Transportation Study
Lee Farm

April 18, 2025
December 2, 2024
April 11, 2022

Prepared for:
DR Horton

Rollins Consult LLC

Table of Contents

List of Figures

List of Tables

1 INTRODUCTION

This report documents the results of a study to evaluate the potential traffic impacts of the proposed Lee Farm project in the City of Loveland, Colorado. Rollins Consult LLC conducted the study as required for the project's development application.

PROJECT DESCRIPTION

The Lee Farm project is in the City of Loveland, west of Wilson Avenue at 35th Street. Figure 1 illustrates the project location and study area. The project site is approximately 240 acres. The site is surrounded by residential developments to the north, east, and south. East of the former Woodward Governor site. Undeveloped land exists to the west of the site.

The project site is depicted on Figure 2. The site was designed with a roadway network that connects to several adjacent streets. The project proposes the following land uses and transportation elements:

- The full buildout will include 513 single family homes, 316 duplex dwelling units, and 190 multi-family units.
- Access to the completed project would be via numerous connections at: the former Woodward Governor access (right turns into and out of the project only) at Wilson Avenue, 35th Street at Wilson Avenue, 43rd Street, and 29th Street. The site will connect existing adjacent neighborhoods at locations planned by the City. This includes connections to the existing New Castle Drive to the south and both La Veta Drive and Julesberg Drive to the north.
- The initial phase of the Lee Farm project will include 137 single family homes and 150 duplex dwelling units. It is anticipated that the first phase would be completed by 2029.
- The initial phase of Lee Farm will connect to the existing transportation network at Woodward Governor, 35th Street, and New Castle Drive. The internal roads that connect to Woodward and 35th are planned as Collector roads.
- There are numerous pedestrian/bicycle trails within the plan.

Figure 1 – Project Location

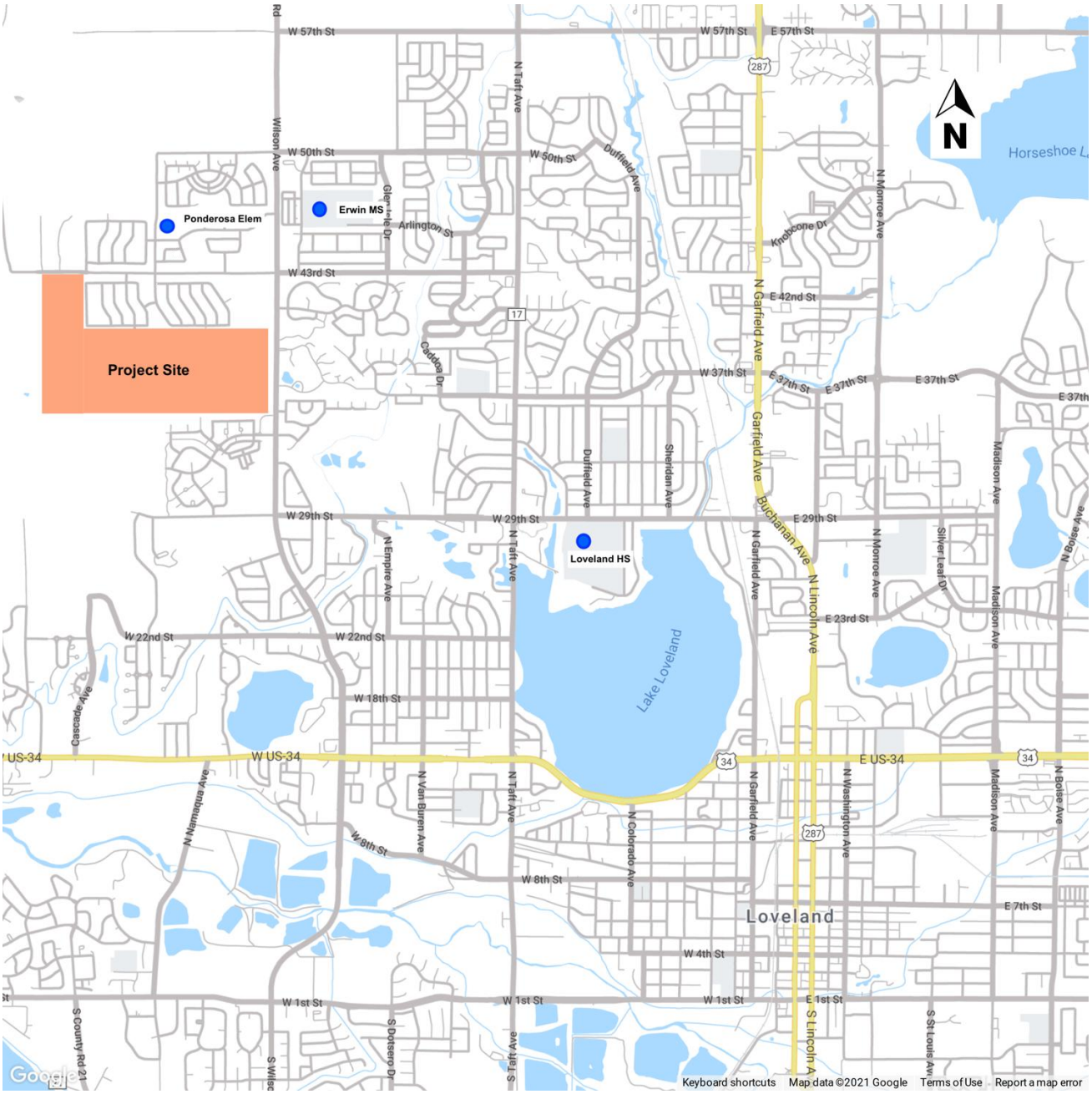
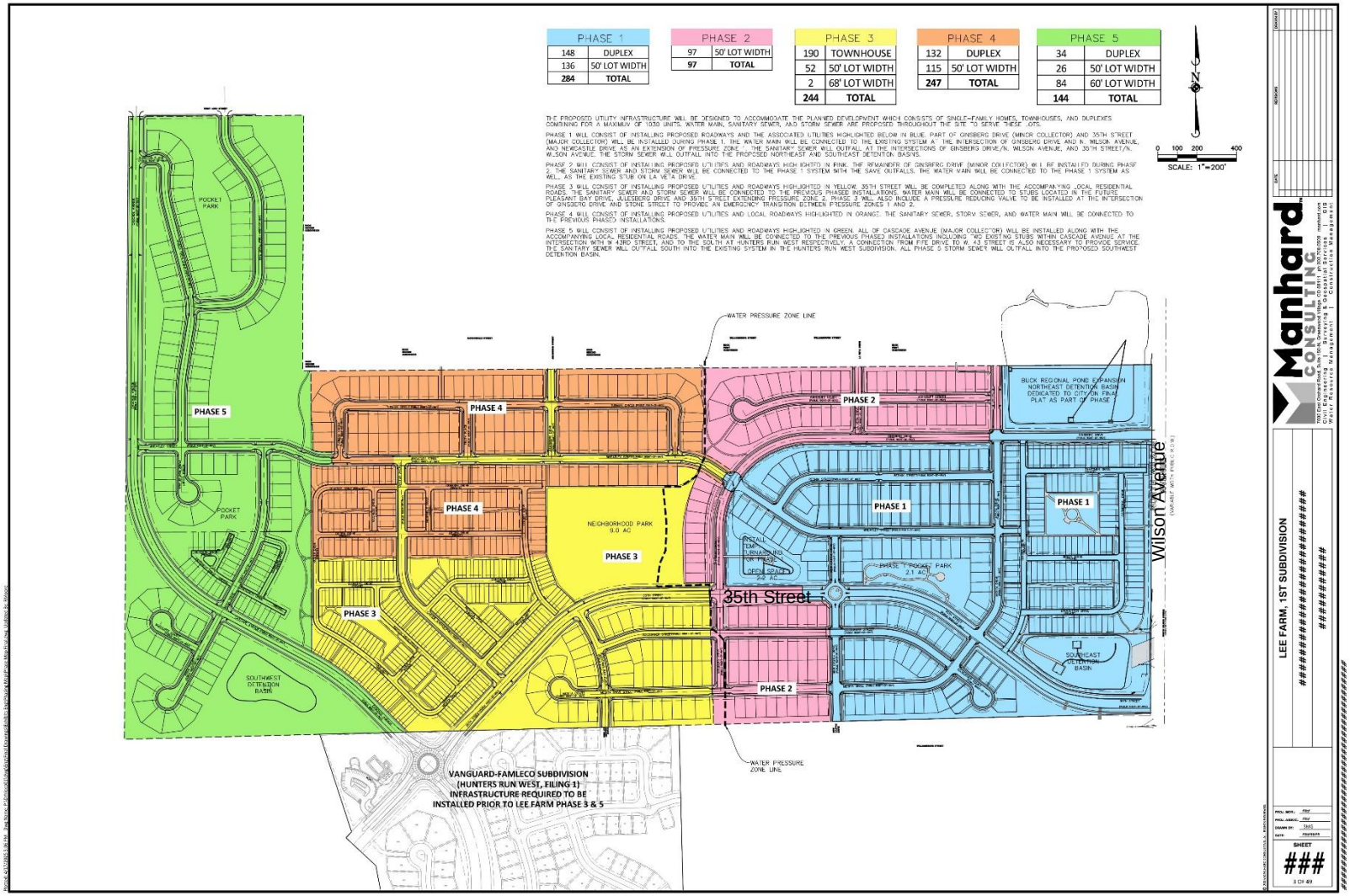


Figure 2 – Site Plan



STUDY SCOPE

The scope of work for this study was developed in conjunction with the City of Loveland. The base assumptions, technical methodologies, and geographic coverage of the study were all identified as part of the study approach. The base assumption form is provided in Appendix A. The study analyzes the potential project-generated traffic impacts on the adjacent street system.

The study evaluates the potential changes to the transportation system after the completion of the proposed Lee Farm project for two future horizon years. The analysis of future year traffic forecasts is based on projected conditions in the years 2029 (short range conditions) and 2044 (long range future conditions) both with and without the addition of the project traffic. The following transportation scenarios were analyzed for the AM and PM peak hours:

- **Existing Conditions** – The analysis of existing traffic conditions provides a basis for the remainder of the study. The existing transportation system is described. Peak hour intersection operations are evaluated.
- **Project Travel Demand** – The traffic generated by the Project will be estimated, distributed, and assigned to the transportation network.
- **2029 and 2044 Background Conditions** – Future traffic conditions are projected without the proposed Project for the project buildout year 2029 and the long range future year 2044. The traffic volumes on the roadway system will be factored and analyzed to reflect conditions for 2029 and 2044. This analysis will include the consideration of additional traffic from other projects.
- **Total Future Conditions** – The traffic associated with the project will be added to the Background traffic. The intersection operations will be determined.
- **Review of Access to Schools and Transit** – Access from the site to nearby schools and transit facilities will be documented.

The study examined five intersections near the project site. These were identified by the City of Loveland for inclusion in the study. The study intersections are listed below.

1. Wilson Avenue at 43rd Street
2. Wilson Avenue at Woodward Governor's main access
3. Wilson Avenue at 35th Street
4. Wilson Avenue at 29th Street
5. Florence Drive at 43rd Street

The City identified two streets to be included in the study, Florence Drive and LaVeta Drive.

2 EXISTING CONDITIONS

The transportation system has numerous elements that are described in this chapter. The roadway network is described, and traffic volume information is presented for the study intersections and roadway segments.

ADJACENT LANDUSE

The Project site is located west of Wilson Avenue at 35th Street. The site is currently undeveloped land and is located to the west of downtown Loveland. The site is adjacent to undeveloped land, residential areas, and the former Woodward Governor offices (to the east).

TRANSPORTATION NETWORK

The primary roadways that serve the Project site are described below. Roadway designations were provided in the *City of Loveland 2044 Roadway Network,* provided in the *Connect Loveland Transportation Master Plan,* (CLTMP) April 2020.

Roadway Network

Wilson Avenue – This is a four-lane north/south Major Arterial road. The roadway has a center left-turn lane, sidewalks on both sides (except adjacent to some undeveloped parcels north of 43rd Street), and striped bike lanes. The speed limit is 45 mph north of 29th Street and 35 mph south of 29th Street. The City of Loveland transit service, COLT, provides service along Wilson Avenue, via Route 2.

43rd Street – This is an east/west arterial street. East of Wilson Avenue, this is a four-lane Major Arterial with a speed limit of 35 mph. West of Wilson Avenue, the road is a two-lane Minor Arterial with a posted speed limit of 40 mph. This west section of 43rd Street has a center left-turn lane. There are striped bike lanes on both sides of 43rd Street. Sidewalks are present adjacent to developed neighborhoods. Sidewalks are missing adjacent to undeveloped parcels west of Wilson Avenue. COLT route 2, operates on 43rd Street to the east of Wilson Avenue. 43rd Street ends to the west of the Buck Horn Village neighborhood (west of Wilson Avenue). There is a school zone with flashing signals, signage, and a crosswalk on 43rd Street at Florence Drive.

35th Street – This short section of road is a connector to the Fairway West 6th filing neighborhood. This two-lane east/west street provides access to the adjacent residences. There are sidewalks on both sides of the street. No speed limit is posted.

29th Street – An east/west arterial road, 43rd provides four lanes east of Wilson Avenue and 2 lanes west of Wilson Avenue. 29th Street is classified as a Major Arterial east of Wilson Avenue and a Minor Arterial west of Wilson. A center left-turn lane is provided. There are striped bike lanes on both sides of the street east of Wilson. West of Wilson there are bike lanes on both sides except adjacent to some undeveloped parcels. In this section, there are sidewalks on the north side and the south side adjacent to the City Fire Station #2. East of Wilson, there are sidewalks on

both sides of 29th Street. The speed limit on 29th Street is posted at 35 mph. 29th Street currently ends at Mahaffey Park. In the future, it is planned to extend to the north and connect to the adjacent neighborhoods including Lee Farm.

Florence Drive - This north south street is a two lane road. North of 43rd Street, it is classified as a minor collector and south of 43rd Street is a local street. The speed limit is posted at 25 mph. There are sidewalks on both side of the street. Parking is allowed. Ponderosa Elementary School is located on Florence Drive north of 43rd Street. There is a school zone with flashing signals, signage, and a crosswalk on Florence Drive at the school.

La Veta Drive - This north south local street is a two lane road. La Veta Drive is within the existing Buck Horn Village residential area north of the project site. La Veta was planned to connect to the Lee Farm Project. There are sidewalks and on-street parking on both side of the street. A raised pedestrian crossing is present and connects internal trails within the neighborhood.

Julesberg Drive - This north south street is a two lane road. Between 43rd Street and Downieville Street it is considered a minor collector, south of Downieville it is a local street. Julesberg Drive is within the existing Buck Horn Village residential area north of the project site. When the Buck Horn Village was planned, Julesberg Drive was designed to connect to the Lee Farm Project. There are sidewalks and on-street parking on both side of the street. A raised pedestrian crossing is present and connects internal trails within the neighborhood.

Pedestrian, Bicycle, and Transit Network

There are pedestrian and bicycle facilities on the study roads east of Wilson Avenue. West of Wilson is an area that is currently developing. There are sidewalks and bicycle facilities adjacent to areas that have developed. Sections of sidewalks are missing from each of the study roads where undeveloped land exists. The study area has bicycle lanes on each side of the road except on the south side of 29th Street just west of Wilson Avenue. There are no bicycle lanes on Florence Drive.

The COLT serves the study area with Route 2. There is a bus stop at the intersection of Wilson Avenue and 35th Street that will serve the Lee Farm project. This is a circulator in the northwest area of Loveland. It operates with two buses per hour. This service operates as a one-way loop and provides connections to the North and West Transfer Points.

EXISTING TRAFFIC CONDITIONS

Existing intersection operations were evaluated for both the morning and evening peak hours. Intersection count data was collected in August of 2021 and for Florence Drive at 43rd Street in September 2024. The daily traffic counts on Julesburg and La Veta Drives were collected September 2024. The August 2021 counts were factored up by 3% to reflect conditions in 2024. Appendix B includes the intersection turning movement and daily count data. The resulting peak hour turning movement volumes are provided on

Figure 3. The current lane configurations of the study intersections are shown on Figure 4. The existing daily counts are provided on Figure 5.

Figure 3 – Existing Peak Hour Traffic Volumes

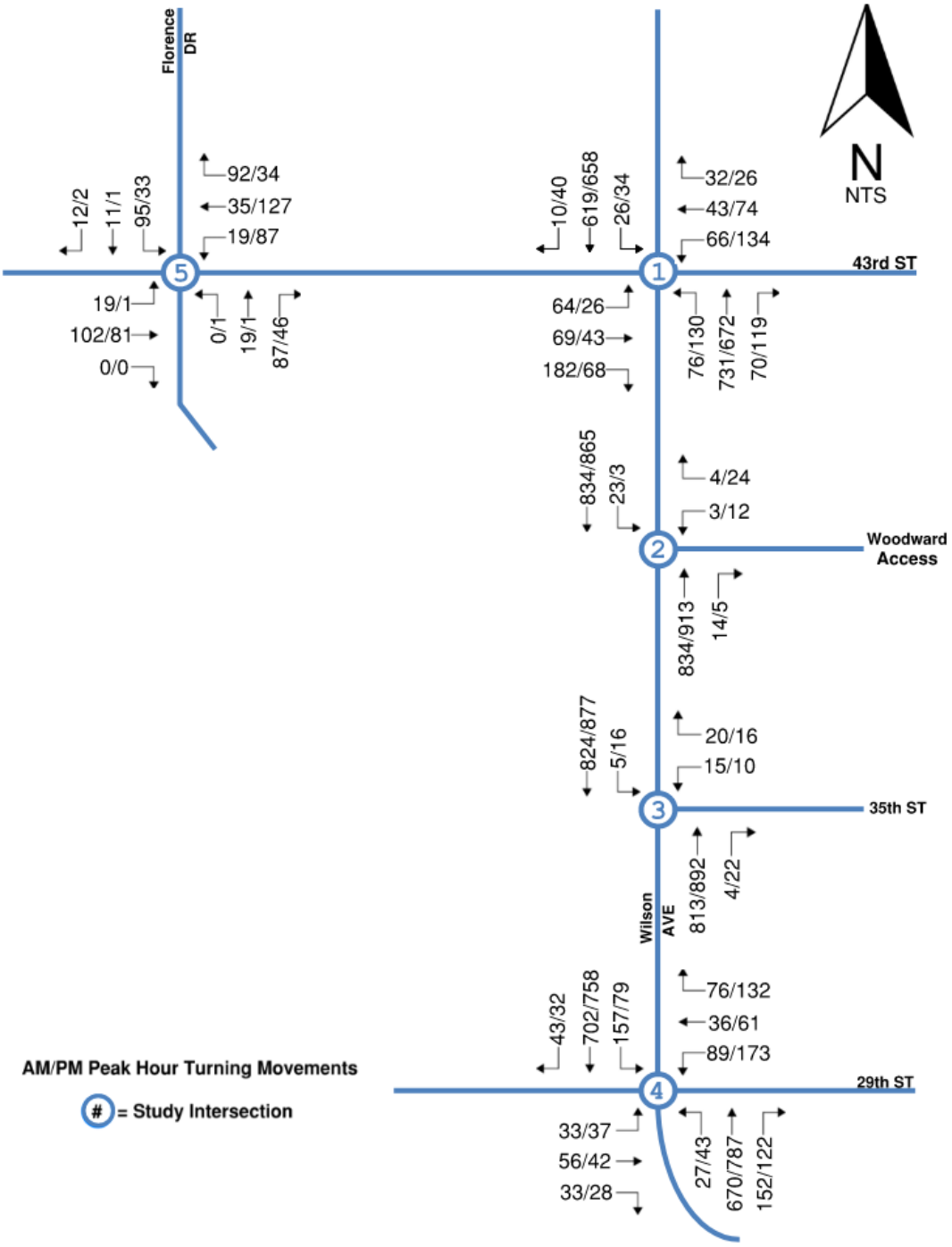


Figure 4 – Existing Lane Configurations

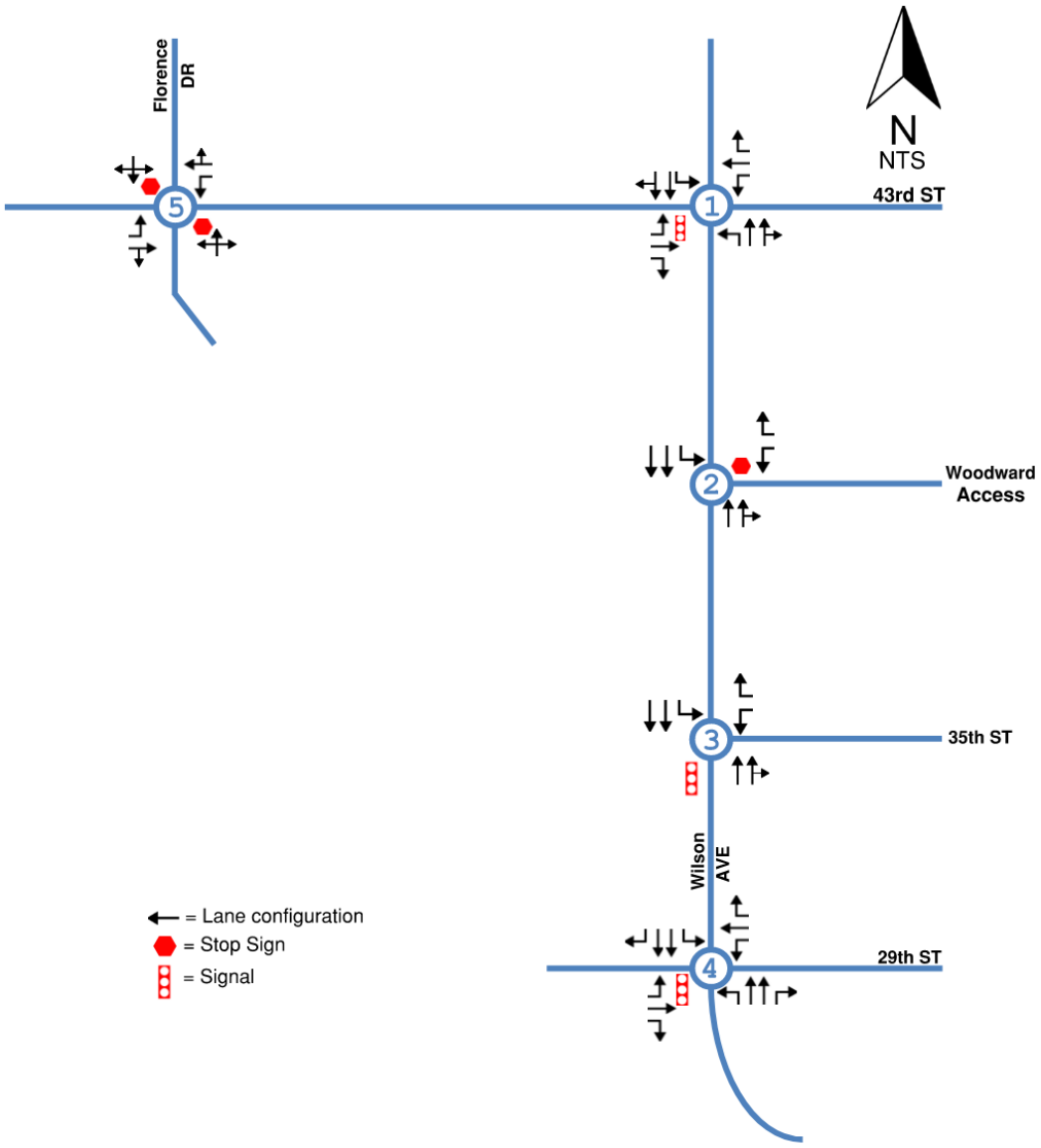
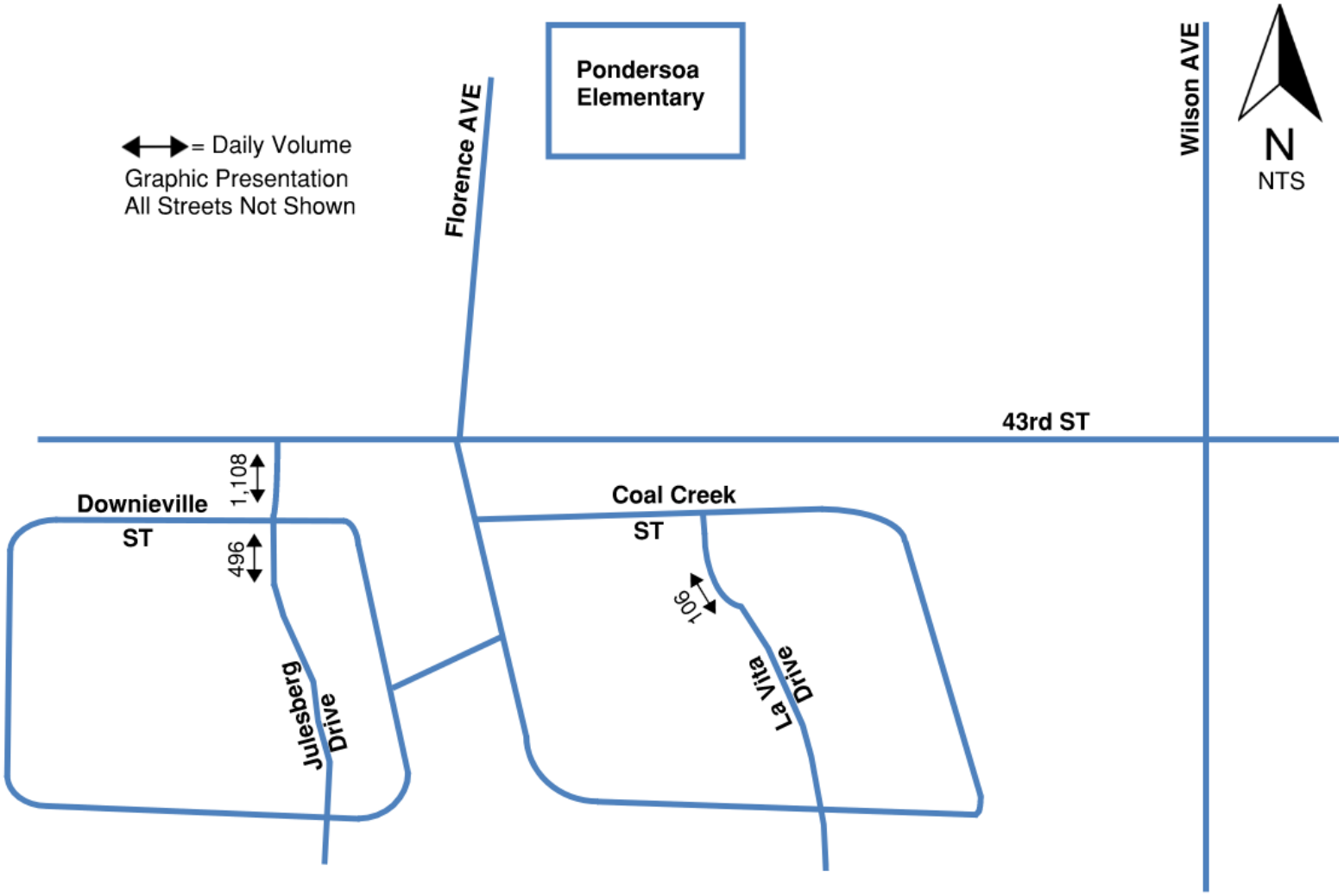


Figure 5 – Existing Daily Volumes



Intersection Level of Service Analysis Methodologies

Transportation professionals evaluate intersections to determine how they are currently operating and will operate in the future. The methods employed can be found in the Transportation Research Board's, 6th Edition, 2016 *Highway Capacity Manual* (HCM). Level of service (LOS) is based on a "graded" system from LOS A, with very little to no delays to LOS F which represents excessive delays and congestion. Table 1 provides the City of Loveland thresholds for acceptable levels of service. The table is from the *Larimer County Urban Area Street Standards* (LCUASS), August 1, 2021.

Table 1 Intersection Level of Service Thresholds

Intersection Component	Major Intersection[1]	Minor Intersection[2]	Driveway
Overall (City Limits)	LOS C	LOS C	No Limit
Overall (GMAs)	LOS D	LOS D	No Limit
Any Leg	LOS D	LOS E	No Limit
Any Movement	LOS E	LOS F	No Limit

[1] Includes all signalized and unsignalized arterial/arterial and arterial/ major collector intersections.
[2] Includes all unsignalized intersections (except major intersections) and high volume driveways
[3] There are no LOS standards for I-25 Interchanges.
[4] On State Highways, overall LOS D is acceptable.

Signalized Intersection

Peak hour levels of motor vehicle delay at signalized intersections were estimated using methods provided in the HCM. This operations analysis method uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Table 2 summarizes the relationship between average control delay per vehicle and LOS for signalized intersections.

Table 2 Signalized Intersection Level of Service Definitions

Level of Service	Average Control Delay Per Vehicle (Seconds)	Description
A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally, occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion becomes more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

Source: Transportation Research Board, Highway Capacity Manual, 2016.

