



Prepared for CEI

Traffic Impact Analysis

July 19, 2023

Walmart Store #984 Fuel Station

Castle Rock, Colorado

Interim Review Only

Not intended for permit or construction

Engineer: Thomas Duncan, P.E.

P.E. Serial No. 0044552

Date: July 19, 2023

WPM Project Number: T04-22006-08

EXECUTIVE SUMMARY

As requested by CEI, Walter P Moore conducted a traffic impact analysis for the proposed Fuel Station at Walmart Store #984 in Castle Rock, Colorado. The proposed development includes a parking lot removing certain parking spaces and has Walmart Supercenter parking in the north, Walmart in the east, Front St in the west and Sam Walton Ln in the south. The purpose of the study was to determine the potential impacts on traffic operations in the area related to the proposed development. Transportation and site improvements to mitigate impacts were investigated, if necessary.

Study Area

The following four intersections in the study area were analyzed as part of the Traffic Impact Analysis:

1. Front St and Milestone Ln (Two Way Stop Controlled).
2. Front St and Sam Walton Ln (Signalized).
3. Founders Pkwy and Trial Boss Dr (Signalized).
4. Trail Boss Dr and Sam Walton Ln (Two Way Stop Controlled).

Analysis

Intersection operations were analyzed using *Synchro 11.0*. Capacity analyses were performed for:

- Existing conditions (2023) – using collected 2023 counts and signal timings.
- Proposed conditions (2025) – which include the site-generated traffic for the proposed development.

Summary

In this study, traffic conditions for the year 2025 were analyzed with the addition of trips generated from the proposed fuel station. The existing year is 2023 and proposed year is 2025, no background projects were identified in the analysis. A growth rate of 2% was considered for the traffic forecast. Therefore, the proposed volumes were calculated by using a growth factor and adding site generated traffic to the existing volumes for the purpose of the analysis. The level of service from *Synchro 11.0* was used as Measures of Effectiveness (MOE) to determine the need for potential mitigation measures. Following is a summary of the study:

- The proposed site will include a fuel station having 16 fueling positions.
- Based on the level of service comparisons, all intersections perform at an acceptable level of service after the development is built. Therefore, no mitigations are required.

- The turn lane warrant analysis for the incoming traffic turning left and right towards the proposed development & second lane on minor road was performed. The summary of the turn lanes warranted as per the analysis as follows:

No.	Name of Intersection	Type of Warrant	Approach Direction	Turn Warranted
1	Front St at Sam Walton Ln	Right turn	Northbound	Yes
		Second lane on Minor Road	Westbound	Yes
2	Founders Pkwy at Trail Boss Dr	Right turn	Eastbound	Yes

- The Town of Castle Rock and CDOT shall consider exploring these Right Turn Lanes within their transportation plan and signal operations maintenance.

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INTRODUCTION

As requested by CEI, Walter P Moore conducted a traffic impact analysis for the proposed Fuel Station at Walmart Store #984 in Castle Rock, Colorado. The proposed fuel station will be developed within the existing site and would replace some existing parking spaces. It will be connected to Sam Walton Ln (to the South) and Milestone Ln (to the North) via existing Walmart driveway. The purpose of the study was to determine the potential impacts to traffic operations in the area related to the proposed development. Transportation and site improvements to mitigate impacts were investigated, if necessary.

AREA CONDITIONS

The site is bordered by Walmart Supercenter parking in the north, Walmart in the east, Front St in the west and Sam Walton Ln in the south. The proposed development of the site is described under the heading "PLANNED DEVELOPMENT." The proposed site location is shown in **Figure 1**.

ROADWAYS

The primary roadways in the study area are described in the following paragraphs.

Front St is a four lane north-south collector roadway with turn lanes at major intersections in the study area. The roadway connects Founders Pkwy in the north and 5th St in the south.

- Posted speed limit: 40 mph.
- Bus route and stops: No

Founders Pkwy is a six-lane northwest-southeast principal arterial with turn lanes at major intersections in the study area.

- Posted speed limit: 45 mph.
- Bus route and stops: No

Sam Walton Ln is a two lane east-west local road with turn lanes at intersection in the study area.

- Posted speed limit: 25 mph. (Assumed)
- Bus route and stops: No



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SITE LOCATION MAP

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Trail Boss Dr is a three lane north south collector road with turn at intersection in the study area.

- Posted speed limit: 25 mph.
- Bus route and stops: No

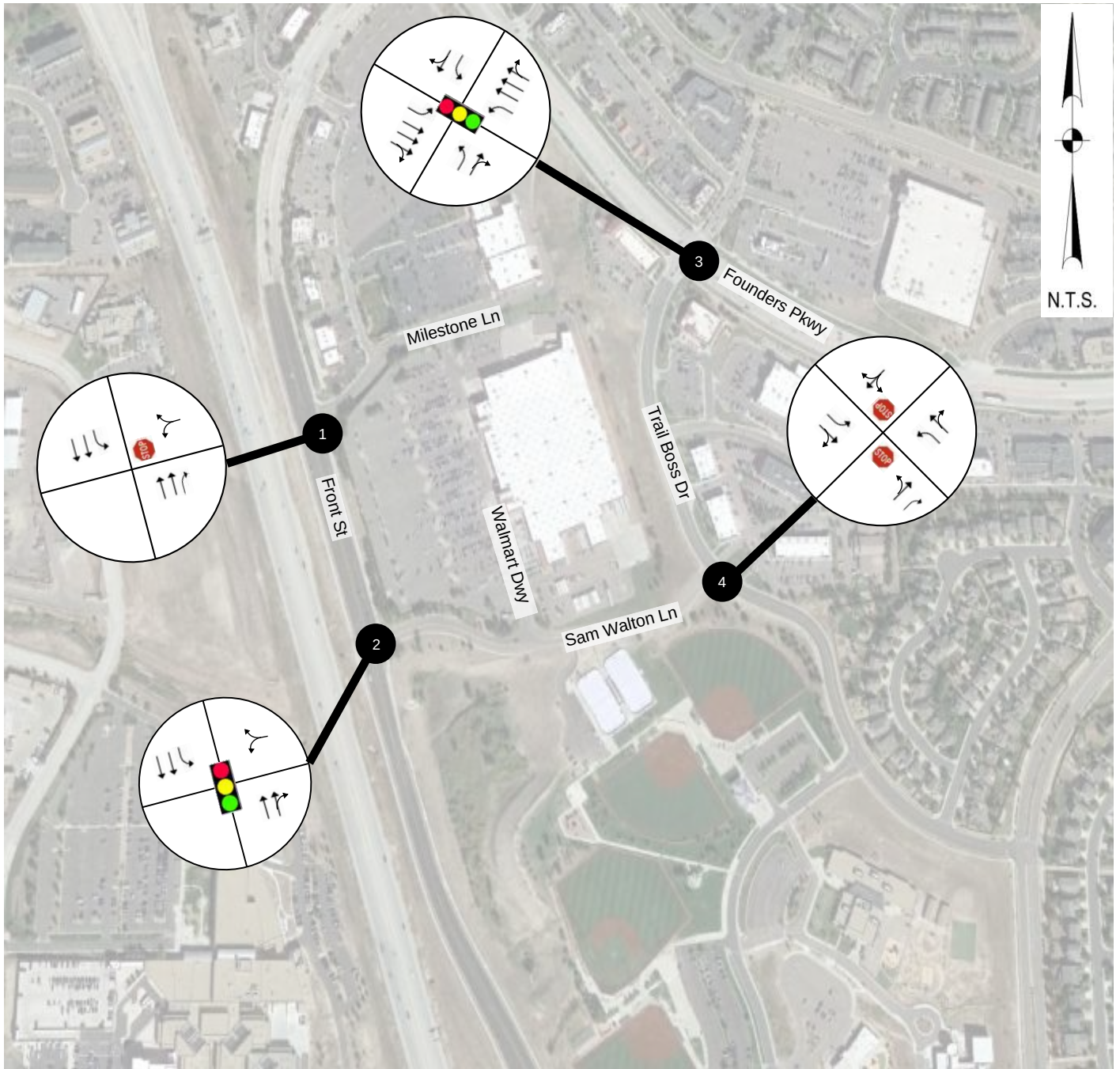
INTERSECTIONS

There are four existing intersections that were analyzed as part of this study. The existing lane configurations can be seen in **Figure 2**. The intersections include:

1. Front St and Milestone Ln
 - Traffic Control:
 - Two Way Stop controlled
 - Westbound is stop controlled
 - Pedestrian Crossing: N.A.
2. Front St and Sam Walton Ln
 - Traffic Control: Signalized
 - Pedestrian Crossing: Westbound approach and northbound approach.
3. Founders Pkwy and Trail Boss Dr
 - Traffic Control: Signalized.
 - Pedestrian Crossing: All approach directions.
4. Trail Boss Dr and Sam Walton Ln.
 - Traffic Control
 - Two Way Stop Controlled
 - Eastbound & westbound is stop controlled
 - Pedestrian Crossing: N.A.

PEDESTRIAN CONNECTIVITY

The following pedestrian destinations were identified within and near the study area, as represented in **Table 1**. The proposed fuel station has the pedestrian sidewalk facility on the Sam Walton Ln on the opposite side of the entry to Walmart Dwy. The pedestrian connectivity is



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EXISTING LANE CONFIGURATION

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limited up to the intersection Walmart Dwy at Sam Walton Ln. and can be enhanced by providing the crosswalk facilities at this intersection.

Table 1: Pedestrian Destinations in Study Area

No.	Name	Land Use Type	Distance from Project
1	Walmart Supercenter	Commercial	650 ft. east
2	Metzler Ranch Community Park	Recreational	900 ft. south
3	Milestone Crossing Shopping Mall	Commercial	950 ft. north

VOLUMES

Turning movement counts for the AM and PM peaks were collected on May 9, 2023, from 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM for the intersections in the study area. The analysis showed that the AM peak hour occurred from 7:15 - 8:15 AM and the PM peak hour from 4:15- 5:15 PM for the weekday traffic. The daily traffic volumes were also collected on the same day along with turning movement counts. **Image 1** shows bidirectional survey count location between Sam Walton Ln and Walmart Driveway.



Image 1: Bi-directional Count Survey Location

Figures 3 and 4 illustrate the existing AM peak and PM peak hour volumes, respectively at each intersection. The collected traffic counts can be found under **TAB ONE**.

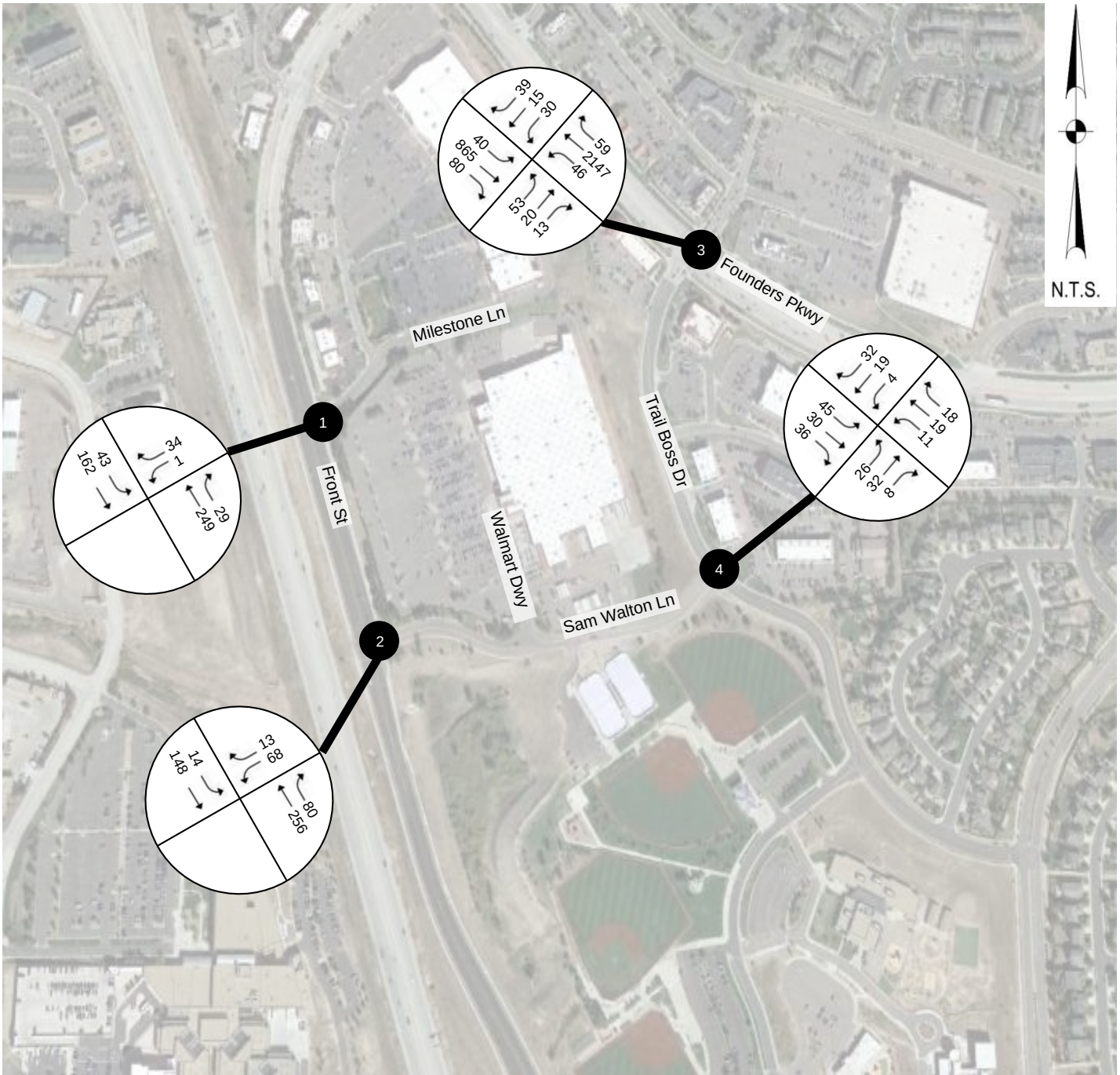
BACKGROUND DEVELOPMENTS

The known development plans that cover the study area were reviewed to determine any conflicts or relevant recommendations. There were no identified background projects in the area.

PLANNED DEVELOPMENT

SITE DEVELOPMENT

The proposed development is a fuel station and is anticipated to be completed in the year 2025. This fuel station will have a total of 16 fueling positions. The proposed site layout can be seen in **Figure 5**.



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EXISTING AM PEAK HOUR VOLUME 2023

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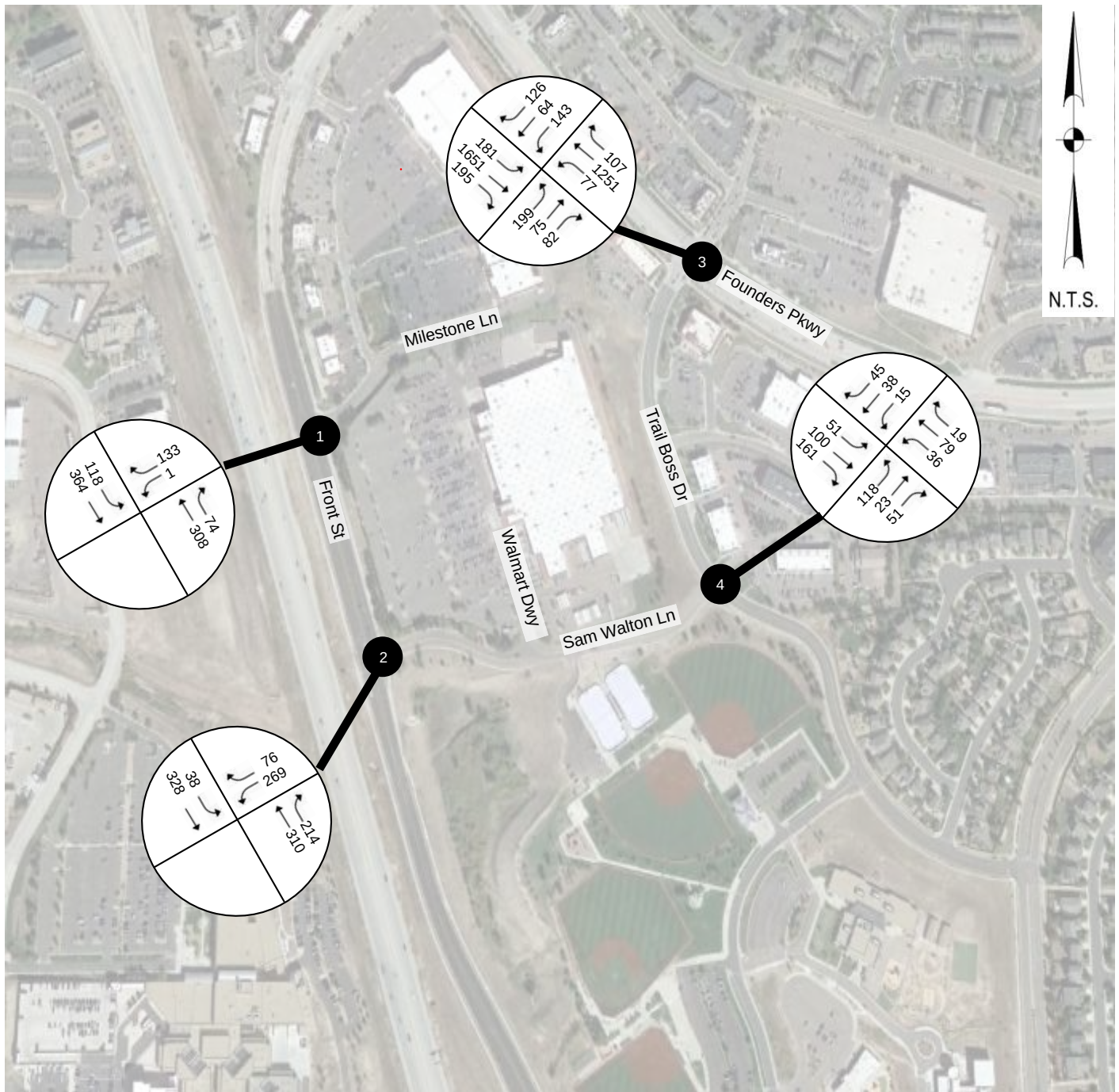
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EXISTING PM PEAK HOUR VOLUME 2023

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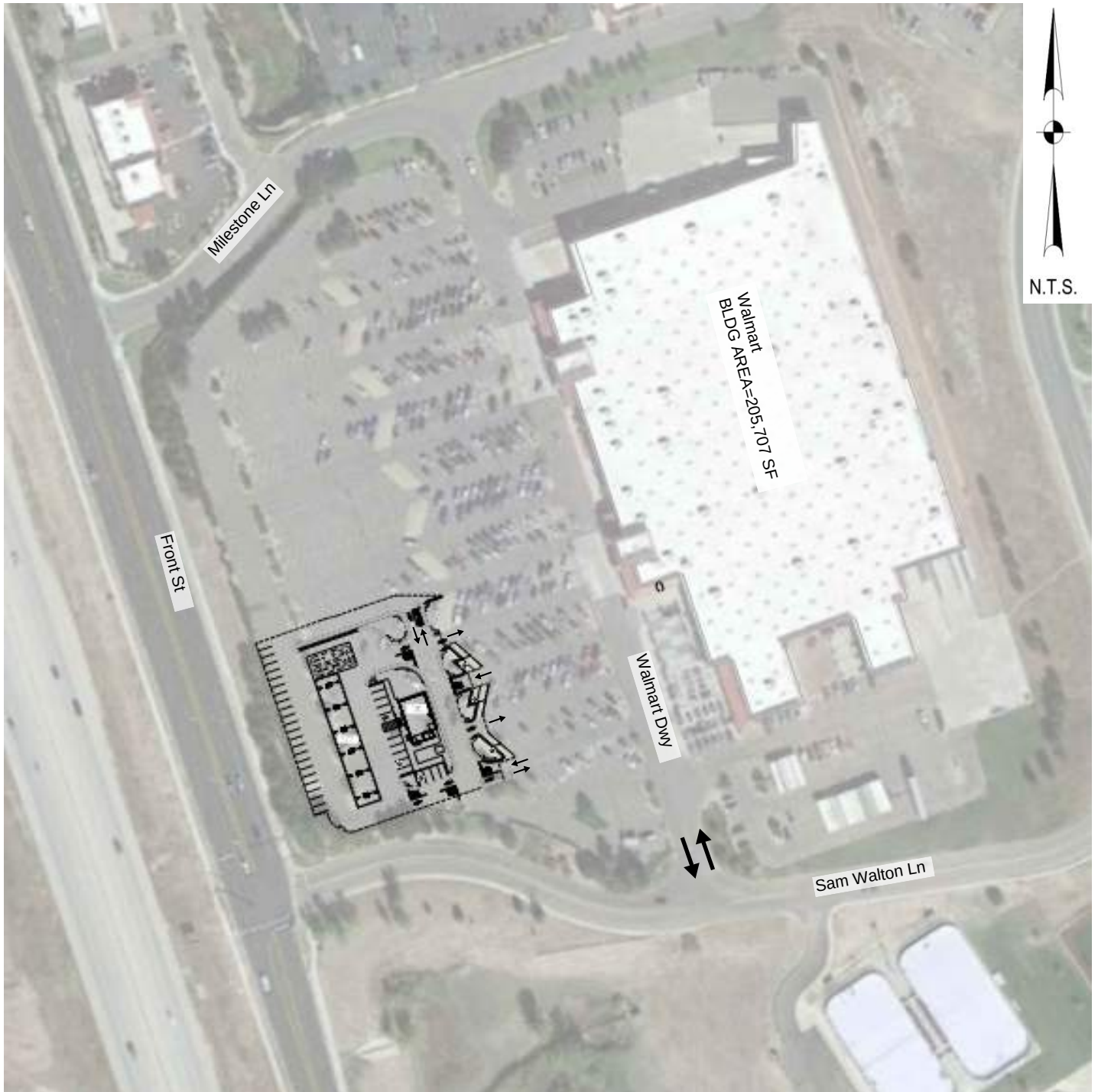
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PROPOSED SITE LAYOUT

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APPROPRIATENESS OF ACCESS LOCATION

Access to the site will be provided by the following existing driveway:

- Sam Walton Ln (Two way stop controlled) - Existing Intersection on Sam Walton Ln and Walmart Driveway.

Even though the Walmart Dwy connects to Milestone Ln as well, it was not considered as the main access driveway to this site given its location within the site.

SITE CIRCULATION AND PARKING

The traffic would enter and exit from the south of the fuel station from the Sam Walton Ln. via Walmart Driveway. The location of the driveway can be seen in **Image 2**.



Image 2: Driveway Location

COMPLIANCE WITH ACCESS CONTROL POLICIES

Access to the proposed fuel station is facilitated through entry/exit points located on Walmart Driveway, which connects the proposed development to Sam Walton Ln. The proposed development will retain the existing control type for these access points.

STUDY METHODOLOGY

TRAFFIC SCENARIOS

The following traffic scenarios were analyzed for the AM and PM peak hour in this study:

- **Existing Conditions 2023-** Analysis of the existing traffic conditions using the existing 2023 counts, existing signal timings and site observations.
- **Proposed Conditions 2025-** Analysis of existing traffic volumes with the added site generated trips from the proposed development.

TRAFFIC SIGNAL TIMING ASSUMPTIONS

The following are the signalized intersection in the study area:

- Front St and Sam Walton Ln
- Founders Pkwy and Trail Boss Dr

The signal timing data was available only for intersection Founders Pkwy at Trail Boss Dr. Hence, reasonable assumptions were made to develop the existing signal timings for the intersection Front St at Sam Walton Ln. The signal phases were assumed based on NEMA standard phasing assigning Phases 2 and 6 to the major road movements. The split timings were optimized in proportion with the existing traffic volumes at Front St at Sam Walton Ln considering same cycle length as of Founders Pkwy at Trail Boss Dr.

GROWTH RATE

To project any future traffic conditions, the existing traffic counts can be forecasted for the future scenarios using a growth rate. For traffic projections similar studies conducted previously in the Colorado state were referred, which utilized a growth rate of 2%. The same growth rate is used for the traffic projections in this study.

