

TECHNICAL MEMORANDUM

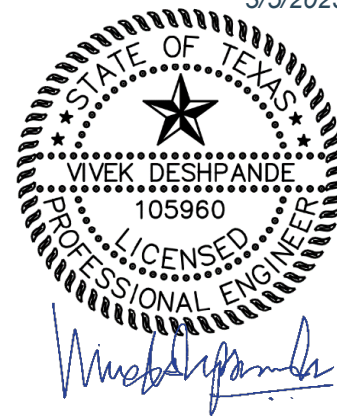
To: Barbara Russell, P.E.
TxDOT Houston District – Traffic Engineering
713-802-5177

From: Vivek Deshpande, P.E.
Kimley-Horn and Associates, Inc.
Firm Number F-928

Date: March 5, 2025

Subject: WA#2; Contract No. 12-3IDP5004
Traffic Signal Warrant Analysis
Technical Memorandum

3/5/2025



INTRODUCTION

Kimley-Horn has prepared this memorandum for the Texas Department of Transportation (TxDOT) to perform a traffic signal warrant analysis (TSWA) and a traffic engineering study to evaluate appropriate intersection traffic control to improve pedestrian and vehicular movements at the intersection of Wayside Drive (US 90A) and the Walmart driveway. The study intersection is within the city limits of Houston, north (or east) of Interstate 45 (IH-45) and in front of the Walmart Supercenter. This technical memorandum presents a summary of findings and documents the methodology, existing conditions, data collection, analysis results and recommendations.

STUDY AREA

The Walmart Supercenter has three driveways on Wayside Drive, this study focuses on the middle driveway (see **Figure 1**). The study intersection of Wayside Drive and Walmart driveway operates as two-way stop-controlled intersection. Wayside Drive falls under City of Houston limits but since the roadway is also called US 90A, it is maintained by TxDOT. Wayside Drive (US 90A) generally runs in north-south direction in the project vicinity and is a four-lane roadway classified as a 'Principal Thoroughfare' on the City of Houston's Major Thoroughfare and Freeway Plan (MTFP) and as a 'Principal Arterial' on TxDOT's Statewide Planning Map. At the study intersection, Wayside Drive (US 90A) widens to a five-lane section to include left-turn bay. The study corridor has a posted speed limit of 40 miles-per-hour (mph).

The minor street is a driveway to a Walmart Supercenter on the east leg and a TitleMax Title Loans and commercial strip mall center driveway on the west leg. The land uses surrounding the study intersection include commercial and hotel. Metro has two transit stops at the study intersection: one on the southbound side and the second on the northbound side of Wayside Drive (US 90A).

The nearest designated pedestrian crossings are at two existing traffic signals along Wayside Drive: one at IH-45 northbound frontage road that is approximately 550 feet south of the study intersection, and the second at Eskridge Street/Sylvan Road that is approximately 780 feet to the north.

As part of a recent construction project on Wayside Drive (US 90A) by TxDOT, raised center median was removed and replaced with pavement markings. An intersection layout of the existing conditions is provided in **Attachment A** (It should be noted that the aerial imagery shown was taken on January 2024, during the construction process).

Figure 1 – Site Location (Source: Image Provided by Nearmap)



(Source: Image Provided by Nearmap)

METHODOLOGY

The methodology used for this study follows the guidelines outlined in the 2011 Texas Manual on Uniform Traffic Control Devices (TMUTCD). Traffic volume data, pedestrian volume data, field observation, crash data, and generally available information about the study intersection formed the basis for this traffic study.

DATA COLLECTION

Traffic Volumes

Existing turning movement counts were collected at the study intersection of Wayside Drive (US 90A) and Walmart Driveway for a 12-hour period from 7:00 AM to 7:00 PM on Saturday, August 10, 2024, and Wednesday, August 14, 2024. Due to proximity of the study intersection to a major retail center, weekend traffic and pedestrian counts were obtained in addition to a typical weekday. Additionally, Saturday, August 10 was chosen since it was a 'tax-free' weekend for school supplies ahead of first day of school for Houston Independent School District (HISD) that started on August 12, 2024.

In addition to turning movement counts, historical 24-hour counts along Wayside Drive (US 90A) was obtained using TxDOT's TCDS system. Based on 2023 data, the Average Daily Traffic (ADT) along the corridor just to the north of the study intersection was reported to be 31,554 vehicles. Traffic volume data is provided in **Attachment B**.

Pedestrian Crossing Volumes

Pedestrian counts were also collected at the intersection of Wayside Drive (US 90A) and Walmart Driveway for a 12-hour period from 7:00 AM to 7:00 PM on Saturday, August 10, 2024, and Wednesday, August 14, 2024. A summary of pedestrians crossing Wayside Drive (US 90A) is provided in **Table 1**. Pedestrian volume data is provided in **Attachment B**.

Table 1: Pedestrian Counts Summary – Wayside Drive (US 90A) at Walmart Driveway

Saturday, August 10, 2024						
	7:00 am - 7:00 pm			Ped Peak Hour (1:00 - 2:00 PM)		
	East to West	West to East	Total	East to West	West to East	Total
North Leg	100	49	149	12	11	23
South Leg	16	46	62	1	8	9
Wednesday, August 14, 2024						
	7:00 am - 7:00 pm			Ped Peak Hour (2:00 - 3:00 PM)		
	East to West	West to East	Total	East to West	West to East	Total
North Leg	93	62	155	13	13	26
South Leg	18	32	50	1	0	1

Transit Stop

There are currently two bus stops at the study intersection, both providing service to Metro Route 028. One bus stop (Stop Number 9823) is located along southbound Wayside Drive (US 90A) on the northwest corner of Wayside Drive and Walmart Driveway/TitleMax Title Loans Driveway. The other bus stop (Stop Number 813) is located along northbound Wayside Drive approximately 100 feet north of the Walmart Driveway, which was recently relocated from the south side of the driveway. The bus stops have a service frequency of 20 minutes during peak hours and 30 minutes during off-peak hours. The bus route schedule is included in **Attachment D**.