Unsignalized Intersection

Peak hour levels of motor vehicle delay at unsignalized intersections were estimated using the method from Chapter 17 of the 2016 *Highway Capacity Manual*. The delays for the entire intersection and the movement and/or approach are determined. Table 3 summarizes the relationship between average control delay per vehicle and LOS for unsignalized intersections.

Table 3 Unsignalized Intersection Level of Service Definitions

Level of Service	Average Control Delay Per Vehicle (Seconds)	Description
A	≤10.0	No delay for stop-controlled approaches.
B	10.0 and ≤15.0	Operations with minor delay.
C	>15.0 and ≤25.0	Operations with moderate delays.
D	>25.0 and ≤35.0	Operations with increasingly unacceptable delays.
E	>35.0 and ≤50.0	Operations with high delays, and long queues.
F	>50.0	Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.

Source: Transportation Research Board, Highway Capacity Manual, 2016

Existing Intersection Conditions

Using the HCM methodology, the weekday AM and PM peak hour intersection operations were determined. The results are provided in Table 4. The City's LOS thresholds, provided in Table 1, were utilized to evaluate existing operations. As indicated in Table 4 overall, the study intersections are currently operating at acceptable levels of service. The detailed analysis worksheets are provided in Appendix C.

Existing Daily Volumes

The current daily traffic volumes on Julesburg and La Veta Drives are provided on Figure 5. The City of Loveland has a threshold of 1,000 daily traffic for local streets and between 1,001 and 3,000 for minor collector streets. The current daily volumes are below these thresholds.

Table 4 Existing Weekday Peak-Hour Intersection Level of Service

#	Intersection	Overall Movement	AM Peak LOS	APF Failure?	PM Peak LOS	APF Failure?
1	Wilson Ave & 43rd St Signal	Overall	B	N	B	N
		EB LT	D	N	D	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	C	N	C	N
		NB LT	A	N	A	N
		NB T/R	A	N	A	N
		SB LT	A	N	A	N
		SB T/R	A	N	B	N
2	Wilson Ave & Woodward T- Stop Control	Overall	A	N	A	N
		WB LT	C	N	C	N
		WB RT	B	N	B	N
		SB LT	B	N	B	N
3	Wilson Ave & 35th St Signal	Overall	A	N	A	N
		WB LT	D	N	D	N
		WB RT	D	N	D	N
		NB T/R	A	N	A	N
		SB LT	A	N	A	N
		SB T	A	N	A	N
4	Wilson Ave & 29th St Signal	Overall	B	N	B	N
		EB LT	D	N	C	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	D	N	C	N
		NB LT	A	N	A	N
		NB T	A	N	B	N
		NB RT	A	N	A	N
		SB LT	A	N	A	N
		SB T	A	N	B	N
		SB RT	A	N	B	N
5	Florence Dr & 43rd St Two-Way Stop Control	Overall	A	N	A	N
		NB LT	B	N	B	N
		EB Approach	A	N	A	N
		WB Approach	A	N	A	N
		SB LT	C	N	C	N

Notes:
1. LOS calculations performed using Synchro which is based on the Transportation Research Board HCM 2016.
2. LOS is reported for both overall intersection and each constrained STOP-controlled movement or approach.

3 PROJECT TRAVEL DEMAND

This chapter provides an overview of the project and a description of the travel demand methodology to estimate vehicle trip generation, distribution, and assignment of project-generated traffic along area roadways and intersections.

PROJECT CHARACTERISTICS

The proposed Lee Farm project is a residential project located to the west of Wilson Avenue at 35th Street. The project site plan is depicted on Figure 2. The project is planned on approximately 240 acres. As shown on the figure, vehicular access to the project will be from access points on Wilson Avenue, 43rd Street, and 29th Street. The initial phase of the project is anticipated to be built by 2029. Phase 1 will include 137 single family dwellings and 150 duplex units. This initial phase is depicted on Figure 6. The full buildout of the Lee Farm project will include 513 single family homes, 316 duplex units, and 190 multi-family dwelling units. The site plan for the full buildout of Lee Farm is shown on Figure 2.

PROJECT TRIP GENERATION

The trip generation characteristics of the project were estimated using data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 11^{1h} Edition. Tables 5 and 6 provide the trip generation estimated for Phase 1 and full buildout, respectively. As indicated in Table 6, the full buildout of the project is estimated to generate approximately 8,192 daily trips, 570 morning, and 750 evening peak hour trips.

Table 5 – Estimated Trip Generation Phase 1

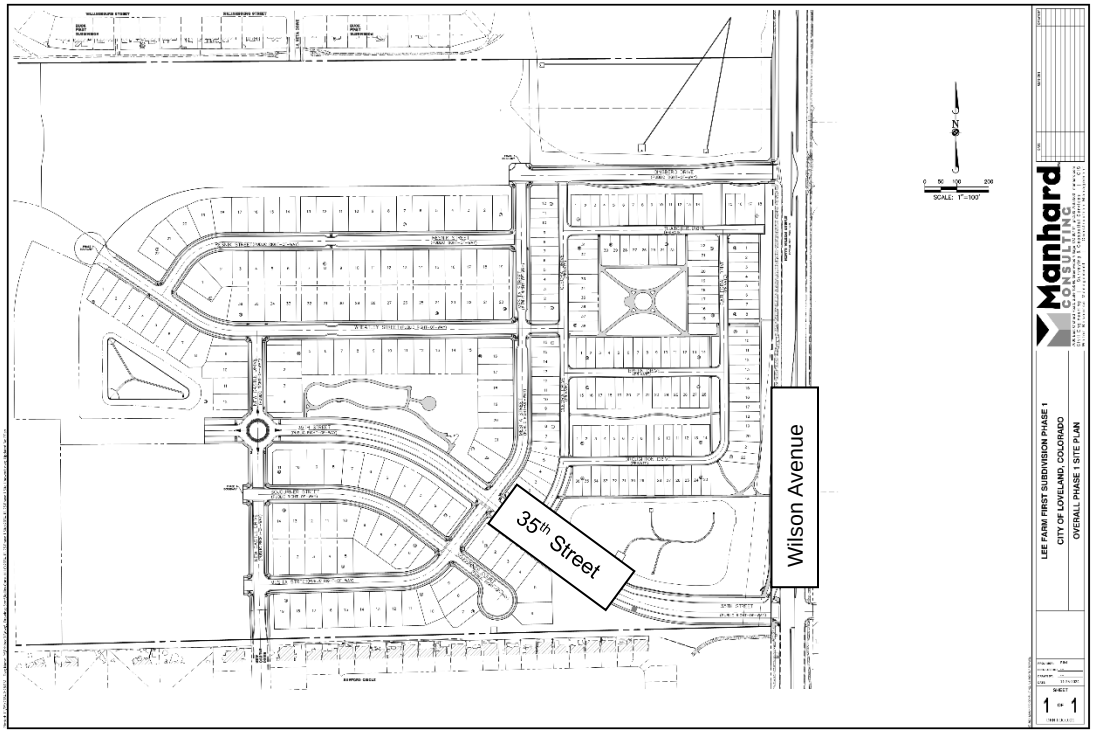
ITE Land Use Code & Rates		Project	Project Trip Generation						
Land Use	Land Use Code	Dwelling Units	Daily	AM			PM		
				IN	Out	Total	IN	Out	Total
Single Family Detached	210	137	1,292	24	72	96	81	48	129
Single Family Attached	215	150	1,093	18	54	72	51	35	86
TOTAL PHASE 1			2,384	42	126	168	132	83	215

Table 6 – Estimated Trip Generation Full Buildout

ITE Land Use Code & Rates		Project	Project Trip Generation						
Land Use	Land Use Code	Dwelling Units	Daily	AM			PM		
				IN	Out	Total	IN	Out	Total
Single-Family Detached	210	513	4,542	82	248	330	291	171	462
Single-Family Attached (Duplex)	215	316	2,357	40	119	159	110	76	186
Multi-Family Low Rise	220	190	1,293	20	62	82	64	38	102
TOTAL BUILDOUT			8,192	142	429	570	465	285	750

Based on ITE Trip Generation 11th Edition

Figure 6 – Phase 1 Site Plan



PROJECT TRIP DISTRIBUTION | ASSIGNMENT

The distribution of the project traffic onto the roadway system was based on the following: existing peak hour traffic counts, the roadway network, adjacent land use, the location of the project within the region and the City of Loveland, and input from City staff. The project trip distribution is depicted on Figure 7.

The resulting peak hour traffic associated with Phase 1 is shown on Figure 8 and with full buildout on Figure 9. The daily traffic volumes projected on Julesberg and La Veta Drives are shown on Figure 10.

Figure 7 – Trip Distribution

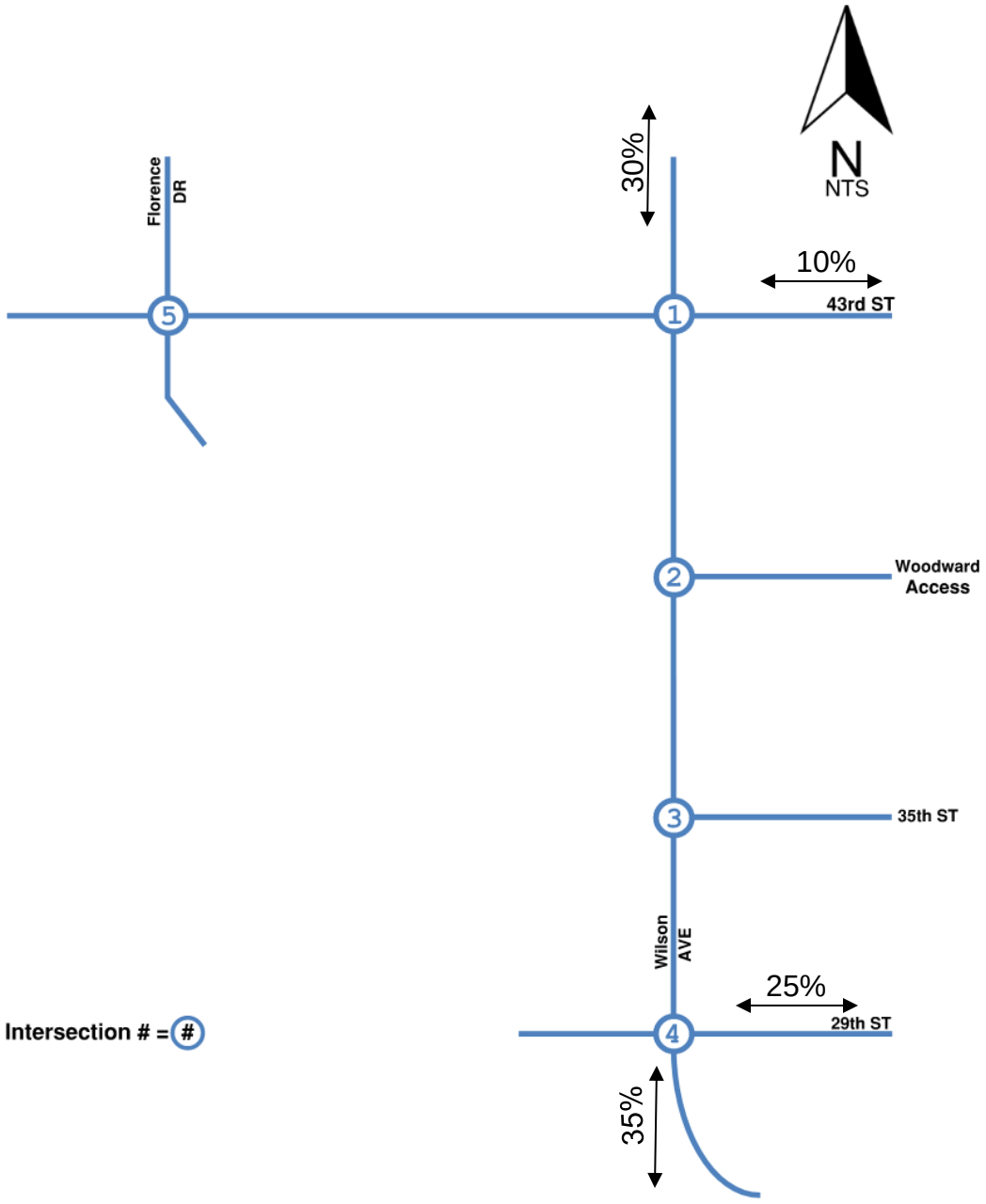


Figure 8 – Phase 1 Project Traffic

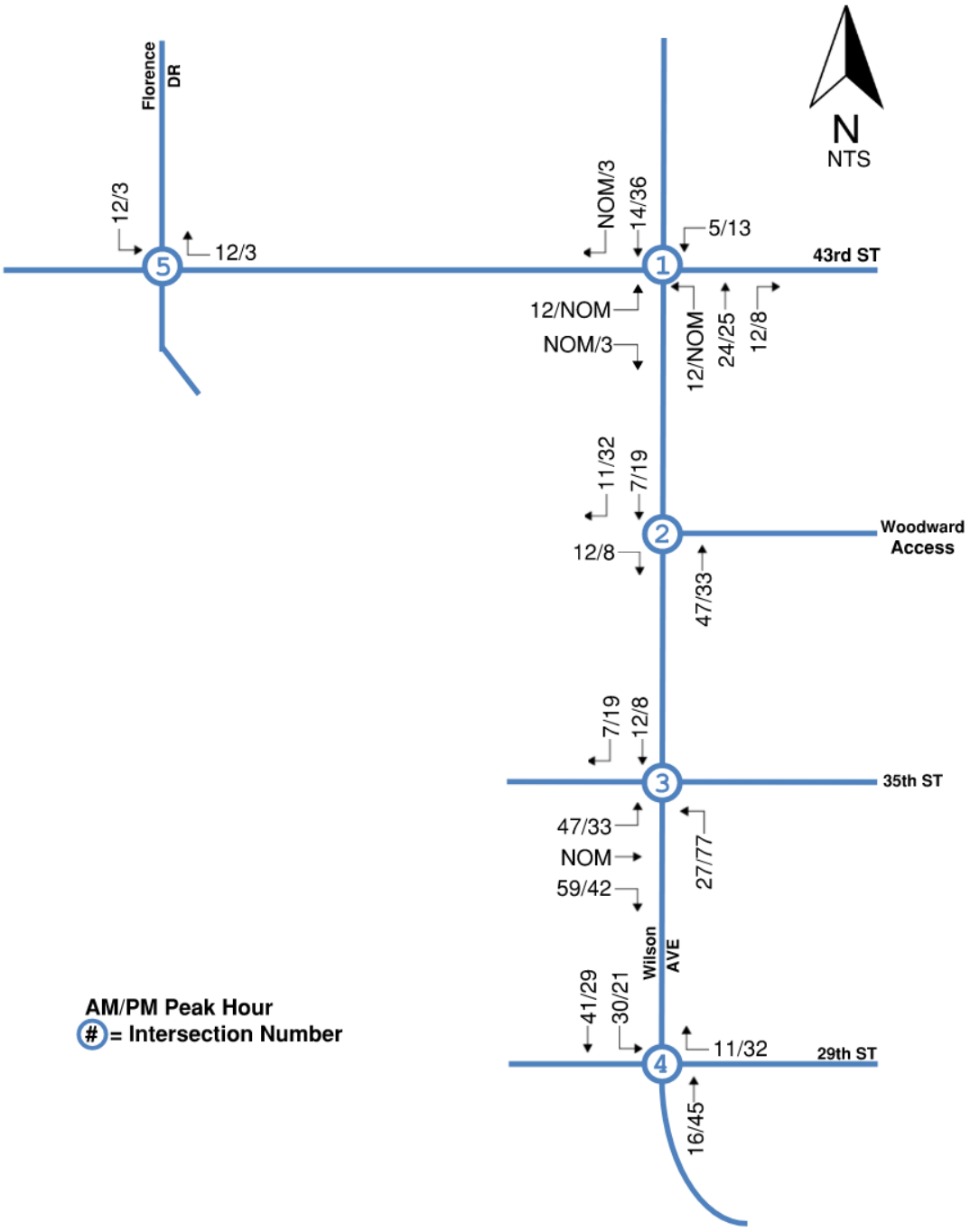


Figure 9 – Full Buildout Project Traffic

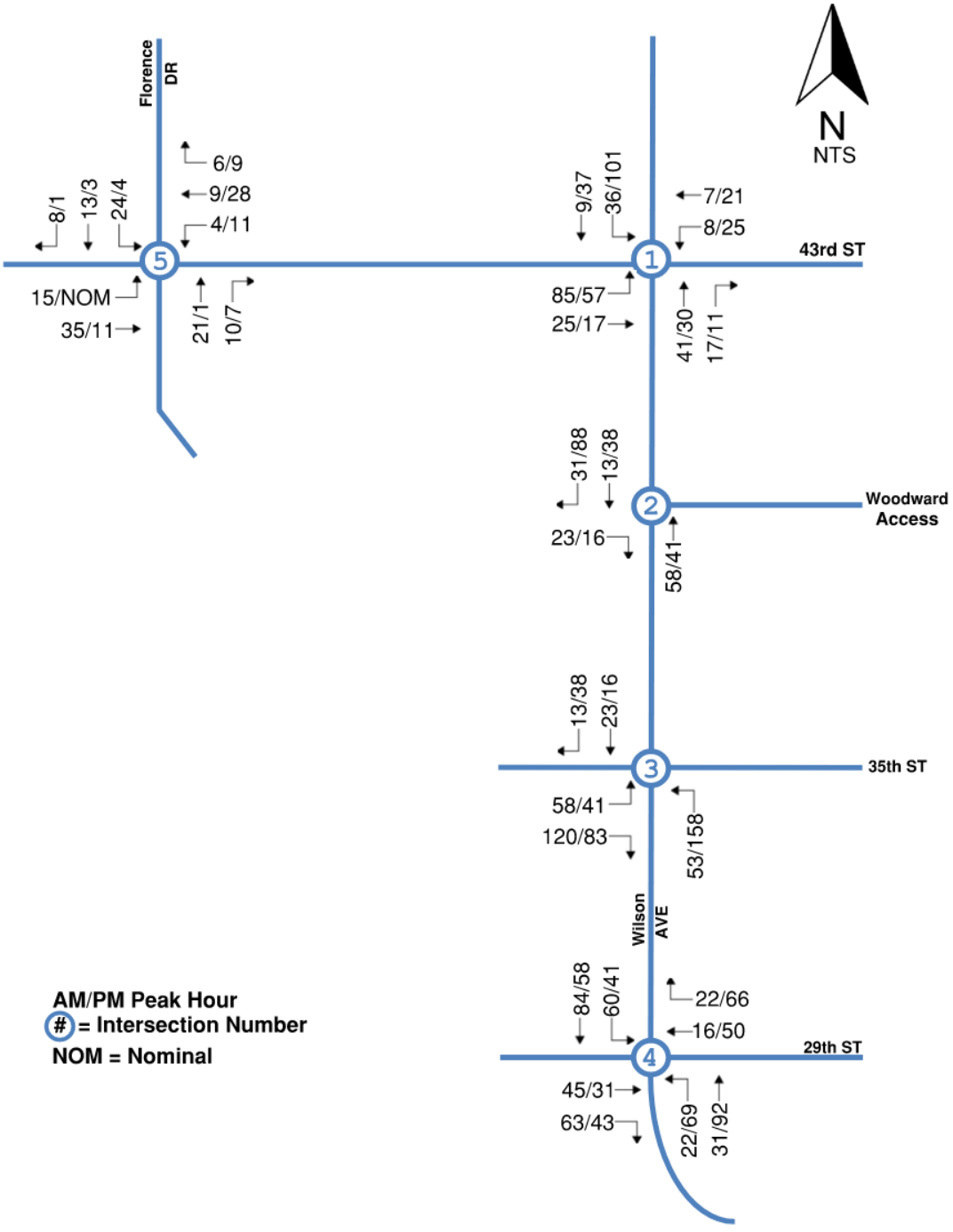
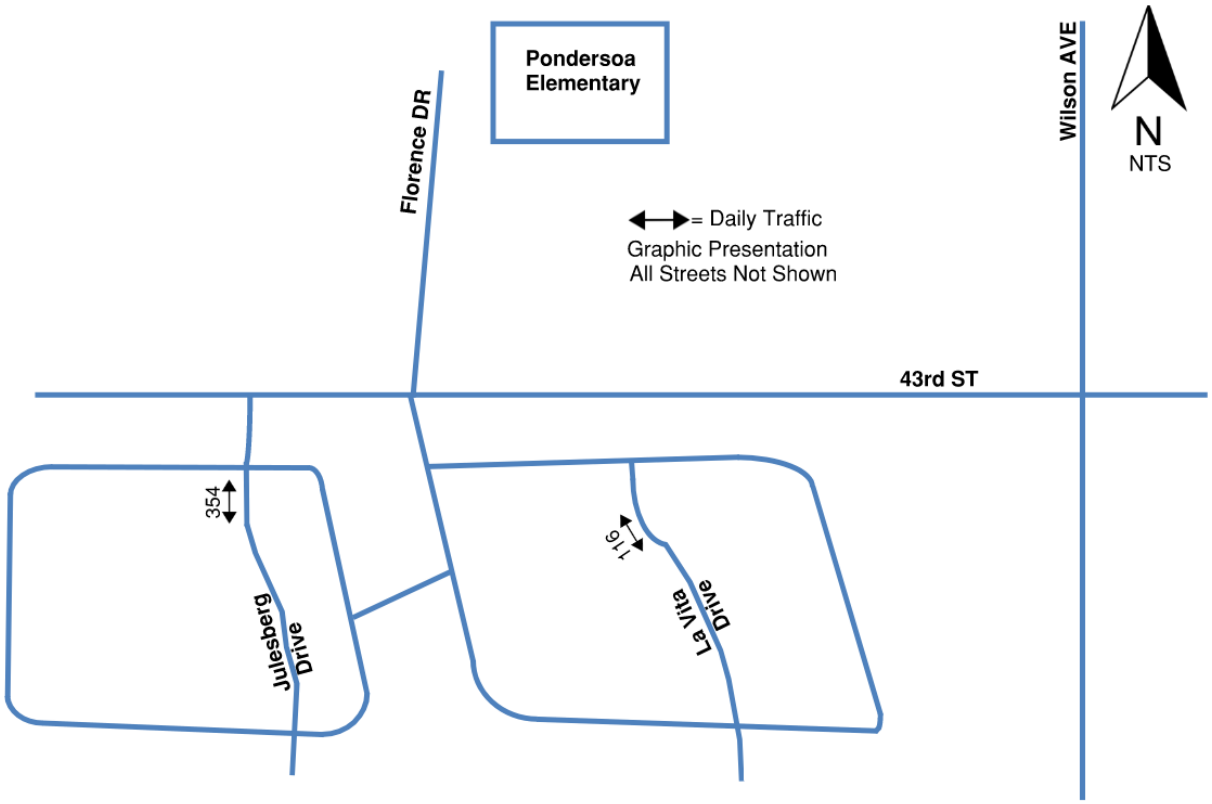


Figure 10 – Full Buildout Daily Project Traffic



4 FUTURE TRAFFIC PROJECTIONS

Estimates of future traffic conditions both with and without the proposed Project were necessary to evaluate the potential impact of the Project on the local street system. The background base traffic scenario represents future traffic conditions without the addition of the Project, while the total scenario represents future traffic conditions with the completion of the proposed Project. Two future years were analyzed the Year 2029 and the Year 2044. The development of these future traffic scenarios is described in this chapter.

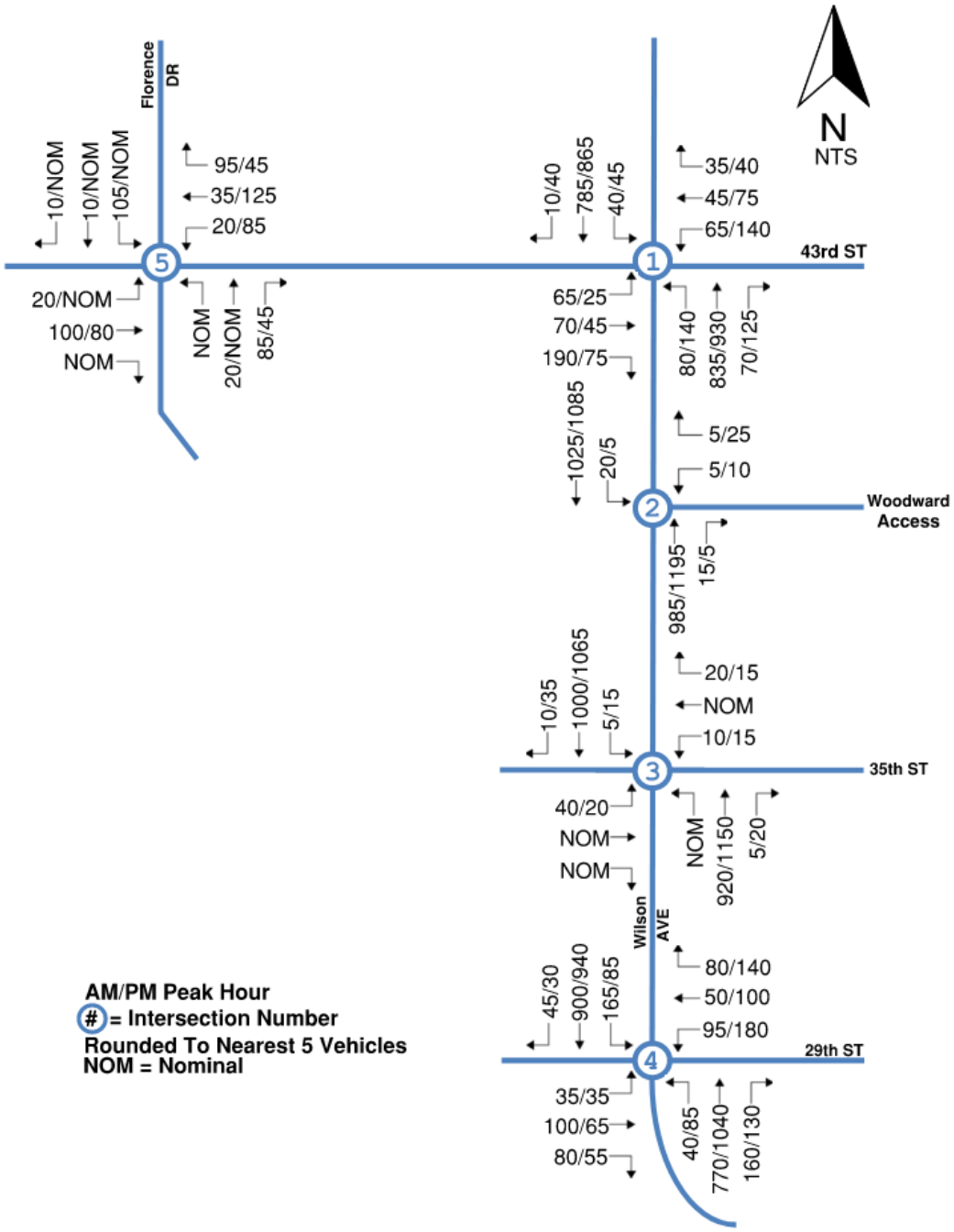
BACKGROUND 2029 TRAFFIC PROJECTIONS

The background traffic projections reflect growth in traffic from two primary sources: ambient growth in the existing traffic volumes due to regional growth both in and outside of the study area, and consideration of traffic generated by nearby planned projects. Each of these elements is described below.

- The **areawide/ambient growth** in traffic was determined based on the direction from City staff, and information from the City of Loveland *Transportation Plan* projections referenced earlier. An annual growth rate of 1% was applied to traffic on Wilson Avenue and traffic to/from the east on 43rd Street and 29th Street. The growth in traffic to/from the west will be based on future development. The existing traffic at Woodward and 35th Street was not factored.
- The future traffic related to the **other proposed projects** was considered. Four proposed projects included Eagle Brook Meadows and Wilson Commons. Traffic associated with these projects was based on their respective traffic studies: November 20, 2019, *Memorandum for Eagle Brook Meadows, Outlot A*, and *Wilson Commons Traffic Impact Study*, May 2016 both prepared by Delich Associates, *Hunters Run Filing 1, Traffic Impact Study,* October 10, 2016, prepared by Rick Engineering, and *Elkader Phase 1, Traffic Study Letter,* April 13, 2023, Kimley Horn.

The resulting Background 2029 traffic projections for the study intersections are provided on Figure 11.

Figure 11 – Background Traffic 2029



BACKGROUND 2044 TRAFFIC PROJECTIONS

The traffic projections for 2044 were estimated using a similar methodology as for 2029. Each of the components of the 2044 projections is discussed below.

- **Areawide/Ambient Growth -** The growth in traffic due to the factors mentioned earlier was applied to develop 2044 projections.
- **Other Projects –** The traffic from a total of six projects was added to the 2044 background projections based on their reported project trips. This includes the four projects for 2029, and Hunters Run, Ponderosa-Schimming PUD, and Green Valley Ranch & Elkader. The following studies supplied the project trip estimates: *Hunters Run West Filing I Traffic Impact Study,* October 10, 2016, Rick Engineering Company; *Ponderosa-Schimming PUD Traffic Impact Study,* September 2020, Delich Associates; *Green Valley Ranch & Elkader,* August 2021, Kimley-Horn and Associates, Inc; and *Taft Ridge, Master Traffic Impact Study,* March 2022, Delich Associates. The Taft Ridge traffic was factored upward by 30 percent to account for a future PUD Amendment.
- **Roadway Connections –** The long range analysis assumes a north/south road will be built to the east of the Buck Horn Neighborhood that connects Lee Farm to 43rd Street.