PROJECTED CONDITIONS

TRIP GENERATION

To complete a Traffic Impact Analysis for the proposed development, the number of trips expected to be generated by the planned facilities must be determined. The number of trips generated by the development during average weekday peak hours is based on the land use type and size of the development. Standard rates for fuel stations (Land Use 944 – Service -

Gasoline/Gas Station) from the Institute of Transportation Engineers (ITE) publication, *Trip Generation, 11th edition*, were used to determine the amount of traffic generated by the development. The average rate was used to estimate trips generated during AM and PM Peak Hour. The average trip generation rates for the proposed land uses together with the directional distribution are presented in **Table 2**.

Table 2: Trip Generation Equations

ITE Land Use		Weekday		AM Peak Hour		PM Peak Hour	
Service Gasoline/ Gas Station (944)	Regression Equation/ Average Rate	172.01		10.28		13.91	
	Directional Distribution	Enter	Exit	Enter	Exit	Enter	Exit
		50%	50%	50%	50%	50%	50%

PASS-BY TRIP REDUCTION

Not all trips to the Fuel Station (Land Use – 944) travel directly to and from that destination (primary trips); some trips may be as a result of passing by or deliberately diverting to the gas station while travelling to another destination such as the existing Walmart store or other similar commercial developments near proposed development. These trips are called pass-by trips and should be reduced from the newly generated trips. Therefore, to account for the pass-by trip reduction the ITE *Trip Generation Manual 11th Edition* was utilized. The handbook provides a methodology that estimates the pass-by trips for different land uses and is provided in **Image 3** and **Image 4**.

Vehicle Pass-By Rates by Land Use									
Source: ITE Trip Generation Manual, 11th Edition									
Land Use Code	944								
Land Use	Gasoline/Service Station								
Setting	General Urban/Suburban								
Time Period	Weekday AM Peak Period								
# Data Sites	12								
Average Pass-By Rate	63%								
	Pass-By Characteristics for Individual Sites								
Vehicle Fueling Positions	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
6	Maryland	1992	21	67	14	19	33	900	25
6	Maryland	1992	21	43	28	29	57	870	25
8	Maryland	1992	46	87	13	0	13	2235	25
8	Maryland	1992	35	78	9	13	22	7080	25
8	Kentucky	1993	61	60	15	25	40	4000	2
8	Kentucky	1993	48	68	13	19	32	1307	2
8	Kentucky	1993	—	56	22	22	44	1211	2
8	Maryland	1992	36	47	14	39	53	3095	25
8	Maryland	1992	46	75	0	25	25	3770	25
10	Kentucky	1993	47	67	11	22	33	1105	2
10	Kentucky	1993	—	46	42	12	54	1211	2
12	Maryland	1992	36	61	8	31	39	3480	25

Image 3: Pass-by trips Reduction AM Peak

Vehicle Pass-By Rates by Land Use									
Source: ITE Trip Generation Manual, 11th Edition									
Land Use Code	944								
Land Use	Gasoline/Service Station								
Setting	General Urban/Suburban								
Time Period	Weekday PM Peak Period								
# Data Sites	17								
Average Pass-By Rate	57%								
	Pass-By Characteristics for Individual Sites								
Vehicle Fueling Positions	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
6	Maryland	1992	18	61	6	33	39	2510	25
6	Maryland	1992	26	58	11	31	42	1020	25
8	Maryland	1992	47	62	23	15	38	2635	25
8	Kentucky	1993	83	52	8	40	48	4965	2
8	Kentucky	1993	60	53	20	27	47	1491	2
8	Kentucky	1993	—	72	7	21	28	2657	2
8	Maryland	1992	36	67	14	19	33	3095	25
8	Maryland	1992	46	46	11	43	54	3770	25
8	Maryland	1992	35	54	3	43	46	7080	25
10	Kentucky	1993	—	57	19	24	43	1812	2
10	Kentucky	1993	—	55	16	29	45	2657	2
12	Maryland	1992	52	38	10	52	62	3835	25
12	Pennsylvania	2009	—	66	—	—	34	—	19
12	Pennsylvania	2009	—	51	—	—	49	—	19
12	Pennsylvania	2009	—	40	—	—	60	—	19
12	Pennsylvania	2009	—	61	—	—	39	—	19
12	New Jersey	2009	—	73	—	—	27	—	19

Image 4: Pass-by trips Reduction PM Peak

Once calculated, the pass-by trips are then subtracted from the trip generation. Since ITE does not have data for 16 vehicle fueling positions, the average pass by rates were considered. It was estimated that the number of pass-by trips was 102 for the AM peak hour and 125 for the PM peak hour. **Table 3** shows a summary of the trips generated by the proposed development in the study area after the pass-by trip reduction.

Table 3: Trip Generation Volumes

Trip Generation Land Use	Size ¹	Unit	A.M. Peak			P.M. Peak		
			Total	Enter	Exit	Total	Enter	Exit
PROPOSED 2025								
Service Gasoline/ Gas Station (944)	16	No. of Fueling Positions	62	31	31	98	49	49

¹Information Provided by Owner

TRIP DISTRIBUTION

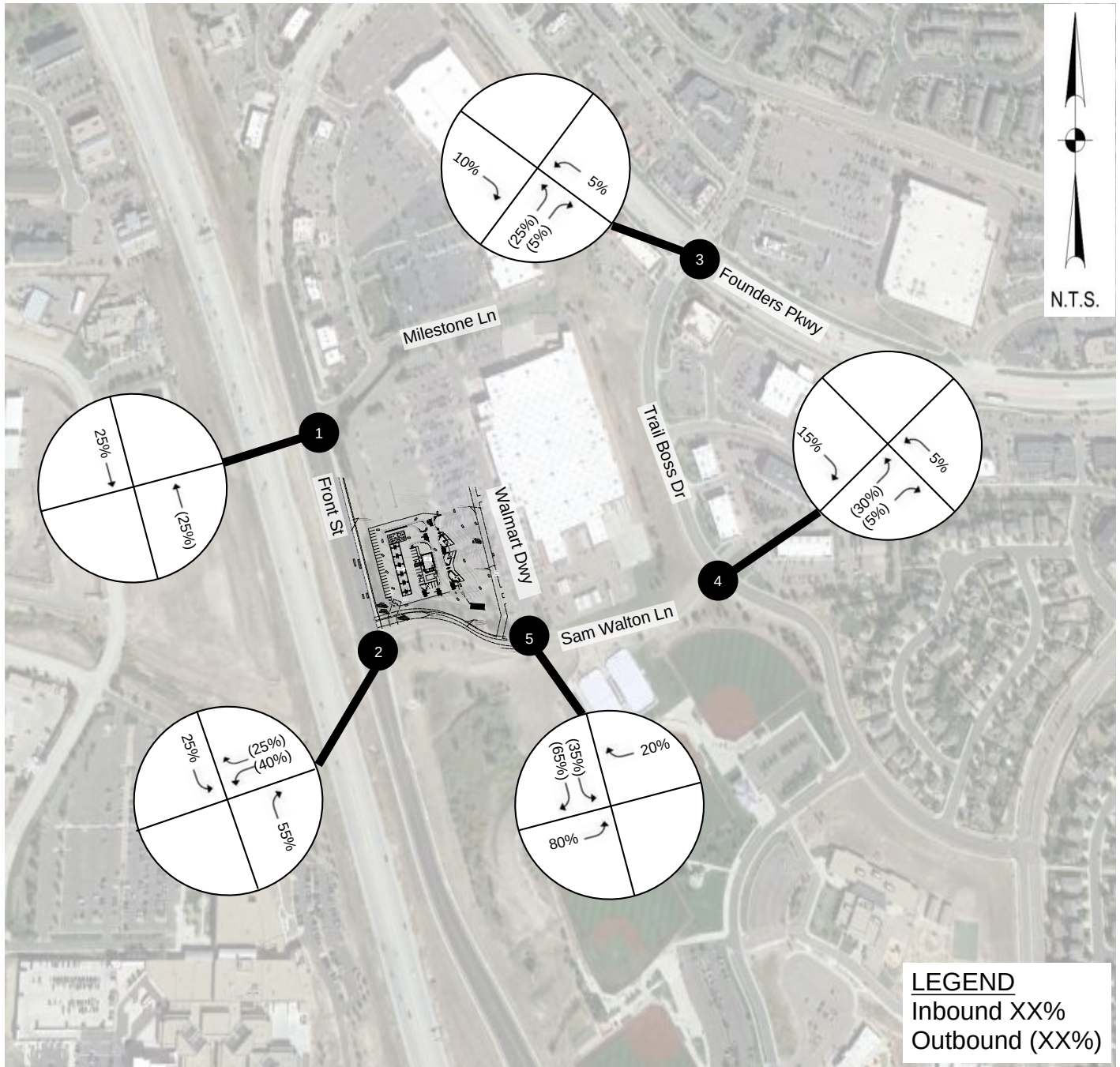
After determining the number of trips generated by the proposed development, the trips were distributed among roadways accessing the site using a combination of existing and expected travel patterns. This process involves examining the roadways and the expected travel patterns between the site and other trip ends, based on available routes in the study area. All traffic assignments were made over the most reasonable routes for each direction. Based on the traffic patterns, the following assumptions were made:

- For the inbound traffic in AM peak, 100% of traffic would come from south, Sam Walton Ln on Walmart Driveway. 80% of the total inbound traffic would be coming from eastbound left from Sam Walton Ln via Front St out of which 55% would come from northbound right and 25% from southbound left. The remaining 20% of the inbound traffic would come from westbound right Sam Walton Ln of which 10% would be coming from eastbound right and 5% from westbound left of Founders Pkwy via Trail Boss Dr. and the remaining 5% would come from northbound left from Trail Boss Dr.
- For the inbound traffic in PM peak, 100% of traffic would come from south Sam Walton Ln on Walmart Driveway. 70% of the total inbound traffic would be coming from eastbound left from Sam Walton Ln via Front St out of which 45% would come from northbound right and 25% from south bound left. The remaining 30% of the inbound traffic would come from westbound right Sam Walton Ln of which 25% from eastbound

right of Founders Pkwy via Trail Boss Dr. and the remaining 5% would come from northbound left from Trail Boss Dr.

- Among the driveways, the split for inbound for AM traffic would be as follows:
 - Sam Walton Ln and Walmart Driveway (Two way stop): 100% (80% from Front St and 20% from Trail Boss Dr. & Founders Pkwy via Sam Walton Ln.)
- Among the driveways, the split for inbound for PM traffic would be as follows:
 - Sam Walton Ln and Walmart Driveway (Two way stop): 100% (70% from Front St and 30% from Trail Boss Dr. & Founders Pkwy via Sam Walton Ln.)
- For the outbound traffic in AM peak, 100% exits towards south to Sam Walton Ln via Walmart Dwy. 65% of the total inbound traffic exits towards Front St. via Sam Walton Ln out of which 25% exit towards westbound right and 40% towards westbound left on Front St. 35% of the total inbound traffic exits towards Trail Boss Dr via Sam Walton Ln of which 25% exits on northbound left, 5% exits on northbound right at Founders Pkwy via Trail Boss Dr and remaining 5% exits on eastbound right on Trail Boss Dr. via Sam Walton Ln.
- For the outbound traffic in PM peak, 100% exits towards south to Sam Walton Ln via Walmart Dwy 75% of the total inbound traffic exits towards Front St. via Sam Walton Ln out of which 30% exit towards westbound right and 45% towards westbound left on Front St. 25% of the total inbound traffic exits towards Trail Boss Dr via Sam Walton Ln of which 10%, 5%, 5% exits towards northbound left, through, and right respectively, at Founders Pkwy via Trail Boss Dr. Remaining 5% exits on eastbound right on Trail Boss Dr. via Sam Walton Ln.
- Among the driveways, the split for outbound for AM traffic would be as follows:
 - Sam Walton Ln and Walmart Driveway (Two way stop): 100% (65% to Front St. and 35% to Trail Boss Dr. & Founders Pkwy via Sam Walton Ln.)
- Among the driveways, the split for outbound for PM traffic would be as follows:
 - Sam Walton Ln and Walmart Driveway (Two way stop): 100% (75% to Front St. and 25% to Trail Boss Dr. & Founders Pkwy via Sam Walton Ln.)

Figure 6 and **Figure 7** illustrate the proposed trip distribution for the AM peak hour and PM peak hour of the development. **Figures 8** and **9** show the site generated trips for the AM peak hour and PM peak hour of the development, respectively.



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**PROPOSED TRIP DISTRIBUTION AM PEAK
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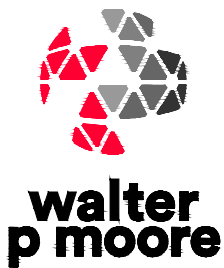
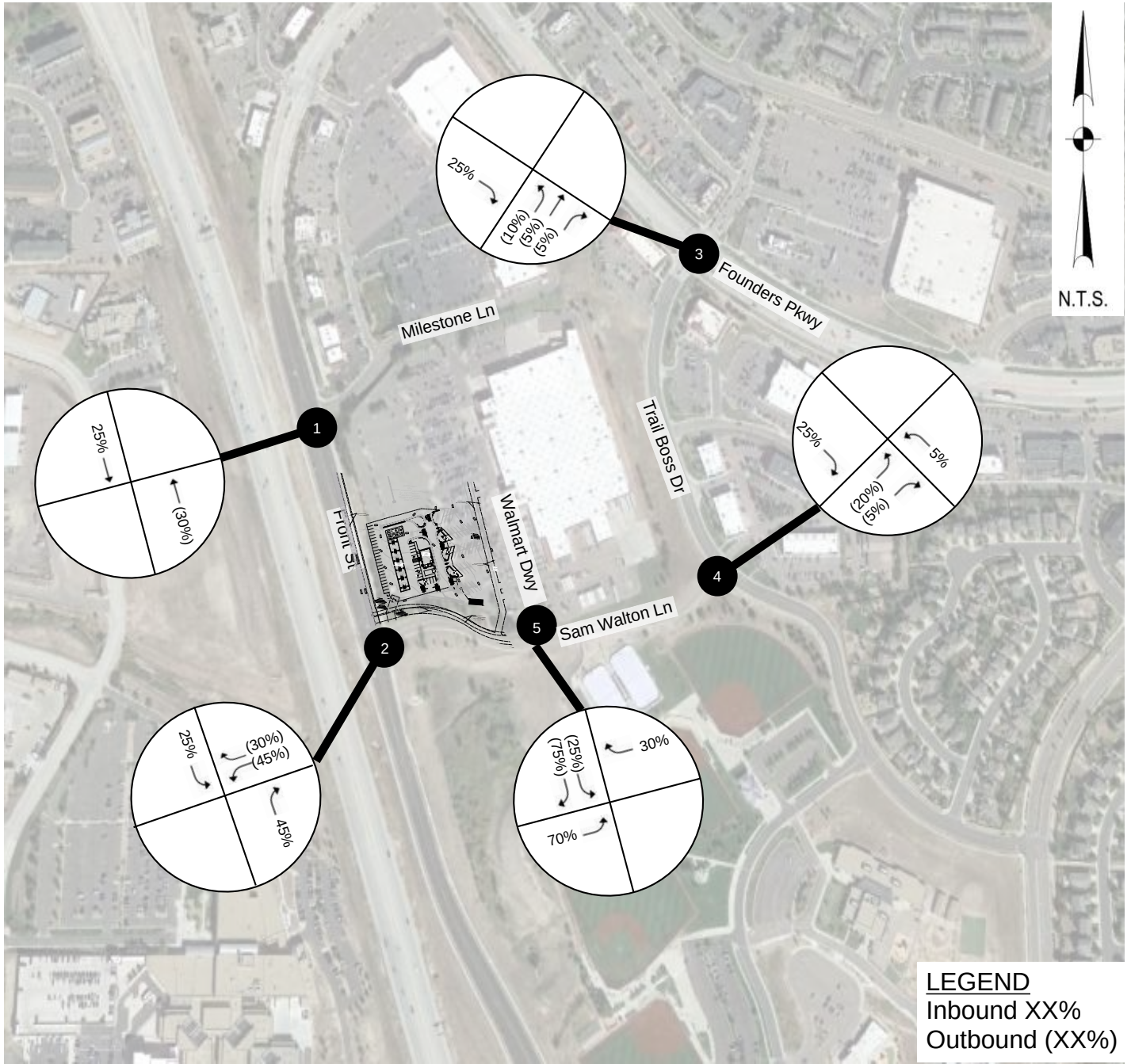
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PROPOSED TRIP DISTRIBUTION PM PEAK HOUR

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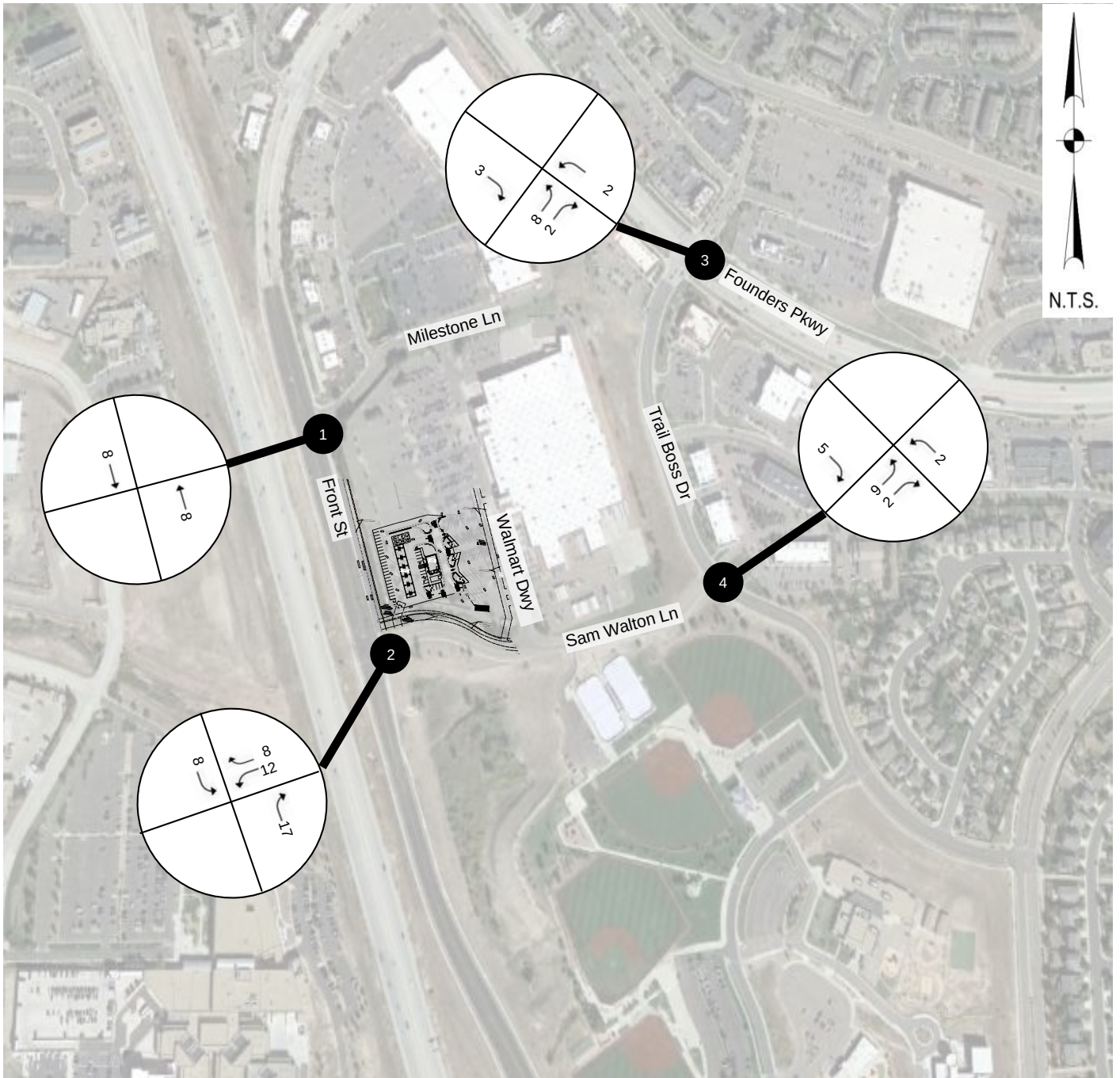
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SITE GENERATED TRIPS AM PEAK HOUR

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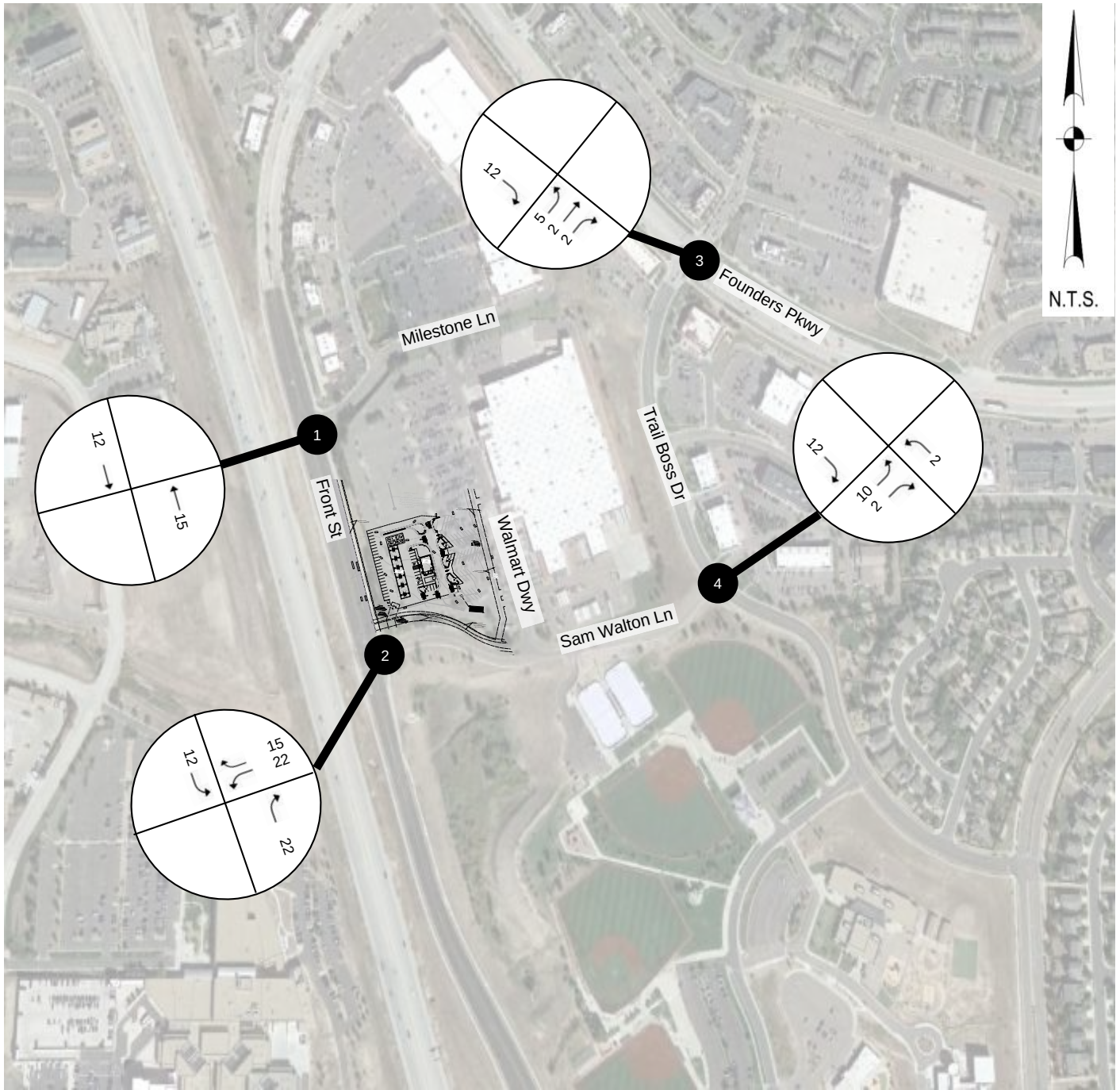
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TRAFFIC ANALYSIS

After developing the projected turning movement volumes for the AM peak hour and PM peak hour, capacity analyses were performed for existing conditions, and proposed conditions. Intersection operations were analyzed using *Synchro 11.0*, software developed to automate procedures found in the *Highway Capacity Manual*. Results of the existing and proposed conditions analyses were compared to determine the impact of the proposed development on the surrounding roadways.