Ridership data was collected as part of traffic count collection and was collected for a 12-hour period from 7:00 AM to 7:00 PM on Saturday, August 10, 2024, and Wednesday, August 14, 2024. For Route 028 going southbound, the bus stop had 214 riders on Wednesday with 95 'on' and 119 'off' the bus; and a total of 223 riders on Saturday with 96 'on' and 127 'off' the bus. Similarly, for Route 028 going northbound, the bus stop had a total ridership of 239 riders on Wednesday with 119 'on' and 120 'off' the bus; and a total ridership of 254 riders on Saturday with 141 'on' and 113 'off' the bus. Ridership data collected by the data collection firm is included in **Attachment E**.

Field Visit

A field visit was conducted on Friday, August 16, 2024, from 3:30 PM to 4:30 PM. During field observations, high pedestrian activity was observed at the study intersection. Below is a summary of field observations:

- With the recently completed roadway construction along the corridor, existing pedestrian ramps and crosswalk markings on the Walmart Driveway are in good condition. There is no crosswalk on the TitleMax Title Loans Driveway on the west side. The study intersection also has new pavement markings for left-turn bays in the median in the northbound and southbound directions and the right-turn bay in the northbound direction.
- There are two covered transit stops with benches for riders to wait for the bus: one in each on the east and west side of Wayside Drive (US 90A).
- A higher proportion of pedestrians was observed to walk across Wayside Drive on the north leg of the intersection than the south leg (as shown in **Table 1**). Majority of the pedestrians crossing the road get down from the bus stop headed southbound on Wayside Drive and then cross the road towards Walmart Supercenter.
- On the west side of Wayside Drive (US 90A), there is an existing driveway approximately 70 feet to the north of the TitleMax Title Loans Driveway which solely serves the retail strip center on the west side. No traffic was noticed to enter or exit the driveway.
- On several instances, the pedestrians were observed to cross the road in two stages. With a traffic signal both to the north and south of the study intersection, there are gaps in traffic platoons heading in the northbound and southbound directions. Pedestrians cross half the road during a gap in traffic, wait in the left turn bay for an acceptable gap in traffic in other direction, and then proceed to cross the second half of the road. This creates an unsafe situation for pedestrians waiting in the middle of the roadway with through traffic passing in both directions. Field observation photographs are in **Attachment C**.
- Within the vicinity of the study intersection, there are multiple closely spaced driveways which create multiple conflict points. During the field visit, several near misses were observed to occur between the vehicles exiting the Walmart Driveway making a left turn and vehicles going southbound through towards IH-45. Due to heavy through traffic volume on Wayside Drive (US 90A), exiting vehicles out of the Walmart Driveway have to wait for a long time to find acceptable gaps in traffic before they can safely enter the flow of traffic. It was observed that vehicles would drive across the northbound direction of traffic and wait in the northbound left turn bay until they can safely enter the southbound flow of traffic.

Crash Data

Crash data was obtained from TxDOT's Crash Records Information System (C.R.I.S) for the most recent five-year period (2020-2024). The intersection crashes include those on both the major and minor street of the study intersection during the five-year analysis period. As shown in **Table 2**, a total of 17 crashes were recorded within 150 feet of the study intersection in the most recent five-year period. Those 17 crashes resulted in seven (7) injury crashes and no fatal crashes. There was one (1) pedestrian related crash that resulted in a 'Possible Injury' and was caused due to the pedestrian failing to yield right of way to vehicle. A summary of the crash data is included in **Attachment F**.

In the last 12-month period (January – December, 2024), there have been six crashes within a 150-foot of the study driveway. There were five crashes that were left-turn or angle crashes and may be mitigated with a traffic signal at the driveway while maintaining existing access conditions. However, due to close proximity of multiple driveways along Wayside Drive (US 90A), detailed crash reports may be needed to confirm if all the crashes occurred at the study Walmart Driveway. It is important to note that there was ongoing roadway construction on Wayside Drive (US 90A) during at least part of 2023 and 2024.

Table 2: Crash Data Summary from CRIS

2020 - 2024						
Intersection	Total Crashes	Crash Severity			Pedestrian Crash	
		Fatal (K)	Injury (A/B)	Possible Injury (C)	Count & Severity	Reason
Wayside Dr @ Walmart Dwy	17	-	2	5	1 (C)	Ped failed to yield to vehicle
January – December, 2024						
Wayside Dr @ Walmart Dwy	6	-	1	1	-	-

TRAFFIC SIGNAL WARRANT ANALYSIS

Kimley-Horn performed a traffic signal warrant analysis for the study intersection of Wayside Drive (US 90A) and Walmart Driveway. The approach lane configuration used for this TSWA was two or more lanes on Wayside Drive and one lane for Walmart Driveway. The westbound approach coming out the Walmart Driveway has two lanes – one (1) left-turn lane and one (1) right-turn lane. Since there is a dedicated right-turn lane coming out of the Walmart Driveway, the right-turning traffic volume was removed from the westbound approach. A summary of TSWA results is shown in **Table 3**. Based on the results of the TSWA using actual traffic data collected, none of the warrants were met at the intersection.

Detailed TSWA worksheets for the traffic volumes, including warrant curves are included as **Attachment G**. For *Warrant 7 – Crash Experience*, CRIS data showed five crashes in the last 12-months that may be mitigated with a traffic signal. However, per TMUTCD criteria, other trial alternatives at the intersection have not been implemented or enforced. As a result, the study intersection does not meet Warrant 7.