The resulting Background 2044 traffic projections for each of the study intersections are provided on Figure 12.

TOTAL TRAFFIC PROJECTIONS

The total traffic projections include both the background plus project traffic. Total traffic projections were developed for the Years 2029 and 2044. The Phase 1 project-generated traffic volumes from Figure 8 were added to the Year 2029 background traffic volumes illustrated on Figure 11 to develop background plus project peak hour traffic volumes. The resulting Year 2029 total traffic is depicted on Figure 13.

The Year 2044 Total traffic projections were developed by adding the Full Buildout Project traffic from Figure 9 to the Year 2044 Background traffic from Figure 12. The resulting Year 2044 total traffic is illustrated on Figure 14 for the peak hours and on Figure 15 for the daily volumes. The total traffic projections for New Castle Drive and Mesita Street were developed. These roads are internal to the project site. The projected daily traffic volumes are provided below. New Castle south of 35th Street is designed as a minor collector street.

- New Castle Drive, north of 35th Street = 450 daily trips
- New Castle Drive, south of 35th Street = 1,080 daily trips
- Mesita Street, north of 35th Street = 890 daily trips
- Mesita Street, south of 35th Street = 690 daily trips

Figure 12 – Background Traffic 2044

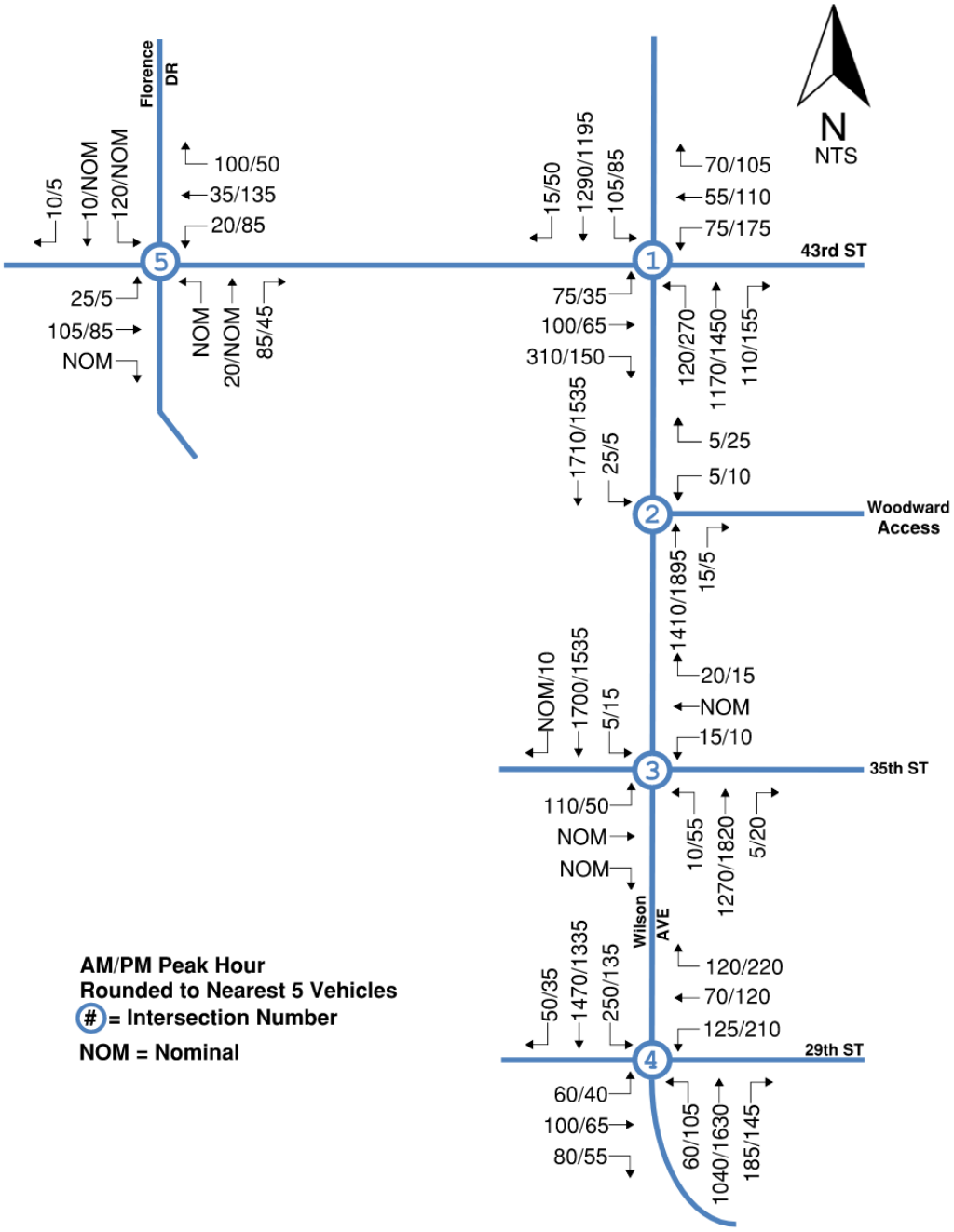


Figure 13 – Total Traffic 2029 Phase 1

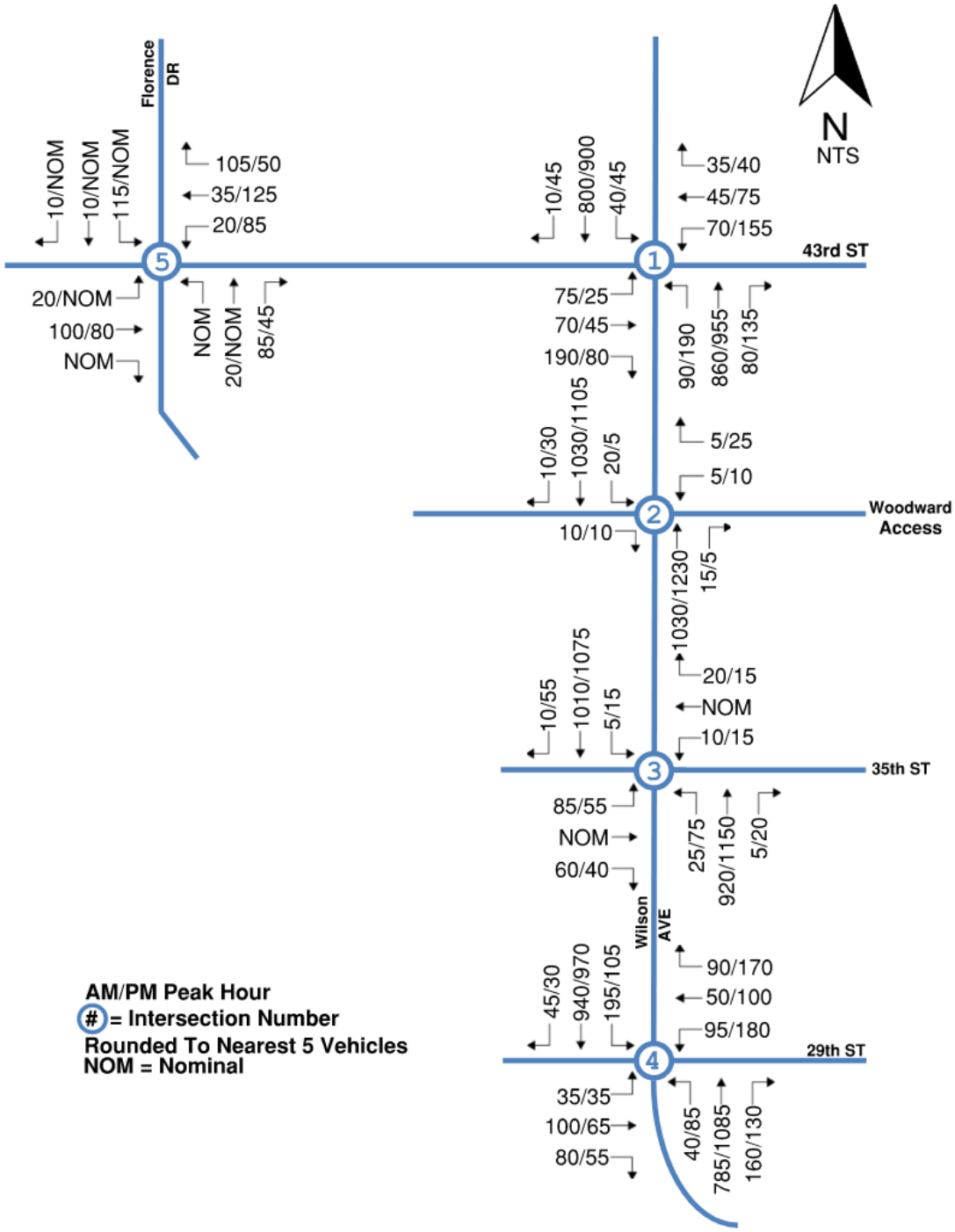


Figure 14 – Total Traffic 2044

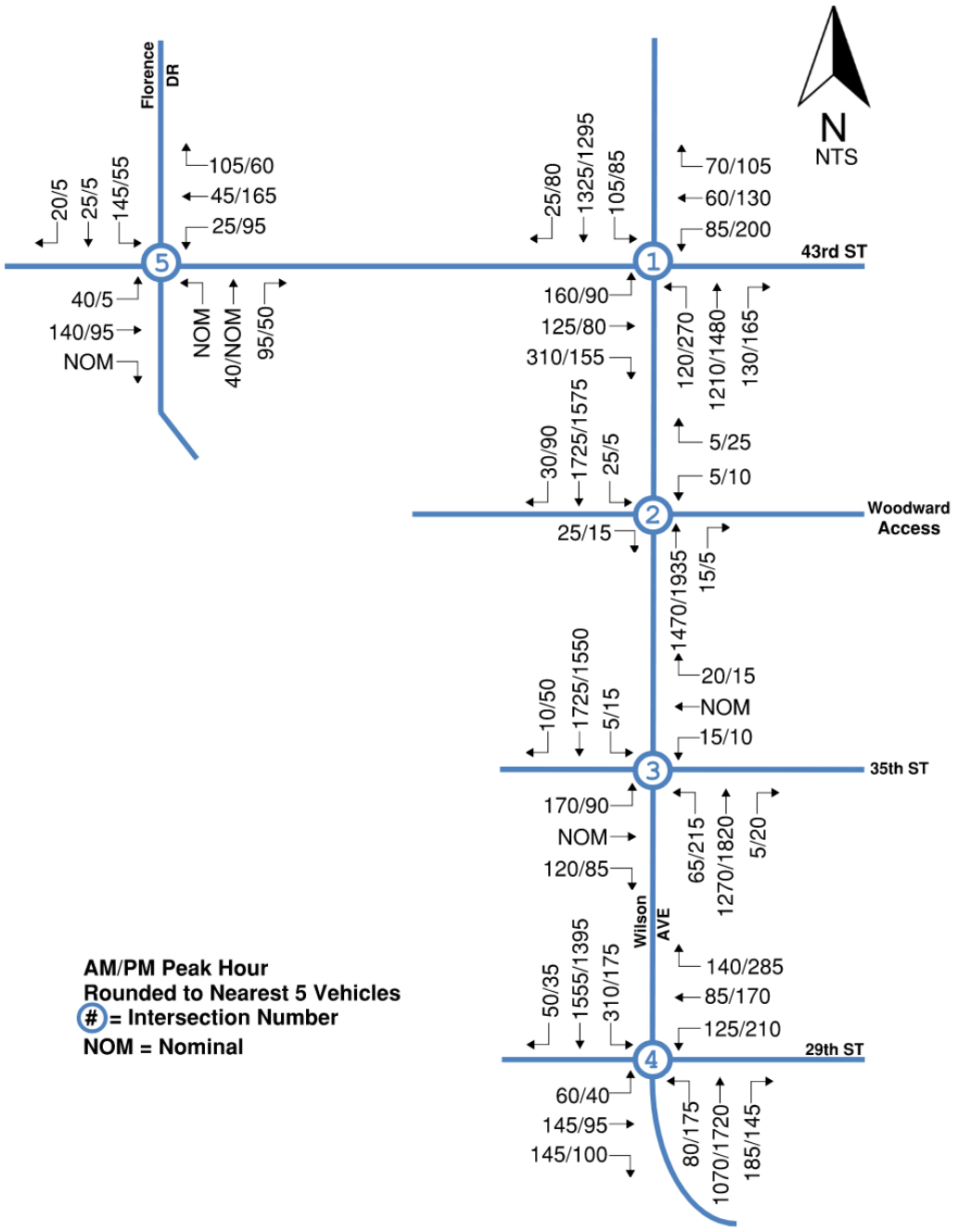
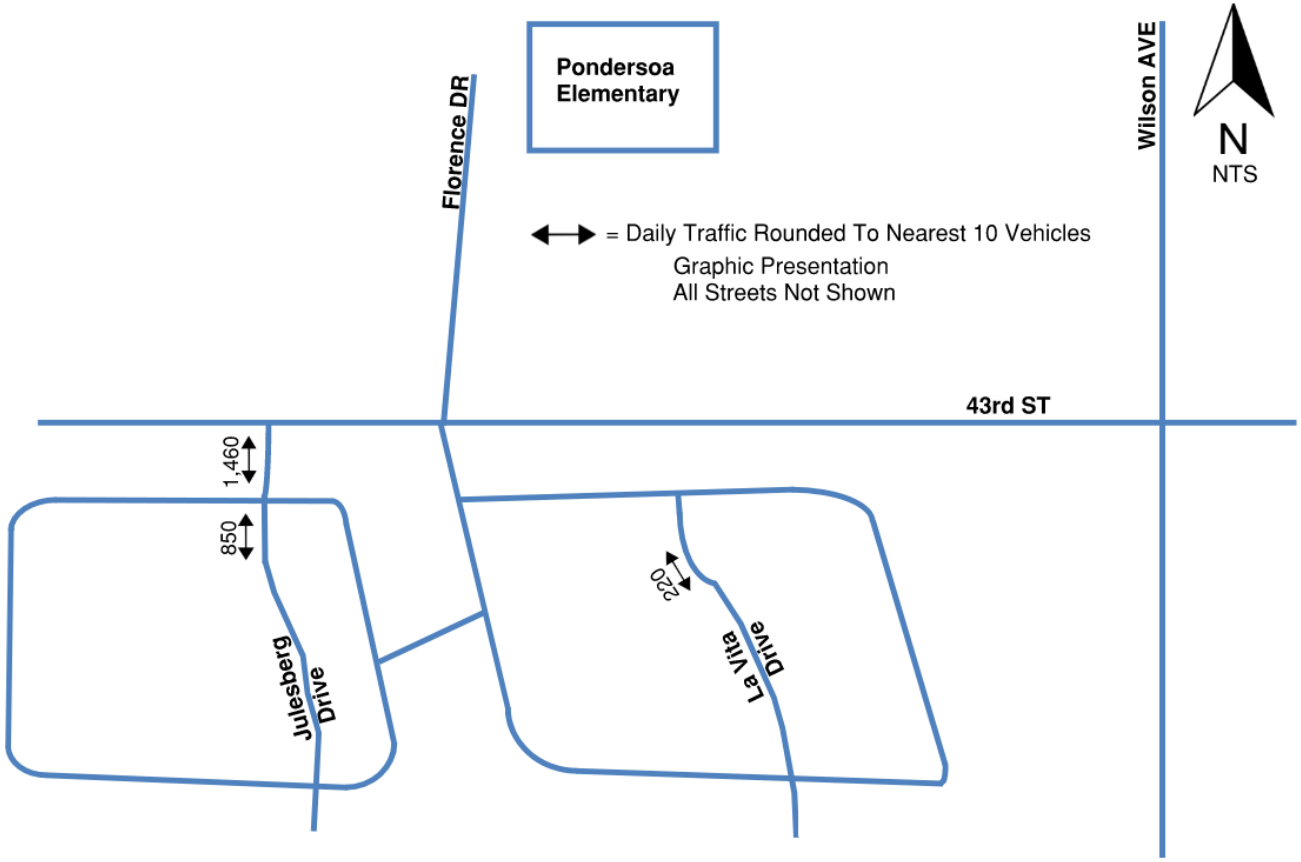


Figure 15 Total Daily Traffic



FUTURE PEDESTRIAN, BICYCLE, AND TRANSIT

The City of Loveland, CLTMP, identifies Wilson Avenue as a Tier 2 link with sidewalk missing. The proposed Lee Farm project will complete the sidewalk system adjacent to the project. The CLTMP identifies a bicycle network to the west of Wilson Avenue. The proposed project will build collector roads that support this bicycle network. The future transit plan will increase service headways within Loveland and provide improved connections with regional services.

5 AUXILIARY LANE ANALYSIS

An analysis was conducted to determine the need for auxiliary turn lanes adjacent to the project site on Wilson Avenue at both Woodward and 35th Street. This analysis was performed for both 2029 and 2044. There is a center left-turn lane on Wilson Avenue and therefore only the need for southbound right-turn lanes was performed.

The guidelines from Figure 8-4 in LCUASS (provided in Appendix D) were applied to the total future projected volumes depicted on Figure 13 for 2029 and Figure 14 for 2044. Using the LCUASS criteria, it was determined that a southbound right-turn lane would be required on Wilson Avenue at both Woodward and 35th Street. Under 2029 conditions the lane would need to be designed with Bay Taper however, under 2044 conditions the lane should be designed as a Full-Width Lane. A southbound right-turn lane was assumed to be present at these two locations for the intersection level of service analysis.

6 TRAFFIC IMPACT ANALYSIS

This chapter presents an analysis of the potential impacts of the traffic generated by the proposed Lee Farm project on the local street system. The analysis compares the projected levels of service at each study intersection under future background and total conditions to estimate the incremental increase in the level of service caused by the proposed project. This provides the information needed to assess the potential impact of the project using the acceptable operations criteria.

FUTURE TRAFFIC CONDITIONS

The future traffic projections at the eight study intersections were analyzed to determine their operating conditions.

Future Intersection Operations

The results of the intersection operations analysis for Year 2029 are provided in Table 7 for background and Table 8 for total traffic scenarios. It should be noted that the intersections of Wilson Avenue at both Woodward and 35th Street were assumed to have a southbound right-turn lanes. The future operating conditions for Year 2044 are provided in Tables 9 and 10 for background and total conditions, respectively. The results provided in the tables indicate both the overall LOS for the intersection and the LOS for each constrained movement and/or approach.

2029 Intersection Operations - The study results, shown in Tables 7 and 8, background and total respectively, indicate that the future 2029 operations at the five study intersections are projected to operate at acceptable levels under both background and total traffic scenarios.

2044 Intersection Operations - The study results for 2044, provided in Tables 9 and 10 for background and total respectively, indicate that several left-turns onto the major arterials will experience long delays. This is for the westbound left-turn from the former Woodward Governor site onto Wilson Avenue. This left turn is within the thresholds established by the City of Loveland. City staff requested the length of the queue for the northbound left-turn from Wilson Avenue to 35th Street. The PM peak hour represents the highest projected volumes and a resulting 95% queue of 285 feet. The distance between 35th Street and Tabernash Drive is 440 feet. This leaves 155 feet for the bay taper. Based on LCUASS, the desirable bay taper is 180 feet (for 45 mph and 12 foot lane) with a minimum of 100 feet (8:1 taper). The 155 feet falls withing these thresholds. It should be noted that the southbound left-turn bay taper is currently 140 feet.

Future Daily Volumes

The future daily volumes on Julesberg and La Veta Drives are depicted on Figure 15 with full buildout of the Lee Farm project. These projected volumes are within the thresholds established for local and collector streets which are below 1,000 and 3,000 vehicles per day, respectively.

Table 7 Future 2029 Background Intersection Level of Service

#	Intersection	Overall Movement	Background AM LOS	APF Failure?	Background PM LOS	APF Failure?
1	Wilson Ave & 43rd St Signal	Overall	C	N	B	N
		EB LT	D	N	C	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	C	N	C	N
		NB LT	A	N	A	N
		NB T/RT	C	N	B	N
		SB LT	A	N	A	N
		SB T/R	A	N	B	N
2	Wilson Ave & Woodward T- Stop Control	Overall	A	N	A	N
		WB LT	C	N	D	N
		WB RT	B	N	B	N
		SB LT	B	N	B	N
3	Wilson Ave & 35th St Signal	Overall	A	N	A	N
		EB LT	D	N	D	N
		EB T/RT	D	N	D	N
		WB LT	D	N	D	N
		WB T/RT	D	N	D	N
		NB LT	A	N	A	N
		NB T/R	A	N	A	N
		SB LT	A	N	A	N
		SB T/R	A	N	A	N
4	Wilson Ave & 29th St Signal	Overall	B	N	C	N
		EB LT	D	N	C	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	D	N	C	N
		NB LT	A	N	B	N
		NB T	A	N	B	N
		NB RT	A	N	A	N
		SB LT	A	N	B	N
		SB T	A	N	C	N
		SB RT	A	N	B	N
5	Florence Dr & 43rd St Two-Way Stop Control	Overall	A	N	A	N
		NB LT	B	N	B	N
		EB Approach	A	N	A	N
		WB Approach	A	N	A	N
		SB LT	C	N	C	N

1. LOS calculations performed using Synchro which is based on the Transportation Research Board HCM 2016.
2. LOS is reported for both overall intersection and each constrained STOP-controlled movement or approach.

Table 8 Future 2029 Total Phase 1 Intersection Level of Service

#	Intersection	Overall Movement	Total AM LOS	APF Failure?	Total PM LOS	APF Failure?
1	Wilson Ave & 43rd St Signal	Overall	C	N	B	N
		EB LT	D	N	C	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	C	N	C	N
		NB LT	A	N	A	N
		NB T/RT	C	N	B	N
		SB LT	A	N	A	N
		SB T/R	B	N	B	N
2	Wilson Ave & Woodward T- Stop Control	Overall	A	N	A	N
		EB RT	B	N	B	N
		WB LT	D	N	E	N
		WB RT	B	N	C	N
		SB LT	B	N	B	N
3	Wilson Ave & 35th St Signal	Overall	A	N	A	N
		EB LT	D	N	D	N
		EB T/RT	D	N	D	N
		WB LT	D	N	D	N
		WB T/RT	D	N	D	N
		NB LT	A	N	A	N
		NB T/R	A	N	A	N
		SB LT	A	N	A	N
		SB T/R	A	N	A	N
4	Wilson Ave & 29th St Signal	Overall	B	N	C	N
		EB LT	D	N	C	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	D	N	C	N
		NB LT	A	N	B	N
		NB T	B	N	B	N
		NB RT	A	N	B	N
		SB LT	A	N	B	N
		SB T	A	N	C	N
		SB RT	A	N	B	N
5	Florence Dr & 43rd St Two-Way Stop Control	Overall	A	N	A	N
		NB LT	B	N	B	N
		EB Approach	A	N	A	N
		WB Approach	A	N	A	N
		SB LT	C	N	C	N

1. LOS calculations performed using Synchro which is based on the Transportation Research Board HCM 2016.
2. LOS is reported for both overall intersection and each constrained STOP-controlled movement or approach.

Table 9 Future 2044 Background Intersection Level of Service

#	Intersection	Overall Movement	Background AM LOS (Avg Seconds Delay)	APF Failure?	Background PM LOS (Avg Seconds Delay)	APF Failure?
1	Wilson Ave & 43rd St Signal	Overall	C	N	C	N
		EB LT	C	N	C	N
		EB T	C	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	C	N	C	N
		WB RT	C	N	C	N
		NB LT	B	N	D	N
		NB T/RT	C	N	C	N
		SB LT	B	N	C	N
		SB T/R	C	N	C	N
2	Wilson Ave & Woodward T- Stop Control	Overall	A	N	A	N
		WB LT	E (41.1)	N	F (69.8)	N
		WB RT	C	N	C	N
		SB LT	B	N	C	N
3	Wilson Ave & 35th St Signal	Overall	A	N	A	N
		EB LT	D	N	D	N
		EB T/RT	D	N	D	N
		WB LT	D	N	D	N
		WB T/RT	D	N	D	N
		NB LT	A	N	A	N
		NB T/R	A	N	A	N
		SB LT	A	N	A	N
		SB T/R	A	N	A	N
4	Wilson Ave & 29th St Signal	Overall	C	N	C	N
		EB LT	D	N	C	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	D	N	C	N
		NB LT	B	N	B	N
		NB T	B	N	C	N
		NB RT	B	N	B	N
		SB LT	B	N	C	N
		SB T	C	N	C	N
		SB RT	B	N	B	N
5	Florence Dr & 43rd St Two-Way Stop Control	Overall	A	N	A	N
		NB LT	B	N	B	N
		EB Approach	A	N	A	N
		WB Approach	A	N	A	N
		SB LT	C	N	C	N

1. LOS calculations performed using Synchro which is based on the Transportation Research Board HCM 2016.
2. LOS is reported for both overall intersection and each constrained STOP-controlled movement or approach.

Table 10 Future 2044 Total Intersection Level of Service

#	Intersection	Overall Movement	Total AM LOS (Avg Seconds Delay)	APF Failure ?	Total PM LOS (Avg Seconds Delay)	APF Failure ?
1	Wilson Ave & 43rd St Signal	Overall	C	N	C	N
		EB LT	D	N	D	N
		EB T	C	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	C	N	C	N
		WB RT	C	N	C	N
		NB LT	B	N	D	N
		NB T/RT	C	N	C	N
		SB LT	B	N	C	N
		SB T/R	C	N	C	N
2	Wilson Ave & Woodward T- Stop Control	Overall	A	N	A	N
		EB RT	C	N	C	N
		WB LT	F (61.6)	N	F (114.3)	N
		WB RT	C	N	C	N
		SB LT	C	N	C	N
3	Wilson Ave & 35th St Signal	Overall	A	N	A	N
		EB LT	D	N	D	N
		EB T/RT	D	N	D	N
		WB LT	D	N	D	N
		WB T/RT	D	N	D	N
		NB LT	A	N	C	N
		NB T/R	A	N	A	N
		SB LT	A	N	A	N
		SB T/R	A	N	B	N
4	Wilson Ave & 29th St Signal	Overall	C	N	C	N
		EB LT	D	N	D	N
		EB T	D	N	C	N
		EB RT	D	N	C	N
		WB LT	D	N	D	N
		WB T	D	N	C	N
		WB RT	D	N	C	N
		NB LT	B	N	C	N
		NB T	B	N	D	N
		NB RT	B	N	B	N
		SB LT	C	N	D	N
		SB T	A	N	B	N
		SB RT	A	N	B	N
5	Florence Dr & 43rd St Two-Way Stop Control	Overall	A	N	A	N
		NB LT	B	N	B	N
		EB Approach	A	N	A	N
		WB Approach	A	N	A	N
		SB LT	D	N	C	N

1. LOS calculations performed using Synchro which is based on the Transportation Research Board HCM 2016.
2. LOS is reported for both overall intersection and each constrained STOP-controlled movement or approach.

FUTURE IMPROVEMENT MEASURES

The proposed Lee Farm will be building numerous roads that will allow for connectivity. The project includes the extension of 35th Street west of Wilson Avenue along with upgrades to the existing signal. The project will limit the future extension of the Woodward access (called Ginsberg Drive) to right-turns only. The City of Loveland will require that the intersection of Tabernash Drive at Wilson Avenue be restricted to right-turns only. This is a requirement of the proposed Hunters Run West project. However, if Lee Farm is built before this project, Lee Farm will build a median on Wilson Avenue and be reimbursed in the future.

For Phase 1, a pedestrian and bicycle connection to the north is recommended. This trail would connect to the existing pedestrian/bicycle facility that exists on the southern border of the Buckhorn Village neighborhood. The pedestrian/bicycle trail will allow Ponderosa Elementary students to access the school along a connected transportation system with a trail or sidewalk.

7 OTHER MOBILITY MODES

The City of Loveland has established pedestrian and bicycle level of service definitions. They address several elements or quality indicators that impact the environments these users experience. The elements identified as important to support a beneficial pedestrian environment are:

1. Directness
2. Continuity
3. Street Crossings
4. Visual Interest and Amenity
5. Security

Each of these is described in depth in the LCUASS. Destinations within 1,320 feet of the Project are identified and analyzed for each pedestrian element. Schools within 1 ½ mile that serve the Lee Farm Development are also included. The area is depicted in Appendix E. The results of this analysis are summarized in Table 11 along with the associated LOS for each element.

Table 11 – Pedestrian Level of Service

Destination	Pedestrian Elements LOS				
	Directness	Continuity	Street Crossing	Visual Interest	Security
Residential Area North	B	B	A	B	B
Residential Area East	B	B	A	B	B
Residential Area South	B	B	A	B	B
The Olde Golf Course	C	B	A	B	B
Ponderosa Elementary School	B	B	A	B	B
Lucile Erwin Middle School	B	B	A	B	B
Loveland High School	B	B	A	B	B

Three schools would serve the project, Ponderosa Elementary, Lucile Erwin Middle School, and Loveland High School. These are depicted on Figure 1. Pedestrian and bicycle access to each of these schools is described below.