Results of the capacity analyses are reported in standard level of service (LOS) format, with the most favorable conditions being designated as LOS A and the poorest conditions indicated by LOS F. Intersection level of service is based on the average delay that each vehicle encounters at a given intersection. The level of service criteria for signalized intersections, along with a brief description of the conditions experienced for each level of service grade, can be seen in **Table 4**. The level of service criteria for unsignalized intersections can be seen in **Table 5**.

Table 4: Level of Service Criteria for Signalized Intersections

Level of Service	Stopped Delay (seconds/vehicle)	Description
A	≤ 10	At a single intersection most vehicles do not stop at all. When linked with other signals, vehicles progress through intersections without stopping.
B	> 10 and ≤ 20	At a single intersection some vehicles stop before getting a green signal. When linked with other signals, some cars may have to stop but most progress through the intersection without stopping.
C	> 20 and ≤ 35	At a single intersection, a significant number of vehicles must stop and wait for a green signal. Some vehicles may have to wait through one full signal cycle before being able to move through the intersection.
D	> 35 and ≤ 55	At this level, congestion is noticeable. Many vehicles have to stop while waiting for a green signal. A noticeable number of vehicles have to wait through one full cycle before being able to continue through the intersection.
E	> 55 and ≤ 80	At this level, almost all vehicles have to wait through one or more full signal cycles before moving through the intersection. When linked with other signals, progression is slow.
F	> 80	At this level, the number of vehicles entering the intersection exceeds its capacity. Vehicles have to wait through multiple full signal cycles before moving through the intersection.

Table 5: Level of Service Criteria for Unsignalized Intersections

Level of Service	Avg. Total Delay (seconds/vehicle)	Description
A	≤ 10	At most, one vehicle is waiting to move through the intersection when the driver reaches the stop sign. Most often, the driver pulls up to the stop sign and is immediately free to proceed through the intersection.
B	> 10 and ≤ 15	When the driver reaches the intersection, one or two vehicles are in front of him. Once those vehicles proceed through the intersection, the driver is able to continue without opposition.
C	> 15 and ≤ 25	At this level, several vehicles may be in front of the driver at a two-way stop-controlled intersection. At an all-way stop-controlled intersection, there may be two or more vehicles at each approach that the driver has to wait for before getting his turn.
D	> 25 and ≤ 35	At this level, there are at least four vehicles in front of the driver and several vehicles at the other approaches. Also, for two-way stop-controlled conditions, the volume of traffic on the uncontrolled street may be high.
E	> 35 and ≤ 50	When the driver reaches the intersection, there are between five and eight vehicles in front of him and many vehicles at the other approaches that must also proceed through the intersection before the driver may continue.
F	> 50	At this level, the driver must wait for eight to ten cars at his approach to move through the intersection along with at least five vehicles at the other approaches. This level can also occur at two-way stop-controlled intersections when the uncontrolled street has such a high volume that no gaps are available in the traffic stream for the vehicles at the cross street to continue.

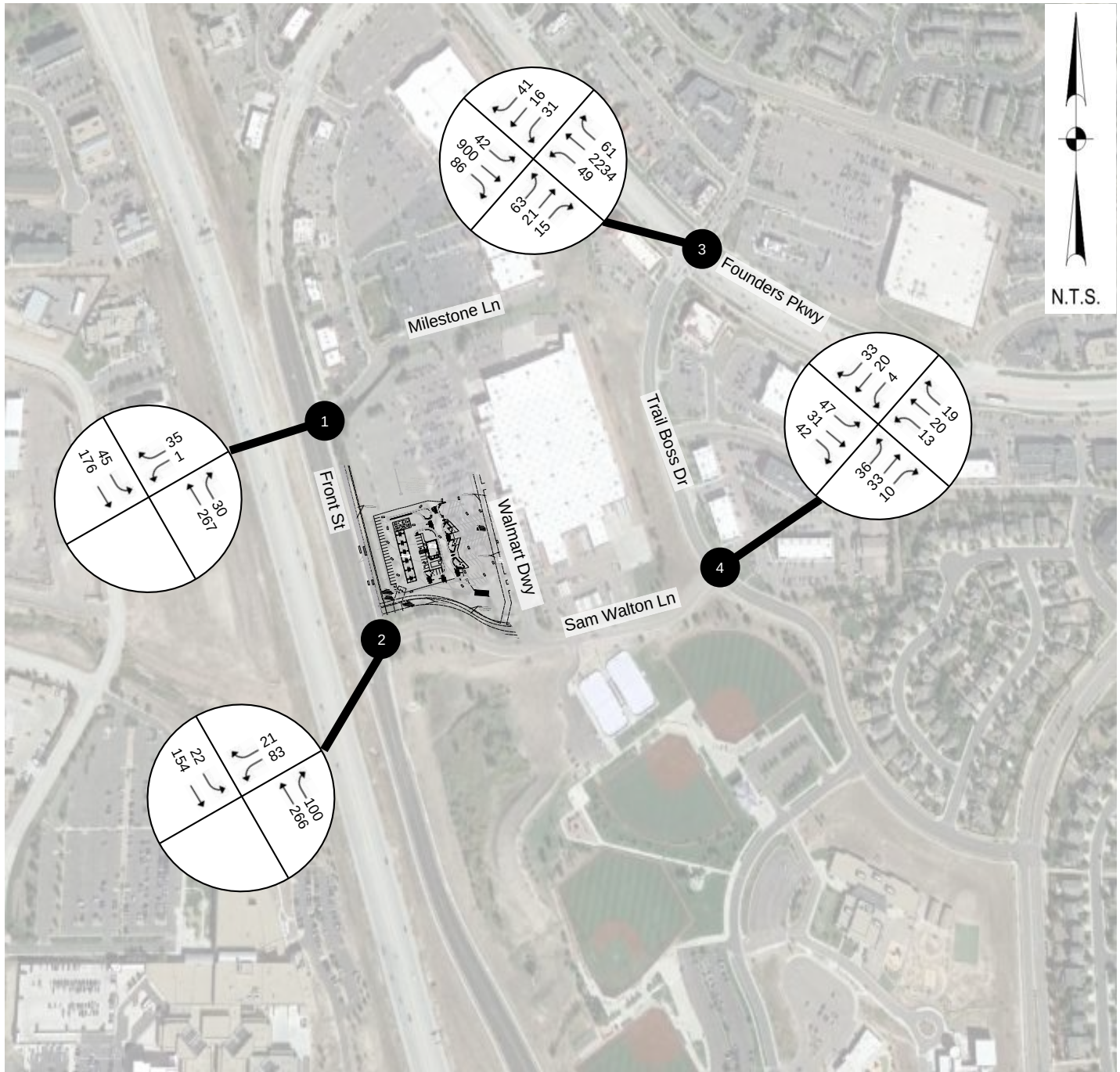
Transportation agencies generally consider operations at or above LOS C to be acceptable. In more dense areas, operations at or above LOS D may also be considered acceptable during peak traffic hours.

EXISTING CONDITIONS (2023)

For the analysis of existing conditions, existing traffic count data along with traffic signal timings based on reasonable assumptions were used. Existing AM peak hour and PM peak hour volumes can be seen in **Figures 3** and **4**. Existing conditions capacity analyses can be found under **TAB Two**.

PROPOSED CONDITIONS (2025)

For the analysis of the proposed conditions, the proposed traffic volumes along with current traffic signal timings used in Existing conditions were used. The proposed AM peak hour and PM peak hour volumes can be seen in **Figures 10** and **11**. Proposed conditions capacity analyses can be found under **TAB THREE**.



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Houston, Texas 77010

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Project Name:

WALMART STORE #984 FUEL STATION TIA

Sheet Title:

PROPOSED AM PEAK HOUR VOLUME 2025

WPMA P.N.:

T04-22006-08

Designed by:

TD

Figure No.

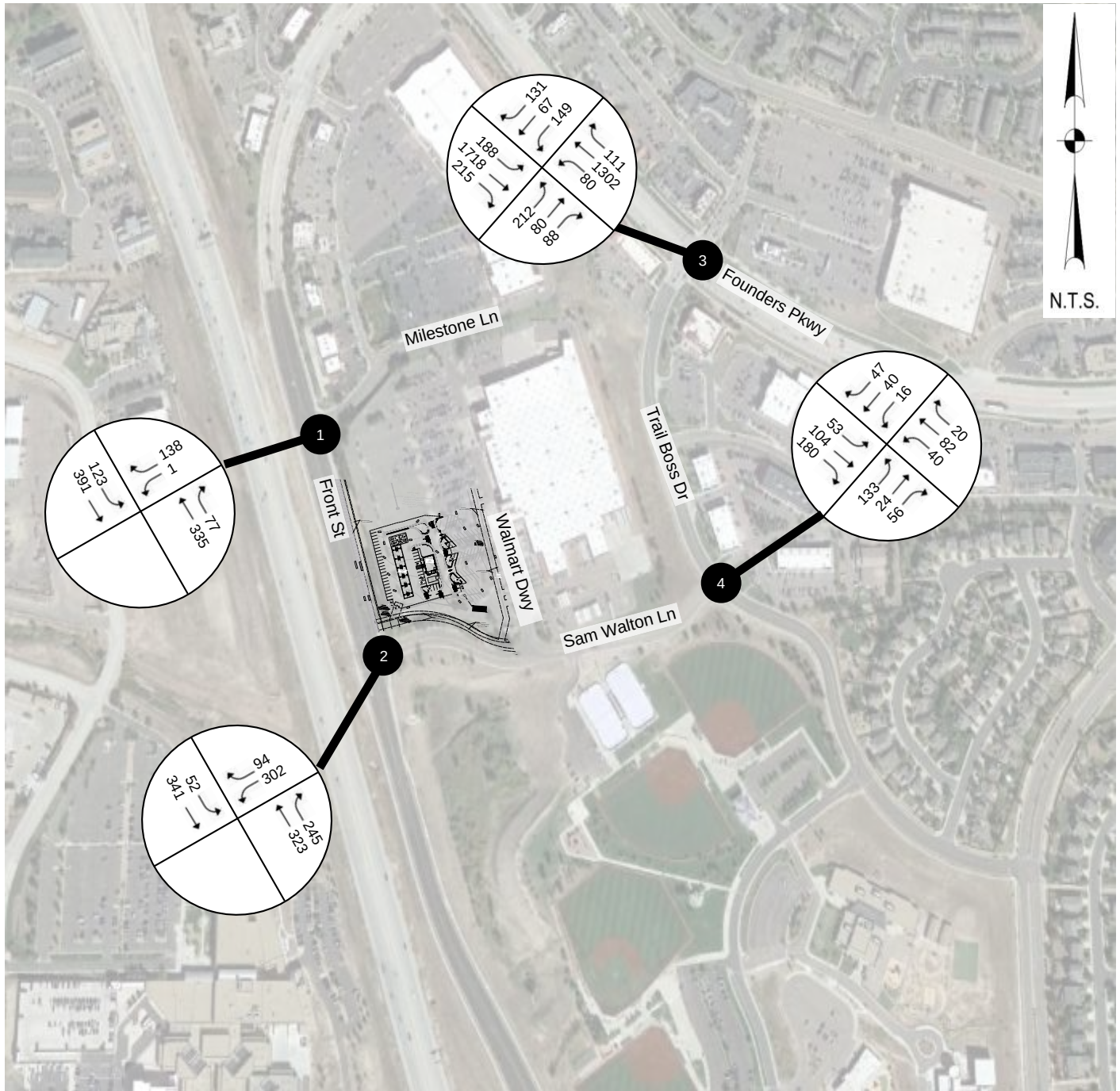
Date:

June 2023

Drawn by:

JB

10



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Project Name:

WALMART STORE #984 FUEL STATION TIA

Sheet Title:

PROPOSED PM PEAK HOUR VOLUME 2025

WPMA P.N.:
T04-22006-08

Designed by:
TD

Figure No.

Date:
June 2023

Drawn by:
JB

11

A comparison of the existing, and proposed AM peak hour and PM peak hour level of service and delay can be found in **Table 6** and **Table 7**.

Table 6: Level of Service Comparison – AM Peak Hour

No.	Intersection Name	Type of Intersection	Existing AM 2023		Proposed AM 2025	
			Intersection LOS	Intersection delay (sec/veh)	Intersection LOS	Intersection delay (sec/veh)
1	Front St and Milestone Ln	Two-way stop	A	1.3	A	1.3
2	Front St and Sam Walton Ln	Signalized	A	9.2	B	10.1
3	Founders Pkwy and Trial Boss Dr	Signalized	B	11.8	B	12.8
4	Trail Boss Dr and Sam Walton Ln	Two-way stop	A	6.0	A	6.3

Legend:

	LOS A, B, C or D
	LOS E
	LOS F

Table 7: Level of Service Comparison – PM Peak Hour

No.	Intersection Name	Type of Intersection	Existing PM 2023		Proposed PM 2025	
			Intersection LOS	Intersection delay (sec/veh)	Intersection LOS	Intersection delay (sec/veh)
1	Front St and Milestone Ln	Two-way stop	A	2.4	A	2.4
2	Front St and Sam Walton Ln	Signalized	B	17.5	B	19.8
3	Founders Pkwy and Trial Boss Dr	Signalized	C	34.1	D	37.7
4	Trail Boss Dr and Sam Walton Ln	Two-way stop	A	7.0	A	7.8

Legend:

	LOS A, B, C or D
	LOS E
	LOS F

LEVEL OF SERVICE COMPARISON

The following is a summary of findings at the study intersections based on the analysis conducted as part of this traffic impact analysis:

AM Peak Hour

- The signalized intersections perform at an accepted level of service LOS B or better in all the scenarios.
- All unsignalized intersections stay at the same level of service LOS A in all the scenarios.

PM Peak Hour

- The signalized intersections perform at the accepted level of service LOS D or better in all the scenarios.
- All unsignalized intersections stay at the same level of service LOS A in all the scenarios.

MITIGATION ANALYSIS

- Based on the level of service comparisons, all intersections perform at an acceptable level of service in both AM and PM scenarios at buildout of the proposed Walmart Fuel Station. Therefore, no mitigation is required as part of the proposed development.

QUEUE LENGTH & TURN LANE ANALYSIS

Turn lane analysis was performed at all the study intersections in accordance with the National Cooperative Highway Research Program (NCHRP) Report 457—Engineering Study Guide for Evaluating Intersection Improvements. 95th percentile queue lengths were compared for AM and PM Peak hours for Existing and Proposed Conditions. It was observed that the approach volumes in the proposed PM scenario were comparatively higher than the proposed AM scenario. Thus, turn lane analysis was carried out for the Proposed PM conditions. For the left turn analysis, it was observed that all the left lanes turning towards the site had a dedicated storage length & 95th percentile queue length was less than the storage length at all the intersections. Hence, no additional left turn lanes were required. The details of the 95th percentile queue lengths and existing turn length at the intersections of AM peak hour and PM peak hour can be found in **TAB FOUR**.

Table 8, 9 and 10 summarize the results of the right turn lane analysis on major street, second lane on minor road and left turn lane analysis respectively. The decision for the turn lane requirement will be governed by the queue length analysis.

Table 8: Right-Turn Lane Analysis Summary

No.	Intersection	Direction	Major Road Speed (mph)	Right Turn Volume (Veh/h)	Major Road Volume (Veh/h)	Turn Lane Warranted
1	Front St at Sam Walton Ln	NB	40	245	568	Yes
2	Founders Pkwy at Trail Boss Dr	EB	45	215	2121	Yes

Table 9: Second-Lane Analysis for Minor Road

No.	Intersection	Direction	Right Turn Volume (%)	Minor Road Volume: *	Major Road Volume: **	Lane Warranted
1	Front St at Sam Walton Ln	Westbound	24	396	961	Yes

* One Direction (Veh/h)

** Both Direction (Veh/h)

Table 10: Left-Turn Lane Analysis Summary

No.	Intersection	Direction	Turn Lane Available	Turn Lane length> 95 th Percentile Queue Length	Lane Warranted
1	Front St and Milestone Ln	Southbound left	Yes	Yes	No
2	Front St and Sam Walton Ln	Southbound left	Yes	Yes	No
3	Founders Pkwy and Trial Boss Dr	Westbound left	Yes	Yes	No
4	Trail Boss Dr and Sam Walton Ln	Northbound left	Yes	Yes	No

As shown in Table 8, Table 9 and as seen in Figure 4, the high right turn turning volumes are already in Existing PM conditions. The proposed fuel station adds:

- 22 veh/h at the NB right turn movement at Front St at Sam Walton Ln.
- 12 veh/h at the EB right turn movement at Founders Pkwy at Trail Boss Dr.
- 15 veh/h at the WB right turn movement at Front St at Sam Walton Ln.

The Town of Castle Rock and CDOT shall consider exploring these Right Turn Lanes within their transportation plan and signal operations maintenance.

TRAFFIC ANALYSIS FOR TOWN OF CASTLE ROCK AND CDOT USE

The turn lane analysis warranted two right turn lanes and an additional lane on the minor road at the intersections mentioned in Table 11. The impact of the turn lanes was assessed and a comparison of the 2025 proposed and improved AM peak hour and PM peak hour level of service and delay can be found in Table 12 and 13. Both the peak hours showed slight improvements in delays, especially in PM peak hour. The delay for Front St at Sam Walton Ln improved from 19.8 sec/veh in proposed conditions to 15.3 sec/veh and for Founders Pkwy at Trial Boss Dr; the delay improved from 37.7 sec/veh to 36.1 sec/veh in the improved PM peak hour. The level of service remained unchanged for both the peak hours.

Table 11: Level of Service Comparison – Improved AM Peak Hour

No.	Intersection Name	Type of Intersection	Proposed AM 2025		Improved AM 2025	
			Intersection LOS	Intersection delay (sec/veh)	Intersection LOS	Intersection delay (sec/veh)
1	Front St and Milestone Ln	Two-way stop	A	1.3	A	1.3
2	Front St and Sam Walton Ln	Signalized	B	10.1	A	9.3
3	Founders Pkwy and Trial Boss Dr	Signalized	B	12.8	B	12.7
4	Trail Boss Dr and Sam Walton Ln.	Two-way stop	A	6.3	A	6.3

Table 12: Level of Service Comparison – Improved PM Peak Hour

No.	Intersection Name	Type of Intersection	Proposed PM 2025		Improved PM 2025	
			Intersection LOS	Intersection delay (sec/veh)	Intersection LOS	Intersection delay (sec/veh)
1	Front St and Milestone Ln	Two-way stop	A	2.4	A	2.4
2	Front St and Sam Walton Ln	Signalized	B	19.8	B	15.3
3	Founders Pkwy and Trial Boss Dr	Signalized	D	37.7	D	36.1
4	Trail Boss Dr and Sam Walton Ln.	Two-way stop	A	7.8	A	7.8

Legend:

	LOS A, B, C or D
	LOS E
	LOS F

CONCLUSIONS AND RECOMMENDATIONS

As requested by CEI, Walter P Moore conducted a traffic impact analysis for the proposed fuel station at the Walmart Store #984 in Castle Rock, Colorado. The purpose of the study was to determine the potential impacts to traffic operations in the area related to the proposed development. Transportation and site improvements to mitigate impacts were investigated, if necessary. The following is a summary of the study:

- The proposed site will include a fuel station having 16 fueling positions.
- Based on the level of service comparisons, all intersections perform at an acceptable level of service after the development is built. Therefore, no mitigations are required.
- The turn lane warrant analysis for the incoming traffic turning left and right towards the proposed development & second lane on minor road was performed. The summary of the turn lanes warranted as per the analysis as follows:

No.	Name of Intersection	Type of warrant	Approach Direction	Turn Warranted
1	Front St at Sam Walton Ln	Right turn	Northbound	Yes
		Second lane on Minor Road	Westbound	Yes
2	Founders Pkwy at Trail Boss Dr	Right turn	Eastbound	Yes

- The Town of Castle Rock and CDOT shall consider exploring these Right Turn Lanes within their transportation plan and signal operations maintenance.

REFERENCES

1. *Trip Generation Manual, 11th Edition*. Institute of Transportation Engineers.
2. *Highway Capacity Manual, 6th Edition*. Transportation Research Board.
3. *NCHRP Report 457: Engineering Study Guide for Evaluating Intersection Improvements*.
Transportation Research Board.

