	Actual Peak Hour Minor Traffic Volume	Required Peak Hour Minor Traffic Volume for Fig. 4C-3	Required Peak Hour Minor Traffic Volume for Fig. 4C-4
Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Highest Minor Street Approach Vehicles Per Hour (VPH)	Sum of Major Street and Highest Minor Street	Sum of Major Street and Combined Minor Street				
6:00 AM	72	49	121	143				
6:15 AM	91	56	147	171				
6:30 AM	147	84	231	256				
6:45 AM	195	121	316	357				
7:00 AM	298	149	447	522				
7:15 AM	353	176	529	643				
7:30 AM	378	195	573	718				
7:45 AM	440	190	630	790				
8:00 AM	443	190	633	797				
8:15 AM	438	188	626	771				
8:30 AM	411	203	614	744				
8:45 AM	377	202	579	691				
9:00 AM	345	217	562	696				
9:15 AM	351	195	546	669				
9:30 AM	358	191	549	691				
9:45 AM	346	185	531	673				
10:00 AM	362	168	530	651				
10:15 AM	359	160	519	637				
10:30 AM	364	154	518	637				
10:45 AM	385	148	533	646				
11:00 AM	385	161	546	671				
11:15 AM	446	180	626	769				
11:30 AM	467	186	653	809				
11:45 AM	477	179	656	822				
12:00 PM	508	170	678	835				
12:15 PM	491	164	655	814				
12:30 PM	481	168	649	798				
12:45 PM	492	167	659	816				
1:00 PM	509	169	678	843				
1:15 PM	512	166	678	828				
1:30 PM	518	165	683	842				
1:45 PM	503	176	679	833				
2:00 PM	476	168	644	807				
2:15 PM	477	191	668	829				
2:30 PM	497	191	688	864				
2:45 PM	491	209	700	881				
3:00 PM	469	233	702	866				
3:15 PM	466	225	691	867				
3:30 PM	501	230	731	889				
3:45 PM	548	232	780	924				
4:00 PM	601	226	827	971				
4:15 PM	651	257	908	1045				
4:30 PM	662	307	969	1127				
4:45 PM	662	306	968	1142				
5:00 PM	648	316	964	1146				
5:15 PM	632	295	927	1115				
5:30 PM	622	262	884	1072				
5:45 PM	564	233	797	976				
6:00 PM	505	204	709	873				
6:15 PM	442	185	627	790				
6:30 PM	394	183	577	726				
6:45 PM	415	178	593	735				
7:00 PM	435	168	603	735				
7:15 PM	414	152	566	684				
7:30 PM	393	115	508	611				
7:45 PM	360	98	458	552				
8:00 PM	301	86	387	471				

WARRANT 4, PEDESTRIAN VOLUME

Hour Interval Beginning At	Major Street Combined Vehicles Per Hour (VPH)	Total of All Pedestrians Crossing Major Street Pedestrians Per Hour (PPH)
6:00 AM	72	8
6:15 AM	91	11
6:30 AM	147	11
6:45 AM	195	34
7:00 AM	298	97
7:15 AM	353	117
7:30 AM	378	134
7:45 AM	440	149
8:00 AM	443	262
8:15 AM	438	258
8:30 AM	411	247
8:45 AM	377	235
9:00 AM	345	195
9:15 AM	351	204
9:30 AM	358	215
9:45 AM	346	224
10:00 AM	362	225
10:15 AM	359	234
10:30 AM	364	232
10:45 AM	385	236
11:00 AM	385	253
11:15 AM	446	243
11:30 AM	467	261
11:45 AM	477	272
12:00 PM	508	253
12:15 PM	491	254
12:30 PM	481	233
12:45 PM	492	220
1:00 PM	509	226
1:15 PM	512	232
1:30 PM	518	234
1:45 PM	503	232
2:00 PM	476	170
2:15 PM	477	158
2:30 PM	497	181
2:45 PM	491	176
3:00 PM	469	158
3:15 PM	466	153
3:30 PM	501	135
3:45 PM	548	143
4:00 PM	601	195
4:15 PM	651	255
4:30 PM	662	275
4:45 PM	662	284
5:00 PM	648	245
5:15 PM	632	221
5:30 PM	622	228
5:45 PM	564	207
6:00 PM	505	168
6:15 PM	442	157
6:30 PM	394	170
6:45 PM	415	175
7:00 PM	435	168
7:15 PM	414	164
7:30 PM	393	140
7:45 PM	360	126
8:00 PM	301	123

Built-up Isolated Community With Less Than 10,000 Population or Above 35 MPH on Major Street? No

15th Percentile Pedestrian Crossing Speed Less than 3.5 f/s?* No

*If applicable, attach all supporting calculations, documentation, and findings.