Ponderosa Elementary – Access to the school will be through the local street of La Veta Drive, connections to the existing pedestrian/bike trails, and Julesburg Drive. There is a striped pedestrian crossing, advance school zone crossing signs and flashing signals on 43rd Street at Florence Drive which leads to the school. It is suggested that a pedestrian/bicycle connection be constructed that links Phase 1 of Lee Farm to La Vita Drive.

Lucile Erwin Middle School – The most direct route to the school is along Wilson Avenue to 43rd Street, crossing north and east at the signal, continuing along 43rd Street to Lucerne Avenue.

Loveland High School – The direct route to Loveland High School is via Wilson Avenue and 29th Street. This route provides both bicycle lanes and sidewalks. The COLT Route 2 also provides service to the high school.

BICYCLE NETWORK/ANALYSIS

The bicycle network within the 1,320-foot area of the project site was evaluated to determine if there were public school sites, recreation sites, and/or community/neighborhood commercial areas. There are no destinations within the 1,320-foot area except for The Olde Course at Loveland golf course. There are bicycle facilities on both Wilson Avenue and 29th Street that led to the main entrance of the golf course. There is no protected crossing of 29th Street at the entrance.

TRANSIT SERVICE

The COLT Route 2 operates directly adjacent to the project site. There is a bus stop at 35th Avenue. This service provides connections to the West and North Transfer Points, which allows for connections to the entire COLT system and connections to FLEX, the regional bus service between Fort Collins and Boulder.

8 CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed Lee Farm project in the City of Loveland. The following summarizes the results of this analysis:

- The full buildout proposed Project consists of 513 single family homes, 316 duplex units, and 190 multi-family dwelling units.
- The Project site is located west of Wilson Avenue at 35th Street on undeveloped land.
- The full buildout of the Project is expected to generate approximately 8,192 daily trips, 570 trips during the AM peak hour, and 750 trips during the PM peak hour.
- The initial phase of the project is located directly to the west of Wilson Avenue. It is planned with 137 single family homes and 150 duplex units. This initial phase is estimated to generate approximately 2,384 daily trips 168 AM and 215 PM peak hour trips.
- Currently, the study intersections operate at acceptable levels and the roads of Julesberg and La Veta Drives are below the City of Loveland daily thresholds.
- The following auxiliary lanes would be required on Wilson Avenue: a southbound right-turn lane would be required at both Woodward and 35th Street.
- Under the background and total future 2029 conditions, the study intersections will continue to operate at acceptable levels of service
- Under the background and total future 2044 conditions, the intersections will continue to operate at acceptable levels of service. With the full buildout of Lee Farm, Julesberg and La Veta Drives are projected to operate with daily volumes below the City of Loveland thresholds
- Pedestrian and bicycle connectivity to adjacent neighborhoods is good. There are planned roadway connections to the north and south adjacent residential areas. Connection to the east would be satisfied at the signalized intersection of Wilson Avenue at 35th Street. Connections to the three schools that will serve the Lee Farm project are good
- A speed table is recommended to be installed along Julesberg Drive. With Phase 1 a pedestrian/bicycle connection to La Vita Drive is recommended.

APPENDICIES

- Appendix A: Base Assumptions Form
- Appendix B: Intersection Turning Movement Count Data
- Appendix C: Level of Service Worksheets
- Appendix D: Figure and Table 4C-3 Manual on Uniform Traffic Control Devices
- Appendix E: Pedestrian and Bicycle Area

Appendix A Base Assumptions Form

Attachment A
Transportation Impact Study Base Assumptions

Project Information			
Project Name	Lee Farm		
Project Location	West of Wilson Ave, South of 43rd St, at 35th Street		
TIS Assumptions			
Type of Study	Full: Yes	Intermediate:	
	MTIS:	Memo:	
Study Area Boundaries	North: 43rd St	South: 29th St	
	East: 1/2 Mile EO Wilson	West: 1/2 Mile WO Wilson	
Study Years	Short Range: 2028	Long Range: 2044	
Future Traffic Growth Rate	1%/year (accounts for numerous other projects)		
Study Intersections	1. All access drives	5. Wilson/29th St	
	2. Wilson/43rd St	6. Florence/43rd	
	3. Wilson/Entrance Woodward	7.	
	4. Wilson/35th St	8.	
Time Period for Study	AM: 7:00-9:00	PM: 4:00-6:00	Sat Noon:
Trip Generation Rates	ITE		
Trip Adjustment Factors	Passby: NA	Captive Market: NA	
Overall Trip Distribution	SEE ATTACHED SKETCH		
Mode Split Assumptions			
Design Vehicle Information			
Committed Roadway Improvements	Wilson at both Ginsberg (Woodward) and Tabernash will be RIRO. For the long range analysis north o the site a N/S road will exist that connects Lee Farm and Commercial Property at SW Corner of Wilson/43rd.		
Other Traffic Studies	For 2028 = Eagle Brook Meadows, Wilson Commons, Hunters Run West Filing 1, Elkader For 2044 = Above plus Ponderosa-Schimming, Green Valley Ranch, and Taft Ridge (30% higher than TIS)		
Areas Requiring Special Study	Pedestrian/Bicycle Facilities in area, routing to schools within 1 1/2 miles and transit within 1,320 feet of project		

Date: _____

Daily volumes to be collected on Julesberg Dr. and La Veta Dr. Project traffic will be added to these two streets. The capacity will be evaluated.

Traffic Engineer: _____

Local Entity Engineer: _____ Digitally signed by Adam Zagaro Date: 2024.11.04 14:48:30-07'00'

ITE Land Use Code & Rates		Project	Project Trip Generation						
Land Use	Land Use Code	Dwelling Units	Daily	AM			PM		
				IN	Out	Total	IN	Out	Total
Single-Family Detached	210	513	4542	82	247	330	291	171	462
Single-Family Attached (Duplex)	215	316	2,357	49	109	159	106	80	186
Multi-Family Low Rise	220	190	1,293	20	62	82	64	38	102
TOTAL BUILDOUT			8,192	151	419	570	461	289	750

ITE Trip Generation 11th Edition


Middle School
Ponderosa Elementary
Park
Emerald Glen Natural Area
Loveland Classical Schools Middle School...
Mehaffey Park North Entrance
Mehaffey Park
W 43rd St
W 29th St
30%
10%
25%
35%
Daily Traffic Volumes to be collected at
Study Intersection
xx%
Distribution

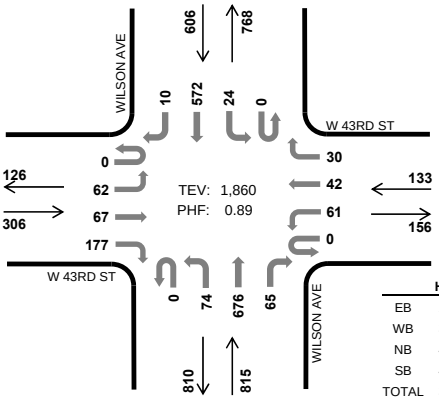
Appendix B Intersection Turning Movement Count Data

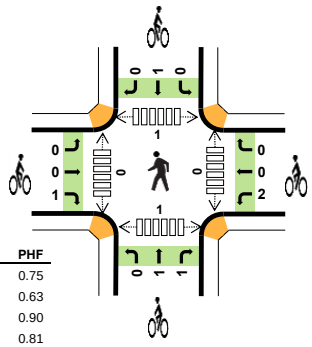
www.idaxdata.com

WILSON AVE
W 43RD ST

Peak Hour

Date: Tue, Aug 24, 2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM





	HV %:	PHF
EB	2.0%	0.75
WB	3.0%	0.63
NB	4.2%	0.90
SB	4.0%	0.81
TOTAL	3.7%	0.89

Two-Hour Count Summaries

Interval Start	W 43RD ST Eastbound				W 43RD ST Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	18	9	21	0	8	4	5	0	11	125	8	0	3	110	0	322	0
7:15 AM	**0**	**18**	**11**	**39**	**0**	**16**	**7**	**8**	**0**	**11**	**172**	**21**	**0**	**5**	**123**	**2**	**433**	0
7:30 AM	**0**	**12**	**10**	**34**	**0**	**13**	**9**	**6**	**0**	**15**	**200**	**11**	**0**	**2**	**115**	**2**	**429**	0
7:45 AM	**0**	**15**	**21**	**44**	**0**	**18**	**22**	**13**	**0**	**35**	**153**	**16**	**0**	**9**	**176**	**2**	**524**	1,708
8:00 AM	**0**	**17**	**25**	**60**	**0**	**14**	**4**	**3**	**0**	**13**	**151**	**17**	**0**	**8**	**158**	**4**	**474**	**1,860**
8:15 AM	0	13	16	27	0	13	9	6	0	23	136	18	0	6	142	3	412	1,839
8:30 AM	0	9	22	20	0	28	20	4	0	14	129	50	0	6	111	3	416	1,826
8:45 AM	0	3	6	15	0	37	14	3	0	10	120	18	0	5	138	6	375	1,677
Count Total	0	105	120	260	0	147	89	48	0	132	1,186	159	0	44	1,073	22	3,385	0
Peak Hour All	**0**	**62**	**67**	**177**	**0**	**61**	**42**	**30**	**0**	**74**	**676**	**65**	**0**	**24**	**572**	**10**	**1,860**	**0**
Peak Hour HV	**0**	**1**	**3**	**2**	**0**	**2**	**2**	**0**	**0**	**3**	**26**	**5**	**0**	**1**	**22**	**1**	**68**	**0**
Peak Hour HV%	**-**	**2%**	**4%**	**1%**	**-**	**3%**	**5%**	**0%**	**-**	**4%**	**4%**	**8%**	**-**	**4%**	**4%**	**10%**	**4%**	**0**

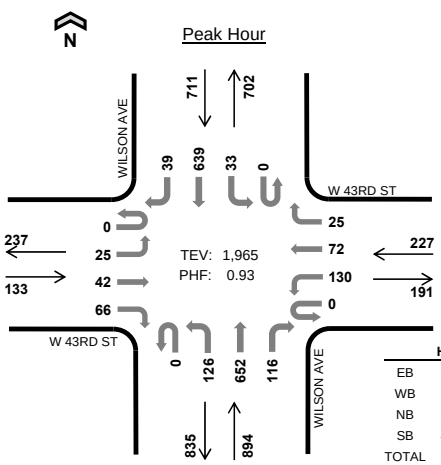
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	0	0	3	2	*5*	0	0	0	0	*0*	2	0	0	0	*2*
7:15 AM	**0**	**2**	**8**	**2**	***12***	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**1**	**0**	*1*
7:30 AM	**3**	**0**	**8**	**6**	***17***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**2**	**0**	**9**	**7**	***18***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**1**	*1*
8:00 AM	**1**	**2**	**9**	**9**	***21***	**0**	**0**	**2**	**0**	***2***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	1	8	10	*19*	1	0	0	1	*2*	0	0	2	3	*5*
8:30 AM	0	7	18	10	*35*	0	0	0	0	*0*	0	3	10	1	*14*
8:45 AM	1	3	9	17	*30*	0	0	0	1	*1*	0	1	1	1	*3*
Count Total	7	15	72	63	*157*	2	2	2	3	*9*	2	4	14	6	*26*
Peak Hour	**6**	**4**	**34**	**24**	***68***	**1**	**2**	**2**	**1**	***6***	**0**	**0**	**1**	**1**	***2***

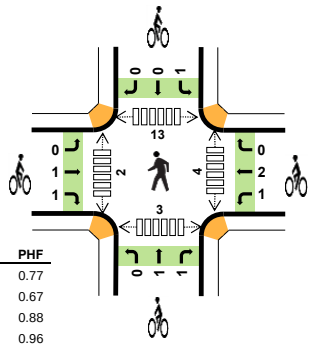
Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

www.idaxdata.com

WILSON AVE
W 43RD ST



Date: Tue, Aug 24, 2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	3.0%	0.77
WB	1.8%	0.67
NB	3.8%	0.88
SB	4.6%	0.96
TOTAL	3.8%	0.93

Two-Hour Count Summaries

Interval Start	W 43RD ST Eastbound				W 43RD ST Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**9**	**13**	**16**	**0**	**26**	**23**	**9**	**0**	**44**	**152**	**59**	**0**	**9**	**160**	**11**	**531**	0
4:15 PM	**0**	**5**	**10**	**12**	**0**	**57**	**22**	**6**	**0**	**27**	**157**	**21**	**0**	**10**	**166**	**10**	**503**	0
4:30 PM	**0**	**8**	**12**	**23**	**0**	**27**	**16**	**7**	**0**	**28**	**167**	**23**	**0**	**6**	**158**	**9**	**484**	0
4:45 PM	**0**	**3**	**7**	**15**	**0**	**20**	**11**	**3**	**0**	**27**	**176**	**13**	**0**	**8**	**155**	**9**	**447**	**1,965**
5:00 PM	0	2	9	25	0	16	15	9	0	26	159	12	0	11	170	10	464	1,898
5:15 PM	0	9	11	17	0	19	14	11	0	45	156	22	0	5	182	11	502	1,897
5:30 PM	0	7	2	18	0	21	14	3	0	25	153	19	0	8	178	6	454	1,867
5:45 PM	0	4	6	14	0	15	13	4	0	35	134	27	0	6	149	6	413	1,833
Count Total	0	47	70	140	0	201	128	52	0	257	1,254	196	0	63	1,318	72	3,798	0
Peak Hour All	**0**	**25**	**42**	**66**	**0**	**130**	**72**	**25**	**0**	**126**	**652**	**116**	**0**	**33**	**639**	**39**	**1,965**	**0**
Peak Hour HV	**0**	**2**	**1**	**1**	**0**	**4**	**0**	**0**	**0**	**2**	**23**	**9**	**0**	**3**	**30**	**0**	**75**	**0**
Peak Hour HV%	**-**	**8%**	**2%**	**2%**	**-**	**3%**	**0%**	**0%**	**-**	**2%**	**4%**	**8%**	**-**	**9%**	**5%**	**0%**	**4%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	**1**	**1**	**17**	**9**	***28***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**1**	**0**	***1***
4:15 PM	**1**	**0**	**10**	**14**	***25***	**0**	**1**	**0**	**0**	***1***	**3**	**1**	**11**	**2**	*17*
4:30 PM	**2**	**2**	**3**	**7**	***14***	**0**	**1**	**1**	**0**	***2***	**1**	**1**	**0**	**1**	*3*
4:45 PM	**0**	**1**	**4**	**3**	***8***	**1**	**1**	**1**	**1**	***4***	**0**	**0**	**1**	**0**	***1***
5:00 PM	0	0	1	5	*6*	0	0	1	0	*1*	0	0	0	1	*1*
5:15 PM	0	0	2	6	*8*	0	0	1	0	*1*	0	2	1	0	*3*
5:30 PM	2	1	4	2	*9*	0	0	0	0	*0*	0	0	1	1	*2*
5:45 PM	1	1	1	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	7	6	42	48	*103*	2	3	4	1	*10*	4	4	15	5	*28*
Peak Hour	**4**	**4**	**34**	**33**	***75***	**2**	**3**	**2**	**1**	***8***	**4**	**2**	**13**	**3**	***22***

Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

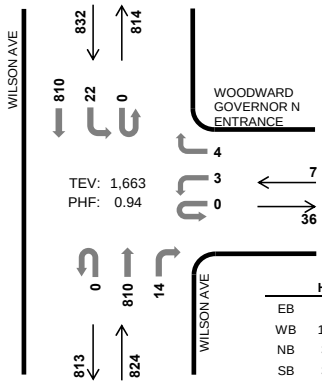
www.idaxdata.com

WILSON AVE
WOODWARD GOVERNOR N

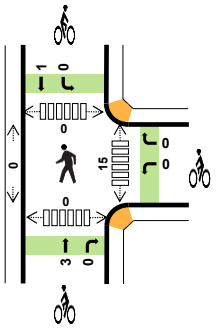
Date: Tue, Aug 24, 2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	14.3%	0.44
NB	3.6%	0.91
SB	3.4%	0.86
TOTAL	3.5%	0.94



Two-Hour Count Summaries

Interval Start		0 Eastbound				WOODWARD GOVERNOR N ENTRANCE Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	0	0	0	0	152	7	0	2	144	0	306	0
7:15 AM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**208**	**4**	**0**	**2**	**182**	**0**	**397**	0
7:30 AM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**221**	**5**	**0**	**3**	**167**	**0**	**397**	0
7:45 AM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**192**	**4**	**0**	**8**	**235**	**0**	**440**	1,540
8:00 AM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**189**	**1**	**0**	**9**	**226**	**0**	**429**	**1,663**
8:15 AM		0	0	0	0	0	1	0	1	0	0	178	2	0	1	181	0	364	1,630
8:30 AM		0	0	0	0	0	0	0	0	0	0	201	2	0	4	163	0	370	1,603
8:45 AM		0	0	0	0	0	0	0	0	0	0	149	2	0	2	194	0	347	1,510
Count Total		0	0	0	0	0	5	0	5	0	0	1,490	27	0	31	1,492	0	3,050	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**4**	**0**	**0**	**810**	**14**	**0**	**22**	**810**	**0**	**1,663**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**30**	**0**	**0**	**0**	**28**	**0**	**59**	**0**
	HV%	-	-	-	-	-	**0%**	-	**25%**	-	-	**4%**	**0%**	-	**0%**	**3%**	-	**4%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	6	2	*8*	0	0	0	0	*0*	5	0	0	0	*5*
7:15 AM	**0**	**0**	**7**	**4**	***11***	**0**	**0**	**1**	**0**	***1***	**7**	**0**	**0**	**0**	*7*
7:30 AM	**0**	**0**	**7**	**8**	***15***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**0**	**0**	**8**	**4**	***12***	**0**	**0**	**0**	**1**	***1***	**7**	**0**	**0**	**0**	*7*
8:00 AM	**0**	**1**	**8**	**12**	***21***	**0**	**0**	**2**	**0**	***2***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	0	9	11	*20*	0	0	0	1	*1*	4	0	0	0	*4*
8:30 AM	0	0	16	19	*35*	0	0	0	0	*0*	3	0	0	0	*3*
8:45 AM	0	0	10	16	*26*	0	0	0	0	*0*	7	0	0	0	*7*
Count Total	0	1	71	76	*148*	0	0	3	2	*5*	34	0	0	0	*34*
Peak Hr	**0**	**1**	**30**	**28**	***59***	**0**	**0**	**3**	**1**	***4***	**15**	**0**	**0**	**0**	***15***

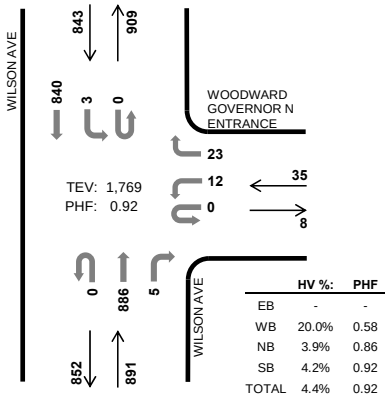
Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

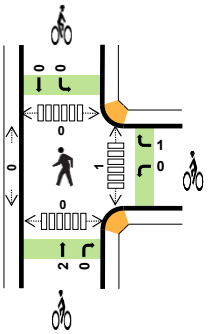
www.idaxdata.com

WILSON AVE
WOODWARD GOVERNOR N

Peak Hour

Date: Tue, Aug 24, 2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





Two-Hour Count Summaries

Interval Start		0 Eastbound				WOODWARD GOVERNOR N ENTRANCE Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**0**	**0**	**0**	**0**	**6**	**0**	**9**	**0**	**0**	**257**	**3**	**0**	**1**	**205**	**0**	**481**	0
4:15 PM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**217**	**0**	**0**	**0**	**230**	**0**	**449**	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**6**	**0**	**0**	**218**	**2**	**0**	**2**	**215**	**0**	**445**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**4**	**0**	**6**	**0**	**0**	**194**	**0**	**0**	**0**	**190**	**0**	**394**	**1,769**
5:00 PM		0	0	0	0	0	4	0	3	0	0	214	1	0	0	221	0	443	1,731
5:15 PM		0	0	0	0	0	1	0	0	0	0	222	0	0	0	220	0	443	1,725
5:30 PM		0	0	0	0	0	1	0	4	0	0	216	0	0	1	226	0	448	1,728
5:45 PM		0	0	0	0	0	3	0	0	0	0	205	0	0	1	168	0	377	1,711
Count Total		0	0	0	0	0	21	0	30	0	0	1,743	6	0	5	1,675	0	3,480	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**23**	**0**	**0**	**886**	**5**	**0**	**3**	**840**	**0**	**1,769**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**2**	**0**	**0**	**32**	**3**	**0**	**1**	**34**	**0**	**77**	**0**
	HV%	-	-	-	-	-	**42%**	-	**9%**	-	-	**4%**	**60%**	-	**33%**	**4%**	-	**4%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**4**	**14**	**8**	***26***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**0**	**0**	*1*
4:15 PM	**0**	**0**	**6**	**10**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**2**	**10**	**10**	***22***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**1**	**5**	**7**	***13***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	0	4	3	*7*	0	1	1	0	*2*	1	0	0	0	*1*
5:15 PM	0	1	1	6	*8*	0	0	2	0	*2*	2	0	0	0	*2*
5:30 PM	0	0	3	5	*8*	0	0	0	0	*0*	2	0	0	0	*2*
5:45 PM	0	1	2	4	*7*	0	0	0	0	*0*	2	0	0	0	*2*
Count Total	0	9	45	53	*107*	0	2	5	0	*7*	8	0	0	0	*8*
Peak Hr	**0**	**7**	**35**	**35**	***77***	**0**	**1**	**2**	**0**	***3***	**1**	**0**	**0**	**0**	***1***

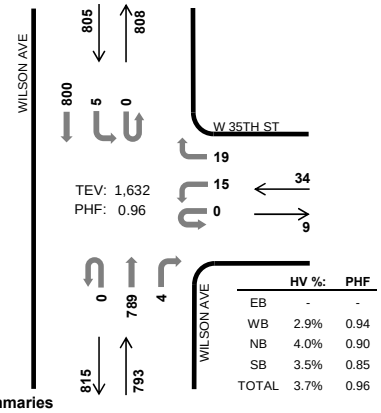
Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

www.idaxdata.com

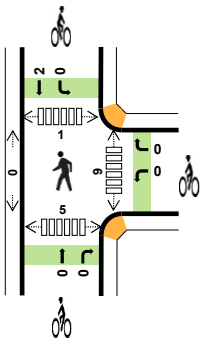
WILSON AVE
W 35TH ST

Peak Hour

Date: Tue, Aug 24, 2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	-	-
WB	2.9%	0.94
NB	4.0%	0.90
SB	3.5%	0.85
TOTAL	3.7%	0.96



Two-Hour Count Summaries

Interval Start	0 Eastbound				W 35TH ST Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	5	0	3	0	0	153	1	0	2	142	0	306	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**6**	**0**	**0**	**202**	**1**	**0**	**0**	**183**	**0**	**395**	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**5**	**0**	**0**	**220**	**1**	**0**	**0**	**159**	**0**	**388**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**5**	**0**	**0**	**188**	**0**	**0**	**3**	**224**	**0**	**424**	1,513
8:00 AM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**0**	**0**	**179**	**2**	**0**	**2**	**234**	**0**	**425**	**1,632**
8:15 AM	0	0	0	0	0	3	0	2	0	0	173	2	0	0	193	0	373	1,610
8:30 AM	0	0	0	0	0	2	0	2	0	0	191	1	0	0	157	0	353	1,575
8:45 AM	0	0	0	0	0	3	0	2	0	0	145	3	0	4	187	0	344	1,495
Count Total	0	0	0	0	0	28	0	28	0	0	1,451	11	0	11	1,479	0	3,008	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**19**	**0**	**0**	**789**	**4**	**0**	**5**	**800**	**0**	**1,632**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**32**	**0**	**0**	**1**	**27**	**0**	**61**	**0**
Peak Hour HV%	-	-	-	-	-	**7%**	-	**0%**	-	-	**4%**	**0%**	-	**20%**	**3%**	-	**4%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

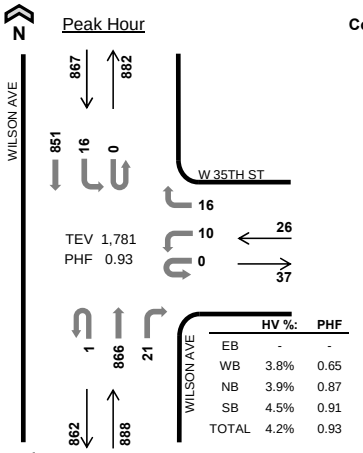
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	5	2	*7*	0	0	0	0	*0*	1	0	2	0	*3*
7:15 AM	**0**	**0**	**8**	**2**	*10*	**0**	**0**	**0**	**0**	*0*	**5**	**0**	**0**	**3**	*8*
7:30 AM	**0**	**1**	**7**	**7**	*15*	**0**	**0**	**0**	**1**	*1*	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**8**	**7**	*15*	**0**	**0**	**0**	**0**	*0*	**3**	**0**	**1**	**2**	*6*
8:00 AM	**0**	**0**	**9**	**12**	*21*	**0**	**0**	**0**	**1**	*1*	**1**	**0**	**0**	**0**	*1*
8:15 AM	0	0	8	11	*19*	0	1	0	1	*2*	1	0	1	3	*5*
8:30 AM	0	0	16	13	*29*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	1	8	22	*31*	0	0	0	1	*1*	1	0	3	3	*7*
Count Total	0	2	69	76	*147*	0	1	0	4	*5*	12	0	7	11	*30*
Peak Hr	**0**	**1**	**32**	**28**	*61*	**0**	**0**	**0**	**2**	*2*	**9**	**0**	**1**	**5**	*15*

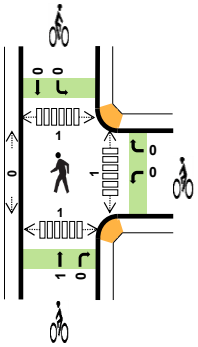
Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

www.idaxdata.com

WILSON AVE
W 35TH ST

Date: Tue, Aug 24, 2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





Two-Hour Count Summaries

Interval Start	0 Eastbound				W 35TH ST Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**7**	**0**	**0**	**247**	**9**	**0**	**2**	**209**	**0**	**477**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**210**	**5**	**0**	**6**	**233**	**0**	**460**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**0**	**216**	**4**	**0**	**4**	**208**	**0**	**437**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**1**	**0**	**193**	**3**	**0**	**4**	**201**	**0**	**407**	**1,781**
5:00 PM	0	0	0	0	0	2	0	3	0	0	205	6	0	2	209	0	427	1,731
5:15 PM	0	0	0	0	0	2	0	5	0	0	218	2	0	4	221	0	452	1,723
5:30 PM	0	0	0	0	0	1	0	2	0	0	205	1	0	2	231	0	442	1,728
5:45 PM	0	0	0	0	0	2	0	4	0	0	204	4	0	4	172	0	390	1,711
Count Total	0	0	0	0	0	17	0	30	1	0	1,698	34	0	28	1,684	0	3,492	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**16**	**1**	**0**	**866**	**21**	**0**	**16**	**851**	**0**	**1,781**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**34**	**1**	**0**	**0**	**39**	**0**	**75**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**6%**	**0%**	**-**	**4%**	**5%**	**-**	**0%**	**5%**	**-**	**4%**	**0**

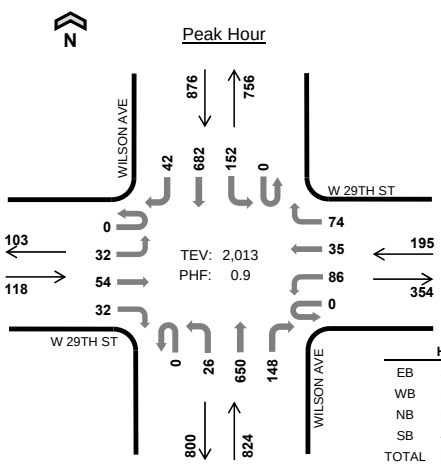
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

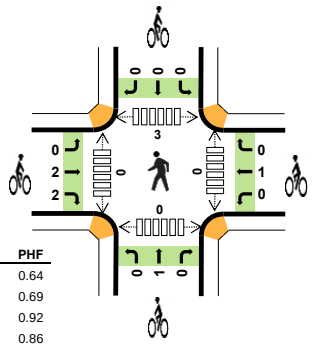
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**0**	**15**	**10**	***25***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**1**	**0**	*1*
4:15 PM	**0**	**0**	**9**	**11**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**1**	**4**	**10**	***15***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**1**	*2*
4:45 PM	**0**	**0**	**7**	**8**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	1	3	3	*7*	0	0	0	0	*0*	1	0	0	0	*1*
5:15 PM	0	0	2	7	*9*	0	0	1	1	*2*	0	0	1	0	*1*
5:30 PM	0	0	3	5	*8*	0	0	0	0	*0*	0	0	3	2	*5*
5:45 PM	0	0	1	3	*4*	0	0	0	0	*0*	2	0	1	0	*3*
Count Total	0	2	44	57	*103*	0	0	2	1	*3*	4	0	6	3	*13*
Peak Hr	**0**	**1**	**35**	**39**	***75***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**1**	**1**	***3***

Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

www.idaxdata.com

WILSON AVE
W 29TH ST





Date: Tue, Aug 24, 2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

	HV %:	PHF
EB	3.4%	0.64
WB	5.6%	0.69
NB	6.3%	0.92
SB	4.0%	0.86
TOTAL	5.1%	0.90

Two-Hour Count Summaries

Interval Start	W 29TH ST Eastbound				W 29TH ST Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	6	5	7	0	12	4	10	0	4	146	22	0	17	134	4	371	0
7:15 AM	0	11	9	6	0	8	10	10	0	3	168	15	0	28	158	3	429	0
7:30 AM	**0**	**10**	**8**	**11**	**0**	**16**	**5**	**12**	**0**	**3**	**184**	**25**	**0**	**29**	**144**	**8**	**455**	0
7:45 AM	**0**	**5**	**8**	**12**	**0**	**22**	**5**	**16**	**0**	**6**	**170**	**48**	**0**	**37**	**180**	**16**	**525**	1,780
8:00 AM	**0**	**12**	**25**	**9**	**0**	**19**	**14**	**15**	**0**	**10**	**153**	**44**	**0**	**55**	**186**	**15**	**557**	1,966
8:15 AM	**0**	**5**	**13**	**0**	**0**	**29**	**11**	**31**	**0**	**7**	**143**	**31**	**0**	**31**	**172**	**3**	**476**	**2,013**
8:30 AM	0	10	9	6	0	21	8	29	0	3	149	35	0	17	139	3	429	1,987
8:45 AM	0	5	10	4	0	19	8	18	0	10	123	35	0	31	157	6	426	1,888
Count Total	0	64	87	55	0	146	65	141	0	46	1,236	255	0	245	1,270	58	3,668	0
Peak Hour All	**0**	**32**	**54**	**32**	**0**	**86**	**35**	**74**	**0**	**26**	**650**	**148**	**0**	**152**	**682**	**42**	**2,013**	**0**
Peak Hour HV	**0**	**1**	**3**	**0**	**0**	**3**	**2**	**6**	**0**	**4**	**30**	**18**	**0**	**1**	**32**	**2**	**102**	**0**
Peak Hour HV%	**-**	**3%**	**6%**	**0%**	**-**	**3%**	**6%**	**8%**	**-**	**15%**	**5%**	**12%**	**-**	**1%**	**5%**	**5%**	**5%**	**0**

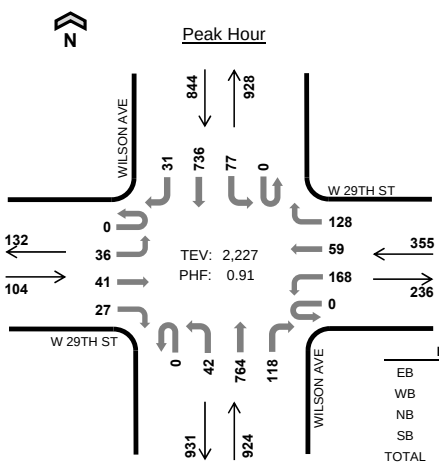
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

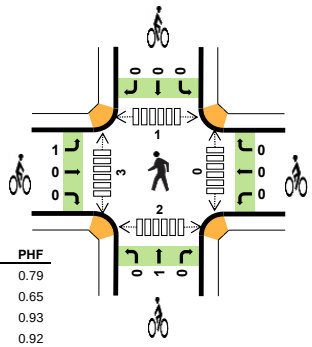
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	7	2	*9*	0	0	0	0	*0*	0	0	0	1	*1*
7:15 AM	0	0	9	4	*13*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	**1**	**2**	**11**	**8**	*22*	**0**	**0**	**0**	**0**	*0*	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**12**	**5**	*17*	**0**	**1**	**1**	**0**	*2*	**0**	**0**	**1**	**0**	*1*
8:00 AM	**3**	**3**	**17**	**9**	*32*	**1**	**0**	**0**	**0**	*1*	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**6**	**12**	**13**	*31*	**3**	**0**	**0**	**0**	*3*	**0**	**0**	**2**	**0**	*2*
8:30 AM	1	3	17	17	*38*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	1	1	8	20	*30*	0	0	0	0	*0*	0	0	0	1	*1*
Count Total	6	15	93	78	*192*	4	1	1	0	*6*	0	0	4	2	*6*
Peak Hour	**4**	**11**	**52**	**35**	*102*	**4**	**1**	**1**	**0**	*6*	**0**	**0**	**3**	**0**	*3*

Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

www.idaxdata.com

WILSON AVE
W 29TH ST





idax

Date: Tue, Aug 24, 2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

	HV %:	PHF
EB	1.0%	0.79
WB	5.4%	0.65
NB	3.0%	0.93
SB	4.6%	0.92
TOTAL	3.9%	0.91

Two-Hour Count Summaries

Interval Start	W 29TH ST Eastbound				W 29TH ST Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**16**	**11**	**6**	**0**	**51**	**27**	**59**	**0**	**12**	**188**	**36**	**0**	**22**	**178**	**9**	**615**	0
4:15 PM	**0**	**7**	**11**	**7**	**0**	**42**	**9**	**24**	**0**	**12**	**187**	**28**	**0**	**16**	**203**	**10**	**556**	0
4:30 PM	**0**	**4**	**10**	**4**	**0**	**37**	**12**	**21**	**0**	**10**	**209**	**30**	**0**	**18**	**185**	**5**	**545**	0
4:45 PM	**0**	**9**	**9**	**10**	**0**	**38**	**11**	**24**	**0**	**8**	**180**	**24**	**0**	**21**	**170**	**7**	**511**	**2,227**
5:00 PM	1	7	7	10	0	40	12	30	0	14	191	26	0	10	187	8	543	2,155
5:15 PM	0	6	13	7	0	38	13	26	0	9	196	31	0	17	198	8	562	2,161
5:30 PM	0	10	6	6	0	33	10	25	0	8	173	23	0	15	197	4	510	2,126
5:45 PM	0	2	8	5	0	37	6	26	0	12	186	16	0	16	159	2	475	2,090
Count Total	1	61	75	55	0	316	100	235	0	85	1,510	214	0	135	1,477	53	4,317	0
Peak Hour All	**0**	**36**	**41**	**27**	**0**	**168**	**59**	**128**	**0**	**42**	**764**	**118**	**0**	**77**	**736**	**31**	**2,227**	**0**
Peak Hour HV	**0**	**0**	**1**	**0**	**0**	**4**	**3**	**12**	**0**	**0**	**24**	**4**	**0**	**2**	**37**	**0**	**87**	**0**
Peak Hour HV%	**-**	**0%**	**2%**	**0%**	**-**	**2%**	**5%**	**9%**	**-**	**0%**	**3%**	**3%**	**-**	**3%**	**5%**	**0%**	**4%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**11**	**10**	**11**	***32***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**1**	**0**	***1***
4:15 PM	**1**	**4**	**5**	**10**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**2**	***4***
4:30 PM	**0**	**2**	**8**	**12**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:45 PM	**0**	**2**	**5**	**6**	***13***	**0**	**0**	**1**	**0**	***1***	**0**	**1**	**0**	**0**	***1***
5:00 PM	0	5	2	6	*13*	0	0	1	0	*1*	0	0	0	0	*0*
5:15 PM	0	4	2	5	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	1	1	7	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	3	*3*	1	0	0	0	*1*	1	0	1	0	*2*
Count Total	2	29	39	57	*127*	2	0	2	0	*4*	1	3	2	2	*8*
Peak Hour	**1**	**19**	**28**	**39**	***87***	**1**	**0**	**1**	**0**	***2***	**0**	**3**	**1**	**2**	***6***

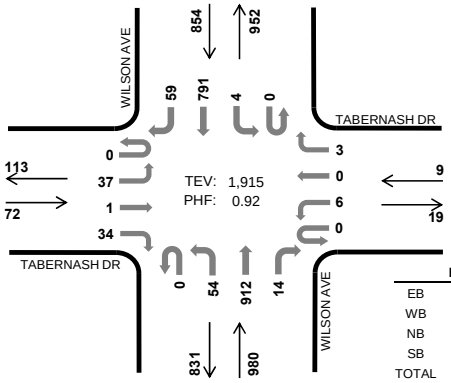
Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

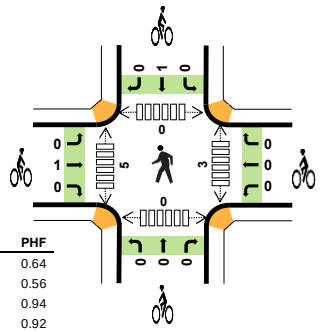
www.idaxdata.com

WILSON AVE
TABERNASH DR

Peak Hour

Date: 03/24/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	2.8%	0.64
WB	0.0%	0.56
NB	3.0%	0.94
SB	3.0%	0.92
TOTAL	3.0%	0.92

Two-Hour Count Summaries

Interval Start		TABERNASH DR Eastbound				TABERNASH DR Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**14**	**1**	**7**	**0**	**1**	**0**	**1**	**0**	**17**	**234**	**3**	**0**	**1**	**197**	**14**	**490**	0
4:15 PM		**0**	**13**	**0**	**15**	**0**	**2**	**0**	**0**	**0**	**13**	**247**	**2**	**0**	**0**	**215**	**16**	**523**	0
4:30 PM		**0**	**4**	**0**	**8**	**0**	**0**	**0**	**1**	**0**	**15**	**217**	**6**	**0**	**2**	**187**	**12**	**452**	0
4:45 PM		**0**	**6**	**0**	**4**	**0**	**3**	**0**	**1**	**0**	**9**	**214**	**3**	**0**	**1**	**192**	**17**	**450**	**1,915**
5:00 PM		0	5	0	10	0	3	0	0	0	4	236	1	0	1	170	9	439	1,864
5:15 PM		0	4	0	6	0	3	0	0	0	4	202	6	0	0	217	17	459	1,800
5:30 PM		0	3	0	10	0	2	0	0	0	10	187	6	0	0	177	11	406	1,754
5:45 PM		0	7	0	6	0	2	0	1	0	12	184	3	0	0	148	13	376	1,680
Count Total		0	56	1	66	0	16	0	4	0	84	1,721	30	0	5	1,503	109	3,595	0
Peak Hour	**All**	**0**	**37**	**1**	**34**	**0**	**6**	**0**	**3**	**0**	**54**	**912**	**14**	**0**	**4**	**791**	**59**	**1,915**	**0**
	HV	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**29**	**0**	**0**	**0**	**25**	**1**	**57**	**0**
	HV%	**-**	**0%**	**0%**	**6%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**3%**	**0%**	**-**	**0%**	**3%**	**2%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**1**	**0**	**17**	**5**	***23***	**0**	**0**	**0**	**1**	***1***	**1**	**2**	**0**	**0**	*3*
4:15 PM	**1**	**0**	**1**	**5**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**0**	**6**	**9**	***15***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**5**	**7**	***12***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**0**	**0**	*5*
5:00 PM	0	0	2	4	*6*	0	0	0	0	*0*	2	0	0	0	*2*
5:15 PM	0	0	3	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	4	*4*	0	0	0	0	*0*	1	1	0	0	*2*
5:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	0	34	39	*75*	1	0	0	1	*2*	6	6	0	0	*12*
Peak Hour	**2**	**0**	**29**	**26**	***57***	**1**	**0**	**0**	**1**	***2***	**3**	**5**	**0**	**0**	*8*

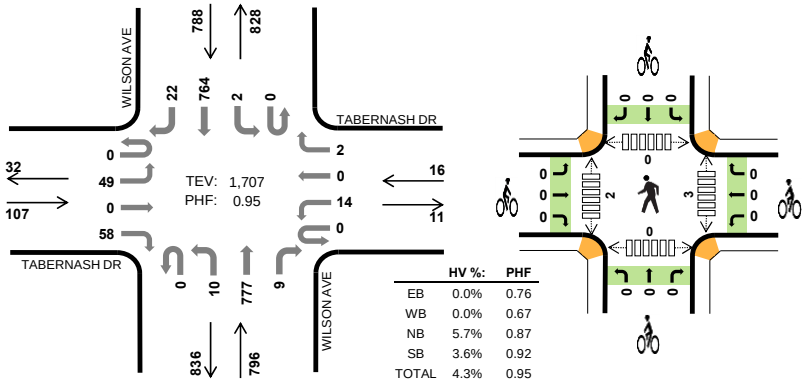
Project Manager: (720) 646-1008 project.manager.co@idaxdata.com

www.idaxdata.com

WILSON AVE
TABERNASH DR

Peak Hour

Date: 03/24/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



Two-Hour Count Summaries

Interval Start	TABERNASH DR Eastbound				TABERNASH DR Westbound				WILSON AVE Northbound				WILSON AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	4	0	9	0	2	0	0	0	2	114	1	0	0	132	0	264	0
7:15 AM	0	10	0	14	0	6	0	0	0	2	188	0	0	0	163	2	385	0
7:30 AM	**0**	**20**	**0**	**15**	**0**	**5**	**0**	**0**	**0**	**2**	**227**	**1**	**0**	**0**	**176**	**3**	**449**	0
7:45 AM	**0**	**14**	**0**	**7**	**0**	**1**	**0**	**1**	**0**	**2**	**205**	**2**	**0**	**0**	**209**	**5**	**446**	1,544
8:00 AM	**0**	**8**	**0**	**19**	**0**	**6**	**0**	**0**	**0**	**3**	**160**	**4**	**0**	**1**	**199**	**10**	**410**	1,690
8:15 AM	**0**	**7**	**0**	**17**	**0**	**2**	**0**	**1**	**0**	**3**	**185**	**2**	**0**	**1**	**180**	**4**	**402**	**1,707**
8:30 AM	0	13	0	3	0	0	0	2	0	4	176	4	0	0	160	9	371	1,629
8:45 AM	0	3	0	6	0	3	0	0	0	6	120	1	0	1	167	4	311	1,494
Count Total	0	79	0	90	0	25	0	4	0	24	1,375	15	0	3	1,386	37	3,038	0
Peak Hour All	**0**	**49**	**0**	**58**	**0**	**14**	**0**	**2**	**0**	**10**	**777**	**9**	**0**	**2**	**764**	**22**	**1,707**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**0**	**0**	**0**	**28**	**0**	**73**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**6%**	**0%**	**-**	**0%**	**4%**	**0%**	**4%**	**0**

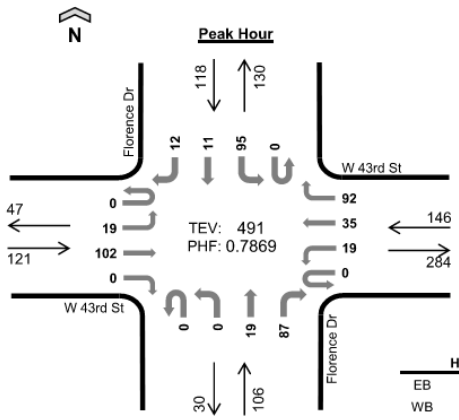
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

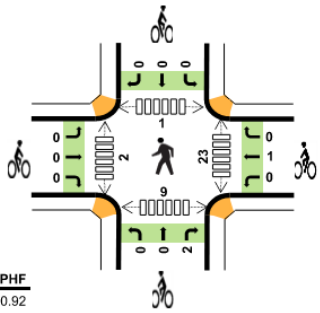
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	0	*3*	0	0	0	0	*0*	2	1	0	0	*3*
7:15 AM	0	0	16	2	*18*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**0**	**0**	**17**	**2**	***19***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**0**	**0**	**8**	**13**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**8**	**2**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:15 AM	**0**	**0**	**12**	**11**	***23***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**0**	*3*
8:30 AM	1	0	17	14	*32*	0	0	0	0	*0*	1	0	0	0	*1*
8:45 AM	0	0	3	5	*8*	0	0	0	1	*1*	2	0	0	0	*2*
Count Total	1	0	84	49	*134*	0	0	0	1	*1*	8	3	0	0	*11*
Peak Hour	**0**	**0**	**45**	**28**	***73***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**0**	**0**	*5*

Project Manager: (720) 646-1008 project.manager.co@idaxdata.com

www.idaxdata.com

Florence Dr
W 43rd St





Date: 9/26/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM

	HV%	PHF
EB	2%	0.92
WB	2%	0.83
NB	1%	0.74
SB	1%	0.61
TOTAL	2%	0.79

Peak Hour Count Summaries

Peak Hour Interval Start		W 43rd St Eastbound				W 43rd St Westbound				Florence Dr Northbound				Florence Dr Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	1	26	0	0	5	4	19	0	0	2	24	0	5	0	0	86	0
7:30 AM		0	7	25	0	0	2	6	32	0	0	3	18	0	16	0	2	111	0
7:45 AM		0	9	20	0	0	3	9	32	0	0	11	25	0	40	4	3	156	0
8:00 AM		0	2	31	0	0	9	16	9	0	0	3	20	0	34	7	7	138	491
Pk Hr	All	0	19	102	0	0	19	35	92	0	0	19	87	0	95	11	12	491	
	HV	0	0	3	0	0	0	1	2	0	0	0	1	0	0	1	0	8	
	HV%	-	0%	3%	-	-	0%	3%	2%	-	-	0%	1%	-	0%	9%	0%	2%	

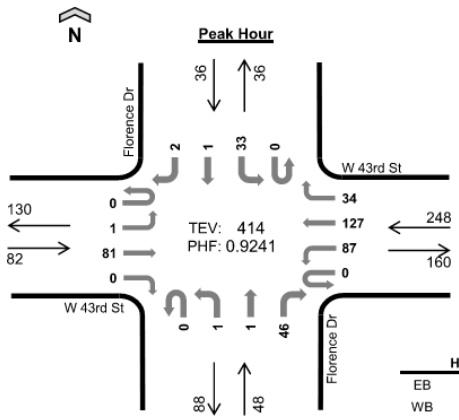
Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

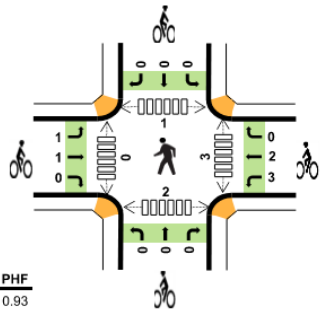
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:15 AM	1	0	1	0	*2*	0	1	0	0	*1*	4	2	0	4	*10*
7:30 AM	0	2	0	0	*2*	0	0	0	0	*0*	5	0	0	2	*7*
7:45 AM	0	1	0	0	*1*	0	0	0	0	*0*	11	0	0	2	*13*
8:00 AM	2	0	0	1	*3*	0	0	2	0	*2*	3	0	1	1	*5*
Peak Hour	3	3	1	1	*8*	0	1	2	0	*3*	23	2	1	9	*35*

TJ Wethington
(720) 646-1008
tj.wethington@idaxdata.com

www.idaxdata.com

Florence Dr
W 43rd St





Date: 9/26/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

	HV%	PHF
EB	4%	0.93
WB	1%	0.93
NB	0%	0.80
SB	3%	0.69
TOTAL	1%	0.92

Peak Hour Count Summaries

Peak Hour Interval Start	W 43rd St Eastbound				W 43rd St Westbound				Florence Dr Northbound				Florence Dr Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	21	0	0	22	35	10	0	0	1	9	0	12	0	1	112	0
4:15 PM	0	0	21	0	0	27	31	9	0	1	0	8	0	7	0	0	104	0
4:30 PM	0	0	18	0	0	20	34	8	0	0	0	14	0	8	1	0	103	0
4:45 PM	0	0	21	0	0	18	27	7	0	0	0	15	0	6	0	1	95	414
Pk Hr All	0	1	81	0	0	87	127	34	0	1	1	46	0	33	1	2	414	
Pk Hr HV	0	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	6	
Pk Hr HV%	-	0%	4%	-	-	0%	2%	0%	-	0%	0%	0%	-	0%	100%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	1	0	0	2	0	3	0	0	3	0	0	0	2	2
4:15 PM	1	1	0	0	2	0	1	0	0	1	1	0	0	0	1
4:30 PM	1	0	0	1	2	1	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	1	0	0	2	2	0	1	0	3
Peak Hour	3	2	0	1	6	2	5	0	0	7	3	0	1	2	6

TJ Wethington
(720) 646-1008
tj.wethington@idaxdata.com

Location: Julesberg Dr S/O 43rd St
Date Range: 10/2/2024 - 10/8/2024
Site Code: 01

Time	Wednesday 10/2/2024			Thursday 10/3/2024			Friday 10/4/2024			Saturday 10/5/2024			Sunday 10/6/2024			Monday 10/7/2024			Tuesday 10/8/2024			Mid-Week Average		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
1:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
2:00 AM	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
3:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
4:00 AM	5	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1	6
5:00 AM	22	2	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	2	24
6:00 AM	34	8	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	8	42
7:00 AM	**64**	9	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**64**	9	73
8:00 AM	50	28	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	28	78
9:00 AM	53	**33**	**86**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	**33**	**86**
10:00 AM	31	20	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	20	51
11:00 AM	33	21	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	21	54
12:00 PM	19	38	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	38	57
1:00 PM	22	22	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	22	44
2:00 PM	33	26	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	26	59
3:00 PM	37	48	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	48	85
4:00 PM	**47**	80	**127**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**47**	80	**127**
5:00 PM	26	**86**	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	**86**	112
6:00 PM	35	41	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	41	76
7:00 PM	14	41	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	41	55
8:00 PM	7	28	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	28	35
9:00 PM	7	16	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	16	23
10:00 PM	2	8	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	8	10
11:00 PM	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3	3
Total	**548**	**560**	**1,108**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**548**	**560**	**1,108**
Percent	**49%**	**51%**		-	-		-	-		-	-		-	-		-	-		-	-		**49%**	**51%**	
AM Peak	07:00	09:00	09:00																			07:00	09:00	09:00
Vol.	64	33	86																			64	33	86
PM Peak	16:00	17:00	16:00																			16:00	17:00	16:00
Vol.	47	86	127																			47	86	127

1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington: 720-646-1008
tj.wethington@idaxdata.com

Location: Julesberg Dr S/O Downieville St
Date Range: 9/26/2024 - 10/2/2024
Site Code: 02

Time	Thursday 9/26/2024			Friday 9/27/2024			Saturday 9/28/2024			Sunday 9/29/2024			Monday 9/30/2024			Tuesday 10/1/2024			Wednesday 10/2/2024			Mid-Week Average		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
1:00 AM	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
2:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
3:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
4:00 AM	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3
5:00 AM	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	13
6:00 AM	16	4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	4	20
7:00 AM	**45**	1	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**45**	1	46
8:00 AM	36	**16**	**52**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	**16**	**52**
9:00 AM	10	8	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	8	18
10:00 AM	9	5	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	5	14
11:00 AM	29	6	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	6	35
12:00 PM	17	14	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	14	31
1:00 PM	16	16	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	32
2:00 PM	16	7	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	7	23
3:00 PM	**28**	**28**	**56**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**28**	**28**	**56**
4:00 PM	9	26	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	26	35
5:00 PM	20	16	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	16	36
6:00 PM	12	14	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	14	26
7:00 PM	13	16	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	16	29
8:00 PM	6	8	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	8	14
9:00 PM	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	5
10:00 PM	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
11:00 PM	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
Total	**301**	**195**	**496**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**301**	**195**	**496**
Percent	**61%**	**39%**		-	-		-	-		-	-		-	-		-	-		-	-		**61%**	**39%**	
AM Peak	07:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	08:00	08:00
Vol.	45	16	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	16	52
PM Peak	15:00	15:00	15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15:00	15:00	15:00
Vol.	28	28	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	28	56

1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington: 720-646-1008
tj.wethington@idaxdata.com

1

Location: La Veta Dr S/O Coal Creek St
Date Range: 9/26/2024 - 10/2/2024
Site Code: 03

Time	Thursday 9/26/2024			Friday 9/27/2024			Saturday 9/28/2024			Sunday 9/29/2024			Monday 9/30/2024			Tuesday 10/1/2024			Wednesday 10/2/2024			Mid-Week Average		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
1:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
2:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
3:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
4:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
5:00 AM	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	3
6:00 AM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
7:00 AM	**8**	1	**9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**8**	1	**9**
8:00 AM	4	**4**	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	**4**	8
9:00 AM	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	4
10:00 AM	5	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1	6
11:00 AM	1	**4**	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	**4**	5
12:00 PM	**6**	3	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**6**	3	9
1:00 PM	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5
2:00 PM	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8
3:00 PM	2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	6	8
4:00 PM	**6**	6	**12**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**6**	6	**12**
5:00 PM	4	**8**	**12**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	**8**	**12**
6:00 PM	2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	6	8
7:00 PM	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4
8:00 PM	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
9:00 PM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
10:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
11:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Total	**55**	**51**	**106**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**55**	**51**	**106**
Percent	**52%**	**48%**		-	-		-	-		-	-		-	-		-	-		-	-		**52%**	**48%**	
AM Peak	07:00	08:00	07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	08:00	07:00
Vol.	8	4	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	4	9
PM Peak	12:00	17:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00	17:00	16:00
Vol.	6	8	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	8	12

1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington: 720-646-1008
tj.wethington@idaxdata.com

Appendix C Level of Service Worksheets

EXISTING

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 10/30/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	69	182	66	43	32	76	731	70	26	619	10
Future Volume (veh/h)	64	69	182	66	43	32	76	731	70	26	619	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	72	78	204	74	48	36	85	821	79	29	696	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	239	280	309	196	280	281	558	2131	205	454	2272	36
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.05	0.66	0.66	0.03	0.64	0.64
Sat Flow, veh/h	1312	1870	1582	1096	1870	1582	1753	3217	309	1753	3523	56
Grp Volume(v), veh/h	72	78	204	74	48	36	85	446	454	29	345	362
Grp Sat Flow(s),veh/h/ln	1312	1870	1582	1096	1870	1582	1753	1749	1777	1753	1749	1830
Q Serve(g_s), s	5.1	3.7	11.9	6.4	2.2	1.9	1.6	11.6	11.6	0.6	8.7	8.7
Cycle Q Clear(g_c), s	7.3	3.7	11.9	10.1	2.2	1.9	1.6	11.6	11.6	0.6	8.7	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.03
Lane Grp Cap(c), veh/h	239	280	309	196	280	281	558	1159	1178	454	1128	1180
V/C Ratio(X)	0.30	0.28	0.66	0.38	0.17	0.13	0.15	0.39	0.39	0.06	0.31	0.31
Avail Cap(c_a), veh/h	364	458	459	300	458	431	768	1159	1178	537	1128	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	37.7	37.2	42.2	37.1	34.6	5.5	7.6	7.6	6.0	7.9	7.9
Incr Delay (d2), s/veh	0.7	0.5	2.4	1.2	0.3	0.2	0.1	1.0	1.0	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.7	4.7	1.8	1.0	0.7	0.5	4.1	4.1	0.2	3.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	38.3	39.6	43.4	37.4	34.8	5.6	8.6	8.6	6.0	8.6	8.5
LnGrp LOS	D	D	D	D	D	C	A	A	A	A	A	A
Approach Vol, veh/h		354			158			985			736	
Approach Delay, s/veh		39.6			39.6			8.3			8.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	72.3		20.5	9.0	70.5		20.5				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	7.5	52.0		24.5	16.5	43.0		24.5				
Max Q Clear Time (g_c+I1), s	2.6	13.6		13.9	3.6	10.7		12.1				
Green Ext Time (p_c), s	0.0	6.6		1.0	0.1	4.6		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		15.5
HCM 6th LOS		B

Lee Farm Loveland 11:59 pm 08/23/2021 Existing AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 10/30/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	43	68	134	74	26	130	672	119	34	658	40
Future Volume (veh/h)	26	43	68	134	74	26	130	672	119	34	658	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	29	48	76	151	83	29	146	755	134	38	739	45
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	246	315	353	265	315	320	505	1833	325	441	2006	122
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.62	0.62	0.03	0.60	0.60
Sat Flow, veh/h	1279	1870	1582	1265	1870	1582	1753	2957	525	1753	3346	204
Grp Volume(v), veh/h	29	48	76	151	83	29	146	446	443	38	386	398
Grp Sat Flow(s),veh/h/ln	1279	1870	1582	1265	1870	1582	1753	1749	1733	1753	1749	1801
Q Serve(g_s), s	1.8	2.0	3.5	10.4	3.5	1.3	2.8	11.7	11.7	0.7	10.2	10.2
Cycle Q Clear(g_c), s	5.3	2.0	3.5	12.4	3.5	1.3	2.8	11.7	11.7	0.7	10.2	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.11
Lane Grp Cap(c), veh/h	246	315	353	265	315	320	505	1084	1074	441	1048	1080
V/C Ratio(X)	0.12	0.15	0.22	0.57	0.26	0.09	0.29	0.41	0.41	0.09	0.37	0.37
Avail Cap(c_a), veh/h	379	509	517	397	509	485	653	1084	1074	488	1048	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	31.9	28.6	37.2	32.6	29.2	6.6	8.7	8.7	6.8	9.3	9.3
Incr Delay (d2), s/veh	0.2	0.2	0.3	1.9	0.4	0.1	0.3	1.2	1.2	0.1	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	1.3	3.3	1.6	0.5	0.9	4.2	4.2	0.2	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	32.2	28.9	39.1	33.0	29.3	6.9	9.9	9.9	6.8	10.3	10.2
LnGrp LOS	D	C	C	D	C	C	A	A	A	A	B	B
Approach Vol, veh/h		153			263			1035			822	
Approach Delay, s/veh		31.1			36.1			9.5			10.1	
Approach LOS		C			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	61.8		20.7	9.4	59.9		20.7				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	5.5	44.0		24.5	12.5	37.0		24.5				
Max Q Clear Time (g_c+I1), s	2.7	13.7		7.3	4.8	12.2		14.4				
Green Ext Time (p_c), s	0.0	6.3		0.5	0.2	5.1		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