Tab One

Existing Traffic Volumes 2023

Count Location: 1. Front St at Mile Stone
Count Date: 09 May 2023
Weather Conditions:
Road Surface Condition:
Names of Counters: Ridgeview Data Collection

A.M. PEAK PERIOD																					
Time	Eastbound					Westbound Mile Stone					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
07:00						0		10	0	0		50	8		0	5	33		0	0	106
07:15						0		4	0	1		61	3		0	5	40		0	0	113
07:30						0		3	0	0		85	5		0	5	50		0	0	148
07:45						0		13	0	1		58	11		0	19	38		0	0	139
08:00						1		14	0	0		45	10		0	14	34		0	0	118
08:15						2		14	0	0		56	6		0	11	27		0	0	116
08:30						1		12	0	0		77	9		0	14	30		0	0	143
08:45						0		13	0	0		54	14		0	14	35		0	0	130

P.M. PEAK PERIOD																					
Time	Eastbound					Westbound Mile Stone					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
16:00						3		32	0	0		81	19		0	29	83		0	0	247
16:15						0		32	0	0		75	26		0	30	75		0	0	238
16:30						0		36	0	0		56	13		0	26	88		0	1	219
16:45						1		29	0	0		87	22		0	32	103		0	0	274
17:00						0		36	0	0		90	13		0	30	98		0	0	267
17:15						0		33	0	0		63	14		0	35	86		0	0	231
17:30						1		36	0	0		76	12		0	33	109		0	0	267
17:45						1		33	0	0		52	14		0	36	92		0	0	228

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:15 - 17:15

A.M. Peak Hour	Eastbound					Westbound Mile Stone					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
7:15						0	0	4	0	1	0	61	3	0	0	5	40	0	0	0	113
7:30						0	0	3	0	0	0	85	5	0	0	5	50	0	0	0	148
7:45						0	0	13	0	1	0	58	11	0	0	19	38	0	0	0	139
8:00						1	0	14	0	0	0	45	10	0	0	14	34	0	0	0	118
TOTAL						1	0	34	0	2	0	249	29	0	0	43	162	0	0	0	518
Ped Conflicts						2		2			0		2			2		0			4

P.M. Peak Hour	Eastbound					Westbound Mile Stone					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
16:15						0	0	32	0	0	0	75	26	0	0	30	75	0	0	0	238
16:30						0	0	36	0	0	0	56	13	0	0	26	88	0	0	1	219
16:45						1	0	29	0	0	0	87	22	0	0	32	103	0	0	0	274
17:00						0	0	36	0	0	0	90	13	0	0	30	98	0	0	0	267
TOTAL						1	0	133	0	0	0	308	74	0	0	118	364	0	0	1	998
Ped Conflicts						0		1			0		0			1		1			1.5

Count Location: 2. Front St at Sam Walton
Count Date: 09 May 2023
Weather Conditions:
Road Surface Condition:
Names of Counters: Ridgeview Data Collection

A.M. PEAK PERIOD																					
Time	Eastbound					Westbound Sam Walton Ln					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
07:00						6		3	0	0		56	14	0	0	3	30		0	0	112
07:15						21		3	0	1		59	11	0	0	4	34		0	0	132
07:30						10		2	0	0		84	12	0	0	5	48		0	0	161
07:45						19		2	0	1		64	26	0	0	2	35		0	0	148
08:00						18		6	0	0		49	31	0	0	3	31		0	0	138
08:15						23		4	0	0		59	25	0	0	2	29		0	0	142
08:30						22		6	0	0		78	36	0	0	5	30		0	0	177
08:45						37		6	0	0		63	32	0	0	3	29		0	0	170

P.M. PEAK PERIOD																					
Time	Eastbound					Westbound					Northbound					Southbound					Vehicle Total
	0					Sam Walton Ln					Front St					Front St					
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
16:00						65		9	0	0		85	43	0	0	4	83		0	0	289
16:15						67		15	0	0		90	45	0	0	9	66		0	0	292
16:30						71		14	0	0		55	43	0	0	12	73		0	0	268
16:45						65		28	0	0		83	66	0	0	10	98		0	0	350
17:00						66		19	0	0		82	60	0	0	7	91		0	0	325
17:15						53		10	0	0		66	45	0	0	10	76		0	0	260
17:30						62		15	0	0		74	29	0	0	6	102		0	0	288
17:45						58		10	0	1		55	33	0	0	5	87		0	0	248

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:15 - 17:15

A.M. Peak Hour	Eastbound 0					Westbound Sam Walton Ln					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
7:15						21	0	3	0	1	0	59	11	0	0	4	34	0	0	0	132
7:30						10	0	2	0	0	0	84	12	0	0	5	48	0	0	0	161
7:45						19	0	2	0	1	0	64	26	0	0	2	35	0	0	0	148
8:00						18	0	6	0	0	0	49	31	0	0	3	31	0	0	0	138
TOTAL						68	0	13	0	2	0	256	80	0	0	14	148	0	0	0	579
Ped Conflicts						2		2			0		2			2		0			4

P.M. Peak Hour	Eastbound 0					Westbound Sam Walton Ln					Northbound Front St					Southbound Front St					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
16:15						67	0	15	0	0	0	90	45	0	0	9	66	0	0	0	292
16:30						71	0	14	0	0	0	55	43	0	0	12	73	0	0	0	268
16:45						65	0	28	0	0	0	83	66	0	0	10	98	0	0	0	350
17:00						66	0	19	0	0	0	82	60	0	0	7	91	0	0	0	325
TOTAL						269	0	76	0	0	0	310	214	0	0	38	328	0	0	0	1235
Ped Conflicts						0		0			0		0			0		0			0

Count Location: 3. Founders Pkwy at Trail Boss
Count Date: 09 May 2023
Weather Conditions:
Road Surface Condition:
Names of Counters: Ridgeview Data Collection

A.M. PEAK PERIOD																				
Time	Eastbound Founders Pkwy					Westbound Founders Pkwy					Northbound Trail Boss Dr					Southbound Founders Pkwy				
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds
07:00	7	154	7	0	1	12	513	14	0	1	20	3	3	0	0	4	2	6	0	0
07:15	4	162	11	0	1	11	656	16	0	0	11	3	4	0	0	6	5	9	0	0
07:30	7	200	25	0	0	10	562	15	0	0	13	3	3	0	0	5	0	8	0	0
07:45	16	244	26	0	2	14	532	12	0	0	9	4	1	0	1	5	3	7	0	0
08:00	13	259	18	0	0	11	397	16	0	1	20	10	5	0	0	14	7	15	0	0
08:15	13	221	22	0	0	13	404	28	0	0	30	6	6	0	0	11	3	11	0	0
08:30	20	218	27	0	1	16	362	15	0	2	38	20	5	0	0	15	10	20	0	1
08:45	24	207	33	0	0	20	321	18	0	0	29	18	8	0	0	17	19	17	0	0

P.M. PEAK PERIOD																				
Time	Eastbound Founders Pkwy					Westbound Founders Pkwy					Northbound Trail Boss Dr					Southbound Founders Pkwy				
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds
16:00	48	452	55	0	0	17	275	20	0	4	52	27	15	0	0	24	18	27	0	0
16:15	49	382	57	0	0	18	289	27	0	0	58	19	19	0	0	38	15	26	0	0
16:30	46	453	59	0	0	23	352	24	0	1	56	20	21	0	0	36	15	32	0	0
16:45	44	401	52	0	3	21	287	33	0	3	43	17	20	0	0	38	23	39	0	0
17:00	42	415	27	0	0	15	323	23	0	0	42	19	22	0	0	31	11	29	0	0
17:15	47	434	38	0	3	17	315	25	0	0	32	16	14	0	0	48	18	38	0	0
17:30	43	494	38	0	0	16	303	38	0	0	29	19	19	0	0	28	21	37	0	0
17:45	68	416	20	0	1	14	251	28	0	0	29	15	20	0	1	54	17	35	0	1

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:15 - 17:15

A.M. Peak Hour	Eastbound Founders Pkwy					Westbound Founders Pkwy					Northbound Trail Boss Dr					Southbound Founders Pkwy				
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds
7:15	4	162	11	0	1	11	656	16	0	0	11	3	4	0	0	6	5	9	0	0
7:30	7	200	25	0	0	10	562	15	0	0	13	3	3	0	0	5	0	8	0	0
7:45	16	244	26	0	2	14	532	12	0	0	9	4	1	0	1	5	3	7	0	0
8:00	13	259	18	0	0	11	397	16	0	1	20	10	5	0	0	14	7	15	0	0
TOTAL	40	865	80	0	3	46	2147	59	0	1	53	20	13	0	1	30	15	39	0	0
Ped Conflicts	3		4			2		1			4		2			1		3		

P.M. Peak Hour	Eastbound Founders Pkwy					Westbound Founders Pkwy					Northbound Trail Boss Dr					Southbound Founders Pkwy				
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds
16:15	49	382	57	0	0	18	289	27	0	0	58	19	19	0	0	38	15	26	0	0
16:30	46	453	59	0	0	23	352	24	0	1	56	20	21	0	0	36	15	32	0	0
16:45	44	401	52	0	3	21	287	33	0	3	43	17	20	0	0	38	23	39	0	0
17:00	42	415	27	0	0	15	323	23	0	0	42	19	22	0	0	31	11	29	0	0
TOTAL	181	1651	195	0	3	77	1251	107	0	4	199	75	82	0	0	143	64	126	0	0
Ped Conflicts	3		3			4		4			3		4			4		3		

Count Location: 4. Trail Boss Dr at Sam Walton
Count Date: 09 May 2023
Weather Conditions:
Road Surface Condition:
Names of Counters: Ridgeview Data Collection

A.M. PEAK PERIOD																					
Time	Eastbound Sam Walton Ln					Westbound Sam Walton Ln					Northbound Trail Boss Dr					Southbound Trail Boss Dr					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
07:00	7	5	1	0	2	1	2	8	0	1	4	9	7	0	0	8	2	7	0	0	61
07:15	5	4	0	0	0	3	5	9	0	0	4	6	4	0	1	8	6	11	0	0	65
07:30	4	6	0	0	0	0	1	6	0	1	2	5	7	0	0	12	10	3	0	1	56
07:45	5	10	2	0	1	1	4	7	0	0	3	4	5	0	0	16	5	11	0	0	73
08:00	12	12	6	0	0	0	9	10	0	0	2	4	2	0	0	9	9	11	0	0	86
08:15	9	8	3	0	0	5	9	5	0	0	12	28	9	0	0	5	15	11	0	0	119
08:30	11	5	10	0	0	2	5	2	0	0	9	41	3	0	0	6	22	22	0	0	138
08:45	11	4	8	0	0	0	4	2	0	0	5	29	6	0	0	10	24	29	0	1	132

P.M. PEAK PERIOD																					
Time	Eastbound Sam Walton Ln					Westbound Sam Walton Ln					Northbound Trail Boss Dr					Southbound Trail Boss Dr					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
16:00	17	8	8	0	0	2	7	10	0	0	10	41	6	0	0	9	25	34	0	0	177
16:15	25	7	16	0	0	3	10	11	0	0	11	22	7	0	0	16	25	37	0	0	190
16:30	24	5	13	0	0	4	10	10	0	2	12	39	2	0	0	15	26	38	0	0	198
16:45	35	4	9	0	0	4	9	9	0	0	8	12	7	0	0	16	25	56	0	0	194
17:00	34	7	13	0	0	4	9	15	0	0	5	6	3	0	0	4	24	30	0	0	154
17:15	23	5	12	0	0	2	11	2	0	0	6	13	3	0	0	5	18	35	0	0	135
17:30	26	1	13	0	3	2	6	8	0	0	0	13	3	0	0	2	18	46	0	0	138
17:45	27	2	12	0	0	0	7	3	0	0	13	5	1	0	0	5	14	31	0	0	120

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:15 - 17:15

A.M. Peak Hour	Eastbound Sam Walton Ln					Westbound Sam Walton Ln					Northbound Trail Boss Dr					Southbound Trail Boss Dr					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
7:15	5	4	0	0	0	3	5	9	0	0	4	6	4	0	1	8	6	11	0	0	65
7:30	4	6	0	0	0	0	1	6	0	1	2	5	7	0	0	12	10	3	0	1	56
7:45	5	10	2	0	1	1	4	7	0	0	3	4	5	0	0	16	5	11	0	0	73
8:00	12	12	6	0	0	0	9	10	0	0	2	4	2	0	0	9	9	11	0	0	86
TOTAL	26	32	8	0	1	4	19	32	0	1	11	19	18	0	1	45	30	36	0	1	280
Ped Conflicts	2		2			2		2			2		2			2		2			8

P.M. Peak Hour	Eastbound Sam Walton Ln					Westbound Sam Walton Ln					Northbound Trail Boss Dr					Southbound Trail Boss Dr					Vehicle Total
	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	Left	Thru	Right	U	Peds	
16:15	25	7	16	0	0	3	10	11	0	0	11	22	7	0	0	16	25	37	0	0	190
16:30	24	5	13	0	0	4	10	10	0	2	12	39	2	0	0	15	26	38	0	0	198
16:45	35	4	9	0	0	4	9	9	0	0	8	12	7	0	0	16	25	56	0	0	194
17:00	34	7	13	0	0	4	9	15	0	0	5	6	3	0	0	4	24	30	0	0	154
TOTAL	118	23	51	0	0	15	38	45	0	2	36	79	19	0	0	51	100	161	0	0	736
Ped Conflicts	0		0			2		2			0		2			2		0			4

Tab Two

Existing Conditions Capacity Analysis (2023)

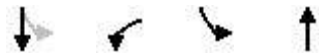
WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

1: Front St & Mile Stone
Existing Scenario 2023

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	34	249	29	43	162
Future Vol, veh/h	1	34	249	29	43	162
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	39	283	33	49	184
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	473	142	0	0	316	0
Stage 1	283	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	520	880	-	-	1241	-
Stage 1	740	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	500	880	-	-	1241	-
Mov Cap-2 Maneuver	500	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.4	0		1.7		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	861	1241	-	
HCM Lane V/C Ratio	-	-	0.046	0.039	-	
HCM Control Delay (s)	-	-	9.4	8	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Existing Scenario 2023

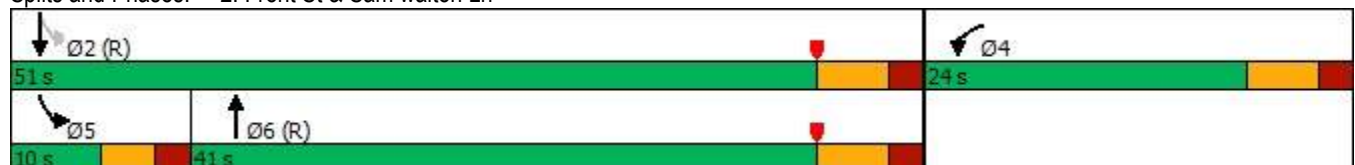


Phase Number	2	4	5	6
Movement	SBTL	WBL	SBL	NBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Min	None	None	C-Min
Maximum Split (s)	51	24	10	41
Maximum Split (%)	68.0%	32.0%	13.3%	54.7%
Minimum Split (s)	26	24	8	26
Yellow Time (s)	4	4	3	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	20	3	3	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0.2	3	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	30	6	30	40
End Time (s)	6	30	40	6
Yield/Force Off (s)	0	24	35	0
Yield/Force Off 170(s)	0	13	35	64
Local Start Time (s)	30	6	30	40
Local Yield (s)	0	24	35	0
Local Yield 170(s)	0	13	35	64

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow	

Splits and Phases: 2: Front St & Sam walton Ln



WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Existing Scenario 2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	68	13	256	80	14	148
Future Volume (veh/h)	68	13	256	80	14	148
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	14	284	89	16	164
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	100	18	1863	572	782	2751
Arrive On Green	0.07	0.07	0.70	0.70	0.01	0.77
Sat Flow, veh/h	1519	280	2771	822	1781	3647
Grp Volume(v), veh/h	91	0	187	186	16	164
Grp Sat Flow(s),veh/h/ln	1819	0	1777	1722	1781	1777
Q Serve(g_s), s	3.7	0.0	2.7	2.8	0.2	0.8
Cycle Q Clear(g_c), s	3.7	0.0	2.7	2.8	0.2	0.8
Prop In Lane	0.84	0.15		0.48	1.00	
Lane Grp Cap(c), veh/h	120	0	1237	1199	782	2751
V/C Ratio(X)	0.76	0.00	0.15	0.16	0.02	0.06
Avail Cap(c_a), veh/h	437	0	1237	1199	880	2751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	3.9	3.9	2.8	2.0
Incr Delay (d2), s/veh	9.4	0.0	0.3	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.7	0.7	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.8	0.0	4.1	4.2	2.8	2.0
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	91		373			180
Approach Delay, s/veh	43.8		4.1			2.1
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	64.1		10.9		5.9	58.2
Change Period (Y+Rc), s	6.0		6.0		5.0	6.0
Max Green Setting (Gmax), s	45.0		18.0		5.0	35.0
Max Q Clear Time (g_c+l1), s	2.8		5.7		2.2	4.8
Green Ext Time (p_c), s	0.6		0.1		0.0	1.2
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Existing Scenario 2023

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	68	13	256	80	14	148			
Future Volume (veh/h)	68	13	256	80	14	148			
Number	7	14	6	16	5	2			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)	1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No		No			No			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	76	14	284	89	16	164			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	100	18	1863	572	782	2751			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.07	0.07	0.70	0.70	0.01	0.77			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	43.8	0.0	4.1	4.2	2.8	2.0			
Ln Grp LOS	D	A	A	A	A	A			
Approach Vol, veh/h	91		373			180			
Approach Delay, s/veh	43.8		4.1			2.1			
Approach LOS	D		A			A			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		12.0	1.2	8.0		
Phs Duration (G+Y+Rc), s			64.1		10.9	5.9	58.2		
Change Period (Y+Rc), s			6.0		6.0	5.0	6.0		
Max Green (Gmax), s			45.0		18.0	5.0	35.0		
Max Allow Headway (MAH), s			3.9		3.6	3.5	4.0		
Max Q Clear (g_c+I1), s			2.8		5.7	2.2	4.8		
Green Ext Time (g_e), s			0.6		0.1	0.0	1.2		
Prob of Phs Call (p_c)			1.00		0.85	0.28	1.00		
Prob of Max Out (p_x)			0.00		0.00	1.00	0.00		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1519	1781	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		20		2771		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		280		822		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0
Lane Assignment					L+T+RL (Pr/Pm)				

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Existing Scenario 2023

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	91	16	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1819	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	3.7	0.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.7	0.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	1009	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	49.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.84	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	120	782	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.76	0.02	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	437	880	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.4	2.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	43.8	2.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	164	0	0	0	187	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.8	0.0	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.8	0.0	0.0	0.0	2.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	2751	0	0	0	1237	0	0
V/C Ratio (X)	0.00	0.06	0.00	0.00	0.00	0.15	0.00	0.00
Avail Cap (c_a), veh/h	0	2751	0	0	0	1237	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.0	0.0	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.0	0.0	0.0	0.0	4.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

2: Front St & Sam walton Ln

Timing Plan: AM Peak Hour

Exisiting Scenario 2023

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	186	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1722	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.15	0.00	0.48	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1199	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1199	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023



Phase Number	1	2	3	4	5	6	7	8
Movement	NWL	SETL	NEL	SWTL	SEL	NWTL	SWL	NETL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	None	C-Min	None	None
Maximum Split (s)	10	84	13	13	19	75	12	14
Maximum Split (%)	8.3%	70.0%	10.8%	10.8%	15.8%	62.5%	10.0%	11.7%
Minimum Split (s)	8	16	10	9	8	16	8	11
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	2	2	2	2	2	2	2	2
Minimum Initial (s)	3	10	5	3	3	10	3	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		4		4		4		4
Flash Dont Walk (s)		23		33		22		34
Dual Entry	No	No	No	No	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	48	58	22	35	48	67	22	34
End Time (s)	58	22	35	48	67	22	34	48
Yield/Force Off (s)	53	16	30	42	62	16	29	42
Yield/Force Off 170(s)	53	113	30	9	62	114	29	8
Local Start Time (s)	32	42	6	19	32	51	6	18
Local Yield (s)	37	0	14	26	46	0	13	26
Local Yield 170(s)	37	97	14	113	46	98	13	112

Intersection Summary

Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 16 (13%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow	

Splits and Phases: 3: Trail Boss drive & Founders Pkwy

Ø1	Ø2 (R)	Ø3	Ø4
10 s	84 s	13 s	13 s
Ø5	Ø6 (R)	Ø7	Ø8
19 s	75 s	12 s	14 s

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	40	865	80	46	2147	59	53	20	13	30	15	39
Future Volume (veh/h)	40	865	80	46	2147	59	53	20	13	30	15	39
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	42	911	84	48	2260	62	56	21	14	32	16	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	3398	312	461	3654	100	142	63	42	156	20	52
Arrive On Green	0.02	0.71	0.71	0.02	0.72	0.72	0.04	0.06	0.06	0.02	0.04	0.04
Sat Flow, veh/h	1781	4758	437	1781	5110	140	1781	1047	698	1781	465	1191
Grp Volume(v), veh/h	42	651	344	48	1503	819	56	0	35	32	0	57
Grp Sat Flow(s),veh/h/ln	1781	1702	1792	1781	1702	1845	1781	0	1745	1781	0	1656
Q Serve(g_s), s	0.8	8.1	8.2	0.9	27.0	27.3	3.6	0.0	2.3	2.1	0.0	4.1
Cycle Q Clear(g_c), s	0.8	8.1	8.2	0.9	27.0	27.3	3.6	0.0	2.3	2.1	0.0	4.1
Prop In Lane	1.00		0.24	1.00		0.08	1.00		0.40	1.00		0.72
Lane Grp Cap(c), veh/h	170	2431	1279	461	2435	1320	142	0	105	156	0	72
V/C Ratio(X)	0.25	0.27	0.27	0.10	0.62	0.62	0.39	0.00	0.33	0.20	0.00	0.80
Avail Cap(c_a), veh/h	344	2431	1279	500	2435	1320	191	0	116	221	0	97
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.6	6.1	6.1	4.7	8.7	8.7	52.2	0.0	54.0	53.4	0.0	56.9
Incr Delay (d2), s/veh	0.7	0.3	0.5	0.1	1.2	2.2	1.8	0.0	1.8	0.6	0.0	27.0
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	0.3	2.5	2.7	0.3	8.4	9.5	1.7	0.0	1.1	0.9	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	6.3	6.6	4.8	9.9	11.0	54.0	0.0	55.9	54.0	0.0	83.9
LnGrp LOS	A	A	A	A	A	B	D	A	E	D	A	F
Approach Vol, veh/h		1037			2370			91			89	
Approach Delay, s/veh		6.5			10.2			54.7			73.1	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	91.7	9.7	11.2	7.3	91.8	7.7	13.3				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	5.0	78.0	8.0	7.0	14.0	69.0	7.0	8.0				
Max Q Clear Time (g_c+I1), s	2.9	10.2	5.6	6.1	2.8	29.3	4.1	4.3				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.0	0.0	14.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	40	865	80	46	2147	59	53	20	13	30	15	39
Future Volume (veh/h)	40	865	80	46	2147	59	53	20	13	30	15	39
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	911	84	48	2260	62	56	21	14	32	16	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	170	3398	312	461	3654	100	142	63	42	156	20	52
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
Prop Arrive On Green	0.02	0.71	0.71	0.02	0.72	0.72	0.04	0.06	0.06	0.02	0.04	0.04
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	6.3	6.6	4.8	9.9	11.0	54.0	0.0	55.9	54.0	0.0	83.9
Ln Grp LOS	A	A	A	A	A	B	D	A	E	D	A	F
Approach Vol, veh/h	1037			2370			91			89		
Approach Delay, s/veh	6.5			10.2			54.7			73.1		
Approach LOS	A			B			D			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	7.4	91.7	9.7	11.2	7.3	91.8	7.7	13.3				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	5.0	78.0	8.0	7.0	14.0	69.0	7.0	8.0				
Max Allow Headway (MAH), s	3.5	3.9	3.6	5.5	3.5	3.8	3.8	5.5				
Max Q Clear (g_c+I1), s	2.9	10.2	5.6	6.1	2.8	29.3	4.1	4.3				
Green Ext Time (g_e), s	0.0	4.0	0.0	0.0	0.0	14.9	0.0	0.0				
Prob of Phs Call (p_c)	0.80	1.00	0.85	0.85	0.75	1.00	0.66	0.69				
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	0.16	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3	5	7								
Mvmt Sat Flow, veh/h	1781	1781	1781	1781								
Through Movement Data												
Assigned Mvmt	2	4	6	8								
Mvmt Sat Flow, veh/h	4758	465	5110	1047								
Right-Turn Movement Data												
Assigned Mvmt	12	14	16	18								
Mvmt Sat Flow, veh/h	437	1191	140	698								
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)								

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	48	0	56	0	42	0	32	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	0.9	0.0	3.6	0.0	0.8	0.0	2.1	0.0
Cycle Q Clear Time (g_c), s	0.9	0.0	3.6	0.0	0.8	0.0	2.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	566	0	1346	0	157	0	1373	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	85.7	0.0	5.2	0.0	85.7	0.0	5.2	0.0
Perm LT Serve Time (g_u), s	77.5	0.0	1.1	0.0	58.6	0.0	4.9	0.0
Perm LT Q Serve Time (g_ps), s	0.8	0.0	0.2	0.0	9.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	461	0	142	0	170	0	156	0
V/C Ratio (X)	0.10	0.00	0.39	0.00	0.25	0.00	0.20	0.00
Avail Cap (c_a), veh/h	500	0	191	0	344	0	221	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	4.7	0.0	52.2	0.0	8.6	0.0	53.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.8	0.0	0.7	0.0	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	4.8	0.0	54.0	0.0	9.3	0.0	54.0	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	1.6	0.0	0.2	0.0	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	1.7	0.0	0.3	0.0	0.9	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.63	0.00	0.01	0.00	0.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T			
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	651	0	0	0	1503	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	8.1	0.0	0.0	0.0	27.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	0.0	0.0	27.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2431	0	0	0	2435	0	0
V/C Ratio (X)	0.00	0.27	0.00	0.00	0.00	0.62	0.00	0.00
Avail Cap (c_a), veh/h	0	2431	0	0	0	2435	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.1	0.0	0.0	0.0	8.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.3	0.0	0.0	0.0	9.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	0.0	0.0	8.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: AM Peak Hour

Exisiting Scenario 2023

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	8.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.00	0.00	0.37	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	344	0	57	0	819	0	35
Grp Sat Flow (s), veh/h/ln	0	1792	0	1656	0	1845	0	1745
Q Serve Time (g_s), s	0.0	8.2	0.0	4.1	0.0	27.3	0.0	2.3
Cycle Q Clear Time (g_c), s	0.0	8.2	0.0	4.1	0.0	27.3	0.0	2.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.24	0.00	0.72	0.00	0.08	0.00	0.40
Lane Grp Cap (c), veh/h	0	1279	0	72	0	1320	0	105
V/C Ratio (X)	0.00	0.27	0.00	0.80	0.00	0.62	0.00	0.33
Avail Cap (c_a), veh/h	0	1279	0	97	0	1320	0	116
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.1	0.0	56.9	0.0	8.7	0.0	54.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	27.0	0.0	2.2	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	83.9	0.0	11.0	0.0	55.9
1st-Term Q (Q1), veh/ln	0.0	2.6	0.0	1.7	0.0	8.7	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.5	0.0	0.8	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	2.3	0.0	9.5	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.25	0.00	0.42	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