Table 3 – TSWA Results – Wayside Dr and Walmart Dwy

Warrant	Description	Warrant Met?
1	Eight-Hour Volume	NOT SATISFIED
2	Four-Hour Volume	NOT SATISFIED
3	Peak Hour Volume	NOT SATISFIED
4	Pedestrian Volume	NOT SATISFIED
5	School Crossing	NOT SATISFIED
6	Coordinated Signal System	N/A
7	Crash Experience	NOT SATISFIED
8	Roadway Network	N/A
9	Intersection Near a Grade Crossing	NOT SATISFIED

PEDESTRIAN CROSSING EVALUATION

Based on vehicular, pedestrian counts (**Table 1**) and field observations, there are multiple pedestrians crossing Wayside Drive (US 90A) to/from the Walmart Driveway on the east side. With none of the traffic signal warrants, countermeasures were evaluated to improve pedestrian safety at the intersection of Walmart Driveway and Wayside Drive (US 90A). Based on TxDOT's current *Roadway Design Manual*, the recommended countermeasures for an uncontrolled pedestrian crossing on a five lane roadway section without raised median, 40 mph posted speed limit, and an annual average daily traffic (AADT) of greater than 15,000 vehicles per day is summarized as follows:

- High-Visibility crossing markings with adequate nighttime lighting levels, and crossing warning signs;
- Advance signage for pedestrians in crossing
- Curb Extension
- Pedestrian Refuge Island
- Pedestrian Hybrid Beacons (PHB)

At the intersection of Walmart Driveway and Wayside Drive (US 90A), curb extension or a pedestrian refuge island may not be feasible due to constrained roadway width and high traffic volumes. Per TxDOT's *Roadway Design Manual Figure 19-24B*, a Rectangular Rapid-Flashing Beacon (RRFB) may be considered where there is insufficient separation from traffic.

Based on above guidance, it is recommended to install a new pedestrian crossing on Wayside Drive (US 90A) at the Walmart Driveway on the north side of the intersection. To increase pedestrian safety at the proposed crosswalk, it is recommended to install highway visibility crossing markings, advanced signage, and an RRFB. The recommended conceptual layout is provided in **Attachment H**.

Table 4 – Pedestrian Safety Countermeasures

(Source: TxDOT Roadway Design Manual; Figure 19-24A – Pedestrian Safety Countermeasures Based on Roadway Configuration and Posted Speed Limits and Annual Average Daily Traffic).

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35mph	≥40 mph	≤30 mph	35mph	≥40 mph	≤30 mph	35mph	≥40 mph
2 lanes (1 lane in each direction)	1 2 4 5 6	1 5 6	1 5 6	1 4 5 6	1 5 6	1 5 6	1 4 5 6	1 5 6	1 5 6
3 lanes with raised median (1 lane in each direction)	1 2 3 4 5	1 5	1 5	1 3 4 5	1 5	1 5	1 3 4 5	1 5	1 5
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	1 2 3 4 5 6	1 5 6	1 5 6	1 3 4 5 6	1 5 6	1 5 6	1 3 4 5 6	1 5 6	1 5 6
4+ lanes with raised median (2 or more lanes in each direction)	1 3 5	1 5	1 5	1 3 5	1 5	1 5	1 3 5	1 5	1 5
4+ lanes w/o raised median (2 or more lanes in each direction)	1 3 5 6	1 5 6	1 5 6	1 3 5 6	1 5 6	1 5 6	1 3 5 6	1 5 6	1 5 6

Figure 19-24A should be used with Figure 19-24B.

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

**It should be noted that the PHB and RRFB are not both installed at the same crossing location.

This table was developed using information from: Zegeer, C.V., J.R. Stewart, H.H. Huang, P.A. Lagerwey, J. Feaganes, and B.J. Campbell. (2005). *Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines*. FHWA, No. FHWA-HRT-04-100, Washington, D.C.; FHWA. *Manual on Uniform Traffic Control Devices*, 2009 Edition. (revised 2012). Chapter 4F, Pedestrian Hybrid Beacons. FHWA, Washington, D.C.; FHWA. *Crash Modification Factors (CMF) Clearinghouse*. <http://www.cmfclearinghouse.org/>; FHWA. *Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE)*. <http://www.pedbikesafe.org/PEDSAFE/>; Zegeer, C., R. Srinivasan, B. Lan, D. Carter, S. Smith, C. Sundstrom, N.J. Thirsk, J. Zegeer, C. Lyon, E. Ferguson, and R. Van Houten. (2017). *NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments*. Transportation Research Board, Washington, D.C.; Thomas, Thirsk, and Zegeer. (2016). *NCHRP Synthesis 498: Application of Pedestrian Crossing Treatments for Streets and Highways*. Transportation Research Board, Washington, D.C.; and personal interviews with selected pedestrian safety practitioners.

- 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)**
- 8 Pedestrian hybrid beacon (PHB)**

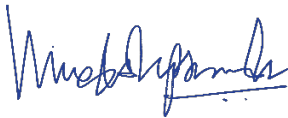
CONCLUSION

The results of the TSWA for the intersection of Wayside Drive (US 90A) and the Walmart driveway indicate that a traffic signal control is not warranted at this intersection.