If 15th Percentile Pedestrian Crossing Speed is Less than 3.5 f/s, Reduce Criterion by (up to 50%):

Is the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross less than 300 feet? No

If the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross is less than 300 feet, will the proposed traffic control signal restrict the progressive movement of traffic? If applicable, attach supporting justification.

Does the intersection meet the 4-Hour Volume? No

Does the intersection meet the Peak Hour? No

Are the Requirements for Warrant 4 Satisfied? No

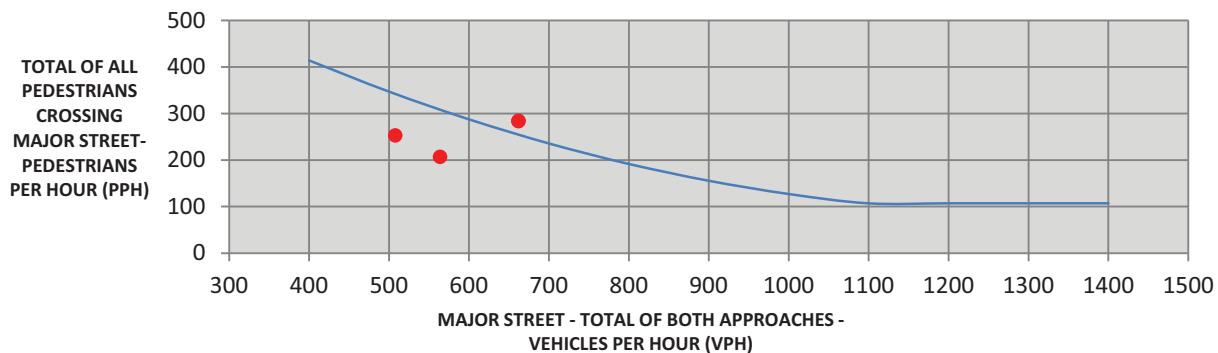
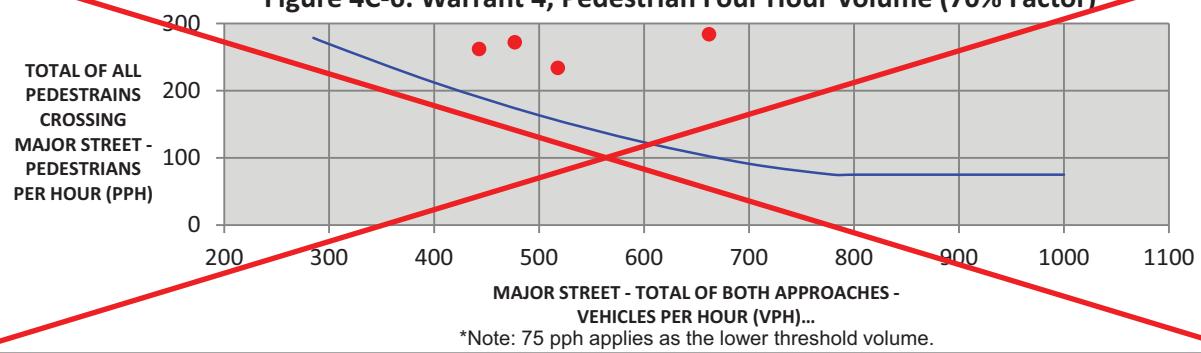
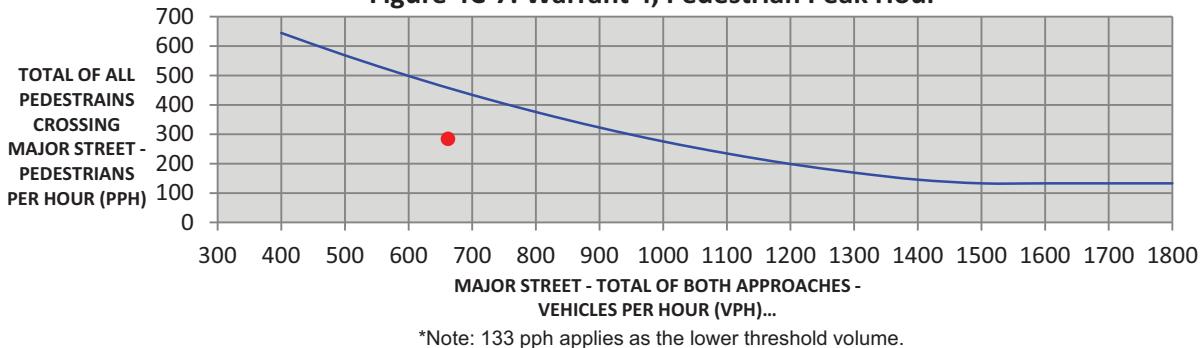
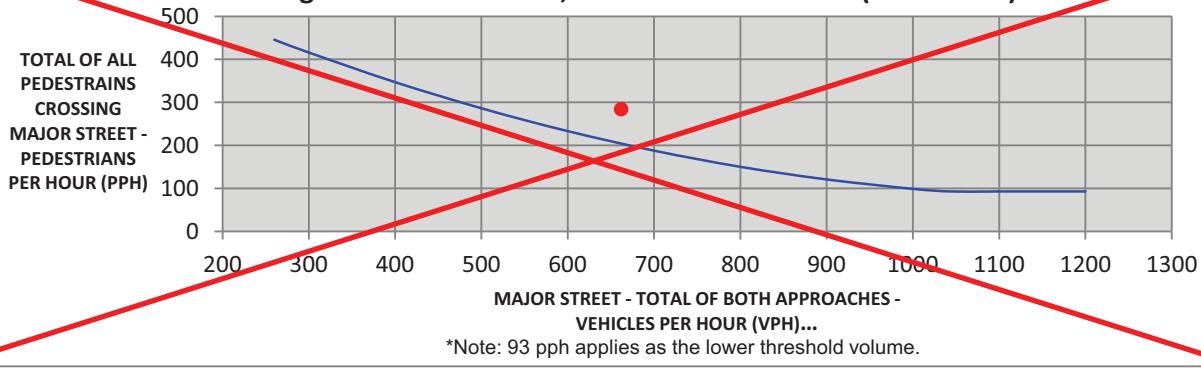
	Top Hours for Figure 4C-5	Start Time	End Time	Vehicles	Pedestrians
1:00 PM	Top Hour	4:30 PM	5:30 PM	662	284
1:15 PM	2nd Highest Hour	4:30 PM	5:30 PM	662	284
1:30 PM	3rd Highest Hour	12:00 PM	1:00 PM	508	253
1:45 PM	4th Highest Hour	5:45 PM	6:45 PM	564	207
2:00 PM					
2:15 PM	Top Hours for Figure 4C-6	Start Time	End Time	Vehicles	Pedestrians
2:30 PM	Top Hour	4:30 PM	5:30 PM	662	284
2:45 PM	2nd Highest Hour	11:45 AM	12:45 PM	477	272
3:00 PM	3rd Highest Hour	1:30 PM	2:30 PM	518	234
3:15 PM	4th Highest Hour	8:00 AM	9:00 AM	443	262
3:30 PM					

Peak Hour Used for Graphs 4C-7 & 4C-8

Top Hour			
Start Time	End Time	Vehicles	Pedestrians
4:30 PM	5:30 PM	662	284

Number of Hours That Met the 4-Hour Criteria 4C-5 2

Number of Hours That Met the 4-Hour Criteria 4C-6 2

Figure 4C-5. Warrant 4, Pedestrians Four-Hour Volume**Figure 4C-6. Warrant 4, Pedestrian Four Hour Volume (70% Factor)****Figure 4C-7. Warrant 4, Pedestrian Peak Hour****Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**