4: Sam Walton Ln & Trail Boss drive
Existing Scenario 2023

Intersection												
Int Delay, s/veh	6											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	45	30	36	11	19	18	26	32	8	4	19	32
Future Vol, veh/h	45	30	36	11	19	18	26	32	8	4	19	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	117	-	-	100	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	56	37	44	14	23	22	32	40	10	5	23	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	81	0	0	265	244	59	258	255	34
Stage 1	-	-	-	-	-	-	171	171	-	62	62	-
Stage 2	-	-	-	-	-	-	94	73	-	196	193	-
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	1563	-	-	1517	-	-	688	658	1007	695	649	1039
Stage 1	-	-	-	-	-	-	831	757	-	949	843	-
Stage 2	-	-	-	-	-	-	913	834	-	806	741	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1563	-	-	1517	-	-	621	628	1007	633	620	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	628	-	633	620	-
Stage 1	-	-	-	-	-	-	801	730	-	915	835	-
Stage 2	-	-	-	-	-	-	846	826	-	728	714	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	3	1.7	11.1	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	625	1007	1517	-	-	1563	-	- 812
HCM Lane V/C Ratio	0.115	0.01	0.009	-	-	0.036	-	- 0.084
HCM Control Delay (s)	11.5	8.6	7.4	-	-	7.4	-	- 9.8
HCM Lane LOS	B	A	A	-	-	A	-	- A
HCM 95th %tile Q(veh)	0.4	0	0	-	-	0.1	-	- 0.3

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

1: Front St & Mile Stone
Existing Scenario 2023

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	133	308	74	118	364
Future Vol, veh/h	1	133	308	74	118	364
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	146	338	81	130	400
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	798	169	0	0	419	0
Stage 1	338	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	323	845	-	-	1137	-
Stage 1	694	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	286	845	-	-	1137	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.2	0		2.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	833	1137	-	
HCM Lane V/C Ratio	-	-	0.177	0.114	-	
HCM Control Delay (s)	-	-	10.2	8.6	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.6	0.4	-	

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Existing Scenario 2023

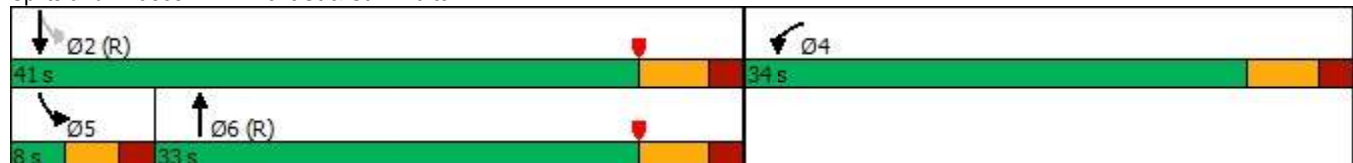


Phase Number	2	4	5	6
Movement	SBTL	WBL	SBL	NBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Min	None	None	C-Min
Maximum Split (s)	41	34	8	33
Maximum Split (%)	54.7%	45.3%	10.7%	44.0%
Minimum Split (s)	26	24	8	26
Yellow Time (s)	4	4	3	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	20	3	3	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0.2	3	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	40	6	40	48
End Time (s)	6	40	48	6
Yield/Force Off (s)	0	34	43	0
Yield/Force Off 170(s)	0	23	43	64
Local Start Time (s)	40	6	40	48
Local Yield (s)	0	34	43	0
Local Yield 170(s)	0	23	43	64

Intersection Summary

Cycle Length 75
Control Type Actuated-Coordinated
Natural Cycle 60
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow

Splits and Phases: 2: Front St & Sam walton Ln



WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Existing Scenario 2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	269	76	310	214	38	328
Future Volume (veh/h)	269	76	310	214	38	328
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	306	86	352	243	43	373
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	348	98	1017	690	463	2106
Arrive On Green	0.25	0.25	0.50	0.50	0.02	0.59
Sat Flow, veh/h	1405	395	2119	1374	1781	3647
Grp Volume(v), veh/h	393	0	308	287	43	373
Grp Sat Flow(s),veh/h/ln	1804	0	1777	1623	1781	1777
Q Serve(g_s), s	15.7	0.0	7.8	8.0	0.8	3.6
Cycle Q Clear(g_c), s	15.7	0.0	7.8	8.0	0.8	3.6
Prop In Lane	0.78	0.22		0.85	1.00	
Lane Grp Cap(c), veh/h	446	0	892	815	463	2106
V/C Ratio(X)	0.88	0.00	0.35	0.35	0.09	0.18
Avail Cap(c_a), veh/h	673	0	892	815	492	2106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	11.2	11.3	8.4	7.0
Incr Delay (d2), s/veh	8.8	0.0	1.1	1.2	0.1	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	7.5	0.0	2.9	2.7	0.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.0	0.0	12.3	12.5	8.5	7.1
LnGrp LOS	D	A	B	B	A	A
Approach Vol, veh/h	393		595			416
Approach Delay, s/veh	36.0		12.4			7.3
Approach LOS	D		B			A
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	50.4		24.6		6.8	43.7
Change Period (Y+Rc), s	6.0		6.0		5.0	6.0
Max Green Setting (Gmax), s	35.0		28.0		3.0	27.0
Max Q Clear Time (g_c+l1), s	5.6		17.7		2.8	10.0
Green Ext Time (p_c), s	1.4		0.8		0.0	1.9
Intersection Summary						
HCM 6th Ctrl Delay			17.5			
HCM 6th LOS			B			

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Exisiting Scenario 2023

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	269	76	310	214	38	328			
Future Volume (veh/h)	269	76	310	214	38	328			
Number	7	14	6	16	5	2			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)	1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No		No			No			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	306	86	352	243	43	373			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	348	98	1017	690	463	2106			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.25	0.25	0.50	0.50	0.02	0.59			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	36.0	0.0	12.3	12.5	8.5	7.1			
Ln Grp LOS	D	A	B	B	A	A			
Approach Vol, veh/h	393		595			416			
Approach Delay, s/veh	36.0		12.4			7.3			
Approach LOS	D		B			A			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		12.0	1.2	8.0		
Phs Duration (G+Y+Rc), s			50.4		24.6	6.8	43.7		
Change Period (Y+Rc), s			6.0		6.0	5.0	6.0		
Max Green (Gmax), s			35.0		28.0	3.0	27.0		
Max Allow Headway (MAH), s			3.9		3.6	3.5	4.0		
Max Q Clear (g_c+I1), s			5.6		17.7	2.8	10.0		
Green Ext Time (g_e), s			1.4		0.8	0.0	1.9		
Prob of Phs Call (p_c)			1.00		1.00	0.59	1.00		
Prob of Max Out (p_x)			0.00		0.03	1.00	0.01		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1405	1781	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		5		2119		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		395		1374		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0
Lane Assignment		L+T+RL (Pr/Pm)							

WALMART STORE #984 FUEL STATION TIA

2: Front St & Sam walton Ln

Timing Plan: PM Peak Hour

Existing Scenario 2023

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	393	43	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1804	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.7	0.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.7	0.8	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	823	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	39.7	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	29.6	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	37.7	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.78	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	446	463	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.88	0.09	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	673	492	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	27.1	8.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	8.8	0.1	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	36.0	8.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.4	0.3	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.5	0.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.24	0.01	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	373	0	0	0	308	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	3.6	0.0	0.0	0.0	7.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.6	0.0	0.0	0.0	7.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	2106	0	0	0	892	0	0
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	0	2106	0	0	0	892	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.0	0.0	0.0	0.0	11.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.1	0.0	0.0	0.0	12.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	2.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

2: Front St & Sam walton Ln

Timing Plan: PM Peak Hour

Exisiting Scenario 2023

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	0.0	0.0	2.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.20	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	287	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1623	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.22	0.00	0.85	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	815	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	815	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

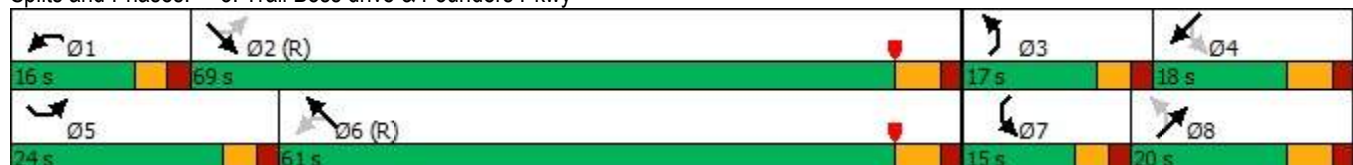


Phase Number	1	2	3	4	5	6	7	8
Movement	NWL	SETL	NEL	SWTL	SEL	NWTL	SWL	NETL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	None	C-Min	None	Min
Maximum Split (s)	16	69	17	18	24	61	15	20
Maximum Split (%)	13.3%	57.5%	14.2%	15.0%	20.0%	50.8%	12.5%	16.7%
Minimum Split (s)	8	16	10	9	8	16	8	11
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	2	2	2	2	2	2	2	2
Minimum Initial (s)	3	10	5	3	3	10	3	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		4		4		4		4
Flash Dont Walk (s)		23		33		22		34
Dual Entry	No	No	No	No	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	27	43	112	9	27	51	112	7
End Time (s)	43	112	9	27	51	112	7	27
Yield/Force Off (s)	38	106	4	21	46	106	2	21
Yield/Force Off 170(s)	38	83	4	108	46	84	2	21
Local Start Time (s)	41	57	6	23	41	65	6	21
Local Yield (s)	52	0	18	35	60	0	16	35
Local Yield 170(s)	52	97	18	2	60	98	16	35

Intersection Summary

Cycle Length 120
Control Type Actuated-Coordinated
Natural Cycle 75
Offset: 106 (88%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow

Splits and Phases: 3: Trail Boss drive & Founders Pkwy



WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	181	1651	195	77	1251	107	199	75	82	143	64	126
Future Volume (veh/h)	181	1651	195	77	1251	107	199	75	82	143	64	126
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	199	1814	214	85	1375	118	219	82	90	157	70	138
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	2691	316	188	2633	226	238	95	104	230	56	111
Arrive On Green	0.07	0.58	0.58	0.04	0.55	0.55	0.10	0.12	0.12	0.08	0.10	0.10
Sat Flow, veh/h	1781	4633	543	1781	4789	411	1781	815	894	1781	562	1109
Grp Volume(v), veh/h	199	1330	698	85	977	516	219	0	172	157	0	208
Grp Sat Flow(s),veh/h/ln	1781	1702	1773	1781	1702	1796	1781	0	1709	1781	0	1671
Q Serve(g_s), s	5.7	32.2	32.7	2.5	21.8	21.8	12.0	0.0	11.9	9.5	0.0	12.0
Cycle Q Clear(g_c), s	5.7	32.2	32.7	2.5	21.8	21.8	12.0	0.0	11.9	9.5	0.0	12.0
Prop In Lane	1.00		0.31	1.00		0.23	1.00		0.52	1.00		0.66
Lane Grp Cap(c), veh/h	309	1977	1030	188	1872	988	238	0	199	230	0	167
V/C Ratio(X)	0.64	0.67	0.68	0.45	0.52	0.52	0.92	0.00	0.86	0.68	0.00	1.24
Avail Cap(c_a), veh/h	472	1977	1030	288	1872	988	238	0	199	230	0	167
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	17.3	17.4	16.7	17.1	17.1	45.4	0.0	52.1	44.3	0.0	54.0
Incr Delay (d2), s/veh	2.2	1.8	3.6	1.7	1.0	2.0	37.3	0.0	29.9	8.0	0.0	150.3
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	2.2	11.8	13.0	1.0	8.1	8.8	3.2	0.0	6.8	4.7	0.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	19.1	21.0	18.4	18.1	19.0	82.6	0.0	82.0	52.3	0.0	204.3
LnGrp LOS	B	B	C	B	B	B	F	A	F	D	A	F
Approach Vol, veh/h		2227			1578			391			365	
Approach Delay, s/veh		19.5			18.4			82.3			139.0	
Approach LOS		B			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	75.7	17.0	18.0	13.0	72.0	15.0	20.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	11.0	63.0	12.0	12.0	19.0	55.0	10.0	14.0				
Max Q Clear Time (g_c+l1), s	4.5	34.7	14.0	14.0	7.7	23.8	11.5	13.9				
Green Ext Time (p_c), s	0.1	10.8	0.0	0.0	0.3	6.8	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			34.1									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	181	1651	195	77	1251	107	199	75	82	143	64	126
Future Volume (veh/h)	181	1651	195	77	1251	107	199	75	82	143	64	126
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	1814	214	85	1375	118	219	82	90	157	70	138
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	309	2691	316	188	2633	226	238	95	104	230	56	111
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
Prop Arrive On Green	0.07	0.58	0.58	0.04	0.55	0.55	0.10	0.12	0.12	0.08	0.10	0.10
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.7	19.1	21.0	18.4	18.1	19.0	82.6	0.0	82.0	52.3	0.0	204.3
Ln Grp LOS	B	B	C	B	B	B	F	A	F	D	A	F
Approach Vol, veh/h	2227			1578			391			365		
Approach Delay, s/veh	19.5			18.4			82.3			139.0		
Approach LOS	B			B			F			F		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	9.3	75.7	17.0	18.0	13.0	72.0	15.0	20.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	11.0	63.0	12.0	12.0	19.0	55.0	10.0	14.0				
Max Allow Headway (MAH), s	3.5	3.9	3.6	5.5	3.5	3.9	3.8	5.6				
Max Q Clear (g_c+I1), s	4.5	34.7	14.0	14.0	7.7	23.8	11.5	13.9				
Green Ext Time (g_e), s	0.1	10.8	0.0	0.0	0.3	6.8	0.0	0.0				
Prob of Phs Call (p_c)	0.94	1.00	1.00	1.00	1.00	1.00	0.99	1.00				
Prob of Max Out (p_x)	0.02	0.17	1.00	1.00	0.00	0.03	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3	5	7								
Mvmt Sat Flow, veh/h	1781	1781	1781	1781								
Through Movement Data												
Assigned Mvmt	2	4	6	8								
Mvmt Sat Flow, veh/h	4633	562	4789	815								
Right-Turn Movement Data												
Assigned Mvmt	12	14	16	18								
Mvmt Sat Flow, veh/h	543	1109	411	894								
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)								

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Existing Scenario 2023

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	85	0	219	0	199	0	157	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.5	0.0	12.0	0.0	5.7	0.0	9.5	0.0
Cycle Q Clear Time (g_c), s	2.5	0.0	12.0	0.0	5.7	0.0	9.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	209	0	1174	0	352	0	1213	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	66.0	0.0	12.0	0.0	66.7	0.0	12.0	0.0
Perm LT Serve Time (g_u), s	37.0	0.0	0.0	0.0	44.2	0.0	2.1	0.0
Perm LT Q Serve Time (g_ps), s	19.8	0.0	0.0	0.0	29.2	0.0	1.5	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	188	0	238	0	309	0	230	0
V/C Ratio (X)	0.45	0.00	0.92	0.00	0.64	0.00	0.68	0.00
Avail Cap (c_a), veh/h	288	0	238	0	472	0	230	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	16.7	0.0	45.4	0.0	14.5	0.0	44.3	0.0
Incr Delay (d2), s/veh	1.7	0.0	37.3	0.0	2.2	0.0	8.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	18.4	0.0	82.6	0.0	16.7	0.0	52.3	0.0
1st-Term Q (Q1), veh/ln	0.9	0.0	0.8	0.0	2.0	0.0	4.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	2.5	0.0	0.2	0.0	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	3.2	0.0	2.2	0.0	4.7	0.0
%ile Storage Ratio (RQ%)	0.08	0.00	1.22	0.00	0.12	0.00	0.73	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T			
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1330	0	0	0	977	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	32.2	0.0	0.0	0.0	21.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	32.2	0.0	0.0	0.0	21.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1977	0	0	0	1872	0	0
V/C Ratio (X)	0.00	0.67	0.00	0.00	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	0	1977	0	0	0	1872	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	17.3	0.0	0.0	0.0	17.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	1.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.1	0.0	0.0	0.0	18.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	11.3	0.0	0.0	0.0	7.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: PM Peak Hour

Exisiting Scenario 2023

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	11.8	0.0	0.0	0.0	8.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.00	0.00	0.36	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	698	0	208	0	516	0	172
Grp Sat Flow (s), veh/h/ln	0	1773	0	1671	0	1796	0	1709
Q Serve Time (g_s), s	0.0	32.7	0.0	12.0	0.0	21.8	0.0	11.9
Cycle Q Clear Time (g_c), s	0.0	32.7	0.0	12.0	0.0	21.8	0.0	11.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	0.66	0.00	0.23	0.00	0.52
Lane Grp Cap (c), veh/h	0	1030	0	167	0	988	0	199
V/C Ratio (X)	0.00	0.68	0.00	1.24	0.00	0.52	0.00	0.86
Avail Cap (c_a), veh/h	0	1030	0	167	0	988	0	199
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.4	0.0	54.0	0.0	17.1	0.0	52.1
Incr Delay (d2), s/veh	0.0	3.6	0.0	150.3	0.0	2.0	0.0	29.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.0	0.0	204.3	0.0	19.0	0.0	82.0
1st-Term Q (Q1), veh/ln	0.0	12.0	0.0	5.0	0.0	8.3	0.0	5.1
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	7.0	0.0	0.5	0.0	1.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.0	0.0	12.0	0.0	8.8	0.0	6.8
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	1.33	0.00	0.39	0.00	0.81
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

4: Sam Walton Ln & Trail Boss drive
Existing Scenario 2023

Intersection												
Int Delay, s/veh	7											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	51	100	161	36	79	19	118	23	51	15	38	45
Future Vol, veh/h	51	100	161	36	79	19	118	23	51	15	38	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	117	-	-	100	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	108	173	39	85	20	127	25	55	16	41	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	281	0	0	523	488	195	518	564	95
Stage 1	-	-	-	-	-	-	305	305	-	173	173	-
Stage 2	-	-	-	-	-	-	218	183	-	345	391	-
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	1486	-	-	1282	-	-	465	480	846	468	435	962
Stage 1	-	-	-	-	-	-	705	662	-	829	756	-
Stage 2	-	-	-	-	-	-	784	748	-	671	607	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1486	-	-	1282	-	-	387	448	846	398	406	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	387	448	-	398	406	-
Stage 1	-	-	-	-	-	-	679	638	-	798	733	-
Stage 2	-	-	-	-	-	-	682	726	-	581	585	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	1.2	2.1	16.9	13.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	396	846	1282	-	-	1486	-	- 550
HCM Lane V/C Ratio	0.383	0.065	0.03	-	-	0.037	-	- 0.192
HCM Control Delay (s)	19.6	9.6	7.9	-	-	7.5	-	- 13.1
HCM Lane LOS	C	A	A	-	-	A	-	- B
HCM 95th %tile Q(veh)	1.8	0.2	0.1	-	-	0.1	-	- 0.7

Tab Three

Proposed Conditions Capacity Analysis (2025)

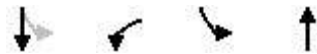
WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

1: Front St & Mile Stone
Proposed Scenario 2025

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	35	267	30	45	176
Future Vol, veh/h	1	35	267	30	45	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	40	303	34	51	200
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	505	152	0	0	337	0
Stage 1	303	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	496	867	-	-	1219	-
Stage 1	723	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	475	867	-	-	1219	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		1.6		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	848	1219	-	
HCM Lane V/C Ratio	-	-	0.048	0.042	-	
HCM Control Delay (s)	-	-	9.5	8.1	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

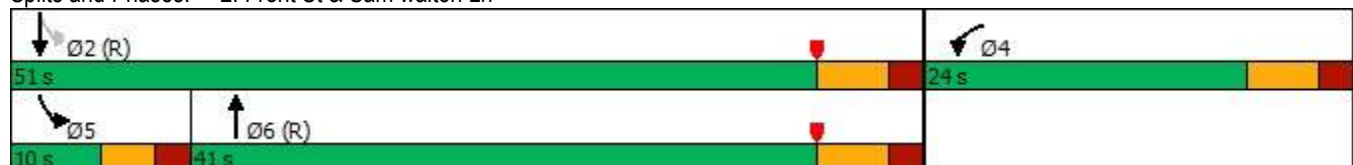


Phase Number	2	4	5	6
Movement	SBTL	WBL	SBL	NBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Min	None	None	C-Min
Maximum Split (s)	51	24	10	41
Maximum Split (%)	68.0%	32.0%	13.3%	54.7%
Minimum Split (s)	26	24	8	26
Yellow Time (s)	4	4	3	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	20	3	3	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0.2	3	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	30	6	30	40
End Time (s)	6	30	40	6
Yield/Force Off (s)	0	24	35	0
Yield/Force Off 170(s)	0	13	35	64
Local Start Time (s)	30	6	30	40
Local Yield (s)	0	24	35	0
Local Yield 170(s)	0	13	35	64

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow	

Splits and Phases: 2: Front St & Sam walton Ln



WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	83	21	266	100	22	154
Future Volume (veh/h)	83	21	266	100	22	154
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	23	296	111	24	171
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	120	30	1715	630	740	2688
Arrive On Green	0.08	0.08	0.67	0.67	0.02	0.76
Sat Flow, veh/h	1435	359	2638	934	1781	3647
Grp Volume(v), veh/h	116	0	205	202	24	171
Grp Sat Flow(s),veh/h/ln	1809	0	1777	1702	1781	1777
Q Serve(g_s), s	4.7	0.0	3.2	3.3	0.3	0.9
Cycle Q Clear(g_c), s	4.7	0.0	3.2	3.3	0.3	0.9
Prop In Lane	0.79	0.20		0.55	1.00	
Lane Grp Cap(c), veh/h	151	0	1198	1147	740	2688
V/C Ratio(X)	0.77	0.00	0.17	0.18	0.03	0.06
Avail Cap(c_a), veh/h	434	0	1198	1147	831	2688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	4.5	4.5	3.2	2.3
Incr Delay (d2), s/veh	7.9	0.0	0.3	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.9	0.9	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.5	0.0	4.8	4.9	3.3	2.4
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	116		407			195
Approach Delay, s/veh	41.5		4.8			2.5
Approach LOS	D		A			A
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.7		12.3	6.2	56.5
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		45.0		18.0	5.0	35.0
Max Q Clear Time (g_c+l1), s		2.9		6.7	2.3	5.3
Green Ext Time (p_c), s		0.6		0.2	0.0	1.3
Intersection Summary						
HCM 6th Ctrl Delay			10.1			
HCM 6th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	83	21	266	100	22	154			
Future Volume (veh/h)	83	21	266	100	22	154			
Number	7	14	6	16	5	2			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)	1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No		No			No			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	92	23	296	111	24	171			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	120	30	1715	630	740	2688			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.08	0.08	0.67	0.67	0.02	0.76			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	41.5	0.0	4.8	4.9	3.3	2.4			
Ln Grp LOS	D	A	A	A	A	A			
Approach Vol, veh/h	116		407			195			
Approach Delay, s/veh	41.5		4.8			2.5			
Approach LOS	D		A			A			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		12.0	1.2	8.0		
Phs Duration (G+Y+Rc), s			62.7		12.3	6.2	56.5		
Change Period (Y+Rc), s			6.0		6.0	5.0	6.0		
Max Green (Gmax), s			45.0		18.0	5.0	35.0		
Max Allow Headway (MAH), s			3.9		3.6	3.5	4.0		
Max Q Clear (g_c+I1), s			2.9		6.7	2.3	5.3		
Green Ext Time (g_e), s			0.6		0.2	0.0	1.3		
Prob of Phs Call (p_c)			1.00		0.91	0.39	1.00		
Prob of Max Out (p_x)			0.00		0.00	1.00	0.00		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1435	1781	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		16		2638		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		359		934		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0
Lane Assignment		L+T+RL (Pr/Pm)							