9:30 am 10/30/2024 Existing PM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 10/30/2024

Intersection						
Int Delay, s/veh	0.2					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	834	14	23	834
Future Vol, veh/h	3	4	834	14	23	834
Conflicting Peds, #/hr	0	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	3	4	887	15	24	887

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1402	466	0	0	917	0
Stage 1	910	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.18	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	129	538	-	-	727	-
Stage 1	348	-	-	-	-	-
Stage 2	574	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	123	530	-	-	717	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	343	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	245	530	717	-
HCM Lane V/C Ratio	-	-	0.013	0.008	0.034	-
HCM Control Delay (s)	-	-	19.9	11.8	10.2	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0	0	0.1	-

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 10/30/2024

Intersection						
Int Delay, s/veh	0.3					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	24	913	5	3	865
Future Vol, veh/h	12	24	913	5	3	865
Conflicting Peds, #/hr	0	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	13	26	971	5	3	920

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1455	503	0	0	991	0
Stage 1	989	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.18	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	119	509	-	-	681	-
Stage 1	316	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	117	502	-	-	671	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	312	-	-	-	-	-
Stage 2	590	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	233	502	671	-
HCM Lane V/C Ratio	-	-	0.055	0.051	0.005	-
HCM Control Delay (s)	-	-	21.3	12.6	10.4	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0	-

9:30 am 10/30/2024 Existing PM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 10/30/2024

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	19	813	4	5	824
Future Volume (veh/h)	15	19	813	4	5	824
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	21	884	4	5	896
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	57	51	3148	14	614	3084
Arrive On Green	0.03	0.03	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	3721	16	625	3647
Grp Volume(v), veh/h	16	21	433	455	5	896
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1867	625	1777
Q Serve(g_s), s	0.9	1.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	1.3	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.01	1.00	
Lane Grp Cap(c), veh/h	57	51	1542	1621	614	3084
V/C Ratio(X)	0.28	0.41	0.28	0.28	0.01	0.29
Avail Cap(c_a), veh/h	383	341	1542	1621	614	3084
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.67	0.67	1.00	1.00
Uniform Delay (d), s/veh	47.3	47.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.6	5.3	0.3	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	0.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.9	52.7	0.3	0.3	0.0	0.2
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	37		888			901
Approach Delay, s/veh	51.5		0.3			0.2
Approach LOS	D		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		92.3				92.3	7.7
Change Period (Y+Rc), s		5.5				5.5	4.5
Max Green Setting (Gmax), s		68.5				68.5	21.5
Max Q Clear Time (g_c+I1), s		2.0				2.0	3.3
Green Ext Time (p_c), s		5.9				7.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	1.3
HCM 6th LOS	A

Lee Farm Loveland 11:59 pm 08/23/2021 Existing AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 10/30/2024

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	16	892	22	16	877
Future Volume (veh/h)	10	16	892	22	16	877
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	17	970	24	17	953
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	50	44	3050	75	538	3059
Arrive On Green	0.03	0.03	0.86	0.86	1.00	1.00
Sat Flow, veh/h	1781	1585	3637	88	566	3647
Grp Volume(v), veh/h	11	17	486	508	17	953
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1854	566	1777
Q Serve(g_s), s	0.5	0.9	4.7	4.7	0.2	0.0
Cycle Q Clear(g_c), s	0.5	0.9	4.7	4.7	4.9	0.0
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	50	44	1530	1596	538	3059
V/C Ratio(X)	0.22	0.38	0.32	0.32	0.03	0.31
Avail Cap(c_a), veh/h	228	203	1530	1596	538	3059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	42.8	43.0	1.2	1.2	0.1	0.0
Incr Delay (d2), s/veh	2.2	5.4	0.5	0.5	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.2	0.2	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.0	48.3	1.7	1.7	0.3	0.3
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	28		994			970
Approach Delay, s/veh	47.0		1.7			0.3
Approach LOS	D		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		83.0				83.0	7.0
Change Period (Y+Rc), s		5.5				5.5	4.5
Max Green Setting (Gmax), s		68.5				68.5	11.5
Max Q Clear Time (g_c+I1), s		6.7				6.9	2.9
Green Ext Time (p_c), s		7.0				7.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	1.6
HCM 6th LOS	A

9:30 am 10/30/2024 Existing PM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street

10/30/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	56	33	89	36	76	27	670	152	157	702	43
Future Volume (veh/h)	33	56	33	89	36	76	27	670	152	157	702	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	61	36	97	39	83	29	728	165	171	763	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	236	200	198	236	200	566	2345	1046	525	2438	1087
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.03	0.66	0.66	0.07	0.91	0.91
Sat Flow, veh/h	1269	1870	1585	1298	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	36	61	36	97	39	83	29	728	165	171	763	47
Grp Sat Flow(s),veh/h/ln	1269	1870	1585	1298	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.6	2.9	2.0	7.3	1.9	4.8	0.5	8.8	4.0	3.1	2.6	0.3
Cycle Q Clear(g_c), s	4.5	2.9	2.0	10.2	1.9	4.8	0.5	8.8	4.0	3.1	2.6	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	236	200	198	236	200	566	2345	1046	525	2438	1087
V/C Ratio(X)	0.17	0.26	0.18	0.49	0.17	0.41	0.05	0.31	0.16	0.33	0.31	0.04
Avail Cap(c_a), veh/h	296	365	309	280	355	301	607	2345	1046	776	2438	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	41.0	39.5	39.1	44.1	39.0	40.3	5.0	7.3	6.5	5.0	1.5	1.4
Incr Delay (d2), s/veh	0.4	0.6	0.4	1.9	0.3	1.4	0.0	0.3	0.3	0.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.4	0.8	2.4	0.9	1.9	0.2	3.0	1.3	0.9	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	40.0	39.5	46.0	39.3	41.7	5.0	7.6	6.8	5.3	1.8	1.5
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		133			219			922			981	
Approach Delay, s/veh		40.2			43.1			7.4			2.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	71.5		17.6	8.3	74.1		17.6				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	19.5	45.5		* 20	5.1	59.9		19.0				
Max Q Clear Time (g_c+I1), s	5.1	10.8		6.5	2.5	4.6		12.2				
Green Ext Time (p_c), s	0.4	6.2		0.4	0.0	5.8		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street 10/30/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	42	28	173	61	132	43	787	122	79	758	32
Future Volume (veh/h)	37	42	28	173	61	132	43	787	122	79	758	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	46	30	188	66	143	47	855	133	86	824	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	353	299	303	353	299	425	2077	926	425	2115	943
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.58	0.58	0.03	0.40	0.40
Sat Flow, veh/h	1173	1870	1585	1323	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	40	46	30	188	66	143	47	855	133	86	824	35
Grp Sat Flow(s),veh/h/ln	1173	1870	1585	1323	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	1.8	1.4	12.4	2.7	7.2	0.9	11.8	3.4	1.7	14.9	1.2
Cycle Q Clear(g_c), s	5.3	1.8	1.4	14.2	2.7	7.2	0.9	11.8	3.4	1.7	14.9	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	353	299	303	353	299	425	2077	926	425	2115	943
V/C Ratio(X)	0.15	0.13	0.10	0.62	0.19	0.48	0.11	0.41	0.14	0.20	0.39	0.04
Avail Cap(c_a), veh/h	338	468	396	376	457	387	485	2077	926	625	2115	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	33.0	30.4	30.2	36.3	30.7	32.6	7.7	10.2	8.5	7.4	15.4	11.3
Incr Delay (d2), s/veh	0.3	0.2	0.1	2.1	0.3	1.2	0.1	0.6	0.3	0.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	0.5	4.1	1.2	2.8	0.3	4.3	1.1	0.5	6.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	30.5	30.3	38.4	31.0	33.7	7.8	10.8	8.8	7.6	15.9	11.4
LnGrp LOS	C	C	C	D	C	C	A	B	A	A	B	B
Approach Vol, veh/h		116			397			1035			945	
Approach Delay, s/veh		31.4			35.5			10.4			15.0	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	58.1		22.0	9.0	59.1		22.0				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	14.5	37.5		* 23	6.5	45.5		22.0				
Max Q Clear Time (g_c+I1), s	3.7	13.8		7.3	2.9	16.9		16.2				
Green Ext Time (p_c), s	0.1	6.7		0.3	0.0	5.9		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

9:30 am 10/30/2024 Existing PM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/30/2024

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	102	0	19	35	92	0	19	87	95	11	12
Future Vol, veh/h	19	102	0	19	35	92	0	19	87	95	11	12
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	129	0	24	44	116	0	24	110	120	14	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	184	0	0	161	0	0	385	441	194	451	383	137
Stage 1	-	-	-	-	-	-	209	209	-	174	174	-
Stage 2	-	-	-	-	-	-	176	232	-	277	209	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1391	-	-	1418	-	-	573	510	847	519	550	911
Stage 1	-	-	-	-	-	-	793	729	-	828	755	-
Stage 2	-	-	-	-	-	-	826	713	-	729	729	-
Platoon blocked, %			-			-						
Mov Cap-1 Maneuver	1359	-	-	1375	-	-	515	467	795	396	503	881
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	467	-	396	503	-
Stage 1	-	-	-	-	-	-	755	695	-	795	725	-
Stage 2	-	-	-	-	-	-	774	684	-	577	695	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	1	11.3	17.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	706	1359	-	-	1375	-	-	428
HCM Lane V/C Ratio	0.19	0.018	-	-	0.017	-	-	0.349
HCM Control Delay (s)	11.3	7.7	-	-	7.7	-	-	17.9
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	1.5

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/30/2024

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	81	0	87	127	34	1	1	46	33	1	2
Future Vol, veh/h	1	81	0	87	127	34	1	1	46	33	1	2
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	103	0	110	161	43	1	1	58	42	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	228	0	0	135	0	0	553	585	168	595	564	218
Stage 1	-	-	-	-	-	-	137	137	-	427	427	-
Stage 2	-	-	-	-	-	-	416	448	-	168	137	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1340	-	-	1449	-	-	444	423	876	416	435	822
Stage 1	-	-	-	-	-	-	866	783	-	606	585	-
Stage 2	-	-	-	-	-	-	614	573	-	834	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1309	-	-	1405	-	-	398	369	823	343	380	795
Mov Cap-2 Maneuver	-	-	-	-	-	-	398	369	-	343	380	-
Stage 1	-	-	-	-	-	-	839	759	-	591	527	-
Stage 2	-	-	-	-	-	-	557	516	-	749	759	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.7	10	16.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	785	1309	-	-	1405	-	-	355
HCM Lane V/C Ratio	0.077	0.001	-	-	0.078	-	-	0.128
HCM Control Delay (s)	10	7.8	-	-	7.8	-	-	16.6
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.3	-	-	0.4

BACKGROUND 2029

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 10/30/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	70	190	65	45	35	80	835	70	40	785	10
Future Volume (veh/h)	65	70	190	65	45	35	80	835	70	40	785	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	73	79	213	73	51	39	90	938	79	45	882	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	243	290	318	200	290	302	471	2116	178	353	2261	28
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.02	0.21	0.21	0.04	0.64	0.64
Sat Flow, veh/h	1305	1870	1582	1086	1870	1582	1753	3259	274	1753	3537	44
Grp Volume(v), veh/h	73	79	213	73	51	39	90	503	514	45	436	457
Grp Sat Flow(s),veh/h/ln	1305	1870	1582	1086	1870	1582	1753	1749	1785	1753	1749	1832
Q Serve(g_s), s	5.1	3.7	12.4	6.4	2.4	2.0	1.7	25.0	25.0	0.9	12.0	12.0
Cycle Q Clear(g_c), s	7.5	3.7	12.4	10.1	2.4	2.0	1.7	25.0	25.0	0.9	12.0	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.02
Lane Grp Cap(c), veh/h	243	290	318	200	290	302	471	1136	1159	353	1118	1171
V/C Ratio(X)	0.30	0.27	0.67	0.37	0.18	0.13	0.19	0.44	0.44	0.13	0.39	0.39
Avail Cap(c_a), veh/h	361	458	460	298	458	444	680	1136	1159	421	1118	1171
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	37.3	36.9	41.7	36.7	33.6	6.3	23.6	23.6	8.6	8.7	8.7
Incr Delay (d2), s/veh	0.7	0.5	2.4	1.1	0.3	0.2	0.2	1.3	1.2	0.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.7	4.9	1.7	1.1	0.8	0.6	12.0	12.2	0.3	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	37.8	39.4	42.9	37.0	33.8	6.5	24.8	24.8	8.7	9.7	9.7
LnGrp LOS	D	D	D	D	D	C	A	C	C	A	A	A
Approach Vol, veh/h		365			163			1107			938	
Approach Delay, s/veh		39.3			38.8			23.3			9.6	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	70.9		21.0	9.1	69.9		21.0				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	7.5	52.0		24.5	16.5	43.0		24.5				
Max Q Clear Time (g_c+I1), s	2.9	27.0		14.4	3.7	14.0		12.1				
Green Ext Time (p_c), s	0.0	7.1		1.0	0.1	6.2		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Lee Farm Loveland 11:59 pm 08/23/2021 Background 2029 AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	45	75	140	75	40	140	930	125	45	865	40
Future Volume (veh/h)	25	45	75	140	75	40	140	930	125	45	865	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	28	51	84	157	84	45	157	1045	140	51	972	45
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	252	328	370	271	328	341	413	1875	251	312	2002	93
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.04	0.41	0.41	0.04	0.59	0.59
Sat Flow, veh/h	1260	1870	1582	1253	1870	1582	1753	3091	414	1753	3401	157
Grp Volume(v), veh/h	28	51	84	157	84	45	157	591	594	51	500	517
Grp Sat Flow(s),veh/h/ln	1260	1870	1582	1253	1870	1582	1753	1749	1756	1753	1749	1810
Q Serve(g_s), s	1.8	2.1	3.9	10.9	3.5	2.1	3.1	23.3	23.4	1.0	14.8	14.8
Cycle Q Clear(g_c), s	5.3	2.1	3.9	13.0	3.5	2.1	3.1	23.3	23.4	1.0	14.8	14.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.09
Lane Grp Cap(c), veh/h	252	328	370	271	328	341	413	1061	1065	312	1030	1066
V/C Ratio(X)	0.11	0.16	0.23	0.58	0.26	0.13	0.38	0.56	0.56	0.16	0.49	0.49
Avail Cap(c_a), veh/h	374	509	522	392	509	494	555	1061	1065	348	1030	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	31.4	27.9	37.0	32.0	28.5	8.1	17.4	17.5	9.3	10.7	10.7
Incr Delay (d2), s/veh	0.2	0.2	0.3	2.0	0.4	0.2	0.6	2.1	2.1	0.2	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	1.5	3.4	1.6	0.8	1.1	10.4	10.5	0.3	5.5	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	31.7	28.2	38.9	32.4	28.7	8.6	19.5	19.6	9.6	12.3	12.2
LnGrp LOS	C	C	C	D	C	C	A	B	B	A	B	B
Approach Vol, veh/h		163			286			1342			1068	
Approach Delay, s/veh		30.4			35.4			18.3			12.1	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	60.6		21.3	9.7	59.0		21.3				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	5.5	44.0		24.5	12.5	37.0		24.5				
Max Q Clear Time (g_c+I1), s	3.0	25.4		7.3	5.1	16.8		15.0				
Green Ext Time (p_c), s	0.0	7.7		0.5	0.2	6.5		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		18.4
HCM 6th LOS		B

Lee Farm Loveland 9:30 am 10/30/2024 Background 2029 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 10/30/2024

Intersection						
Int Delay, s/veh	0.2					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	985	15	25	1025
Future Vol, veh/h	5	5	985	15	25	1025
Conflicting Peds, #/hr	0	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	5	5	1048	16	27	1090

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1670	547	0	0	1079	0
Stage 1	1071	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.18	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	85	476	-	-	630	-
Stage 1	286	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	80	469	-	-	621	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	282	-	-	-	-	-
Stage 2	484	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	196	469	621	-
HCM Lane V/C Ratio	-	-	0.027	0.011	0.043	-
HCM Control Delay (s)	-	-	23.9	12.8	11.1	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0.1	-

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 10/31/2024

Intersection						
Int Delay, s/veh	0.3					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	25	1195	5	5	1085
Future Vol, veh/h	10	25	1195	5	5	1085
Conflicting Peds, #/hr	0	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	11	27	1271	5	5	1154

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1876	653	0	0	1291	0
Stage 1	1289	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.18	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	62	405	-	-	522	-
Stage 1	219	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	61	399	-	-	515	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	161	399	515	-
HCM Lane V/C Ratio	-	-	0.066	0.067	0.01	-
HCM Control Delay (s)	-	-	28.9	14.7	12.1	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0	-

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1	1	15	1	20	1	920	5	5	1000	10
Future Volume (veh/h)	40	1	1	15	1	20	1	920	5	5	1000	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	1	1	16	1	22	1	1000	5	5	1087	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	58	58	166	5	101	499	3018	15	538	3000	30
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1362	858	858	1415	68	1494	513	3626	18	560	3604	36
Grp Volume(v), veh/h	43	0	2	16	0	23	1	490	515	5	536	562
Grp Sat Flow(s),veh/h/ln	1362	0	1716	1415	0	1561	513	1777	1867	560	1777	1864
Q Serve(g_s), s	3.1	0.0	0.1	1.1	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.1	1.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.50	1.00		0.96	1.00		0.01	1.00		0.02
Lane Grp Cap(c), veh/h	145	0	116	166	0	105	499	1479	1554	538	1479	1551
V/C Ratio(X)	0.30	0.00	0.02	0.10	0.00	0.22	0.00	0.33	0.33	0.01	0.36	0.36
Avail Cap(c_a), veh/h	427	0	472	460	0	429	499	1479	1554	538	1479	1551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	0.0	43.5	44.1	0.0	44.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.1	0.2	0.0	1.0	0.0	0.6	0.5	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.4	0.0	0.6	0.0	0.2	0.2	0.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	43.6	44.3	0.0	45.2	0.0	0.6	0.5	0.0	0.7	0.7
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		45			39			1006			1103	
Approach Delay, s/veh		47.2			44.8			0.6			0.7	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		88.8		11.2		88.8		11.2				
Change Period (Y+Rc), s		5.5		4.5		5.5		4.5				
Max Green Setting (Gmax), s		62.5		27.5		62.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0		6.5		2.0		3.4				
Green Ext Time (p_c), s		7.1		0.1		8.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			2.4									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1	1	10	1	15	1	1150	20	15	1065	35
Future Volume (veh/h)	20	1	1	10	1	15	1	1150	20	15	1065	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		1.00	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	1	1	11	1	16	1	1250	22	16	1158	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	43	43	150	5	74	472	2996	53	445	2944	97
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1359	858	858	1415	92	1467	467	3573	63	435	3511	115
Grp Volume(v), veh/h	22	0	2	11	0	17	1	622	650	16	586	610
Grp Sat Flow(s),veh/h/ln	1359	0	1716	1415	0	1558	467	1777	1859	435	1777	1849
Q Serve(g_s), s	1.4	0.0	0.1	0.7	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.1	0.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.50	1.00		0.94	1.00		0.03	1.00		0.06
Lane Grp Cap(c), veh/h	134	0	86	150	0	78	472	1490	1559	445	1490	1551
V/C Ratio(X)	0.16	0.00	0.02	0.07	0.00	0.22	0.00	0.42	0.42	0.04	0.39	0.39
Avail Cap(c_a), veh/h	375	0	391	401	0	355	472	1490	1559	445	1490	1551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	0.0	40.6	41.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.2	0.0	1.4	0.0	0.8	0.8	0.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.4	0.0	0.3	0.3	0.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	40.7	41.2	0.0	42.4	0.0	0.8	0.8	0.2	0.8	0.8
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		24			28			1273			1212	
Approach Delay, s/veh		42.6			41.9			0.8			0.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		81.0		9.0		81.0		9.0				
Change Period (Y+Rc), s		5.5		4.5		5.5		4.5				
Max Green Setting (Gmax), s		59.5		20.5		59.5		20.5				
Max Q Clear Time (g_c+I1), s		2.0		4.4		2.0		2.9				
Green Ext Time (p_c), s		10.4		0.0		9.8		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			1.6									
HCM 6th LOS			A									

Lee Farm Loveland 9:30 am 10/30/2024 Background 2029 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street

10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	100	80	95	50	80	40	770	160	165	900	45
Future Volume (veh/h)	35	100	80	95	50	80	40	770	160	165	900	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	109	87	103	54	87	43	837	174	179	978	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	298	253	200	298	253	415	2208	985	459	2294	1023
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.62	0.62	0.06	0.65	0.65
Sat Flow, veh/h	1248	1870	1585	1187	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	109	87	103	54	87	43	837	174	179	978	49
Grp Sat Flow(s),veh/h/ln	1248	1870	1585	1187	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	5.2	4.9	8.5	2.5	4.9	0.9	11.7	4.7	3.6	13.5	1.1
Cycle Q Clear(g_c), s	5.2	5.2	4.9	13.7	2.5	4.9	0.9	11.7	4.7	3.6	13.5	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	240	298	253	200	298	253	415	2208	985	459	2294	1023
V/C Ratio(X)	0.16	0.37	0.34	0.52	0.18	0.34	0.10	0.38	0.18	0.39	0.43	0.05
Avail Cap(c_a), veh/h	284	365	309	236	355	301	443	2208	985	701	2294	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	38.6	37.5	37.4	43.6	36.4	37.4	6.7	9.4	8.0	6.7	8.7	6.5
Incr Delay (d2), s/veh	0.3	0.7	0.8	2.1	0.3	0.8	0.1	0.5	0.4	0.5	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	1.9	2.6	1.1	1.9	0.3	4.2	1.6	1.1	4.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	38.2	38.2	45.7	36.7	38.2	6.8	9.9	8.4	7.2	9.2	6.6
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		234			244			1054			1206	
Approach Delay, s/veh		38.3			41.0			9.5			8.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	67.6		21.0	9.0	70.1		21.0				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	19.5	45.5		* 20	5.1	59.9		19.0				
Max Q Clear Time (g_c+I1), s	5.6	13.7		7.2	2.9	15.5		15.7				
Green Ext Time (p_c), s	0.4	7.3		0.7	0.0	7.9		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street

10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	65	55	180	100	140	85	1040	130	85	940	30
Future Volume (veh/h)	35	65	55	180	100	140	85	1040	130	85	940	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	71	60	196	109	152	92	1130	141	92	1022	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	396	336	307	396	336	330	1992	888	324	1992	888
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.56	0.56	0.02	0.18	0.18
Sat Flow, veh/h	1118	1870	1585	1259	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	71	60	196	109	152	92	1130	141	92	1022	33
Grp Sat Flow(s),veh/h/ln	1118	1870	1585	1259	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.6	2.8	2.8	13.6	4.4	7.5	1.9	18.4	3.9	1.9	23.3	1.5
Cycle Q Clear(g_c), s	7.0	2.8	2.8	16.4	4.4	7.5	1.9	18.4	3.9	1.9	23.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	396	336	307	396	336	330	1992	888	324	1992	888
V/C Ratio(X)	0.14	0.18	0.18	0.64	0.28	0.45	0.28	0.57	0.16	0.28	0.51	0.04
Avail Cap(c_a), veh/h	305	468	396	349	457	387	370	1992	888	522	1992	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	32.6	29.1	29.1	35.8	29.7	30.9	10.8	12.7	9.5	10.0	25.6	16.7
Incr Delay (d2), s/veh	0.3	0.2	0.3	3.2	0.4	1.0	0.5	1.2	0.4	0.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	1.1	4.3	2.0	2.9	0.7	6.9	1.3	0.7	11.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	29.3	29.3	39.0	30.1	31.9	11.3	13.9	9.9	10.4	26.5	16.8
LnGrp LOS	C	C	C	D	C	C	B	B	A	B	C	B
Approach Vol, veh/h		169			457			1363			1147	
Approach Delay, s/veh		30.1			34.5			13.3			24.9	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	55.9		24.1	10.0	55.9		24.1				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	14.5	37.5		* 23	6.5	45.5		22.0				
Max Q Clear Time (g_c+I1), s	3.9	20.4		9.0	3.9	25.3		18.4				
Green Ext Time (p_c), s	0.1	7.9		0.5	0.0	6.8		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/31/2024

Intersection												
Int Delay, s/veh	7.7											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	100	0	20	35	95	0	20	85	105	10	10
Future Vol, veh/h	20	100	0	20	35	95	0	20	85	105	10	10
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	127	0	25	44	120	0	25	108	133	13	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	188	0	0	159	0	0	387	447	192	455	387	139
Stage 1	-	-	-	-	-	-	209	209	-	178	178	-
Stage 2	-	-	-	-	-	-	178	238	-	277	209	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1386	-	-	1420	-	-	572	506	850	515	547	909
Stage 1	-	-	-	-	-	-	793	729	-	824	752	-
Stage 2	-	-	-	-	-	-	824	708	-	729	729	-
Platoon blocked, %			-			-						
Mov Cap-1 Maneuver	1354	-	-	1377	-	-	516	462	798	393	500	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	516	462	-	393	500	-
Stage 1	-	-	-	-	-	-	755	695	-	790	721	-
Stage 2	-	-	-	-	-	-	775	679	-	578	695	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	1	11.3	18.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	701	1354	-	-	1377	-	-	419
HCM Lane V/C Ratio	0.19	0.019	-	-	0.018	-	-	0.378
HCM Control Delay (s)	11.3	7.7	-	-	7.7	-	-	18.7
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	1.7

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/31/2024

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	80	0	85	125	45	1	1	45	40	1	2
Future Vol, veh/h	1	80	0	85	125	45	1	1	45	40	1	2
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	101	0	108	158	57	1	1	57	51	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	239	0	0	133	0	0	551	590	166	592	562	222
Stage 1	-	-	-	-	-	-	135	135	-	427	427	-
Stage 2	-	-	-	-	-	-	416	455	-	165	135	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1328	-	-	1452	-	-	445	420	878	418	436	818
Stage 1	-	-	-	-	-	-	868	785	-	606	585	-
Stage 2	-	-	-	-	-	-	614	569	-	837	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1298	-	-	1408	-	-	399	367	824	346	381	791
Mov Cap-2 Maneuver	-	-	-	-	-	-	399	367	-	346	381	-
Stage 1	-	-	-	-	-	-	841	761	-	591	528	-
Stage 2	-	-	-	-	-	-	558	513	-	753	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.6	10	16.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	785	1298	-	-	1408	-	-	356
HCM Lane V/C Ratio	0.076	0.001	-	-	0.076	-	-	0.153
HCM Control Delay (s)	10	7.8	-	-	7.8	-	-	16.9
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5