Due to heavy pedestrian movements, it is recommended to install a pedestrian crosswalk on Wayside Drive (US 90A) at Walmart Driveway on the north side of the intersection. Below countermeasures are recommended to improve pedestrian safety at the proposed crossing:

- High-Visibility crossing markings with adequate nighttime lighting levels, and crossing warning signs;
- Advance signage for pedestrians in crossing
- Rectangular Rapid Flashing Beacon

Sincerely,



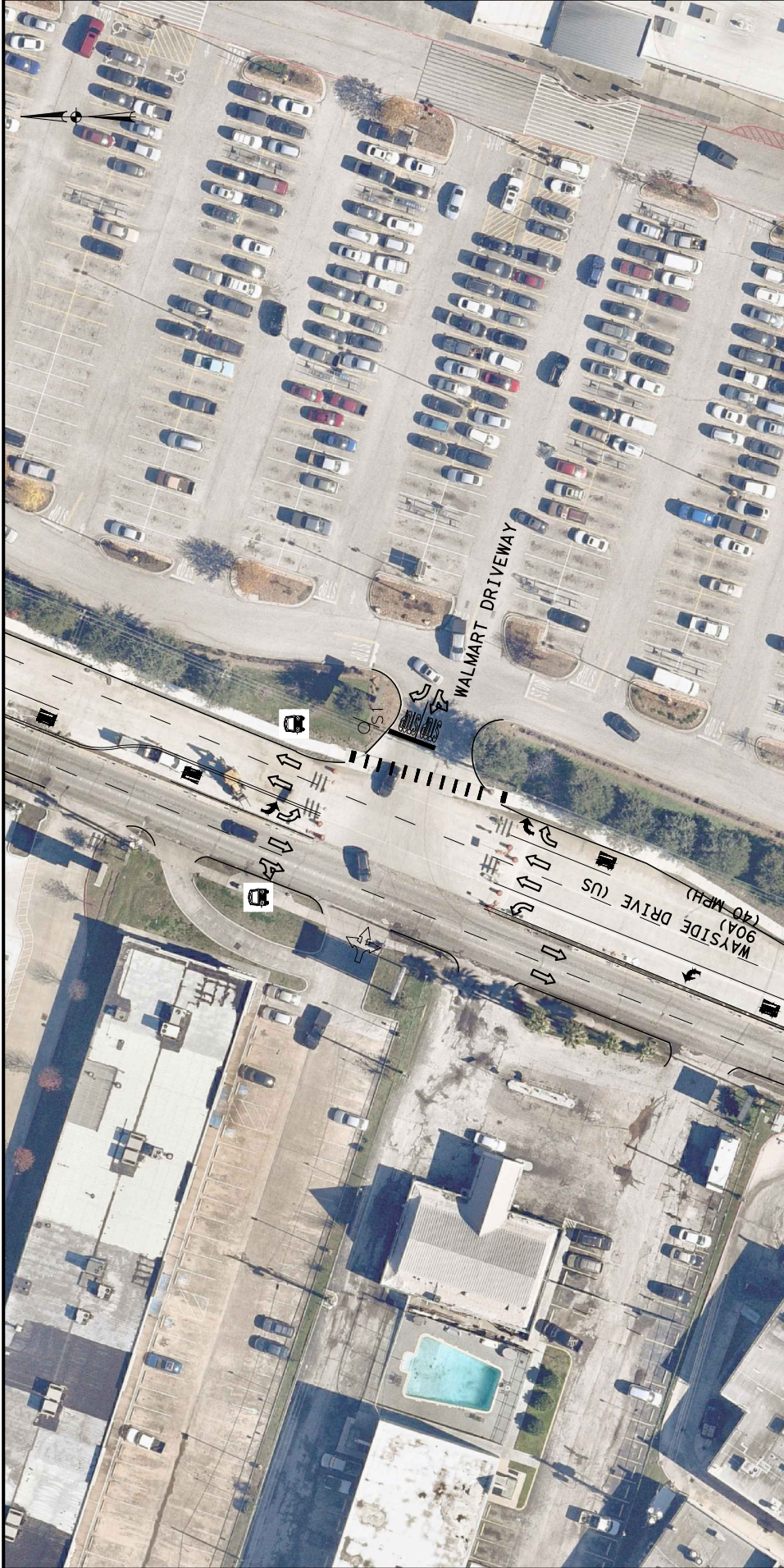
Vivek Deshpande, PE
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Attachments:

- A. Existing Conditions Layout
- B. Traffic Count Data
- C. Field Observation Photographs
- D. Bus Route Schedule
- E. Bus Ridership Data
- F. Crash Data
- G. Traffic Signal Warrant Analysis
- H. Proposed Conditions Layout



A. EXISTING CONDITIONS LAYOUT



EXISTING SIGN TO REMAIN



LEGEND

-  SIGN
-  DIRECTION OF TRAVEL
-  BUS STOP

Note:
THE LOCATIONS OF ALL ITEMS SHOWN IN THIS EXHIBIT ARE APPROXIMATE. THIS EXHIBIT IS NOT INTENDED FOR ANY CONSTRUCTION USE.

 1123 Shadow Creek Parkway, Suite 450 Portland, Texas 77864 Tel. No. (281) 885-1210	
TRAFFIC ENGINEERING STUDY	
EXISTING CONDITIONS LAYOUT WAYSIDE DRIVE (US 90A) AND WALMART DRIVEWAY	
PROJECT NUMBER: 064627202	ATTACHMENT:
SCALE: 1" = 70' (APPROX.)	A

B. TRAFFIC COUNT DATA

Traffic Count (TCDS)