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	116	24	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1809	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	4.7	0.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.7	0.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	978	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	52.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	47.3	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	50.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.79	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	151	740	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.77	0.03	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	434	831	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	33.6	3.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	41.5	3.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.0	0.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.3	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	171	0	0	0	205	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.9	0.0	0.0	0.0	3.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.9	0.0	0.0	0.0	3.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	2688	0	0	0	1198	0	0
V/C Ratio (X)	0.00	0.06	0.00	0.00	0.00	0.17	0.00	0.00
Avail Cap (c_a), veh/h	0	2688	0	0	0	1198	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.3	0.0	0.0	0.0	4.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.4	0.0	0.0	0.0	4.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

2: Front St & Sam walton Ln

Timing Plan: AM Peak Hour

Proposed Scenario 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	202	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.20	0.00	0.55	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1147	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1147	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Proposed Scenario 2025

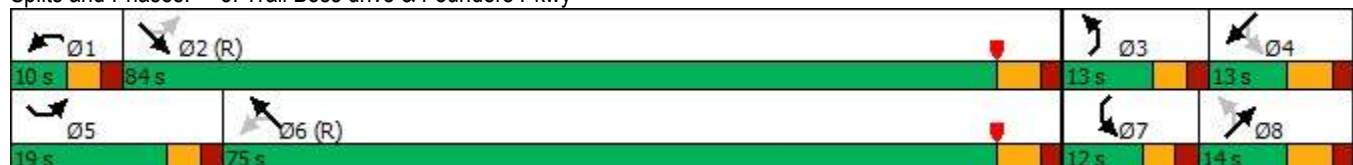


Phase Number	1	2	3	4	5	6	7	8
Movement	NWL	SETL	NEL	SWTL	SEL	NWTL	SWL	NETL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	None	C-Min	None	None
Maximum Split (s)	10	84	13	13	19	75	12	14
Maximum Split (%)	8.3%	70.0%	10.8%	10.8%	15.8%	62.5%	10.0%	11.7%
Minimum Split (s)	8	16	10	9	8	16	8	11
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	2	2	2	2	2	2	2	2
Minimum Initial (s)	3	10	5	3	3	10	3	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		4		4		4		4
Flash Dont Walk (s)		23		33		22		34
Dual Entry	No	No	No	No	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	48	58	22	35	48	67	22	34
End Time (s)	58	22	35	48	67	22	34	48
Yield/Force Off (s)	53	16	30	42	62	16	29	42
Yield/Force Off 170(s)	53	113	30	9	62	114	29	8
Local Start Time (s)	32	42	6	19	32	51	6	18
Local Yield (s)	37	0	14	26	46	0	13	26
Local Yield 170(s)	37	97	14	113	46	98	13	112

Intersection Summary

Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 16 (13%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow	

Splits and Phases: 3: Trail Boss drive & Founders Pkwy



WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Proposed Scenario 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
Future Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
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	44	947	91	52	2352	64	66	22	16	33	17	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	3338	320	439	3608	98	155	69	50	163	21	54
Arrive On Green	0.02	0.70	0.70	0.02	0.71	0.71	0.05	0.07	0.07	0.02	0.05	0.05
Sat Flow, veh/h	1781	4739	454	1781	5111	139	1781	1007	732	1781	469	1187
Grp Volume(v), veh/h	44	680	358	52	1564	852	66	0	38	33	0	60
Grp Sat Flow(s),veh/h/ln	1781	1702	1789	1781	1702	1845	1781	0	1739	1781	0	1657
Q Serve(g_s), s	0.8	8.8	8.9	1.0	30.0	30.3	4.2	0.0	2.5	2.1	0.0	4.3
Cycle Q Clear(g_c), s	0.8	8.8	8.9	1.0	30.0	30.3	4.2	0.0	2.5	2.1	0.0	4.3
Prop In Lane	1.00		0.25	1.00		0.08	1.00		0.42	1.00		0.72
Lane Grp Cap(c), veh/h	159	2398	1260	439	2403	1303	155	0	119	163	0	75
V/C Ratio(X)	0.28	0.28	0.28	0.12	0.65	0.65	0.43	0.00	0.32	0.20	0.00	0.80
Avail Cap(c_a), veh/h	333	2398	1260	477	2403	1303	192	0	119	226	0	97
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	6.5	6.6	5.0	9.6	9.6	51.5	0.0	53.2	53.1	0.0	56.7
Incr Delay (d2), s/veh	0.9	0.3	0.6	0.1	1.4	2.6	1.9	0.0	1.5	0.6	0.0	28.7
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	0.3	2.8	3.0	0.3	9.5	10.8	2.0	0.0	1.2	1.0	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	6.8	7.1	5.2	11.0	12.2	53.4	0.0	54.7	53.7	0.0	85.5
LnGrp LOS	B	A	A	A	B	B	D	A	D	D	A	F
Approach Vol, veh/h		1082			2468			104			93	
Approach Delay, s/veh		7.1			11.3			53.9			74.2	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	90.5	10.5	11.5	7.3	90.7	7.7	14.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	5.0	78.0	8.0	7.0	14.0	69.0	7.0	8.0				
Max Q Clear Time (g_c+l1), s	3.0	10.9	6.2	6.3	2.8	32.3	4.1	4.5				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.0	0.0	15.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			12.8									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Proposed Scenario 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
Future Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	947	91	52	2352	64	66	22	16	33	17	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	159	3338	320	439	3608	98	155	69	50	163	21	54
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
Prop Arrive On Green	0.02	0.70	0.70	0.02	0.71	0.71	0.05	0.07	0.07	0.02	0.05	0.05
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.1	6.8	7.1	5.2	11.0	12.2	53.4	0.0	54.7	53.7	0.0	85.5
Ln Grp LOS	B	A	A	A	B	B	D	A	D	D	A	F
Approach Vol, veh/h	1082			2468			104			93		
Approach Delay, s/veh	7.1			11.3			53.9			74.2		
Approach LOS	A			B			D			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	7.5	90.5	10.5	11.5	7.3	90.7	7.7	14.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	5.0	78.0	8.0	7.0	14.0	69.0	7.0	8.0				
Max Allow Headway (MAH), s	3.5	3.9	3.6	5.5	3.5	3.8	3.8	5.5				
Max Q Clear (g_c+I1), s	3.0	10.9	6.2	6.3	2.8	32.3	4.1	4.5				
Green Ext Time (g_e), s	0.0	4.3	0.0	0.0	0.0	15.6	0.0	0.0				
Prob of Phs Call (p_c)	0.82	1.00	0.89	0.86	0.77	1.00	0.67	0.72				
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	0.22	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3	5	7								
Mvmt Sat Flow, veh/h	1781	1781	1781	1781								
Through Movement Data												
Assigned Mvmt	2	4	6	8								
Mvmt Sat Flow, veh/h	4739	469	5111	1007								
Right-Turn Movement Data												
Assigned Mvmt	12	14	16	18								
Mvmt Sat Flow, veh/h	454	1187	139	732								
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)								

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	52	0	66	0	44	0	33	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	1.0	0.0	4.2	0.0	0.8	0.0	2.1	0.0
Cycle Q Clear Time (g_c), s	1.0	0.0	4.2	0.0	0.8	0.0	2.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	544	0	1343	0	143	0	1370	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	84.5	0.0	5.5	0.0	84.5	0.0	5.5	0.0
Perm LT Serve Time (g_u), s	75.7	0.0	1.2	0.0	54.4	0.0	5.5	0.0
Perm LT Q Serve Time (g_ps), s	0.9	0.0	0.2	0.0	13.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	439	0	155	0	159	0	163	0
V/C Ratio (X)	0.12	0.00	0.43	0.00	0.28	0.00	0.20	0.00
Avail Cap (c_a), veh/h	477	0	192	0	333	0	226	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	5.0	0.0	51.5	0.0	10.2	0.0	53.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.0	0.9	0.0	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	5.2	0.0	53.4	0.0	11.1	0.0	53.7	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	1.9	0.0	0.3	0.0	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	2.0	0.0	0.3	0.0	1.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.74	0.00	0.02	0.00	0.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T			
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	680	0	0	0	1564	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	8.8	0.0	0.0	0.0	30.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.8	0.0	0.0	0.0	30.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2398	0	0	0	2403	0	0
V/C Ratio (X)	0.00	0.28	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	2398	0	0	0	2403	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.5	0.0	0.0	0.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.8	0.0	0.0	0.0	11.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	0.0	0.0	9.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0

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3: Trail Boss drive & Founders Pkwy

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	0.0	0.0	9.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.00	0.00	0.42	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	358	0	60	0	852	0	38
Grp Sat Flow (s), veh/h/ln	0	1789	0	1657	0	1845	0	1739
Q Serve Time (g_s), s	0.0	8.9	0.0	4.3	0.0	30.3	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	4.3	0.0	30.3	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.25	0.00	0.72	0.00	0.08	0.00	0.42
Lane Grp Cap (c), veh/h	0	1260	0	75	0	1303	0	119
V/C Ratio (X)	0.00	0.28	0.00	0.80	0.00	0.65	0.00	0.32
Avail Cap (c_a), veh/h	0	1260	0	97	0	1303	0	119
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.6	0.0	56.7	0.0	9.6	0.0	53.2
Incr Delay (d2), s/veh	0.0	0.6	0.0	28.7	0.0	2.6	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.1	0.0	85.5	0.0	12.2	0.0	54.7
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	1.8	0.0	9.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.6	0.0	0.9	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	2.4	0.0	10.8	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.27	0.00	0.48	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

4: Sam Walton Ln & Trail Boss drive
Proposed Scenario 2025

Intersection												
Int Delay, s/veh	6.3											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	47	31	42	13	20	19	36	33	10	4	20	33
Future Vol, veh/h	47	31	42	13	20	19	36	33	10	4	20	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	117	-	-	100	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	38	52	16	25	23	44	41	12	5	25	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	90	0	0	282	260	64	276	275	37
Stage 1	-	-	-	-	-	-	180	180	-	69	69	-
Stage 2	-	-	-	-	-	-	102	80	-	207	206	-
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	1559	-	-	1505	-	-	670	645	1000	676	632	1035
Stage 1	-	-	-	-	-	-	822	750	-	941	837	-
Stage 2	-	-	-	-	-	-	904	828	-	795	731	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1559	-	-	1505	-	-	601	614	1000	611	602	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-	601	614	-	611	602	-
Stage 1	-	-	-	-	-	-	792	722	-	906	828	-
Stage 2	-	-	-	-	-	-	834	819	-	713	704	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	2.9	1.9	11.5	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	607	1000	1505	-	-	1559	-	- 795
HCM Lane V/C Ratio	0.14	0.012	0.011	-	-	0.037	-	- 0.089
HCM Control Delay (s)	11.9	8.6	7.4	-	-	7.4	-	- 10
HCM Lane LOS	B	A	A	-	-	A	-	- B
HCM 95th %tile Q(veh)	0.5	0	0	-	-	0.1	-	- 0.3

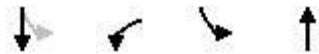
WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

1: Front St & Mile Stone
Proposed Scenario 2025

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	138	335	77	123	391
Future Vol, veh/h	1	138	335	77	123	391
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	152	368	85	135	430
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	853	184	0	0	453	0
Stage 1	368	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	298	827	-	-	1104	-
Stage 1	670	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	262	827	-	-	1104	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.4	0		2.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	814	1104	-	
HCM Lane V/C Ratio	-	-	0.188	0.122	-	
HCM Control Delay (s)	-	-	10.4	8.7	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-	

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

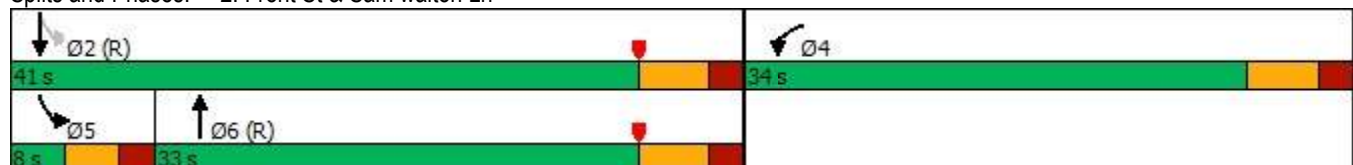


Phase Number	2	4	5	6
Movement	SBTL	WBL	SBL	NBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Min	None	None	C-Min
Maximum Split (s)	41	34	8	33
Maximum Split (%)	54.7%	45.3%	10.7%	44.0%
Minimum Split (s)	26	24	8	26
Yellow Time (s)	4	4	3	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	20	3	3	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0.2	3	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	40	6	40	48
End Time (s)	6	40	48	6
Yield/Force Off (s)	0	34	43	0
Yield/Force Off 170(s)	0	23	43	64
Local Start Time (s)	40	6	40	48
Local Yield (s)	0	34	43	0
Local Yield 170(s)	0	23	43	64

Intersection Summary

Cycle Length 75
Control Type Actuated-Coordinated
Natural Cycle 60
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow

Splits and Phases: 2: Front St & Sam walton Ln



WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	302	94	323	245	52	341
Future Volume (veh/h)	302	94	323	245	52	341
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	107	367	278	59	388
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	383	119	899	671	414	1992
Arrive On Green	0.28	0.28	0.46	0.46	0.03	0.56
Sat Flow, veh/h	1369	427	2033	1448	1781	3647
Grp Volume(v), veh/h	451	0	336	309	59	388
Grp Sat Flow(s),veh/h/ln	1800	0	1777	1610	1781	1777
Q Serve(g_s), s	18.1	0.0	9.4	9.6	1.2	4.0
Cycle Q Clear(g_c), s	18.1	0.0	9.4	9.6	1.2	4.0
Prop In Lane	0.76	0.24		0.90	1.00	
Lane Grp Cap(c), veh/h	503	0	823	746	414	1992
V/C Ratio(X)	0.90	0.00	0.41	0.41	0.14	0.19
Avail Cap(c_a), veh/h	672	0	823	746	431	1992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	13.3	13.4	9.9	8.1
Incr Delay (d2), s/veh	12.0	0.0	1.5	1.7	0.2	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	9.0	0.0	3.6	3.4	0.4	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.9	0.0	14.8	15.1	10.0	8.3
LnGrp LOS	D	A	B	B	B	A
Approach Vol, veh/h	451		645			447
Approach Delay, s/veh	37.9		14.9			8.6
Approach LOS	D		B			A
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	48.0		27.0		7.3	40.8
Change Period (Y+Rc), s	6.0		6.0		5.0	6.0
Max Green Setting (Gmax), s	35.0		28.0		3.0	27.0
Max Q Clear Time (g_c+I1), s	6.0		20.1		3.2	11.6
Green Ext Time (p_c), s	1.5		0.9		0.0	2.1
Intersection Summary						
HCM 6th Ctrl Delay			19.8			
HCM 6th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	302	94	323	245	52	341			
Future Volume (veh/h)	302	94	323	245	52	341			
Number	7	14	6	16	5	2			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)	1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No		No			No			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	343	107	367	278	59	388			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	383	119	899	671	414	1992			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.28	0.28	0.46	0.46	0.03	0.56			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	37.9	0.0	14.8	15.1	10.0	8.3			
Ln Grp LOS	D	A	B	B	B	A			
Approach Vol, veh/h	451		645			447			
Approach Delay, s/veh	37.9		14.9			8.6			
Approach LOS	D		B			A			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		12.0	1.2	8.0		
Phs Duration (G+Y+Rc), s			48.0		27.0	7.3	40.8		
Change Period (Y+Rc), s			6.0		6.0	5.0	6.0		
Max Green (Gmax), s			35.0		28.0	3.0	27.0		
Max Allow Headway (MAH), s			3.9		3.6	3.5	4.0		
Max Q Clear (g_c+I1), s			6.0		20.1	3.2	11.6		
Green Ext Time (g_e), s			1.5		0.9	0.0	2.1		
Prob of Phs Call (p_c)			1.00		1.00	0.71	1.00		
Prob of Max Out (p_x)			0.00		0.12	1.00	0.02		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1369	1781	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		4		2033		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		427		1448		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0
Lane Assignment					L+T+RL (Pr/Pm)				

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Proposed Scenario 2025

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	451	59	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1800	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	18.1	1.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	18.1	1.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	785	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	36.8	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	25.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	34.8	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.76	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	503	414	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.90	0.14	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	672	431	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	26.0	9.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	12.0	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	37.9	10.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.3	0.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.0	0.4	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.48	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	388	0	0	0	336	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	4.0	0.0	0.0	0.0	9.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	0.0	0.0	9.4	0.0	0.0
Lane Grp Cap (c), veh/h	0	1992	0	0	0	823	0	0
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.41	0.00	0.00
Avail Cap (c_a), veh/h	0	1992	0	0	0	823	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	0.0	0.0	13.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	1.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	0.0	0.0	14.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.0	3.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

2: Front St & Sam walton Ln

Timing Plan: PM Peak Hour

Proposed Scenario 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.0	0.0	3.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.25	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	309	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1610	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	0.90	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	746	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	746	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Proposed Scenario 2025

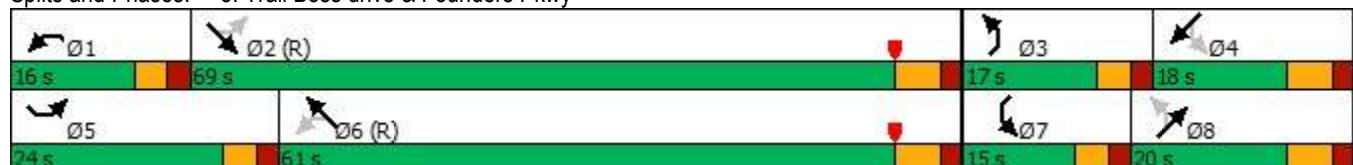


Phase Number	1	2	3	4	5	6	7	8
Movement	NWL	SETL	NEL	SWTL	SEL	NWTL	SWL	NETL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	None	C-Min	None	Max
Maximum Split (s)	16	69	17	18	24	61	15	20
Maximum Split (%)	13.3%	57.5%	14.2%	15.0%	20.0%	50.8%	12.5%	16.7%
Minimum Split (s)	8	16	10	9	8	16	8	11
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	2	2	2	2	2	2	2	2
Minimum Initial (s)	3	10	5	3	3	10	3	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		4		4		4		4
Flash Dont Walk (s)		23		33		22		34
Dual Entry	No	No	No	No	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	27	43	112	9	27	51	112	7
End Time (s)	43	112	9	27	51	112	7	27
Yield/Force Off (s)	38	106	4	21	46	106	2	21
Yield/Force Off 170(s)	38	83	4	108	46	84	2	107
Local Start Time (s)	41	57	6	23	41	65	6	21
Local Yield (s)	52	0	18	35	60	0	16	35
Local Yield 170(s)	52	97	18	2	60	98	16	1

Intersection Summary

Cycle Length 120
Control Type Actuated-Coordinated
Natural Cycle 80
Offset: 106 (88%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow

Splits and Phases: 3: Trail Boss drive & Founders Pkwy



WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Proposed Scenario 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
Future Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
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	207	1888	236	88	1431	122	233	88	97	164	74	144
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2668	331	180	2625	224	238	95	105	220	57	110
Arrive On Green	0.07	0.58	0.58	0.04	0.55	0.55	0.10	0.12	0.12	0.08	0.10	0.10
Sat Flow, veh/h	1781	4601	570	1781	4792	409	1781	813	896	1781	567	1104
Grp Volume(v), veh/h	207	1393	731	88	1016	537	233	0	185	164	0	218
Grp Sat Flow(s),veh/h/ln	1781	1702	1768	1781	1702	1797	1781	0	1709	1781	0	1672
Q Serve(g_s), s	5.9	34.9	35.6	2.6	23.1	23.1	12.0	0.0	12.9	9.9	0.0	12.0
Cycle Q Clear(g_c), s	5.9	34.9	35.6	2.6	23.1	23.1	12.0	0.0	12.9	9.9	0.0	12.0
Prop In Lane	1.00		0.32	1.00		0.23	1.00		0.52	1.00		0.66
Lane Grp Cap(c), veh/h	301	1974	1025	180	1864	984	238	0	199	220	0	167
V/C Ratio(X)	0.69	0.71	0.71	0.49	0.55	0.55	0.98	0.00	0.93	0.75	0.00	1.30
Avail Cap(c_a), veh/h	460	1974	1025	277	1864	984	238	0	199	220	0	167
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.0	17.9	18.1	18.7	17.5	17.5	46.2	0.0	52.5	44.6	0.0	54.0
Incr Delay (d2), s/veh	2.8	2.1	4.2	2.1	1.2	2.2	52.1	0.0	47.3	13.0	0.0	173.3
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	2.3	12.9	14.3	1.1	8.6	9.4	4.7	0.0	8.2	5.2	0.0	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	20.1	22.3	20.8	18.7	19.7	98.3	0.0	99.8	57.7	0.0	227.3
LnGrp LOS	B	C	C	C	B	B	F	A	F	E	A	F
Approach Vol, veh/h		2331			1641			418			382	
Approach Delay, s/veh		20.7			19.1			99.0			154.5	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	75.6	17.0	18.0	13.3	71.7	15.0	20.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	11.0	63.0	12.0	12.0	19.0	55.0	10.0	14.0				
Max Q Clear Time (g_c+l1), s	4.6	37.6	14.0	14.0	7.9	25.1	11.9	14.9				
Green Ext Time (p_c), s	0.1	11.1	0.0	0.0	0.4	7.2	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Proposed Scenario 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
Future Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	1888	236	88	1431	122	233	88	97	164	74	144
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	301	2668	331	180	2625	224	238	95	105	220	57	110
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
Prop Arrive On Green	0.07	0.58	0.58	0.04	0.55	0.55	0.10	0.12	0.12	0.08	0.10	0.10
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.7	20.1	22.3	20.8	18.7	19.7	98.3	0.0	99.8	57.7	0.0	227.3
Ln Grp LOS	B	C	C	C	B	B	F	A	F	E	A	F
Approach Vol, veh/h	2331			1641			418			382		
Approach Delay, s/veh	20.7			19.1			99.0			154.5		
Approach LOS	C			B			F			F		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	9.4	75.6	17.0	18.0	13.3	71.7	15.0	20.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	11.0	63.0	12.0	12.0	19.0	55.0	10.0	14.0				
Max Allow Headway (MAH), s	3.5	3.9	3.6	5.5	3.5	3.9	3.8	5.6				
Max Q Clear (g_c+I1), s	4.6	37.6	14.0	14.0	7.9	25.1	11.9	14.9				
Green Ext Time (g_e), s	0.1	11.1	0.0	0.0	0.4	7.2	0.0	0.0				
Prob of Phs Call (p_c)	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.03	0.25	1.00	1.00	0.00	0.04	1.00	0.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3	5	7								
Mvmt Sat Flow, veh/h	1781	1781	1781	1781								
Through Movement Data												
Assigned Mvmt	2	4	6	8								
Mvmt Sat Flow, veh/h	4601	567	4792	813								
Right-Turn Movement Data												
Assigned Mvmt	12	14	16	18								
Mvmt Sat Flow, veh/h	570	1104	409	896								
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)								

WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: PM Peak Hour

Proposed Scenario 2025

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	88	0	233	0	207	0	164	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.6	0.0	12.0	0.0	5.9	0.0	9.9	0.0
Cycle Q Clear Time (g_c), s	2.6	0.0	12.0	0.0	5.9	0.0	9.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	191	0	1163	0	333	0	1199	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	65.7	0.0	12.0	0.0	66.6	0.0	12.0	0.0
Perm LT Serve Time (g_u), s	34.0	0.0	0.0	0.0	42.6	0.0	1.1	0.0
Perm LT Q Serve Time (g_ps), s	27.2	0.0	0.0	0.0	39.5	0.0	1.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	180	0	238	0	301	0	220	0
V/C Ratio (X)	0.49	0.00	0.98	0.00	0.69	0.00	0.75	0.00
Avail Cap (c_a), veh/h	277	0	238	0	460	0	220	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	18.7	0.0	46.2	0.0	16.0	0.0	44.6	0.0
Incr Delay (d2), s/veh	2.1	0.0	52.1	0.0	2.8	0.0	13.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	20.8	0.0	98.3	0.0	18.7	0.0	57.7	0.0
1st-Term Q (Q1), veh/ln	0.9	0.0	1.2	0.0	2.1	0.0	4.4	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	3.4	0.0	0.2	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	4.7	0.0	2.3	0.0	5.2	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	1.75	0.00	0.12	0.00	0.80	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T			
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1393	0	0	0	1016	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	34.9	0.0	0.0	0.0	23.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	34.9	0.0	0.0	0.0	23.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	1974	0	0	0	1864	0	0
V/C Ratio (X)	0.00	0.71	0.00	0.00	0.00	0.55	0.00	0.00
Avail Cap (c_a), veh/h	0	1974	0	0	0	1864	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	17.9	0.0	0.0	0.0	17.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.1	0.0	0.0	0.0	18.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.3	0.0	0.0	0.0	8.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: PM Peak Hour