TOTAL 2029

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	70	190	70	45	35	90	860	80	40	800	45
Future Volume (veh/h)	75	70	190	70	45	35	90	860	80	40	800	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	79	213	79	51	39	101	966	90	45	899	51
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	243	290	320	200	290	302	448	2095	195	339	2145	122
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.21	0.21	0.04	0.64	0.64
Sat Flow, veh/h	1305	1870	1582	1086	1870	1582	1753	3227	301	1753	3362	191
Grp Volume(v), veh/h	84	79	213	79	51	39	101	523	533	45	468	482
Grp Sat Flow(s),veh/h/ln	1305	1870	1582	1086	1870	1582	1753	1749	1779	1753	1749	1804
Q Serve(g_s), s	6.0	3.7	12.4	6.9	2.4	2.0	1.9	26.1	26.1	0.9	13.2	13.2
Cycle Q Clear(g_c), s	8.3	3.7	12.4	10.6	2.4	2.0	1.9	26.1	26.1	0.9	13.2	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.11
Lane Grp Cap(c), veh/h	243	290	320	200	290	302	448	1135	1155	339	1116	1151
V/C Ratio(X)	0.35	0.27	0.67	0.40	0.18	0.13	0.23	0.46	0.46	0.13	0.42	0.42
Avail Cap(c_a), veh/h	361	458	462	298	458	444	655	1135	1155	408	1116	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	37.3	36.8	42.0	36.7	33.6	6.5	24.0	24.0	8.9	8.9	8.9
Incr Delay (d2), s/veh	0.8	0.5	2.4	1.3	0.3	0.2	0.3	1.3	1.3	0.2	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.7	4.9	1.9	1.1	0.8	0.7	12.5	12.7	0.3	4.8	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	37.8	39.2	43.2	37.0	33.8	6.8	25.4	25.4	9.0	10.1	10.1
LnGrp LOS	D	D	D	D	D	C	A	C	C	A	B	B
Approach Vol, veh/h		376			169			1157			995	
Approach Delay, s/veh		39.3			39.2			23.7			10.0	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	70.9		21.0	9.2	69.8		21.0				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	7.5	52.0		24.5	16.5	43.0		24.5				
Max Q Clear Time (g_c+I1), s	2.9	28.1		14.4	3.9	15.2		12.6				
Green Ext Time (p_c), s	0.0	7.4		1.0	0.2	6.7		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Lee Farm Loveland 11:59 pm 08/23/2021 Total 2029 AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	45	80	155	75	40	140	955	135	45	900	45
Future Volume (veh/h)	25	45	80	155	75	40	140	955	135	45	900	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	28	51	90	174	84	45	157	1073	152	51	1011	51
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	270	353	392	287	353	362	389	1820	257	292	1944	98
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.40	0.40	0.04	0.57	0.57
Sat Flow, veh/h	1260	1870	1583	1246	1870	1583	1753	3067	434	1753	3385	171
Grp Volume(v), veh/h	28	51	90	174	84	45	157	611	614	51	522	540
Grp Sat Flow(s),veh/h/ln	1260	1870	1583	1246	1870	1583	1753	1749	1752	1753	1749	1807
Q Serve(g_s), s	1.7	2.0	4.1	12.2	3.4	2.0	3.2	24.7	24.8	1.0	16.3	16.3
Cycle Q Clear(g_c), s	5.2	2.0	4.1	14.2	3.4	2.0	3.2	24.7	24.8	1.0	16.3	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.09
Lane Grp Cap(c), veh/h	270	353	392	287	353	362	389	1038	1040	292	1004	1038
V/C Ratio(X)	0.10	0.14	0.23	0.61	0.24	0.12	0.40	0.59	0.59	0.17	0.52	0.52
Avail Cap(c_a), veh/h	375	509	524	391	509	494	529	1038	1040	329	1004	1038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	30.4	27.0	36.4	31.0	27.5	8.9	18.5	18.5	10.2	11.6	11.6
Incr Delay (d2), s/veh	0.2	0.2	0.3	2.1	0.3	0.2	0.7	2.5	2.5	0.3	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	1.5	3.8	1.5	0.8	1.1	11.1	11.1	0.4	6.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	30.6	27.3	38.4	31.4	27.7	9.6	20.9	21.0	10.5	13.5	13.5
LnGrp LOS	C	C	C	D	C	C	A	C	C	B	B	B
Approach Vol, veh/h		169			303			1382			1113	
Approach Delay, s/veh		29.3			34.9			19.7			13.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	59.4		22.5	9.8	57.7		22.5				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	5.5	44.0		24.5	12.5	37.0		24.5				
Max Q Clear Time (g_c+I1), s	3.0	26.8		7.2	5.2	18.3		16.2				
Green Ext Time (p_c), s	0.0	7.7		0.5	0.2	6.7		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Lee Farm Loveland 9:30 am 10/30/2024 Total 2029 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 10/31/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	5	0	5	0	1030	15	25	1030	10
Future Vol, veh/h	0	0	10	5	0	5	0	1030	15	25	1030	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	15	15	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	92	94	92	94	94	94	94	92
Heavy Vehicles, %	2	2	2	4	2	4	2	4	4	4	4	2
Mvmt Flow	0	0	11	5	0	5	0	1096	16	27	1096	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	548	1721	-	571	-	0	0	1127	0	0
Stage 1	-	-	-	1119	-	-	-	-	-	-	-	-
Stage 2	-	-	-	602	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.58	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	-	-	-	6.58	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	0	0	480	56	0	459	0	-	-	604	-	-
Stage 1	0	0	-	217	0	-	0	-	-	-	-	-
Stage 2	0	0	-	448	0	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	480	52	-	452	-	-	-	595	-	-
Mov Cap-2 Maneuver	-	-	-	151	-	-	-	-	-	-	-	-
Stage 1	-	-	-	217	-	-	-	-	-	-	-	-
Stage 2	-	-	-	418	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	21.4	0	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	480	151	452	595	-	-
HCM Lane V/C Ratio	-	-	0.023	0.035	0.012	0.045	-	-
HCM Control Delay (s)	-	-	12.7	29.7	13.1	11.3	-	-
HCM Lane LOS	-	-	B	D	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0	0.1	-	-

Lee Farm Loveland 11:59 pm 08/23/2021 Total 2029 AM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 10/31/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	10	0	25	0	1230	5	5	1105	30
Future Vol, veh/h	0	0	10	10	0	25	0	1230	5	5	1105	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	15	15	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	92	94	92	94	94	94	94	92
Heavy Vehicles, %	2	2	2	4	2	4	2	4	4	4	4	2
Mvmt Flow	0	0	11	11	0	27	0	1309	5	5	1176	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	588	1925	-	672	-	0	0	1329	0	0
Stage 1	-	-	-	1327	-	-	-	-	-	-	-	-
Stage 2	-	-	-	598	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.58	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	-	-	-	6.58	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	0	0	452	39	0	394	0	-	-	505	-	-
Stage 1	0	0	-	161	0	-	0	-	-	-	-	-
Stage 2	0	0	-	451	0	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	452	37	-	388	-	-	-	498	-	-
Mov Cap-2 Maneuver	-	-	-	120	-	-	-	-	-	-	-	-
Stage 1	-	-	-	161	-	-	-	-	-	-	-	-
Stage 2	-	-	-	436	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	21.5	0	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	452	120	388	498	-	-
HCM Lane V/C Ratio	-	-	0.024	0.089	0.069	0.011	-	-
HCM Control Delay (s)	-	-	13.2	37.9	15	12.3	-	-
HCM Lane LOS	-	-	B	E	C	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.2	0	-	-

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1	60	15	1	20	25	920	5	5	1010	15
Future Volume (veh/h)	85	1	60	15	1	20	25	920	5	5	1010	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	1	65	16	1	22	27	1000	5	5	1098	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	3	170	165	7	163	472	2870	14	515	2838	41
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1371	24	1565	1335	68	1506	505	3626	18	560	3585	52
Grp Volume(v), veh/h	92	0	66	16	0	23	27	490	515	5	544	570
Grp Sat Flow(s),veh/h/ln	1371	0	1589	1335	0	1574	505	1777	1867	560	1777	1861
Q Serve(g_s), s	6.5	0.0	3.9	1.1	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	0.0	3.9	5.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.98	1.00		0.96	1.00		0.01	1.00		0.03
Lane Grp Cap(c), veh/h	203	0	172	165	0	171	472	1406	1478	515	1406	1473
V/C Ratio(X)	0.45	0.00	0.38	0.10	0.00	0.13	0.06	0.35	0.35	0.01	0.39	0.39
Avail Cap(c_a), veh/h	431	0	437	388	0	433	472	1406	1478	515	1406	1473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	41.5	43.8	0.0	40.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	1.4	0.3	0.0	0.4	0.2	0.6	0.6	0.0	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.6	0.4	0.0	0.5	0.0	0.3	0.3	0.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	42.9	44.0	0.0	40.7	0.2	0.6	0.6	0.0	0.8	0.8
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		158			39			1032			1119	
Approach Delay, s/veh		44.4			42.1			0.6			0.8	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		84.7		15.3		84.7		15.3				
Change Period (Y+Rc), s		5.5		4.5		5.5		4.5				
Max Green Setting (Gmax), s		62.5		27.5		62.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0		9.8		2.0		7.0				
Green Ext Time (p_c), s		7.6		0.5		8.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			4.3									
HCM 6th LOS			A									

Lee Farm Loveland 11:59 pm 08/23/2021 Total 2029 AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	1	40	10	1	15	75	1150	20	15	1075	55
Future Volume (veh/h)	55	1	40	10	1	15	75	1150	20	15	1075	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	1	43	11	1	16	82	1250	22	16	1168	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	3	128	157	8	122	446	2881	51	431	2772	142
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1373	36	1554	1362	92	1479	453	3573	63	435	3438	176
Grp Volume(v), veh/h	60	0	44	11	0	17	82	622	650	16	603	625
Grp Sat Flow(s),veh/h/ln	1373	0	1591	1362	0	1572	453	1777	1859	435	1777	1837
Q Serve(g_s), s	3.8	0.0	2.3	0.7	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.7	0.0	2.3	3.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.98	1.00		0.94	1.00		0.03	1.00		0.10
Lane Grp Cap(c), veh/h	180	0	131	157	0	130	446	1433	1499	431	1433	1482
V/C Ratio(X)	0.33	0.00	0.34	0.07	0.00	0.13	0.18	0.43	0.43	0.04	0.42	0.42
Avail Cap(c_a), veh/h	379	0	362	355	0	358	446	1433	1499	431	1433	1482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	0.0	39.0	40.4	0.0	38.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.5	0.2	0.0	0.5	0.8	0.8	0.8	0.2	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.0	0.2	0.0	0.4	0.1	0.3	0.3	0.0	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	40.4	40.6	0.0	38.7	0.8	0.8	0.8	0.2	0.9	0.9
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		104			28			1354			1244	
Approach Delay, s/veh		41.1			39.5			0.8			0.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	78.1	11.9	78.1	11.9
Change Period (Y+Rc), s	5.5	4.5	5.5	4.5
Max Green Setting (Gmax), s	59.5	20.5	59.5	20.5
Max Q Clear Time (g_c+I1), s	2.0	6.7	2.0	5.0
Green Ext Time (p_c), s	12.6	0.3	10.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	2.8
HCM 6th LOS	A

Lee Farm Loveland 9:30 am 10/30/2024 Total 2029 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street

10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	100	80	95	50	90	40	785	160	195	940	45
Future Volume (veh/h)	35	100	80	95	50	90	40	785	160	195	940	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	109	87	103	54	98	43	853	174	212	1022	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	299	253	200	299	253	399	2178	971	462	2294	1023
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.61	0.61	0.07	0.65	0.65
Sat Flow, veh/h	1235	1870	1585	1187	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	109	87	103	54	98	43	853	174	212	1022	49
Grp Sat Flow(s),veh/h/ln	1235	1870	1585	1187	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	5.2	4.9	8.5	2.5	5.5	0.9	12.2	4.8	4.3	14.3	1.1
Cycle Q Clear(g_c), s	5.2	5.2	4.9	13.7	2.5	5.5	0.9	12.2	4.8	4.3	14.3	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	299	253	200	299	253	399	2178	971	462	2294	1023
V/C Ratio(X)	0.16	0.36	0.34	0.52	0.18	0.39	0.11	0.39	0.18	0.46	0.45	0.05
Avail Cap(c_a), veh/h	282	365	309	236	355	301	427	2178	971	689	2294	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	38.6	37.5	37.4	43.6	36.4	37.6	7.0	9.9	8.4	7.0	8.8	6.5
Incr Delay (d2), s/veh	0.3	0.7	0.8	2.1	0.3	1.0	0.1	0.5	0.4	0.7	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	1.9	2.6	1.1	2.2	0.3	4.5	1.6	1.4	4.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	38.2	38.2	45.6	36.6	38.6	7.1	10.4	8.8	7.7	9.4	6.6
LnGrp LOS	D	D	D	D	D	D	A	B	A	A	A	A
Approach Vol, veh/h		234			255			1070			1283	
Approach Delay, s/veh		38.3			41.0			10.0			9.0	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	66.8		21.0	9.0	70.0		21.0				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	19.5	45.5		* 20	5.1	59.9		19.0				
Max Q Clear Time (g_c+I1), s	6.3	14.2		7.2	2.9	16.3		15.7				
Green Ext Time (p_c), s	0.4	7.4		0.7	0.0	8.4		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street 10/31/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	65	55	180	100	170	85	1085	130	105	970	30
Future Volume (veh/h)	35	65	55	180	100	170	85	1085	130	105	970	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	71	60	196	109	185	92	1179	141	114	1054	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	397	336	308	397	336	321	1982	884	314	1990	888
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.56	0.56	0.02	0.18	0.18
Sat Flow, veh/h	1085	1870	1585	1259	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	71	60	196	109	185	92	1179	141	114	1054	33
Grp Sat Flow(s),veh/h/ln	1085	1870	1585	1259	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	2.8	2.8	13.6	4.4	9.4	1.9	19.8	3.9	2.4	24.1	1.5
Cycle Q Clear(g_c), s	7.1	2.8	2.8	16.4	4.4	9.4	1.9	19.8	3.9	2.4	24.1	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	397	336	308	397	336	321	1982	884	314	1990	888
V/C Ratio(X)	0.15	0.18	0.18	0.64	0.27	0.55	0.29	0.59	0.16	0.36	0.53	0.04
Avail Cap(c_a), veh/h	298	468	396	349	457	387	360	1982	884	508	1990	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	32.6	29.0	29.0	35.7	29.7	31.6	11.2	13.2	9.7	10.7	26.0	16.8
Incr Delay (d2), s/veh	0.3	0.2	0.3	3.1	0.4	1.4	0.5	1.3	0.4	0.6	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	1.1	4.3	2.0	3.6	0.7	7.4	1.3	0.8	11.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	29.2	29.3	38.9	30.0	33.0	11.7	14.5	10.0	11.4	26.9	16.8
LnGrp LOS	C	C	C	D	C	C	B	B	B	B	C	B
Approach Vol, veh/h		169			490			1412			1201	
Approach Delay, s/veh		30.1			34.7			13.9			25.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	55.7		24.1	10.0	55.9		24.1				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	14.5	37.5		* 23	6.5	45.5		22.0				
Max Q Clear Time (g_c+I1), s	4.4	21.8		9.1	3.9	26.1		18.4				
Green Ext Time (p_c), s	0.2	7.9		0.5	0.0	7.0		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/31/2024

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	100	0	20	35	105	0	20	85	115	10	10
Future Vol, veh/h	20	100	0	20	35	105	0	20	85	115	10	10
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	127	0	25	44	133	0	25	108	146	13	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	159	0	0	394	460	192	462	394	146
Stage 1	-	-	-	-	-	-	209	209	-	185	185	-
Stage 2	-	-	-	-	-	-	185	251	-	277	209	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1371	-	-	1420	-	-	566	498	850	510	542	901
Stage 1	-	-	-	-	-	-	793	729	-	817	747	-
Stage 2	-	-	-	-	-	-	817	699	-	729	729	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1340	-	-	1377	-	-	510	455	798	389	495	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	455	-	389	495	-
Stage 1	-	-	-	-	-	-	754	694	-	784	716	-
Stage 2	-	-	-	-	-	-	768	670	-	578	694	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	1	11.4	19.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	698	1340	-	-	1377	-	-	412
HCM Lane V/C Ratio	0.19	0.019	-	-	0.018	-	-	0.415
HCM Control Delay (s)	11.4	7.7	-	-	7.7	-	-	19.8
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	2

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/31/2024

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	80	0	85	125	50	1	1	45	45	1	2
Future Vol, veh/h	1	80	0	85	125	50	1	1	45	45	1	2
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	101	0	108	158	63	1	1	57	57	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	245	0	0	133	0	0	554	596	166	595	565	225
Stage 1	-	-	-	-	-	-	135	135	-	430	430	-
Stage 2	-	-	-	-	-	-	419	461	-	165	135	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1321	-	-	1452	-	-	443	417	878	416	434	814
Stage 1	-	-	-	-	-	-	868	785	-	603	583	-
Stage 2	-	-	-	-	-	-	612	565	-	837	785	-
Platoon blocked, %			-			-						
Mov Cap-1 Maneuver	1291	-	-	1408	-	-	397	364	824	344	379	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	397	364	-	344	379	-
Stage 1	-	-	-	-	-	-	841	761	-	589	526	-
Stage 2	-	-	-	-	-	-	556	510	-	753	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.5	10	17.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	785	1291	-	-	1408	-	-	353
HCM Lane V/C Ratio	0.076	0.001	-	-	0.076	-	-	0.172
HCM Control Delay (s)	10	7.8	-	-	7.8	-	-	17.3
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.6

BACKGROUND 2044

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	100	310	75	55	70	120	1170	110	105	1290	15
Future Volume (veh/h)	75	100	310	75	55	70	120	1170	110	105	1290	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	112	348	84	62	79	135	1315	124	118	1449	17
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	323	426	445	239	426	437	255	1818	171	234	1978	23
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.38	0.38	0.05	0.56	0.56
Sat Flow, veh/h	1246	1870	1583	931	1870	1583	1753	3225	303	1753	3540	42
Grp Volume(v), veh/h	84	112	348	84	62	79	135	711	728	118	715	751
Grp Sat Flow(s),veh/h/ln	1246	1870	1583	931	1870	1583	1753	1749	1779	1753	1749	1833
Q Serve(g_s), s	5.8	4.9	20.3	8.1	2.6	3.8	3.2	34.7	35.1	2.8	30.5	30.6
Cycle Q Clear(g_c), s	8.4	4.9	20.3	13.1	2.6	3.8	3.2	34.7	35.1	2.8	30.5	30.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.02
Lane Grp Cap(c), veh/h	323	426	445	239	426	437	255	986	1003	234	977	1024
V/C Ratio(X)	0.26	0.26	0.78	0.35	0.15	0.18	0.53	0.72	0.73	0.50	0.73	0.73
Avail Cap(c_a), veh/h	344	458	472	254	458	464	451	986	1003	281	977	1024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	31.7	33.1	37.1	30.8	27.6	16.1	24.4	24.5	17.1	16.5	16.5
Incr Delay (d2), s/veh	0.4	0.3	7.9	0.9	0.2	0.2	1.7	4.5	4.6	1.7	4.8	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.2	8.5	1.9	1.2	1.4	1.3	16.1	16.6	1.2	12.4	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	32.0	41.0	37.9	31.0	27.8	17.8	28.9	29.1	18.8	21.3	21.1
LnGrp LOS	C	C	D	D	C	C	B	C	C	B	C	C
Approach Vol, veh/h		544			225			1574			1584	
Approach Delay, s/veh		38.2			32.5			28.0			21.0	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	62.4		28.3	9.8	61.9		28.3				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	7.5	52.0		24.5	16.5	43.0		24.5				
Max Q Clear Time (g_c+I1), s	4.8	37.1		22.3	5.2	32.6		15.1				
Green Ext Time (p_c), s	0.1	8.5		0.5	0.2	6.7		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	65	150	175	110	105	270	1450	155	85	1195	50
Future Volume (veh/h)	35	65	150	175	110	105	270	1450	155	85	1195	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	73	169	197	124	118	303	1629	174	96	1343	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	280	431	550	306	431	445	336	1725	181	187	1624	68
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.16	0.72	0.72	0.05	0.47	0.47
Sat Flow, veh/h	1137	1870	1583	1137	1870	1583	1753	3186	335	1753	3419	142
Grp Volume(v), veh/h	39	73	169	197	124	118	303	883	920	96	686	713
Grp Sat Flow(s),veh/h/ln	1137	1870	1583	1137	1870	1583	1753	1749	1772	1753	1749	1813
Q Serve(g_s), s	2.6	2.8	7.0	15.1	4.9	5.2	8.3	38.8	42.2	2.5	30.5	30.6
Cycle Q Clear(g_c), s	7.6	2.8	7.0	17.9	4.9	5.2	8.3	38.8	42.2	2.5	30.5	30.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.08
Lane Grp Cap(c), veh/h	280	431	550	306	431	445	336	947	959	187	830	861
V/C Ratio(X)	0.14	0.17	0.31	0.64	0.29	0.27	0.90	0.93	0.96	0.51	0.83	0.83
Avail Cap(c_a), veh/h	327	509	616	354	509	511	375	947	959	206	830	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	27.7	21.5	34.9	28.6	25.1	19.2	11.2	11.7	20.2	20.4	20.5
Incr Delay (d2), s/veh	0.2	0.2	0.3	3.2	0.4	0.3	22.7	16.9	20.7	2.2	9.2	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	0.0	4.3	2.2	1.9	4.8	12.1	14.0	1.0	13.4	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	27.9	21.8	38.1	28.9	25.5	41.9	28.1	32.4	22.4	29.6	29.5
LnGrp LOS	C	C	C	D	C	C	D	C	C	C	C	C
Approach Vol, veh/h		281			439			2106			1495	
Approach Delay, s/veh		24.8			32.1			32.0			29.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	54.7		26.2	15.0	48.7		26.2				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	5.5	44.0		24.5	12.5	37.0		24.5				
Max Q Clear Time (g_c+I1), s	4.5	44.2		9.6	10.3	32.6		19.9				
Green Ext Time (p_c), s	0.0	0.0		0.9	0.2	3.1		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Lee Farm Loveland 5:06 pm 10/31/2024 Background 2044 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 11/11/2024

Intersection						
Int Delay, s/veh	0.2					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	1410	15	25	1710
Future Vol, veh/h	5	5	1410	15	25	1710
Conflicting Peds, #/hr	0	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	5	5	1500	16	27	1819

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2487	773	0	0	1531	0
Stage 1	1523	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.18	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	23	337	-	-	421	-
Stage 1	163	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	21	332	-	-	415	-
Mov Cap-2 Maneuver	105	-	-	-	-	-
Stage 1	161	-	-	-	-	-
Stage 2	305	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.6	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	105	332	415	-
HCM Lane V/C Ratio	-	-	0.051	0.016	0.064	-
HCM Control Delay (s)	-	-	41.1	16	14.3	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0	0.2	-

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 11/11/2024

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	25	1895	5	5	1535
Future Vol, veh/h	10	25	1895	5	5	1535
Conflicting Peds, #/hr	0	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	11	27	2016	5	5	1633

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2861	1026	0	0	2036	0
Stage 1	2034	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Critical Hdwy	6.88	6.98	-	-	4.18	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	13	229	-	-	267	-
Stage 1	85	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	13	226	-	-	263	-
Mov Cap-2 Maneuver	66	-	-	-	-	-
Stage 1	84	-	-	-	-	-
Stage 2	378	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	36.4	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	66	226	263	-
HCM Lane V/C Ratio	-	-	0.161	0.118	0.02	-
HCM Control Delay (s)	-	-	69.8	23	19	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	0.5	0.4	0.1	-

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1	1	15	1	20	10	1270	5	5	1700	1
Future Volume (veh/h)	110	1	1	15	1	20	10	1270	5	5	1700	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	1	1	16	1	22	11	1380	5	5	1848	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	106	106	245	8	186	266	2820	10	375	2830	2
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1373	858	858	1415	69	1508	249	3632	13	390	3645	2
Grp Volume(v), veh/h	120	0	2	16	0	23	11	675	710	5	901	948
Grp Sat Flow(s),veh/h/ln	1373	0	1716	1415	0	1577	249	1777	1868	390	1777	1870
Q Serve(g_s), s	8.5	0.0	0.1	1.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.1	1.1	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.50	1.00		0.96	1.00		0.01	1.00		0.00
Lane Grp Cap(c), veh/h	224	0	212	245	0	195	266	1380	1450	375	1380	1452
V/C Ratio(X)	0.54	0.00	0.01	0.07	0.00	0.12	0.04	0.49	0.49	0.01	0.65	0.65
Avail Cap(c_a), veh/h	432	0	472	460	0	434	266	1380	1450	375	1380	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	38.5	38.9	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.1	0.0	0.3	0.3	1.1	1.0	0.1	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	0.4	0.0	0.5	0.0	0.4	0.4	0.0	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	38.5	39.1	0.0	39.2	0.3	1.1	1.0	0.1	2.4	2.3
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		122			39			1396			1854	
Approach Delay, s/veh		45.2			39.2			1.0			2.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	83.1	16.9	83.1	16.9
Change Period (Y+Rc), s	5.5	4.5	5.5	4.5
Max Green Setting (Gmax), s	62.5	27.5	62.5	27.5
Max Q Clear Time (g_c+I1), s	2.0	11.8	2.0	3.3
Green Ext Time (p_c), s	12.8	0.3	22.9	0.1

Intersection Summary	
HCM 6th Ctrl Delay	3.8
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1	1	10	1	15	55	1820	20	15	1535	10
Future Volume (veh/h)	50	1	1	10	1	15	55	1820	20	15	1535	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	1	1	11	1	16	60	1978	22	16	1668	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	61	61	180	7	106	320	2942	33	256	2958	19
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1369	858	858	1415	92	1475	294	3600	40	215	3619	24
Grp Volume(v), veh/h	54	0	2	11	0	17	60	974	1026	16	818	861
Grp Sat Flow(s),veh/h/ln	1369	0	1716	1415	0	1568	294	1777	1863	215	1777	1866
Q Serve(g_s), s	3.5	0.0	0.1	0.7	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	0.1	0.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.50	1.00		0.94	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	164	0	123	180	0	112	320	1452	1523	256	1452	1525
V/C Ratio(X)	0.33	0.00	0.02	0.06	0.00	0.15	0.19	0.67	0.67	0.06	0.56	0.56
Avail Cap(c_a), veh/h	378	0	391	401	0	357	320	1452	1523	256	1452	1525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	0.0	38.8	39.2	0.0	39.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.1	0.1	0.0	0.6	0.6	1.2	1.2	0.5	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	0.2	0.0	0.4	0.1	0.5	0.5	0.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	0.0	38.9	39.3	0.0	39.8	0.6	1.2	1.2	0.5	1.6	1.5
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		56			28			2060			1695	
Approach Delay, s/veh		42.3			39.6			1.2			1.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	79.1	10.9	79.1	10.9
Change Period (Y+Rc), s	5.5	4.5	5.5	4.5
Max Green Setting (Gmax), s	59.5	20.5	59.5	20.5
Max Q Clear Time (g_c+I1), s	2.0	6.4	2.0	2.9
Green Ext Time (p_c), s	30.2	0.1	19.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	2.2
HCM 6th LOS	A

Lee Farm Loveland 5:06 pm 10/31/2024 Background 2044 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	100	80	125	70	120	60	1040	185	250	1470	50
Future Volume (veh/h)	60	100	80	125	70	120	60	1040	185	250	1470	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	109	87	136	76	130	65	1130	201	272	1598	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	344	291	230	344	291	205	2036	908	374	2183	974
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.04	0.57	0.57	0.03	0.20	0.20
Sat Flow, veh/h	1176	1870	1585	1187	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	65	109	87	136	76	130	65	1130	201	272	1598	54
Grp Sat Flow(s),veh/h/ln	1176	1870	1585	1187	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.0	5.1	4.7	11.2	3.5	7.3	1.5	19.9	6.2	5.8	42.1	2.7
Cycle Q Clear(g_c), s	8.4	5.1	4.7	16.3	3.5	7.3	1.5	19.9	6.2	5.8	42.1	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	344	291	230	344	291	205	2036	908	374	2183	974
V/C Ratio(X)	0.26	0.32	0.30	0.59	0.22	0.45	0.32	0.56	0.22	0.73	0.73	0.06
Avail Cap(c_a), veh/h	261	365	309	238	355	301	221	2036	908	573	2183	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	38.3	35.4	35.2	42.4	34.7	36.3	16.9	13.4	10.4	14.3	32.2	16.5
Incr Delay (d2), s/veh	0.6	0.5	0.6	3.7	0.3	1.1	0.9	1.1	0.6	1.8	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.3	1.8	3.5	1.6	2.9	0.7	7.6	2.2	2.3	20.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	35.9	35.8	46.1	35.0	37.4	17.8	14.5	11.0	16.1	33.6	16.5
LnGrp LOS	D	D	D	D	D	D	B	B	B	B	C	B
Approach Vol, veh/h		261			342			1396			1924	
Approach Delay, s/veh		36.6			40.3			14.1			30.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	62.8		23.4	9.7	66.9		23.4				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	19.5	45.5		* 20	5.1	59.9		19.0				
Max Q Clear Time (g_c+I1), s	7.8	21.9		10.4	3.5	44.1		18.3				
Green Ext Time (p_c), s	0.6	9.6		0.7	0.0	9.9		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	65	55	210	120	220	105	1630	145	135	1335	35
Future Volume (veh/h)	40	65	55	210	120	220	105	1630	145	135	1335	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	71	60	228	130	239	114	1772	158	147	1451	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	436	370	335	436	370	226	1882	839	200	1907	851
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.53	0.53	0.02	0.18	0.18
Sat Flow, veh/h	1013	1870	1585	1259	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	43	71	60	228	130	239	114	1772	158	147	1451	38
Grp Sat Flow(s),veh/h/ln	1013	1870	1585	1259	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.3	2.7	2.7	15.9	5.2	12.3	2.6	42.1	4.7	3.3	34.9	1.8
Cycle Q Clear(g_c), s	8.4	2.7	2.7	18.6	5.2	12.3	2.6	42.1	4.7	3.3	34.9	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	436	370	335	436	370	226	1882	839	200	1907	851
V/C Ratio(X)	0.17	0.16	0.16	0.68	0.30	0.65	0.51	0.94	0.19	0.73	0.76	0.04
Avail Cap(c_a), veh/h	275	468	396	350	457	387	261	1882	839	381	1907	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	31.9	27.5	27.5	34.9	28.4	31.2	18.0	19.9	11.1	21.5	31.5	17.9
Incr Delay (d2), s/veh	0.3	0.2	0.2	5.0	0.4	3.5	1.7	10.9	0.5	4.1	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.0	5.2	2.3	4.9	1.2	18.2	1.6	1.7	16.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	27.7	27.7	39.9	28.8	34.6	19.7	30.8	11.6	25.7	33.9	18.0
LnGrp LOS	C	C	C	D	C	C	B	C	B	C	C	B
Approach Vol, veh/h		174			597			2044			1636	
Approach Delay, s/veh		28.8			35.4			28.7			32.8	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	53.2		26.0	10.2	53.8		26.0				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	14.5	37.5		* 23	6.5	45.5		22.0				
Max Q Clear Time (g_c+I1), s	5.3	44.1		10.4	4.6	36.9		20.6				
Green Ext Time (p_c), s	0.2	0.0		0.5	0.0	5.7		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/31/2024