Home Locale Locale All Email This Auto-Locale ☒

Record of 1 Gato Record Report Center

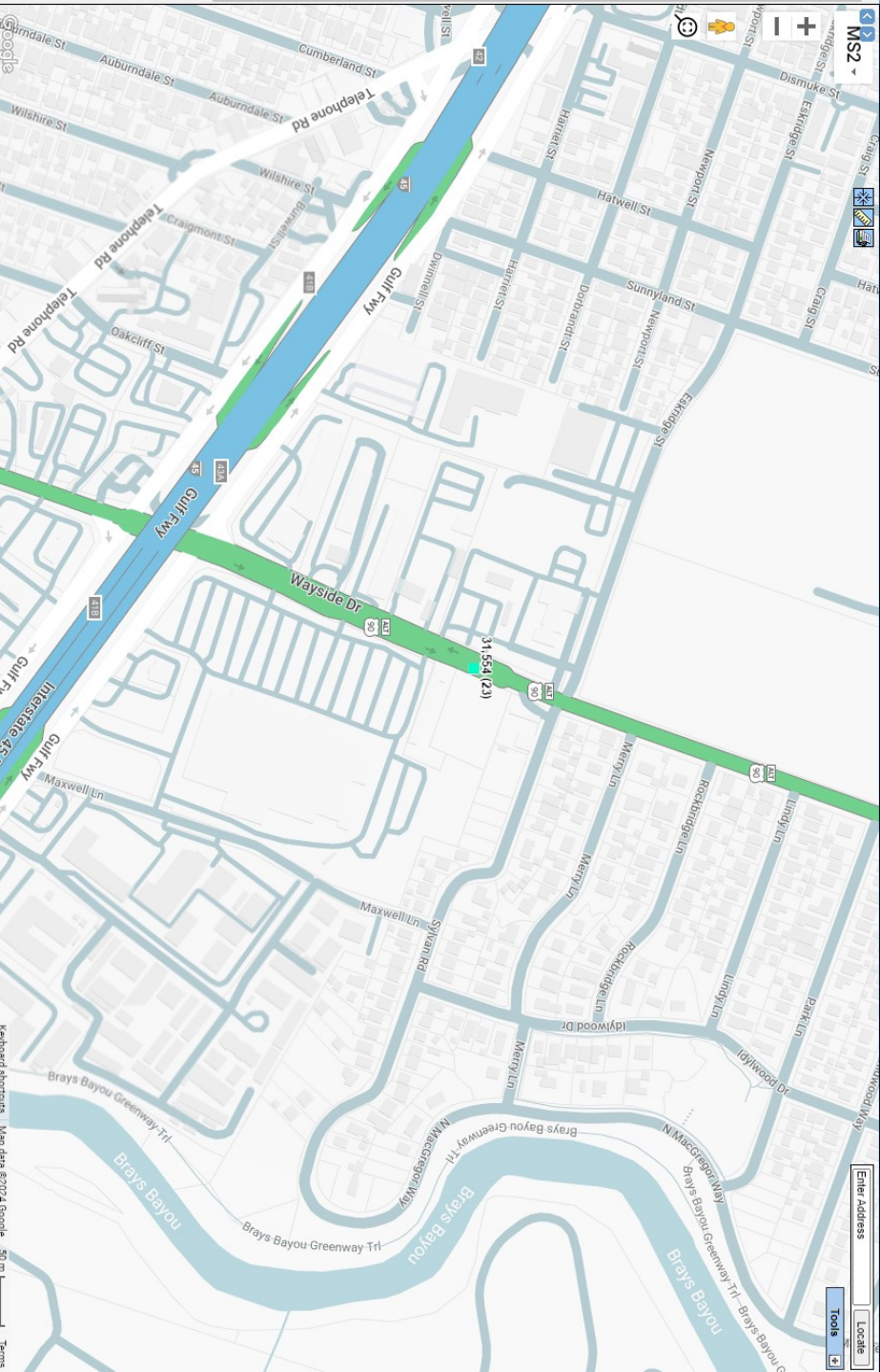
Location ID	102H129	MPO ID	15
Type	SPOT	HPMS ID	ASSIGNED
SF Group	HOUSTON FC 3 (2024)	Route Type	UA
AF Group	M1207 (2024)	Route	10090
GF Group	HOUSTON FC 3 (2016)	Active	Yes
Class Dist Grp	M1207 (2017)	Category	ANNUAL ACR
Seas Class Grp	HOUSTON (2016)		
WM Group	Statewide (2017)		
QC Group	Volume Group 4		
Facet Class	3 Principal Arterial/Other		
Located On	UA0090		
Loc On Alias	UA0090-KG		

STATION DATA	Directions: 2WAY	NB	SB
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Year	AAOT	DHV-30	K %	D %	PA	BC	Src
2023	31,554	2,548	8	52	30,791 (98%)	763 (2%)	AGO
2022	27,700 ²				26,958 (97%)	742 (3%)	
2021	27,157	2,339	9	52	26,426 (97%)	731 (3%)	
2020	28,726	2,546	9	51	28,036 (98%)	690 (2%)	
2019	33,000 ²				32,257 (98%)	743 (2%)	

Model	Model	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV
Year	AAOT								

VOLUME COUNT				VOLUME TREND			
Date	Int	Total	Annual Growth	Year	Annual Growth		
Wed 2/22/2023	15	33,511	14%	2023	14%		
Mon 6/6/2022	-	30,708	2%	2022	2%		
Mon 3/8/2021	15	30,708	-5%	2021	-5%		
Mon 6/1/2020	15	30,288	-13%	2020	-13%		
Mon 3/16/2019	-	33,651	5%	2019	5%		
Wed 2/14/2018	15	34,169	-7%	2018	-7%		
Mon 3/26/2017	15	35,525	1%	2017	1%		
Wed 6/30/2015	15	35,687	0%	2016	0%		
Tue 3/4/2014	15	29,016	39%	2015	39%		
			-2%	2014	-2%		