Proposed Scenario 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.9	0.0	0.0	0.0	8.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	0.00	0.00	0.38	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	731	0	218	0	537	0	185
Grp Sat Flow (s), veh/h/ln	0	1768	0	1672	0	1797	0	1709
Q Serve Time (g_s), s	0.0	35.6	0.0	12.0	0.0	23.1	0.0	12.9
Cycle Q Clear Time (g_c), s	0.0	35.6	0.0	12.0	0.0	23.1	0.0	12.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	0.66	0.00	0.23	0.00	0.52
Lane Grp Cap (c), veh/h	0	1025	0	167	0	984	0	199
V/C Ratio (X)	0.00	0.71	0.00	1.30	0.00	0.55	0.00	0.93
Avail Cap (c_a), veh/h	0	1025	0	167	0	984	0	199
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.1	0.0	54.0	0.0	17.5	0.0	52.5
Incr Delay (d2), s/veh	0.0	4.2	0.0	173.3	0.0	2.2	0.0	47.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	227.3	0.0	19.7	0.0	99.8
1st-Term Q (Q1), veh/ln	0.0	13.1	0.0	5.0	0.0	8.8	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	8.0	0.0	0.6	0.0	2.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	14.3	0.0	13.1	0.0	9.4	0.0	8.2
%ile Storage Ratio (RQ%)	0.00	0.59	0.00	1.45	0.00	0.42	0.00	0.97
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

4: Sam Walton Ln & Trail Boss drive
Proposed Scenario 2025

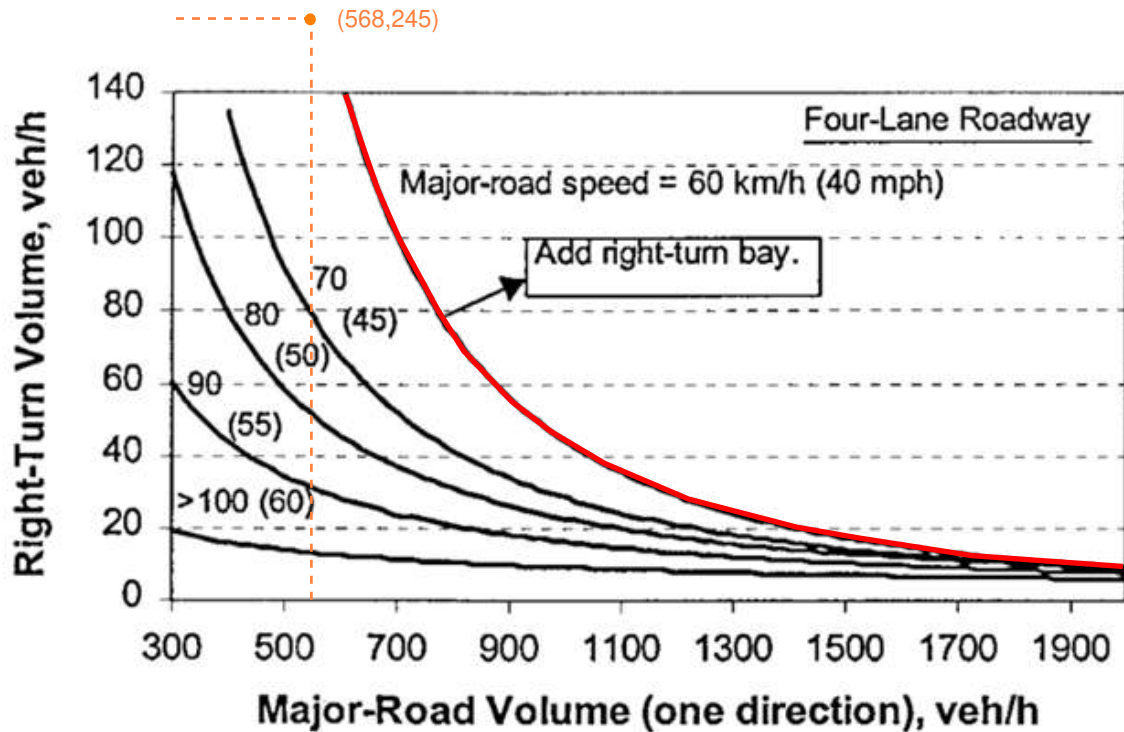
Intersection												
Int Delay, s/veh	7.8											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	53	104	180	40	82	20	133	24	56	16	40	47
Future Vol, veh/h	53	104	180	40	82	20	133	24	56	16	40	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	117	-	-	100	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	112	194	43	88	22	143	26	60	17	43	51
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	306	0	0	555	519	209	551	605	99
Stage 1	-	-	-	-	-	-	323	323	-	185	185	-
Stage 2	-	-	-	-	-	-	232	196	-	366	420	-
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	1480	-	-	1255	-	-	442	461	831	445	412	957
Stage 1	-	-	-	-	-	-	689	650	-	817	747	-
Stage 2	-	-	-	-	-	-	771	739	-	653	589	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1480	-	-	1255	-	-	362	428	831	372	382	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	362	428	-	372	382	-
Stage 1	-	-	-	-	-	-	662	625	-	785	722	-
Stage 2	-	-	-	-	-	-	663	714	-	558	566	-
Approach	SE			NW			NE			SW		
HCM Control Delay, s	1.2			2.2			19.2			13.7		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1			
Capacity (veh/h)	371	831	1255	-	-	1480	-	-	523			
HCM Lane V/C Ratio	0.455	0.072	0.034	-	-	0.039	-	-	0.212			
HCM Control Delay (s)	22.6	9.7	8	-	-	7.5	-	-	13.7			
HCM Lane LOS	C	A	A	-	-	A	-	-	B			
HCM 95th %tile Q(veh)	2.3	0.2	0.1	-	-	0.1	-	-	0.8			

Tab Four

Queue & Turn Lane Analysis

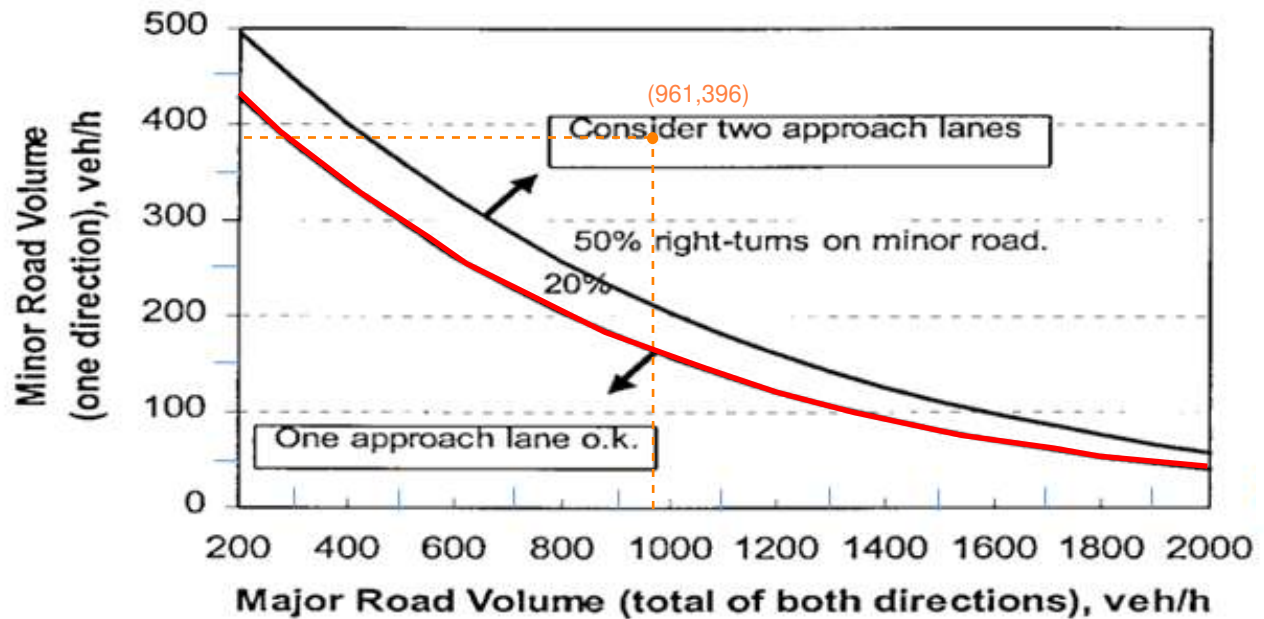
Intersection Name	Type	Movement	Exisiting Turn Bay Length	AM		PM	
				Exisiting 95th % Queue	Proposed 95th % Queue	Exisiting 95th % Queue	Proposed 95th % Queue
Front St at Mile Stone	Unsignalised	NBT	-	0	0	0	0
		NBR	217	0	0	0	0
		SBT	-	0	0	0	0
		SBL	150	3	3	10	11
		WBL	-	4	4	17	18
		WBR	-	4	4	17	18
Front St at Sam Walton Ln	Signalised	NBT	-	58	64	112	125
		NBR	-	-	-	-	-
		SBT	-	20	22	75	83
		SBL	200	7	10	25	34
		WBL	-	75	89	223	248
		WBR	-	-	-	-	-
Founders Pkwy at Trail Boss	Signalised	EBL	500	22	25	158	181
		EBT	-	141	149	549	596
		EBR	-	-	-	-	-
		WBL	320	19	20	69	72
		WBT	-	525	572	396	418
		WBR	-	-	-	-	-
		NBL	-	80	91	302	336
		NBT	-	52	55	226	254
		NBR	-	-	-	-	-
		SBL	170	53	54	173	185
		SBT	-	58	60	280	302
		SBR	-	-	-	-	-
Trail Boss Dr at Sam Walton	Unsignalised	EBL	-	-	-	-	-
		EBT	-	-	-	-	-
		EBR	-	-	-	-	-
		WBL	-	-	-	-	-
		WBT	-	-	-	-	-
		WBR	-	-	-	-	-
		NBL	100	-	-	-	-
		NBT	-	-	-	-	-
		NBR	-	-	-	-	-
		SBL	117	-	-	-	-
		SBT	-	-	-	-	-
		SBR	-	-	-	-	-

Node #2: Front St at Sam Walton Ln (Right Turn Bay on Major Street)

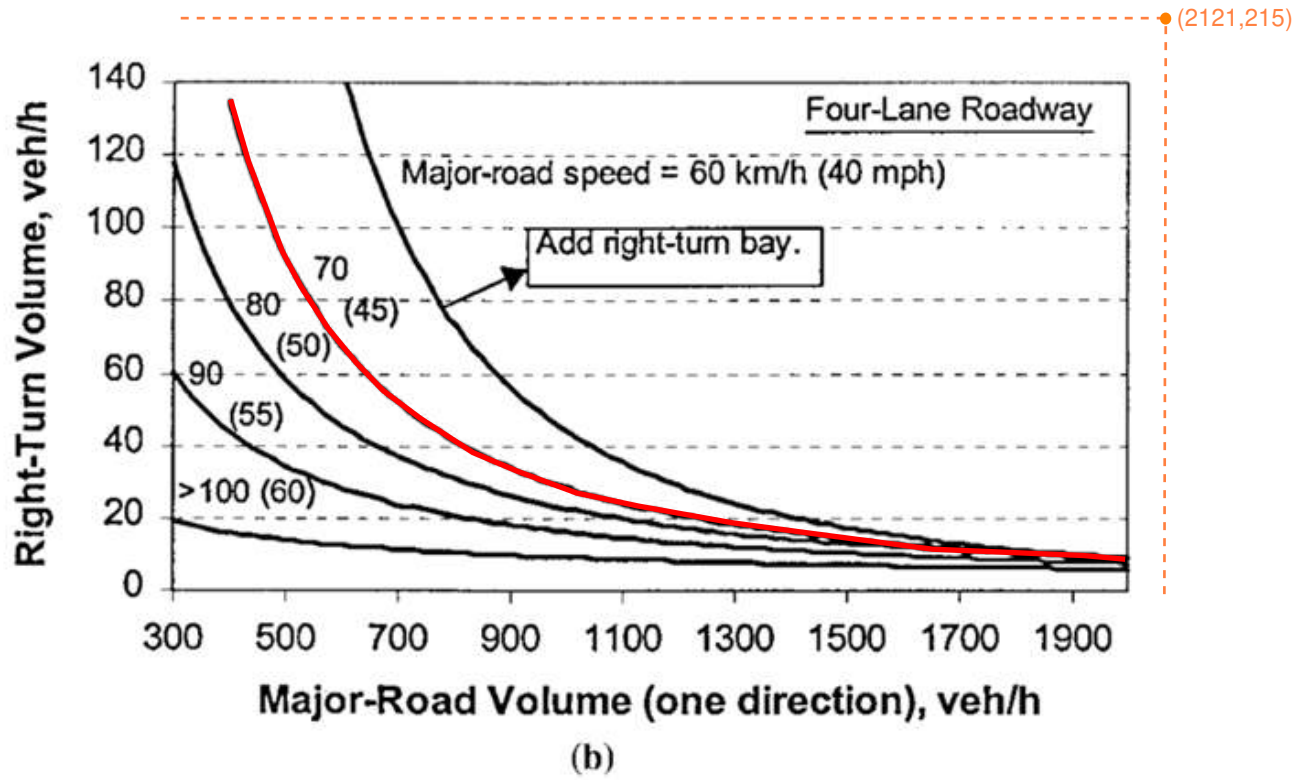


(b)

Node #2: Front St at Sam Walton Ln (Second Lane for Minor Road)



Node #3: Founders Pkwy at Trail Boss Dr (Right Turn Bay on Major Street)



Tab Five

Improved Conditions Capacity Analysis (2025)

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

1: Front St & Mile Stone
Improved Conditions 2025

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	35	267	30	45	176
Future Vol, veh/h	1	35	267	30	45	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	40	303	34	51	200
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	505	152	0	0	337	0
Stage 1	303	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	496	867	-	-	1219	-
Stage 1	723	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	475	867	-	-	1219	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		1.6		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	848	1219	-	
HCM Lane V/C Ratio	-	-	0.048	0.042	-	
HCM Control Delay (s)	-	-	9.5	8.1	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

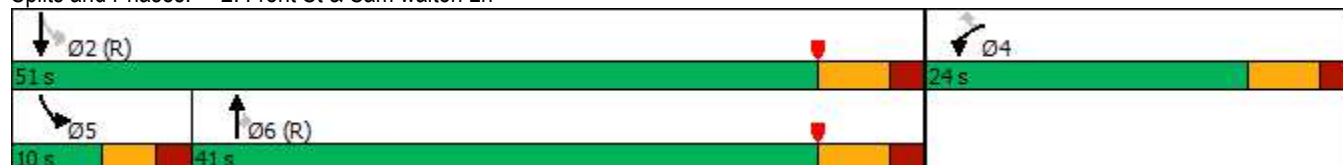


Phase Number	2	4	5	6
Movement	SBTL	WBL	SBL	NBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Min	None	None	C-Min
Maximum Split (s)	51	24	10	41
Maximum Split (%)	68.0%	32.0%	13.3%	54.7%
Minimum Split (s)	26	24	8	26
Yellow Time (s)	4	4	3	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	20	3	3	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0.2	3	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	30	6	30	40
End Time (s)	6	30	40	6
Yield/Force Off (s)	0	24	35	0
Yield/Force Off 170(s)	0	13	35	64
Local Start Time (s)	30	6	30	40
Local Yield (s)	0	24	35	0
Local Yield 170(s)	0	13	35	64

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow	

Splits and Phases: 2: Front St & Sam walton Ln



WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	83	21	266	100	22	154
Future Volume (veh/h)	83	21	266	100	22	154
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	23	296	111	24	171
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	131	116	2441	1089	768	2734
Arrive On Green	0.07	0.07	0.69	0.69	0.02	0.77
Sat Flow, veh/h	1853	1648	3647	1585	1781	3647
Grp Volume(v), veh/h	92	23	296	111	24	171
Grp Sat Flow(s),veh/h/ln	1853	1648	1777	1585	1781	1777
Q Serve(g_s), s	3.6	1.0	2.1	1.8	0.3	0.9
Cycle Q Clear(g_c), s	3.6	1.0	2.1	1.8	0.3	0.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	131	116	2441	1089	768	2734
V/C Ratio(X)	0.70	0.20	0.12	0.10	0.03	0.06
Avail Cap(c_a), veh/h	445	396	2441	1089	859	2734
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	34.1	32.9	4.0	4.0	2.9	2.1
Incr Delay (d2), s/veh	6.7	0.8	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.0	0.5	0.4	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.8	33.7	4.1	4.1	2.9	2.1
LnGrp LOS	D	C	A	A	A	A
Approach Vol, veh/h	115		407			195
Approach Delay, s/veh	39.4		4.1			2.2
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	63.7		11.3		6.2	57.5
Change Period (Y+Rc), s	6.0		6.0		5.0	6.0
Max Green Setting (Gmax), s	45.0		18.0		5.0	35.0
Max Q Clear Time (g_c+I1), s	2.9		5.6		2.3	4.1
Green Ext Time (p_c), s	0.6		0.2		0.0	1.4
Intersection Summary						
HCM 6th Ctrl Delay			9.3			
HCM 6th LOS			A			

Notes

User approved volume balancing among the lanes for turning movement.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	83	21	266	100	22	154			
Future Volume (veh/h)	83	21	266	100	22	154			
Number	7	14	6	16	5	2			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)	1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No		No			No			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	92	23	296	111	24	171			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	131	116	2441	1089	768	2734			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.07	0.07	0.69	0.69	0.02	0.77			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	40.8	33.7	4.1	4.1	2.9	2.1			
Ln Grp LOS	D	C	A	A	A	A			
Approach Vol, veh/h	115		407			195			
Approach Delay, s/veh	39.4		4.1			2.2			
Approach LOS	D		A			A			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		9.0	1.2	7.0		
Phs Duration (G+Y+Rc), s			63.7		11.3	6.2	57.5		
Change Period (Y+Rc), s			6.0		6.0	5.0	6.0		
Max Green (Gmax), s			45.0		18.0	5.0	35.0		
Max Allow Headway (MAH), s			3.9		3.6	3.5	3.8		
Max Q Clear (g_c+I1), s			2.9		5.6	2.3	4.1		
Green Ext Time (g_e), s			0.6		0.2	0.0	1.4		
Prob of Phs Call (p_c)			1.00		0.91	0.39	1.00		
Prob of Max Out (p_x)			0.00		0.00	1.00	0.00		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1853	1781	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		0		3647		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		1648		1585		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0
Lane Assignment					LL (Pr/Pm)				

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	92	24	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1853	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	3.6	0.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.6	0.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1853	978	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	53.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	49.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	51.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	131	768	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.70	0.03	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	445	859	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.1	2.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	40.8	2.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.6	0.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.8	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	171	0	0	0	296	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.9	0.0	0.0	0.0	2.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.9	0.0	0.0	0.0	2.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2734	0	0	0	2441	0	0
V/C Ratio (X)	0.00	0.06	0.00	0.00	0.00	0.12	0.00	0.00
Avail Cap (c_a), veh/h	0	2734	0	0	0	2441	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.1	0.0	0.0	0.0	4.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.1	0.0	0.0	0.0	4.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment			R		R			
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	23	0	111	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1648	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.0	0.0	1.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.0	0.0	1.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	116	0	1089	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.20	0.00	0.10	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	396	0	1089	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	32.9	0.0	4.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	33.7	0.0	4.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.9	0.0	0.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.0	0.0	0.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.15	0.00	0.11	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

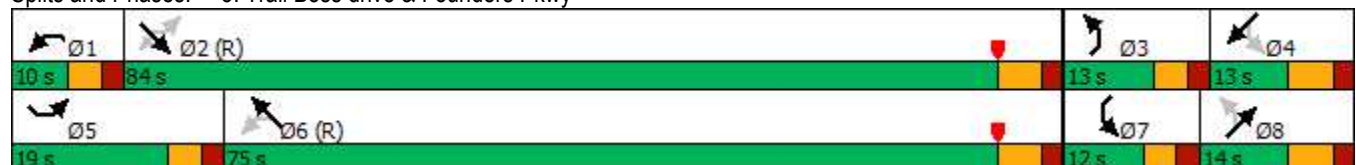


Phase Number	1	2	3	4	5	6	7	8
Movement	NWL	SETL	NEL	SWTL	SEL	NWTL	SWL	NETL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	None	C-Min	None	None
Maximum Split (s)	10	84	13	13	19	75	12	14
Maximum Split (%)	8.3%	70.0%	10.8%	10.8%	15.8%	62.5%	10.0%	11.7%
Minimum Split (s)	8	16	10	9	8	16	8	11
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	2	2	2	2	2	2	2	2
Minimum Initial (s)	3	10	5	3	3	10	3	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		4		4		4		4
Flash Dont Walk (s)		23		33		22		34
Dual Entry	No	No	No	No	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	48	58	22	35	48	67	22	34
End Time (s)	58	22	35	48	67	22	34	48
Yield/Force Off (s)	53	16	30	42	62	16	29	42
Yield/Force Off 170(s)	53	113	30	9	62	114	29	8
Local Start Time (s)	32	42	6	19	32	51	6	18
Local Yield (s)	37	0	14	26	46	0	13	26
Local Yield 170(s)	37	97	14	113	46	98	13	112

Intersection Summary

Cycle Length 120
Control Type Actuated-Coordinated
Natural Cycle 70
Offset: 16 (13%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow

Splits and Phases: 3: Trail Boss drive & Founders Pkwy



WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		  			  							
Traffic Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
Future Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
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	44	947	91	52	2352	64	66	22	16	33	17	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	3597	1117	443	3608	98	155	69	50	163	21	54
Arrive On Green	0.02	0.70	0.70	0.02	0.71	0.71	0.05	0.07	0.07	0.02	0.05	0.05
Sat Flow, veh/h	1781	5106	1585	1781	5111	139	1781	1007	732	1781	469	1187
Grp Volume(v), veh/h	44	947	91	52	1564	852	66	0	38	33	0	60
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1845	1781	0	1739	1781	0	1657
Q Serve(g_s), s	0.8	8.1	2.2	1.0	30.0	30.3	4.2	0.0	2.5	2.1	0.0	4.3
Cycle Q Clear(g_c), s	0.8	8.1	2.2	1.0	30.0	30.3	4.2	0.0	2.5	2.1	0.0	4.3
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.42	1.00		0.72
Lane Grp Cap(c), veh/h	159	3597	1117	443	2403	1303	155	0	119	163	0	75
V/C Ratio(X)	0.28	0.26	0.08	0.12	0.65	0.65	0.43	0.00	0.32	0.20	0.00	0.80
Avail Cap(c_a), veh/h	333	3597	1117	481	2403	1303	192	0	119	226	0	97
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	6.4	5.6	5.0	9.6	9.6	51.5	0.0	53.2	53.1	0.0	56.7
Incr Delay (d2), s/veh	0.9	0.2	0.1	0.1	1.4	2.6	1.9	0.0	1.5	0.6	0.0	28.7
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	0.3	2.5	0.7	0.3	9.5	10.8	2.0	0.0	1.2	1.0	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	6.6	5.7	5.1	11.0	12.2	53.4	0.0	54.7	53.7	0.0	85.5
LnGrp LOS	B	A	A	A	B	B	D	A	D	D	A	F
Approach Vol, veh/h		1082			2468			104			93	
Approach Delay, s/veh		6.7			11.3			53.9			74.2	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	90.5	10.5	11.5	7.3	90.7	7.7	14.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	5.0	78.0	8.0	7.0	14.0	69.0	7.0	8.0				
Max Q Clear Time (g_c+I1), s	3.0	10.1	6.2	6.3	2.8	32.3	4.1	4.5				
Green Ext Time (p_c), s	0.0	4.6	0.0	0.0	0.0	15.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
Future Volume (veh/h)	42	900	86	49	2234	61	63	21	15	31	16	41
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	947	91	52	2352	64	66	22	16	33	17	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	159	3597	1117	443	3608	98	155	69	50	163	21	54
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
Prop Arrive On Green	0.02	0.70	0.70	0.02	0.71	0.71	0.05	0.07	0.07	0.02	0.05	0.05
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.1	6.6	5.7	5.1	11.0	12.2	53.4	0.0	54.7	53.7	0.0	85.5
Ln Grp LOS	B	A	A	A	B	B	D	A	D	D	A	F
Approach Vol, veh/h	1082				2468		104				93	
Approach Delay, s/veh	6.7				11.3		53.9				74.2	
Approach LOS	A				B		D				E	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	7.5	90.5	10.5	11.5	7.3	90.7	7.7	14.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	5.0	78.0	8.0	7.0	14.0	69.0	7.0	8.0				
Max Allow Headway (MAH), s	3.5	3.8	3.6	5.5	3.5	3.8	3.8	5.5				
Max Q Clear (g_c+I1), s	3.0	10.1	6.2	6.3	2.8	32.3	4.1	4.5				
Green Ext Time (g_e), s	0.0	4.6	0.0	0.0	0.0	15.6	0.0	0.0				
Prob of Phs Call (p_c)	0.82	1.00	0.89	0.86	0.77	1.00	0.67	0.72				
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.00	0.22	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3		5		7						
Mvmt Sat Flow, veh/h	1781	1781		1781		1781						
Through Movement Data												
Assigned Mvmt	2		4		6		8					
Mvmt Sat Flow, veh/h	5106		469		5111		1007					
Right-Turn Movement Data												
Assigned Mvmt	12		14		16		18					
Mvmt Sat Flow, veh/h	1585		1187		139		732					
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)					

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	52	0	66	0	44	0	33	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	1.0	0.0	4.2	0.0	0.8	0.0	2.1	0.0
Cycle Q Clear Time (g_c), s	1.0	0.0	4.2	0.0	0.8	0.0	2.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	544	0	1343	0	143	0	1370	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	84.5	0.0	5.5	0.0	84.5	0.0	5.5	0.0
Perm LT Serve Time (g_u), s	76.5	0.0	1.2	0.0	54.4	0.0	5.5	0.0
Perm LT Q Serve Time (g_ps), s	0.9	0.0	0.2	0.0	13.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	443	0	155	0	159	0	163	0
V/C Ratio (X)	0.12	0.00	0.43	0.00	0.28	0.00	0.20	0.00
Avail Cap (c_a), veh/h	481	0	192	0	333	0	226	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	5.0	0.0	51.5	0.0	10.2	0.0	53.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.0	0.9	0.0	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	5.1	0.0	53.4	0.0	11.1	0.0	53.7	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	1.9	0.0	0.3	0.0	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	2.0	0.0	0.3	0.0	1.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.74	0.00	0.02	0.00	0.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T			
Lanes in Grp	0	3	0	0	0	2	0	0
Grp Vol (v), veh/h	0	947	0	0	0	1564	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	8.1	0.0	0.0	0.0	30.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	0.0	0.0	30.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3597	0	0	0	2403	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	3597	0	0	0	2403	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.4	0.0	0.0	0.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	0.0	0.0	11.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	0.0	0.0	9.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	9.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.00	0.00	0.42	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	60	0	852	0	38
Grp Sat Flow (s), veh/h/ln	0	1585	0	1657	0	1845	0	1739
Q Serve Time (g_s), s	0.0	2.2	0.0	4.3	0.0	30.3	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	2.2	0.0	4.3	0.0	30.3	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.72	0.00	0.08	0.00	0.42
Lane Grp Cap (c), veh/h	0	1117	0	75	0	1303	0	119
V/C Ratio (X)	0.00	0.08	0.00	0.80	0.00	0.65	0.00	0.32
Avail Cap (c_a), veh/h	0	1117	0	97	0	1303	0	119
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.6	0.0	56.7	0.0	9.6	0.0	53.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	28.7	0.0	2.6	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.7	0.0	85.5	0.0	12.2	0.0	54.7
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	1.8	0.0	9.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.6	0.0	0.9	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	2.4	0.0	10.8	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.27	0.00	0.48	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: AM Peak Hour

4: Sam Walton Ln & Trail Boss drive
Improved Conditions 2025

Intersection												
Int Delay, s/veh	6.3											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	47	31	42	13	20	19	36	33	10	4	20	33
Future Vol, veh/h	47	31	42	13	20	19	36	33	10	4	20	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	117	-	-	100	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	38	52	16	25	23	44	41	12	5	25	41
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	90	0	0	282	260	64	276	275	37
Stage 1	-	-	-	-	-	-	180	180	-	69	69	-
Stage 2	-	-	-	-	-	-	102	80	-	207	206	-
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	1559	-	-	1505	-	-	670	645	1000	676	632	1035
Stage 1	-	-	-	-	-	-	822	750	-	941	837	-
Stage 2	-	-	-	-	-	-	904	828	-	795	731	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1559	-	-	1505	-	-	601	614	1000	611	602	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-	601	614	-	611	602	-
Stage 1	-	-	-	-	-	-	792	722	-	906	828	-
Stage 2	-	-	-	-	-	-	834	819	-	713	704	-
Approach	SE			NW			NE			SW		
HCM Control Delay, s	2.9			1.9			11.5			10		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NELn1		NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1		
Capacity (veh/h)	607		1000	1505	-	-	1559	-	-	795		
HCM Lane V/C Ratio	0.14		0.012	0.011	-	-	0.037	-	-	0.089		
HCM Control Delay (s)	11.9		8.6	7.4	-	-	7.4	-	-	10		
HCM Lane LOS	B		A	A	-	-	A	-	-	B		
HCM 95th %tile Q(veh)	0.5		0	0	-	-	0.1	-	-	0.3		

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

1: Front St & Mile Stone
Improved Conditions 2025

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕	↕	↔	↕
Traffic Vol, veh/h	1	138	335	77	123	391
Future Vol, veh/h	1	138	335	77	123	391
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	152	368	85	135	430
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	853	184	0	0	453	0
Stage 1	368	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	298	827	-	-	1104	-
Stage 1	670	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	262	827	-	-	1104	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.4	0	2.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	814	1104	-	
HCM Lane V/C Ratio	-	-	0.188	0.122	-	
HCM Control Delay (s)	-	-	10.4	8.7	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-	

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

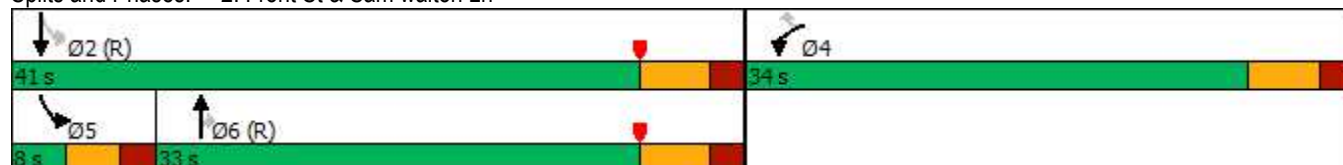


Phase Number	2	4	5	6
Movement	SBTL	WBL	SBL	NBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Min	None	None	C-Min
Maximum Split (s)	41	34	8	33
Maximum Split (%)	54.7%	45.3%	10.7%	44.0%
Minimum Split (s)	26	24	8	26
Yellow Time (s)	4	4	3	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	20	3	3	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0.2	3	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	40	6	40	48
End Time (s)	6	40	48	6
Yield/Force Off (s)	0	34	43	0
Yield/Force Off 170(s)	0	23	43	64
Local Start Time (s)	40	6	40	48
Local Yield (s)	0	34	43	0
Local Yield 170(s)	0	23	43	64

Intersection Summary

Cycle Length 75
Control Type Actuated-Coordinated
Natural Cycle 60
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow

Splits and Phases: 2: Front St & Sam walton Ln



WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	302	94	323	245	52	341
Future Volume (veh/h)	302	94	323	245	52	341
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	107	367	278	59	388
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	404	360	1869	834	518	2209
Arrive On Green	0.22	0.22	0.53	0.53	0.03	0.62
Sat Flow, veh/h	1853	1648	3647	1585	1781	3647
Grp Volume(v), veh/h	343	107	367	278	59	388
Grp Sat Flow(s),veh/h/ln	1853	1648	1777	1585	1781	1777
Q Serve(g_s), s	13.3	4.1	4.1	7.6	1.1	3.5
Cycle Q Clear(g_c), s	13.3	4.1	4.1	7.6	1.1	3.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	404	360	1869	834	518	2209
V/C Ratio(X)	0.85	0.30	0.20	0.33	0.11	0.18
Avail Cap(c_a), veh/h	692	615	1869	834	537	2209
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.1	24.5	9.4	10.2	7.1	6.0
Incr Delay (d2), s/veh	5.0	0.5	0.2	1.1	0.1	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	6.2	4.0	1.4	2.5	0.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.1	25.0	9.6	11.3	7.1	6.2
LnGrp LOS	C	C	A	B	A	A
Approach Vol, veh/h	450		645			447
Approach Delay, s/veh	31.2		10.3			6.3
Approach LOS	C		B			A
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	52.6		22.4		7.2	45.5
Change Period (Y+Rc), s	6.0		6.0		5.0	6.0
Max Green Setting (Gmax), s	35.0		28.0		3.0	27.0
Max Q Clear Time (g_c+I1), s	5.5		15.3		3.1	9.6
Green Ext Time (p_c), s	1.5		1.1		0.0	2.1
Intersection Summary						
HCM 6th Ctrl Delay			15.3			
HCM 6th LOS			B			

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	302	94	323	245	52	341			
Future Volume (veh/h)	302	94	323	245	52	341			
Number	7	14	6	16	5	2			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)	1.00	1.00		1.00	1.00				
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No		No			No			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	343	107	367	278	59	388			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	404	360	1869	834	518	2209			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.22	0.22	0.53	0.53	0.03	0.62			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	33.1	25.0	9.6	11.3	7.1	6.2			
Ln Grp LOS	C	C	A	B	A	A			
Approach Vol, veh/h	450		645			447			
Approach Delay, s/veh	31.2		10.3			6.3			
Approach LOS	C		B			A			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2		4	5	6		
Case No			4.0		9.0	1.2	7.0		
Phs Duration (G+Y+Rc), s			52.6		22.4	7.2	45.5		
Change Period (Y+Rc), s			6.0		6.0	5.0	6.0		
Max Green (Gmax), s			35.0		28.0	3.0	27.0		
Max Allow Headway (MAH), s			3.9		3.6	3.5	3.8		
Max Q Clear (g_c+I1), s			5.5		15.3	3.1	9.6		
Green Ext Time (g_e), s			1.5		1.1	0.0	2.1		
Prob of Phs Call (p_c)			1.00		1.00	0.71	1.00		
Prob of Max Out (p_x)			0.00		0.01	1.00	0.01		
Left-Turn Movement Data									
Assigned Mvmt					7	5	1		
Mvmt Sat Flow, veh/h					1853	1781	0		
Through Movement Data									
Assigned Mvmt			2		4		6		
Mvmt Sat Flow, veh/h			3647		0		3647		
Right-Turn Movement Data									
Assigned Mvmt			12		14		16		
Mvmt Sat Flow, veh/h			0		1648		1585		
Left Lane Group Data									
Assigned Mvmt		0	0	0	7	5	1	0	0
Lane Assignment					LL (Pr/Pm)				

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	343	59	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1853	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	13.3	1.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	13.3	1.1	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1853	785	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	41.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	35.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	39.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	404	518	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.85	0.11	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	692	537	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	28.1	7.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.0	0.1	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	33.1	7.1	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.6	0.3	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.2	0.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.99	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	388	0	0	0	367	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	3.5	0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.5	0.0	0.0	0.0	4.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2209	0	0	0	1869	0	0
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.20	0.00	0.00
Avail Cap (c_a), veh/h	0	2209	0	0	0	1869	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.0	0.0	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.2	0.0	0.0	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	0.0	0.0	1.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

2: Front St & Sam walton Ln
Improved Conditions 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment			R		R			
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	107	0	278	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1648	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	4.1	0.0	7.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.1	0.0	7.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	360	0	834	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.33	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	615	0	834	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	24.5	0.0	10.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	25.0	0.0	11.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.0	0.0	2.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.0	0.0	2.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.64	0.00	0.65	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

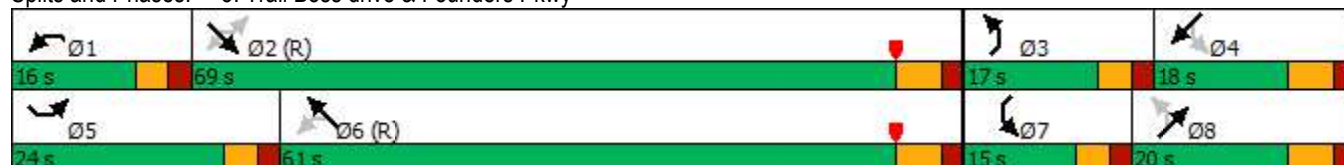


Phase Number	1	2	3	4	5	6	7	8
Movement	NWL	SETL	NEL	SWTL	SEL	NWTL	SWL	NETL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	None	C-Min	None	Max
Maximum Split (s)	16	69	17	18	24	61	15	20
Maximum Split (%)	13.3%	57.5%	14.2%	15.0%	20.0%	50.8%	12.5%	16.7%
Minimum Split (s)	8	16	10	9	8	16	8	11
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	2	2	2	2	2	2	2	2
Minimum Initial (s)	3	10	5	3	3	10	3	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		4		4		4		4
Flash Dont Walk (s)		23		33		22		34
Dual Entry	No	No	No	No	No	No	No	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	27	43	112	9	27	51	112	7
End Time (s)	43	112	9	27	51	112	7	27
Yield/Force Off (s)	38	106	4	21	46	106	2	21
Yield/Force Off 170(s)	38	83	4	108	46	84	2	107
Local Start Time (s)	41	57	6	23	41	65	6	21
Local Yield (s)	52	0	18	35	60	0	16	35
Local Yield 170(s)	52	97	18	2	60	98	16	1

Intersection Summary

Cycle Length 120
Control Type Actuated-Coordinated
Natural Cycle 70
Offset: 106 (88%), Referenced to phase 2:SETL and 6:NWTL, Start of Yellow

Splits and Phases: 3: Trail Boss drive & Founders Pkwy



WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: PM Peak Hour

Improved Conditions 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
Future Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
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	207	1888	236	88	1431	122	233	88	97	164	74	144
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2961	919	189	2625	224	238	95	105	220	57	110
Arrive On Green	0.07	0.58	0.58	0.04	0.55	0.55	0.10	0.12	0.12	0.08	0.10	0.10
Sat Flow, veh/h	1781	5106	1585	1781	4792	409	1781	813	896	1781	567	1104
Grp Volume(v), veh/h	207	1888	236	88	1016	537	233	0	185	164	0	218
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1797	1781	0	1709	1781	0	1672
Q Serve(g_s), s	5.9	29.6	8.8	2.6	23.1	23.1	12.0	0.0	12.9	9.9	0.0	12.0
Cycle Q Clear(g_c), s	5.9	29.6	8.8	2.6	23.1	23.1	12.0	0.0	12.9	9.9	0.0	12.0
Prop In Lane	1.00		1.00	1.00		0.23	1.00		0.52	1.00		0.66
Lane Grp Cap(c), veh/h	301	2961	919	189	1864	984	238	0	199	220	0	167
V/C Ratio(X)	0.69	0.64	0.26	0.47	0.55	0.55	0.98	0.00	0.93	0.75	0.00	1.30
Avail Cap(c_a), veh/h	460	2961	919	287	1864	984	238	0	199	220	0	167
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.0	16.8	12.4	16.0	17.5	17.5	46.2	0.0	52.5	44.6	0.0	54.0
Incr Delay (d2), s/veh	2.8	1.1	0.7	1.8	1.2	2.2	52.1	0.0	47.3	13.0	0.0	173.3
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	2.3	10.7	3.3	1.0	8.6	9.4	4.7	0.0	8.2	5.2	0.0	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	17.9	13.1	17.8	18.7	19.7	98.3	0.0	99.8	57.7	0.0	227.3
LnGrp LOS	B	B	B	B	B	B	F	A	F	E	A	F
Approach Vol, veh/h		2331			1641			418			382	
Approach Delay, s/veh		17.5			18.9			99.0			154.5	
Approach LOS		B			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	75.6	17.0	18.0	13.3	71.7	15.0	20.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	11.0	63.0	12.0	12.0	19.0	55.0	10.0	14.0				
Max Q Clear Time (g_c+I1), s	4.6	31.6	14.0	14.0	7.9	25.1	11.9	14.9				
Green Ext Time (p_c), s	0.1	12.2	0.0	0.0	0.4	7.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 36.1

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

3: Trail Boss drive & Founders Pkwy
Improved Conditions 2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
Future Volume (veh/h)	188	1718	215	80	1302	111	212	80	88	149	67	131
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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			
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	1888	236	88	1431	122	233	88	97	164	74	144
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	301	2961	919	189	2625	224	238	95	105	220	57	110
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
Prop Arrive On Green	0.07	0.58	0.58	0.04	0.55	0.55	0.10	0.12	0.12	0.08	0.10	0.10
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.7	17.9	13.1	17.8	18.7	19.7	98.3	0.0	99.8	57.7	0.0	227.3
Ln Grp LOS	B	B	B	B	B	B	F	A	F	E	A	F
Approach Vol, veh/h	2331				1641				418			
Approach Delay, s/veh	17.5				18.9				99.0			
Approach LOS	B				B				F			
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phs Duration (G+Y+Rc), s	9.4	75.6	17.0	18.0	13.3	71.7	15.0	20.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green (Gmax), s	11.0	63.0	12.0	12.0	19.0	55.0	10.0	14.0				
Max Allow Headway (MAH), s	3.5	3.8	3.6	5.5	3.5	3.9	3.8	5.6				
Max Q Clear (g_c+I1), s	4.6	31.6	14.0	14.0	7.9	25.1	11.9	14.9				
Green Ext Time (g_e), s	0.1	12.2	0.0	0.0	0.4	7.2	0.0	0.0				
Prob of Phs Call (p_c)	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Prob of Max Out (p_x)	0.03	0.14	1.00	1.00	0.00	0.04	1.00	0.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3	5	7								
Mvmt Sat Flow, veh/h	1781	1781	1781	1781								
Through Movement Data												
Assigned Mvmt	2	4	6	8								
Mvmt Sat Flow, veh/h	5106	567	4792	813								
Right-Turn Movement Data												
Assigned Mvmt	12	14	16	18								
Mvmt Sat Flow, veh/h	1585	1104	409	896								
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)	L (Pr/Pm)								

WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: PM Peak Hour

Improved Conditions 2025

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	88	0	233	0	207	0	164	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.6	0.0	12.0	0.0	5.9	0.0	9.9	0.0
Cycle Q Clear Time (g_c), s	2.6	0.0	12.0	0.0	5.9	0.0	9.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	191	0	1163	0	333	0	1199	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	65.7	0.0	12.0	0.0	66.6	0.0	12.0	0.0
Perm LT Serve Time (g_u), s	40.0	0.0	0.0	0.0	42.6	0.0	1.1	0.0
Perm LT Q Serve Time (g_ps), s	22.1	0.0	0.0	0.0	39.5	0.0	1.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	189	0	238	0	301	0	220	0
V/C Ratio (X)	0.47	0.00	0.98	0.00	0.69	0.00	0.75	0.00
Avail Cap (c_a), veh/h	287	0	238	0	460	0	220	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	16.0	0.0	46.2	0.0	16.0	0.0	44.6	0.0
Incr Delay (d2), s/veh	1.8	0.0	52.1	0.0	2.8	0.0	13.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	17.8	0.0	98.3	0.0	18.7	0.0	57.7	0.0
1st-Term Q (Q1), veh/ln	0.9	0.0	1.2	0.0	2.1	0.0	4.4	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	3.4	0.0	0.2	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	4.7	0.0	2.3	0.0	5.2	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	1.75	0.00	0.12	0.00	0.80	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T				T			
Lanes in Grp	0	3	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1888	0	0	0	1016	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	29.6	0.0	0.0	0.0	23.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	29.6	0.0	0.0	0.0	23.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2961	0	0	0	1864	0	0
V/C Ratio (X)	0.00	0.64	0.00	0.00	0.00	0.55	0.00	0.00
Avail Cap (c_a), veh/h	0	2961	0	0	0	1864	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	16.8	0.0	0.0	0.0	17.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.9	0.0	0.0	0.0	18.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	10.4	0.0	0.0	0.0	8.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0

WALMART STORE #984 FUEL STATION TIA

3: Trail Boss drive & Founders Pkwy

Timing Plan: PM Peak Hour

Improved Conditions 2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	10.7	0.0	0.0	0.0	8.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.00	0.00	0.38	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	R		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	236	0	218	0	537	0	185
Grp Sat Flow (s), veh/h/ln	0	1585	0	1672	0	1797	0	1709
Q Serve Time (g_s), s	0.0	8.8	0.0	12.0	0.0	23.1	0.0	12.9
Cycle Q Clear Time (g_c), s	0.0	8.8	0.0	12.0	0.0	23.1	0.0	12.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.66	0.00	0.23	0.00	0.52
Lane Grp Cap (c), veh/h	0	919	0	167	0	984	0	199
V/C Ratio (X)	0.00	0.26	0.00	1.30	0.00	0.55	0.00	0.93
Avail Cap (c_a), veh/h	0	919	0	167	0	984	0	199
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.4	0.0	54.0	0.0	17.5	0.0	52.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	173.3	0.0	2.2	0.0	47.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.1	0.0	227.3	0.0	19.7	0.0	99.8
1st-Term Q (Q1), veh/ln	0.0	3.1	0.0	5.0	0.0	8.8	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	8.0	0.0	0.6	0.0	2.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	13.1	0.0	9.4	0.0	8.2
%ile Storage Ratio (RQ%)	0.00	0.87	0.00	1.45	0.00	0.42	0.00	0.98
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

WALMART STORE #984 FUEL STATION TIA
Timing Plan: PM Peak Hour

4: Sam Walton Ln & Trail Boss drive
Improved Conditions 2025

Intersection												
Int Delay, s/veh	7.8											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	53	104	180	40	82	20	133	24	56	16	40	47
Future Vol, veh/h	53	104	180	40	82	20	133	24	56	16	40	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	117	-	-	100	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	112	194	43	88	22	143	26	60	17	43	51
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	306	0	0	555	519	209	551	605	99
Stage 1	-	-	-	-	-	-	323	323	-	185	185	-
Stage 2	-	-	-	-	-	-	232	196	-	366	420	-
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	1480	-	-	1255	-	-	442	461	831	445	412	957
Stage 1	-	-	-	-	-	-	689	650	-	817	747	-
Stage 2	-	-	-	-	-	-	771	739	-	653	589	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1480	-	-	1255	-	-	362	428	831	372	382	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	362	428	-	372	382	-
Stage 1	-	-	-	-	-	-	662	625	-	785	722	-
Stage 2	-	-	-	-	-	-	663	714	-	558	566	-
Approach	SE			NW			NE			SW		
HCM Control Delay, s	1.2			2.2			19.2			13.7		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NELn1		NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1		
Capacity (veh/h)	371		831	1255	-	-	1480	-	-	523		
HCM Lane V/C Ratio	0.455		0.072	0.034	-	-	0.039	-	-	0.212		
HCM Control Delay (s)	22.6		9.7	8	-	-	7.5	-	-	13.7		
HCM Lane LOS	C		A	A	-	-	A	-	-	B		
HCM 95th %tile Q(veh)	2.3		0.2	0.1	-	-	0.1	-	-	0.8		