Intersection												
Int Delay, s/veh	8.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	105	0	20	35	100	0	20	85	120	10	10
Future Vol, veh/h	25	105	0	20	35	100	0	20	85	120	10	10
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	133	0	25	44	127	0	25	108	152	13	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	195	0	0	165	0	0	411	474	198	479	411	143
Stage 1	-	-	-	-	-	-	229	229	-	182	182	-
Stage 2	-	-	-	-	-	-	182	245	-	297	229	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1378	-	-	1413	-	-	551	489	843	497	531	905
Stage 1	-	-	-	-	-	-	774	715	-	820	749	-
Stage 2	-	-	-	-	-	-	820	703	-	712	715	-
Platoon blocked, %			-		-	-						
Mov Cap-1 Maneuver	1347	-	-	1370	-	-	494	444	792	377	482	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	494	444	-	377	482	-
Stage 1	-	-	-	-	-	-	732	677	-	782	718	-
Stage 2	-	-	-	-	-	-	771	674	-	560	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	1	11.5	21
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	1347	-	-	1370	-	-	399
HCM Lane V/C Ratio	0.193	0.023	-	-	0.018	-	-	0.444
HCM Control Delay (s)	11.5	7.7	-	-	7.7	-	-	21
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	2.2

HCM 6th TWSC
5: Florence Dr & 43rd Street 10/31/2024

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	85	0	85	135	50	1	1	45	50	1	5
Future Vol, veh/h	5	85	0	85	135	50	1	1	45	50	1	5
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	108	0	108	171	63	1	1	57	63	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	258	0	0	140	0	0	585	626	173	625	595	238
Stage 1	-	-	-	-	-	-	152	152	-	443	443	-
Stage 2	-	-	-	-	-	-	433	474	-	182	152	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1307	-	-	1443	-	-	422	401	871	397	417	801
Stage 1	-	-	-	-	-	-	850	772	-	594	576	-
Stage 2	-	-	-	-	-	-	601	558	-	820	772	-
Platoon blocked, %			-			-						
Mov Cap-1 Maneuver	1277	-	-	1399	-	-	376	349	818	327	363	774
Mov Cap-2 Maneuver	-	-	-	-	-	-	376	349	-	327	363	-
Stage 1	-	-	-	-	-	-	820	745	-	578	520	-
Stage 2	-	-	-	-	-	-	543	503	-	734	745	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.5	10	18.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	776	1277	-	-	1399	-	-	345
HCM Lane V/C Ratio	0.077	0.005	-	-	0.077	-	-	0.205
HCM Control Delay (s)	10	7.8	-	-	7.8	-	-	18.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.8

TOTAL 2044

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	125	310	85	60	70	120	1210	130	105	1325	25
Future Volume (veh/h)	160	125	310	85	60	70	120	1210	130	105	1325	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	136	337	92	65	76	130	1315	141	114	1440	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	319	423	439	224	423	434	254	1801	192	231	1975	37
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.38	0.38	0.05	0.56	0.56
Sat Flow, veh/h	1246	1870	1583	920	1870	1583	1753	3181	339	1753	3511	66
Grp Volume(v), veh/h	174	136	337	92	65	76	130	720	736	114	717	750
Grp Sat Flow(s),veh/h/ln	1246	1870	1583	920	1870	1583	1753	1749	1771	1753	1749	1828
Q Serve(g_s), s	13.0	6.1	19.5	9.3	2.8	3.7	3.1	35.3	35.7	2.7	30.4	30.5
Cycle Q Clear(g_c), s	15.8	6.1	19.5	15.3	2.8	3.7	3.1	35.3	35.7	2.7	30.4	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.04
Lane Grp Cap(c), veh/h	319	423	439	224	423	434	254	990	1003	231	984	1028
V/C Ratio(X)	0.55	0.32	0.77	0.41	0.15	0.18	0.51	0.73	0.73	0.49	0.73	0.73
Avail Cap(c_a), veh/h	355	477	485	251	477	480	453	990	1003	278	984	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	32.3	33.2	38.7	31.0	27.7	15.7	24.4	24.6	17.3	16.2	16.2
Incr Delay (d2), s/veh	1.5	0.4	6.6	1.2	0.2	0.2	1.6	4.7	4.8	1.6	4.7	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	2.7	8.1	2.1	1.3	1.4	1.2	16.4	16.8	1.2	12.3	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	32.7	39.8	39.9	31.2	27.9	17.3	29.1	29.3	18.9	20.9	20.8
LnGrp LOS	D	C	D	D	C	C	B	C	C	B	C	C
Approach Vol, veh/h		647			233			1586			1581	
Approach Delay, s/veh		38.0			33.6			28.2			20.7	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	62.6		28.1	9.6	62.3		28.1				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	7.5	51.0		25.5	16.5	42.0		25.5				
Max Q Clear Time (g_c+I1), s	4.7	37.7		21.5	5.1	32.5		17.3				
Green Ext Time (p_c), s	0.1	8.0		1.1	0.2	6.3		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Lee Farm Loveland 6:46 am 10/31/2024 Total 2044 AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
1: Wilson Ave & 43rd Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	80	155	200	130	105	270	1480	165	85	1295	85
Future Volume (veh/h)	90	80	155	200	130	105	270	1480	165	85	1295	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	98	87	168	217	141	114	293	1609	179	92	1408	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	4	4	4
Cap, veh/h	258	416	548	287	416	431	328	1744	191	186	1585	103
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.12	0.55	0.55	0.05	0.48	0.48
Sat Flow, veh/h	1124	1870	1583	1124	1870	1583	1753	3171	347	1753	3330	217
Grp Volume(v), veh/h	98	87	168	217	141	114	293	876	912	92	737	763
Grp Sat Flow(s),veh/h/ln	1124	1870	1583	1124	1870	1583	1753	1749	1770	1753	1749	1798
Q Serve(g_s), s	7.2	3.4	7.0	16.6	5.7	5.1	9.0	40.7	43.0	2.4	34.4	34.8
Cycle Q Clear(g_c), s	12.9	3.4	7.0	20.0	5.7	5.1	9.0	40.7	43.0	2.4	34.4	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.12
Lane Grp Cap(c), veh/h	258	416	548	287	416	431	328	962	973	186	832	856
V/C Ratio(X)	0.38	0.21	0.31	0.76	0.34	0.26	0.89	0.91	0.94	0.49	0.89	0.89
Avail Cap(c_a), veh/h	258	416	548	287	416	431	364	962	973	202	832	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	28.6	21.5	37.1	29.4	25.7	23.5	18.3	18.8	20.2	21.4	21.5
Incr Delay (d2), s/veh	0.9	0.2	0.3	10.9	0.5	0.3	21.7	14.2	17.1	2.0	13.3	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.5	0.0	5.5	2.5	1.9	5.3	18.1	19.9	1.0	15.8	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	28.8	21.8	48.0	29.9	26.0	45.2	32.4	35.9	22.2	34.7	35.0
LnGrp LOS	D	C	C	D	C	C	D	C	D	C	C	C
Approach Vol, veh/h		353			472			2081			1592	
Approach Delay, s/veh		27.4			37.3			35.7			34.1	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	55.5		25.5	15.7	48.8		25.5				
Change Period (Y+Rc), s	4.5	6.0		5.5	4.5	6.0		5.5				
Max Green Setting (Gmax), s	5.3	48.7		20.0	13.0	41.0		20.0				
Max Q Clear Time (g_c+I1), s	4.4	45.0		14.9	11.0	36.8		22.0				
Green Ext Time (p_c), s	0.0	3.1		0.6	0.2	3.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.7
HCM 6th LOS		C

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 11/11/2024

Intersection												
Int Delay, s/veh	0.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	25	5	0	5	0	1470	15	25	1725	30
Future Vol, veh/h	0	0	25	5	0	5	0	1470	15	25	1725	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	15	15	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	4	2	4	2	4	4	4	4	2
Mvmt Flow	0	0	27	5	0	5	0	1598	16	27	1875	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	938	2613	-	822	-	0	0	1629	0	0
Stage 1	-	-	-	1621	-	-	-	-	-	-	-	-
Stage 2	-	-	-	992	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.58	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	-	-	-	6.58	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	0	0	266	12	0	313	0	-	-	386	-	-
Stage 1	0	0	-	105	0	-	0	-	-	-	-	-
Stage 2	0	0	-	260	0	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	266	10	-	309	-	-	-	380	-	-
Mov Cap-2 Maneuver	-	-	-	69	-	-	-	-	-	-	-	-
Stage 1	-	-	-	105	-	-	-	-	-	-	-	-
Stage 2	-	-	-	217	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	39.3	0	0.2
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	266	69	309	380	-	-
HCM Lane V/C Ratio	-	-	0.102	0.079	0.018	0.072	-	-
HCM Control Delay (s)	-	-	20.1	61.6	16.9	15.2	-	-
HCM Lane LOS	-	-	C	F	C	C	-	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	0.1	0.2	-	-

HCM 6th TWSC
2: Wilson Ave & Woodward Ent 11/11/2024

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	10	0	25	0	1935	5	5	1575	90
Future Vol, veh/h	0	0	15	10	0	25	0	1935	5	5	1575	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	15	15	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	92	94	92	94	94	94	94	92
Heavy Vehicles, %	2	2	2	4	2	4	2	4	4	4	4	2
Mvmt Flow	0	0	16	11	0	27	0	2059	5	5	1676	98

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	838	2925	-	1047	-	0	0	2079	0	0
Stage 1	-	-	-	2077	-	-	-	-	-	-	-	-
Stage 2	-	-	-	848	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.58	-	6.98	-	-	-	4.18	-	-
Critical Hdwy Stg 1	-	-	-	6.58	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.54	-	3.34	-	-	-	2.24	-	-
Pot Cap-1 Maneuver	0	0	309	~ 7	0	221	0	-	-	256	-	-
Stage 1	0	0	-	54	0	-	0	-	-	-	-	-
Stage 2	0	0	-	318	0	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	309	~ 6	-	218	-	-	-	252	-	-
Mov Cap-2 Maneuver	-	-	-	43	-	-	-	-	-	-	-	-
Stage 1	-	-	-	54	-	-	-	-	-	-	-	-
Stage 2	-	-	-	295	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.3	49.7	0	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	309	43	218	252	-	-
HCM Lane V/C Ratio	-	-	0.053	0.247	0.122	0.021	-	-
HCM Control Delay (s)	-	-	17.3	114.3	23.8	19.6	-	-
HCM Lane LOS	-	-	C	F	C	C	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.8	0.4	0.1	-	-

Notes
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lee Farm Loveland 10:15 am 11/02/2024 Total 2044 PM
RR

Synchro 10 Light Report
Page 1

Queues
3: Wilson Ave & 35th Street 11/29/2024

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	131	16	23	71	1385	5	1891
v/c Ratio	0.79	0.37	0.09	0.08	0.41	0.56	0.02	0.83
Control Delay	62.6	14.2	33.9	14.3	24.7	8.9	7.0	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	14.2	33.9	14.3	24.7	8.9	7.0	17.7
Queue Length 50th (ft)	112	16	8	1	22	124	1	303
Queue Length 95th (ft)	#200	67	27	22	m52	260	m2	536
Internal Link Dist (ft)		546		546		2197		1300
Turn Bay Length (ft)								
Base Capacity (vph)	273	393	219	327	172	2492	277	2265
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.33	0.07	0.07	0.41	0.56	0.02	0.83

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	1	120	15	1	20	65	1270	5	5	1725	15
Future Volume (veh/h)	170	1	120	15	1	20	65	1270	5	5	1725	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	1	130	16	1	22	71	1380	5	5	1875	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	2	266	191	12	256	303	2467	9	334	2321	20
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.09	1.00	1.00	0.01	1.00	1.00
Sat Flow, veh/h	1377	12	1575	1259	69	1513	1781	3632	13	1781	3611	31
Grp Volume(v), veh/h	185	0	131	16	0	23	71	675	710	5	921	970
Grp Sat Flow(s),veh/h/ln	1377	0	1587	1259	0	1582	1781	1777	1868	1781	1777	1865
Q Serve(g_s), s	13.1	0.0	7.5	1.2	0.0	1.2	1.3	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	14.3	0.0	7.5	8.6	0.0	1.2	1.3	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.99	1.00		0.96	1.00		0.01	1.00		0.02
Lane Grp Cap(c), veh/h	288	0	268	191	0	268	303	1207	1269	334	1142	1199
V/C Ratio(X)	0.64	0.00	0.49	0.08	0.00	0.09	0.23	0.56	0.56	0.01	0.81	0.81
Avail Cap(c_a), veh/h	337	0	325	236	0	324	324	1207	1269	414	1142	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	0.0	37.6	41.5	0.0	35.0	4.6	0.0	0.0	6.1	0.0	0.0
Incr Delay (d2), s/veh	3.2	0.0	1.4	0.2	0.0	0.1	0.3	1.5	1.4	0.0	6.1	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	3.0	0.4	0.0	0.5	0.4	0.5	0.5	0.0	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	0.0	39.0	41.7	0.0	35.2	4.9	1.5	1.4	6.1	6.1	5.9
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		316			39			1456			1896	
Approach Delay, s/veh		42.1			37.9			1.6			6.0	
Approach LOS		D			D			A			A	

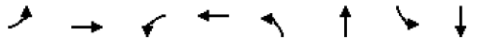
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	73.4		21.4	8.8	69.8		21.4				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	5.1	59.9		20.5	5.5	59.5		20.5				
Max Q Clear Time (g_c+I1), s	2.1	2.0		16.3	3.3	2.0		10.6				
Green Ext Time (p_c), s	0.0	12.1		0.5	0.0	23.5		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Lee Farm Loveland 6:46 am 10/31/2024 Total 2044 AM
RR

Synchro 10 Light Report
Page 1

Queues
3: Wilson Ave & 35th Street 11/29/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	131	16	23	71	1385	5	1891
v/c Ratio	0.79	0.37	0.09	0.08	0.41	0.56	0.02	0.83
Control Delay	62.6	14.2	33.9	14.3	24.7	8.9	7.0	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	14.2	33.9	14.3	24.7	8.9	7.0	17.7
Queue Length 50th (ft)	112	16	8	1	22	124	1	303
Queue Length 95th (ft)	#200	67	27	22	m52	260	m2	536
Internal Link Dist (ft)		546		546		2197		1300
Turn Bay Length (ft)								
Base Capacity (vph)	273	393	219	327	172	2492	277	2265
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.33	0.07	0.07	0.41	0.56	0.02	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
3: Wilson Ave & 35th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1	85	10	1	15	215	1820	20	15	1550	50
Future Volume (veh/h)	90	1	85	10	1	15	215	1820	20	15	1550	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	1	92	11	1	16	234	1978	22	16	1685	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	2	171	142	10	162	276	2621	29	189	2445	78
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.05	0.73	0.73	0.02	0.70	0.70
Sat Flow, veh/h	1378	17	1571	1303	93	1486	1781	3600	40	1781	3514	112
Grp Volume(v), veh/h	98	0	93	11	0	17	234	974	1026	16	849	890
Grp Sat Flow(s),veh/h/ln	1378	0	1588	1303	0	1579	1781	1777	1863	1781	1777	1849
Q Serve(g_s), s	6.9	0.0	5.5	0.8	0.0	1.0	3.7	33.0	33.3	0.3	27.8	28.2
Cycle Q Clear(g_c), s	7.9	0.0	5.5	6.3	0.0	1.0	3.7	33.0	33.3	0.3	27.8	28.2
Prop In Lane	1.00		0.99	1.00		0.94	1.00		0.02	1.00		0.06
Lane Grp Cap(c), veh/h	209	0	173	142	0	172	276	1294	1356	189	1237	1287
V/C Ratio(X)	0.47	0.00	0.54	0.08	0.00	0.10	0.85	0.75	0.76	0.08	0.69	0.69
Avail Cap(c_a), veh/h	341	0	325	267	0	324	276	1294	1356	246	1237	1287
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.31	0.31	0.31	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	0.0	42.2	45.2	0.0	40.1	18.1	8.2	8.2	9.0	8.9	8.9
Incr Delay (d2), s/veh	1.6	0.0	2.6	0.2	0.0	0.2	7.7	1.3	1.3	0.2	3.1	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	2.3	0.3	0.0	0.4	4.3	9.1	9.6	0.1	9.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	44.7	45.4	0.0	40.4	25.8	9.5	9.5	9.2	12.0	12.0
LnGrp LOS	D	A	D	D	A	D	C	A	A	A	B	B
Approach Vol, veh/h		191			28			2234			1755	
Approach Delay, s/veh		45.0			42.3			11.2			12.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	78.3		15.4	9.5	75.1		15.4				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	5.0	59.5		20.5	5.0	59.5		20.5				
Max Q Clear Time (g_c+I1), s	2.3	35.3		9.9	5.7	30.2		8.3				
Green Ext Time (p_c), s	0.0	16.4		0.5	0.0	15.1		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Lee Farm Loveland 10:15 am 11/02/2024 Total 2044 PM
RR

Synchro 10 Light Report
Page 1

Queues
3: Wilson Ave & 35th Street 11/29/2024

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	98	93	11	17	234	2000	16	1739
v/c Ratio	0.58	0.34	0.07	0.08	0.79	0.77	0.09	0.82
Control Delay	53.9	11.6	36.7	17.5	46.0	13.4	4.7	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	11.6	36.7	17.5	46.0	13.4	4.7	20.1
Queue Length 50th (ft)	59	1	6	1	93	277	2	425
Queue Length 95th (ft)	106	43	22	19	#285	#736	8	533
Internal Link Dist (ft)		546		546		2197		1300
Turn Bay Length (ft)								
Base Capacity (vph)	276	389	251	325	295	2582	177	2108
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.24	0.04	0.05	0.79	0.77	0.09	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	145	145	125	85	140	80	1070	185	310	1555	50
Future Volume (veh/h)	60	145	145	125	85	140	80	1070	185	310	1555	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	158	158	136	92	152	87	1163	201	337	1690	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	374	317	206	374	317	243	1886	841	387	2113	942
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.05	0.53	0.53	0.15	0.79	0.79
Sat Flow, veh/h	1136	1870	1585	1064	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	65	158	158	136	92	152	87	1163	201	337	1690	54
Grp Sat Flow(s),veh/h/ln	1136	1870	1585	1064	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.1	7.4	8.9	12.6	4.1	8.5	2.2	22.8	6.8	8.2	27.1	0.7
Cycle Q Clear(g_c), s	9.2	7.4	8.9	20.0	4.1	8.5	2.2	22.8	6.8	8.2	27.1	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	374	317	206	374	317	243	1886	841	387	2113	942
V/C Ratio(X)	0.26	0.42	0.50	0.66	0.25	0.48	0.36	0.62	0.24	0.87	0.80	0.06
Avail Cap(c_a), veh/h	258	383	325	206	374	317	252	1886	841	540	2113	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.46	0.46	0.46
Uniform Delay (d), s/veh	37.5	35.0	35.5	43.8	33.7	35.4	12.6	16.4	12.6	16.0	7.1	4.3
Incr Delay (d2), s/veh	0.5	0.8	1.2	7.5	0.3	1.1	0.9	1.5	0.7	5.4	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.4	3.5	3.7	1.9	3.3	0.8	9.0	2.4	4.4	4.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	35.7	36.8	51.3	34.0	36.5	13.5	17.9	13.3	21.4	8.6	4.4
LnGrp LOS	D	D	D	D	C	D	B	B	B	C	A	A
Approach Vol, veh/h		381			380			1451			2081	
Approach Delay, s/veh		36.5			41.2			17.0			10.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.4	58.6		25.0	10.1	64.9		25.0				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	19.5	44.5		* 21	5.1	58.9		20.0				
Max Q Clear Time (g_c+I1), s	10.2	24.8		11.2	4.2	29.1		22.0				
Green Ext Time (p_c), s	0.7	9.1		1.1	0.0	15.7		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lee Farm Loveland 6:46 am 10/31/2024 Total 2044 AM
RR

Synchro 10 Light Report
Page 1

HCM 6th Signalized Intersection Summary
4: Wilson Ave & 29th Street 11/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	95	100	210	170	285	175	1720	145	175	1395	35
Future Volume (veh/h)	40	95	100	210	170	285	175	1720	145	175	1395	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	103	109	228	185	310	190	1870	158	190	1516	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	411	461	284	411	467	267	1876	837	213	1887	842
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.53	0.53	0.07	0.53	0.53
Sat Flow, veh/h	902	1870	1585	1170	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	43	103	109	228	185	310	190	1870	158	190	1516	38
Grp Sat Flow(s),veh/h/ln	902	1870	1585	1170	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.9	4.1	4.7	15.7	7.7	15.4	4.3	47.2	4.7	5.4	31.4	1.0
Cycle Q Clear(g_c), s	11.6	4.1	4.7	19.8	7.7	15.4	4.3	47.2	4.7	5.4	31.4	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	411	461	284	411	467	267	1876	837	213	1887	842
V/C Ratio(X)	0.21	0.25	0.24	0.80	0.45	0.66	0.71	1.00	0.19	0.89	0.80	0.05
Avail Cap(c_a), veh/h	206	422	470	284	411	467	329	1876	837	213	1887	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.46	0.46	0.46
Uniform Delay (d), s/veh	35.4	29.0	24.3	38.0	30.4	27.8	18.0	21.2	11.1	24.7	17.3	10.1
Incr Delay (d2), s/veh	0.5	0.3	0.3	15.2	0.8	3.5	5.4	20.1	0.5	18.9	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	1.7	6.2	3.4	6.1	2.3	22.4	1.6	3.0	11.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	29.3	24.5	53.1	31.2	31.4	23.4	41.3	11.6	43.6	19.0	10.2
LnGrp LOS	D	C	C	D	C	C	C	D	B	D	B	B
Approach Vol, veh/h		255			723			2218			1744	
Approach Delay, s/veh		28.4			38.2			37.6			21.5	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	53.0		24.8	11.9	53.3		24.8				
Change Period (Y+Rc), s	5.5	5.5		* 5	5.5	5.5		5.0				
Max Green Setting (Gmax), s	6.7	47.5		* 20	9.5	44.7		19.8				
Max Q Clear Time (g_c+I1), s	7.4	49.2		13.6	6.3	33.4		21.8				
Green Ext Time (p_c), s	0.0	0.0		0.6	0.1	7.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		31.5	
HCM 6th LOS		C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lee Farm Loveland 10:15 am 11/02/2024 Total 2044 PM
RR

Synchro 10 Light Report
Page 1

HCM 6th TWSC
5: Florence Dr & 43rd Street 11/02/2024

Intersection												
Int Delay, s/veh	12.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	140	0	25	45	105	0	40	95	145	25	20
Future Vol, veh/h	40	140	0	25	45	105	0	40	95	145	25	20
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	165	0	29	53	124	0	47	112	171	29	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	197	0	0	502	550	230	569	488	150
Stage 1	-	-	-	-	-	-	291	291	-	197	197	-
Stage 2	-	-	-	-	-	-	211	259	-	372	291	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1371	-	-	1376	-	-	480	443	809	433	480	896
Stage 1	-	-	-	-	-	-	717	672	-	805	738	-
Stage 2	-	-	-	-	-	-	791	694	-	648	672	-
Platoon blocked, %			-			-						
Mov Cap-1 Maneuver	1340	-	-	1334	-	-	407	396	760	304	429	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	407	396	-	304	429	-
Stage 1	-	-	-	-	-	-	671	629	-	759	706	-
Stage 2	-	-	-	-	-	-	714	663	-	478	629	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	1.1	13.2	33.8
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	597	1340	-	-	1334	-	-	340
HCM Lane V/C Ratio	0.266	0.035	-	-	0.022	-	-	0.657
HCM Control Delay (s)	13.2	7.8	-	-	7.8	-	-	33.8
HCM Lane LOS	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.1	-	-	4.4

HCM 6th TWSC
5: Florence Dr & 43rd Street 11/02/2024

Intersection												
Int Delay, s/veh	4.8											

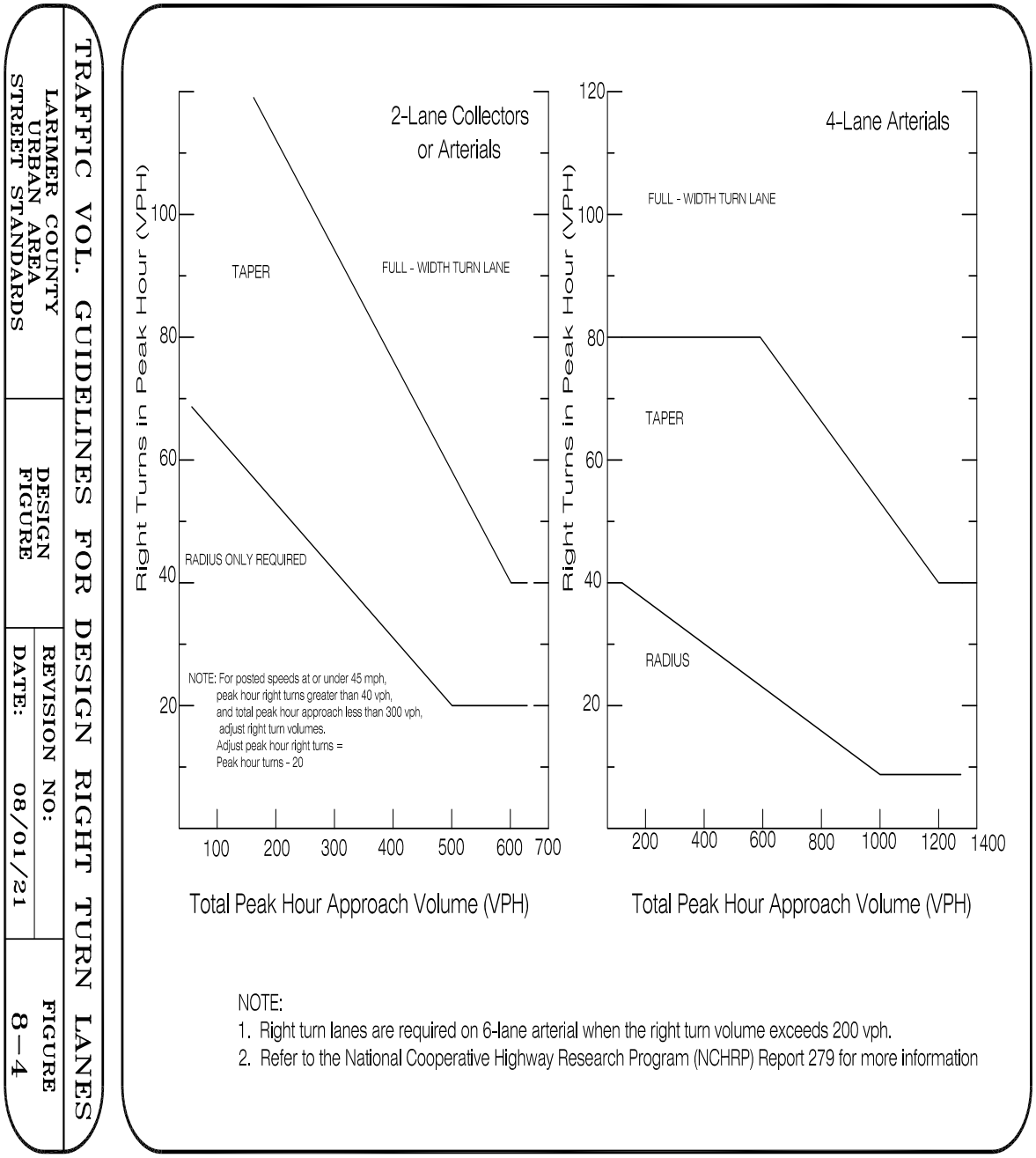
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	95	0	95	165	60	1	1	50	55	5	5
Future Vol, veh/h	5	95	0	95	165	60	1	1	50	55	5	5
Conflicting Peds, #/hr	3	0	11	32	0	24	11	0	32	33	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	112	0	112	194	71	1	1	59	65	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	289	0	0	144	0	0	627	669	177	665	634	265
Stage 1	-	-	-	-	-	-	156	156	-	478	478	-
Stage 2	-	-	-	-	-	-	471	513	-	187	156	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1273	-	-	1438	-	-	396	379	866	374	397	774
Stage 1	-	-	-	-	-	-	846	769	-	568	556	-
Stage 2	-	-	-	-	-	-	573	536	-	815	769	-
Platoon blocked, %			-			-						
Mov Cap-1 Maneuver	1244	-	-	1394	-	-	348	329	813	306	345	748
Mov Cap-2 Maneuver	-	-	-	-	-	-	348	329	-	306	345	-
Stage 1	-	-	-	-	-	-	816	742	-	552	500	-
Stage 2	-	-	-	-	-	-	511	482	-	728	742	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.3	10.1	19.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1244	-	-	1394	-	-	324
HCM Lane V/C Ratio	0.079	0.005	-	-	0.08	-	-	0.236
HCM Control Delay (s)	10.1	7.9	-	-	7.8	-	-	19.5
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.3	-	-	0.9

Appendix C LCUASS Right-Turn Warrant



Appendix D Pedestrian and Bicycle Area

Page Intentionally Left Blank