National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/10/2024

Data - Total

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	1	55	3	0	8	89	0	0	0	0	1	0	4	0	6	0	167
7:15 AM	0	63	1	0	6	80	0	0	0	0	0	0	7	0	7	0	164
7:30 AM	0	79	2	0	3	72	0	0	0	0	0	0	7	0	4	0	167
7:45 AM	0	95	7	0	10	97	0	0	0	0	0	0	10	0	10	0	229
8:00 AM	1	92	6	0	14	107	0	0	0	0	0	0	16	0	11	0	247
8:15 AM	0	96	10	0	13	118	0	0	0	0	0	0	9	0	9	0	255
8:30 AM	0	111	7	0	16	112	1	0	0	0	0	0	14	0	12	0	273
8:45 AM	2	100	11	0	14	120	0	0	0	0	0	0	10	0	11	0	268
9:00 AM	1	110	6	1	13	107	0	0	0	0	0	0	13	1	7	0	259
9:15 AM	2	113	3	0	12	129	2	0	2	0	1	0	21	0	5	0	290
9:30 AM	0	120	5	0	21	154	0	0	0	0	0	0	14	0	11	0	325
9:45 AM	0	140	7	0	20	141	0	0	0	0	0	0	17	0	8	0	333
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.56%	93.92%	5.44%	0.08%	10.14%	89.66%	0.20%	0.00%	50.00%	0.00%	50.00%	0.00%	58.20%	0.41%	41.39%	0.00%	2977
PEAK HR:	09:00 AM - 10:00 AM				66	531	2	0	2	0	1	0	65	1	31	0	1207
PEAK HR VOL:	3	483	21	1	66	531	2	0	2	0	1	0	65	1	31	0	1207
PEAK HR FACTOR:	0.375	0.863	0.750	0.250	0.786	0.862	0.250	0.000	0.250	0.000	0.250	0.000	0.774	0.250	0.705	0.000	0.906
	0.864				0.856				0.250				0.933				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	126	7	0	19	150	0	0	0	0	0	0	19	0	11	0	332
10:15 AM	2	146	4	0	25	142	0	0	1	0	0	0	17	1	13	0	351
10:30 AM	3	123	4	0	14	181	2	0	1	0	2	0	23	1	10	0	364
10:45 AM	0	117	8	0	16	161	0	0	2	0	4	0	23	0	13	0	344
11:00 AM	2	151	5	0	20	172	0	0	1	0	0	0	21	0	14	0	386
11:15 AM	3	148	7	0	19	161	2	0	1	0	3	0	16	0	16	0	376
11:30 AM	1	112	9	0	23	188	0	0	0	0	2	0	23	0	12	0	370
11:45 AM	2	139	3	0	20	183	2	0	0	0	1	0	30	0	13	0	393
12:00 PM	0	135	12	0	22	157	0	0	0	0	1	0	26	0	7	0	360
12:15 PM	0	169	9	0	16	175	1	0	2	0	0	0	22	0	14	0	408
12:30 PM	1	146	11	0	22	185	2	0	1	0	0	0	20	0	12	0	400
12:45 PM	0	152	8	0	28	166	0	0	2	0	0	0	25	0	21	0	402
1:00 PM	2	141	16	0	26	224	1	0	1	2	3	0	26	0	14	0	456
1:15 PM	2	169	10	0	24	174	0	0	0	0	3	0	20	2	15	0	419
1:30 PM	0	154	5	1	19	193	0	0	0	0	0	0	20	0	18	0	410
1:45 PM	0	153	9	0	22	181	0	0	0	0	0	0	28	0	12	0	405
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.74%	93.98%	5.23%	0.04%	10.68%	89.01%	0.32%	0.00%	36.36%	6.06%	57.58%	0.00%	62.11%	0.69%	37.20%	0.00%	6176
PEAK HR:	01:00 PM - 02:00 PM				91	772	1	0	1	2	6	0	94	2	59	0	1690
PEAK HR VOL:	4	617	40	1	91	772	1	0	1	2	6	0	94	2	59	0	1690
PEAK HR FACTOR:	0.500	0.913	0.625	0.250	0.875	0.862	0.250	0.000	0.250	0.250	0.500	0.000	0.839	0.250	0.819	0.000	0.927
	0.914				0.861				0.375				0.969				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	1	161	10	0	21	191	0	0	0	0	2	0	31	0	9	0	426
2:15 PM	1	118	6	1	30	174	0	0	1	0	1	0	31	0	16	0	379
2:30 PM	0	142	7	0	32	176	0	1	0	0	1	0	22	0	12	0	393
2:45 PM	1	139	13	1	32	161	0	0	0	0	0	0	27	0	9	0	383
3:00 PM	0	155	11	0	29	170	0	0	0	0	2	0	32	0	8	0	407
3:15 PM	1	162	8	0	18	186	2	0	0	0	4	0	26	0	18	0	425
3:30 PM	0	144	5	0	20	175	0	0	0	0	1	0	32	0	12	0	389
3:45 PM	1	122	7	0	19	196	0	0	0	0	1	0	26	0	15	0	387
4:00 PM	1	167	7	0	20	156	0	1	1	0	0	0	21	0	12	0	386
4:15 PM	1	142	12	1	11	171	0	0	0	0	1	0	26	0	15	0	380
4:30 PM	1	148	9	0	19	201	3	0	0	0	2	0	32	0	10	0	425
4:45 PM	0	141	6	0	13	179	1	0	0	0	4	0	25	0	11	0	380
5:00 PM	0	141	12	0	19	152	0	0	0	0	0	0	27	0	10	0	361
5:15 PM	0	148	8	0	21	171	1	0	1	0	0	0	14	0	19	0	383
5:30 PM	0	149	11	0	14	172	0	0	0	0	0	0	23	0	12	0	381
5:45 PM	2	138	12	0	14	162	2	0	0	0	2	0	25	0	13	0	370
6:00 PM	0	126	19	0	21	171	1	0	2	0	1	0	29	0	16	0	386
6:15 PM	0	131	37	0	12	148	0	1	0	0	0	0	20	0	16	0	365
6:30 PM	0	138	40	0	21	187	0	0	0	0	0	0	24	0	16	0	426
6:45 PM	0	125	46	0	21	127	0	0	0	0	0	0	35	0	14	0	368
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.32%	90.47%	9.12%	0.10%	10.58%	89.08%	0.26%	0.08%	18.52%	0.00%	81.48%	0.00%	66.75%	0.00%	33.25%	0.00%	7800
PEAK HR:	03:00 PM - 04:00 PM				86	727	2	0	0	0	8	0	116	0	53	0	1608
PEAK HR VOL:	2	583	31	0	86	727	2	0	0	0	8	0	116	0	53	0	1608
PEAK HR FACTOR:	0.500	0.900	0.705	0.000	0.741	0.927	0.250	0.000	0.000	0.000	0.500	0.000	0.906	0.000	0.736	0.000	0.946
	0.901				0.948				0.500				0.960				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/10/2024