Appendix C

Recommended Improvements Exhibit

N
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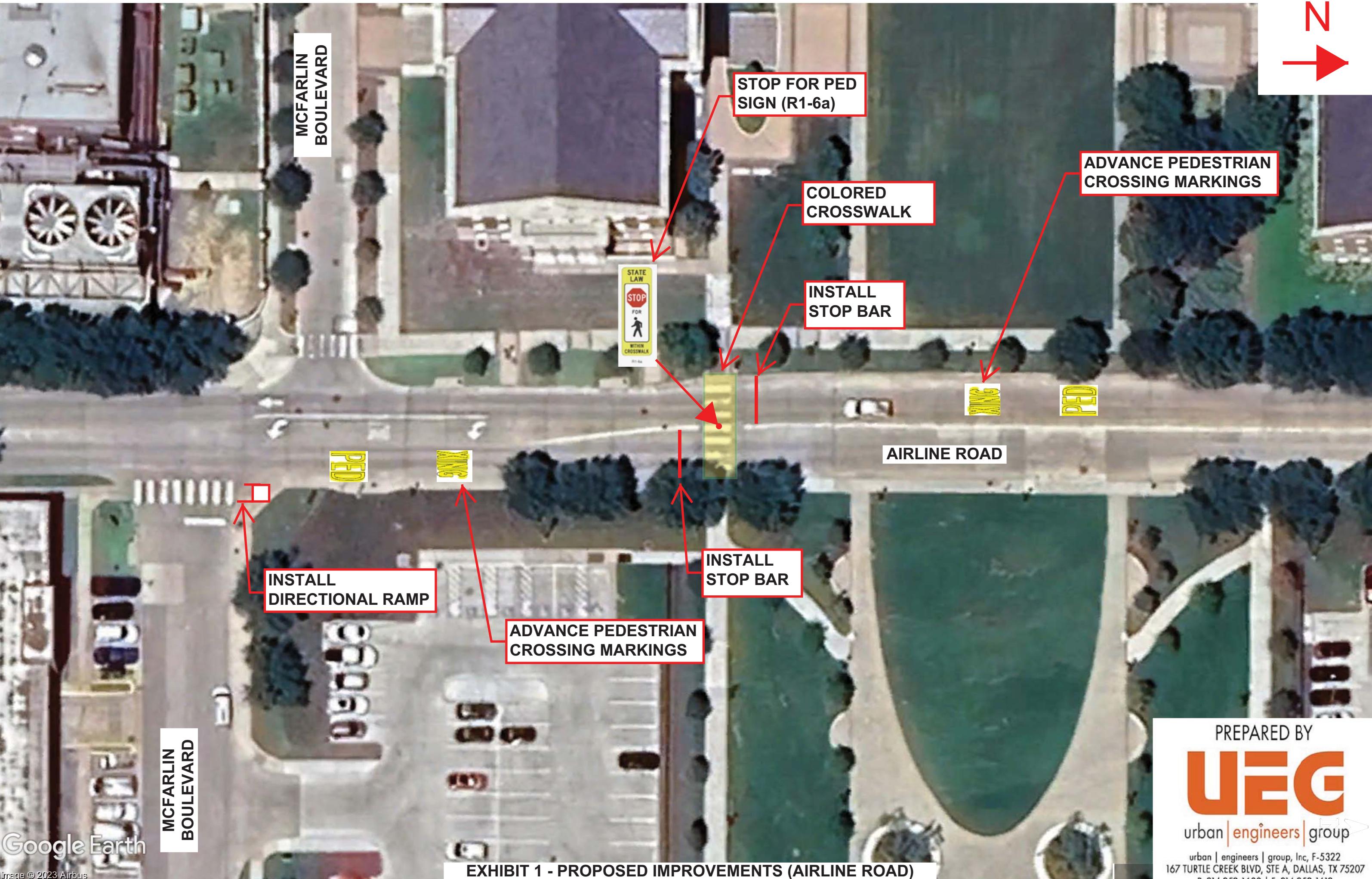


EXHIBIT 1 - PROPOSED IMPROVEMENTS (AIRLINE ROAD)

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