Data - Cars

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	1	52	3	0	7	86	0	0	0	0	1	0	4	0	6	0	160
7:15 AM	0	56	1	0	6	77	0	0	0	0	0	0	6	0	7	0	153
7:30 AM	0	75	2	0	3	70	0	0	0	0	0	0	7	0	4	0	161
7:45 AM	0	92	7	0	10	92	0	0	0	0	0	0	10	0	10	0	221
8:00 AM	1	88	6	0	14	101	0	0	0	0	0	0	16	0	11	0	237
8:15 AM	0	89	10	0	13	115	0	0	0	0	0	0	9	0	9	0	245
8:30 AM	0	105	7	0	16	106	1	0	0	0	0	0	14	0	12	0	261
8:45 AM	2	95	11	0	14	112	0	0	0	0	0	0	10	0	11	0	255
9:00 AM	1	6	107	6	1	13	104	0	0	0	0	0	1	13	7	0	253
9:15 AM	2	113	3	0	12	126	2	0	2	0	1	0	21	0	5	0	287
9:30 AM	0	117	5	0	21	147	0	0	0	0	0	0	14	0	11	0	315
9:45 AM	0	135	7	0	20	138	0	0	0	0	0	0	17	0	8	0	325
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	7	1124	68	1	149	1274	3	0	2	0	2	0	141	1	101	0	2873
	0.58%	93.67%	5.67%	0.08%	10.45%	89.34%	0.21%	0.00%	50.00%	0.00%	50.00%	0.00%	58.02%	0.41%	41.56%	0.00%	
PEAK HR :	09:00 AM - 10:00 AM																TOTAL
PEAK HR VOL :	3	472	21	1	66	515	2	0	2	0	1	0	65	1	31	0	1180
PEAK HR FACTOR :	0.375	0.874	0.750	0.250	0.786	0.876	0.250	0.000	0.250	0.000	0.250	0.000	0.774	0.250	0.705	0.000	0.908
	0.875				0.868				0.250				0.933				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	123	7	0	19	148	0	0	0	0	0	0	19	0	11	0	327
10:15 AM	2	145	4	0	25	140	0	0	1	0	0	0	17	1	13	0	348
10:30 AM	3	122	4	0	14	180	2	0	1	0	2	0	23	1	10	0	362
10:45 AM	0	116	8	0	16	158	0	0	2	0	4	0	23	0	13	0	340
11:00 AM	2	147	5	0	20	169	0	0	1	0	0	0	21	0	14	0	379
11:15 AM	3	143	7	0	19	157	2	0	1	0	3	0	16	0	16	0	367
11:30 AM	1	111	9	0	23	186	0	0	0	0	2	0	23	0	12	0	367
11:45 AM	2	135	3	0	20	182	2	0	0	0	1	0	30	0	13	0	388
12:00 PM	0	130	12	0	21	153	0	0	0	0	1	0	25	0	7	0	349
12:15 PM	0	166	9	0	16	173	1	0	2	0	0	0	21	0	14	0	402
12:30 PM	1	146	11	0	22	180	2	0	1	0	0	0	20	0	12	0	395
12:45 PM	0	149	8	0	28	163	0	0	1	0	0	0	25	0	21	0	406
1:00 PM	2	137	15	0	26	222	1	0	1	2	3	0	26	0	14	0	449
1:15 PM	2	166	10	0	24	172	0	0	0	0	3	0	20	2	15	0	414
1:30 PM	0	151	5	1	19	185	0	0	0	0	0	0	20	0	18	0	399
1:45 PM	0	150	9	0	22	179	0	0	0	0	0	0	28	0	12	0	400
TOTAL VOLUMES : APPROACH %'s :	NL 0.76%	NT 2237 93.91%	NR 126 5.29%	NU 1 0.04%	SL 334 10.81%	ST 2747 88.87%	SR 10 0.32%	SU 0 0.00%	EL 12 36.36%	ET 2 6.06%	ER 19 57.58%	EU 0 0.00%	WL 357 61.98%	WT 4 0.69%	WR 215 37.33%	WU 0 0.00%	TOTAL 6082
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	4	604	39	1	91	758	1	0	1	2	6	0	94	2	59	0	1662
PEAK HR FACTOR :	0.500	0.910	0.650	0.250	0.875	0.854	0.250	0.000	0.250	0.250	0.500	0.000	0.839	0.250	0.819	0.000	0.925
	0.910				0.853				0.375				0.969				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
2:00 PM	1	157	9	0	21	186	0	0	0	0	2	0	31	0	9	0	416	
2:15 PM	1	116	6	1	30	168	0	0	1	0	1	0	30	0	15	0	369	
2:30 PM	0	141	7	0	32	170	0	0	0	1	1	0	22	0	12	0	385	
2:45 PM	1	135	13	1	32	157	0	0	0	0	0	0	27	0	9	0	375	
3:00 PM	0	152	11	0	29	167	0	0	0	0	2	0	31	0	8	0	400	
3:15 PM	1	160	8	0	18	184	2	0	0	0	4	0	26	0	18	0	421	
3:30 PM	0	138	5	0	20	174	0	0	0	1	1	0	32	0	12	0	382	
3:45 PM	1	120	7	0	19	193	0	0	0	0	1	0	26	0	15	0	382	
4:00 PM	1	165	7	0	20	155	0	1	1	0	0	0	21	0	12	0	383	
4:15 PM	1	142	12	1	11	169	0	0	0	0	1	0	26	0	15	0	378	
4:30 PM	1	144	9	0	19	200	3	0	0	0	2	0	32	0	10	0	420	
4:45 PM	0	139	6	0	13	177	1	0	0	0	4	0	25	0	11	0	376	
5:00 PM	0	136	12	0	19	150	0	0	0	0	0	0	27	0	10	0	354	
5:15 PM	0	145	8	0	21	168	1	0	1	0	0	0	14	0	19	0	377	
5:30 PM	0	146	10	0	14	168	0	0	0	0	0	0	23	0	13	0	373	
5:45 PM	1	132	12	0	19	162	2	0	0	1	0	0	25	0	13	0	365	
6:00 PM	0	124	19	0	21	169	1	0	2	0	1	0	28	0	16	0	381	
6:15 PM	0	130	37	0	12	145	1	1	0	0	0	0	20	0	16	0	361	
6:30 PM	0	132	40	0	21	185	0	0	0	0	0	0	24	0	16	0	418	
6:45 PM	0	124	45	0	21	126	0	0	0	0	0	0	35	0	14	0	365	
TOTAL VOLUMES : APPROACH %'s :	NL 0.29%	NT 2782 90.41%	NR 283 9.20%	NU 3 0.10%	SL 10747 40.74%	ST 3372 88.95%	SR 10 0.26%	SU 2 0.05%	EL 5 19.23%	ET 0 0.00%	ER 21 80.77%	EU 0 0.00%	WL 525 66.71%	WT 0 0.00%	WR 262 33.29%	WU 0 0.00%	TOTAL 7681	
PEAK HR :	03:00 PM - 04:00 PM																	TOTAL
PEAK HR VOL :	2	570	31	0	86	718	2	0	0	0	8	0	115	0	53	0	1585	
PEAK HR FACTOR :	0.500	0.891	0.705	0.000	0.741	0.930	0.250	0.000	0.000	0.000	0.500	0.000	0.898	0.000	0.736	0.000	0.941	
	0.892				0.950				0.500				0.955					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/10/2024

Data - HT

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	7
7:15 AM	0	7	0	0	0	3	0	0	0	0	0	0	1	0	0	0	11
7:30 AM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
8:00 AM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	10
8:30 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
8:45 AM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	13
9:00 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
9:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
9:30 AM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	10
9:45 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	50	0	0	1	52	0	0	0	0	0	0	1	0	0	0	104
PEAK HR:	09:00 AM - 10:00 AM				0	16	0	0	0	0	0	0	0	0	0	0	27
PEAK HR VOL:	0	11	0	0	0	0.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.675
PEAK HR FACTOR:	0.000	0.550	0.000	0.000	0.000	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.675

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
10:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
10:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
10:45 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
11:00 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
11:15 AM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9
11:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
12:00 PM	0	5	0	0	1	4	0	0	0	0	0	0	1	0	0	0	11
12:15 PM	0	3	0	0	0	2	0	0	0	0	0	0	1	0	0	0	6
12:30 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
12:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
1:00 PM	0	4	1	0	0	2	0	0	0	0	0	0	0	0	0	0	7
1:15 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
1:30 PM	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	0	11
1:45 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	44	1	0	1	46	0	0	0	0	0	0	2	0	0	0	94
PEAK HR:	01:00 PM - 02:00 PM				0	14	0	0	0	0	0	0	0	0	0	0	28
PEAK HR VOL:	0	13	1	0	0	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.636
PEAK HR FACTOR:	0.000	0.813	0.250	0.000	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.636

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	10
2:15 PM	0	2	0	0	0	6	0	0	0	0	0	0	1	0	1	0	10
2:30 PM	0	1	0	0	0	6	0	1	0	0	0	0	0	0	0	0	8
2:45 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
3:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	7
3:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
3:45 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
4:00 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
5:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	1	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	5
6:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	5
6:15 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
6:30 PM	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	8
6:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1	55	3	0	0	54	0	1	0	0	0	0	3	0	1	0	119
PEAK HR:	03:00 PM - 04:00 PM				0	9	0	0	0	0	0	0	1	0	0	0	23
PEAK HR VOL:	0	13	0	0	0	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.821
PEAK HR FACTOR:	0.000	0.542	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.821

Project ID: 24-450142-001
Date: 8/10/2024

NS/EW Streets:		Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	
TOTAL VOLUMES : APPROACH %'s :	NL 0.00%	NT 0 1 100.00%	NR 0 0 0.00%	NU 0 0 0.00%	SL 0.00%	ST 0 1 100.00%	SR 0 0 0.00%	SU 0 0 0.00%	EL 0	ET 0	ER 0	EU 0	WL 1 100.00%	WT 0 0 0.00%	WR 0 0 0.00%	WU 0 0 0.00%	TOTAL 3	
PEAK HR :	09:00 AM - 10:00 AM																TOTAL 3	
PEAK HR VOL : PEAK HR FACTOR :	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0.375
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	10:15 AM	1	0	0	0	0	7	0	0	0	0	0	0	0	0	0		8
	10:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0		0
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0														

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title I **Project ID:** 24-450142-001
City: Houston **Date:** 8/10/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Wayside Dr/Hwy 90 ALT		Wayside Dr/Hwy 90 ALT		Walmart Supercenter Dwy/TitleMax Title Loans		Walmart Supercenter Dwy/TitleMax Title Loans		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	2	0	1	1	1	1	1	0	7
7:15 AM	2	0	0	0	0	0	3	0	5
7:30 AM	0	0	1	0	0	0	0	2	3
7:45 AM	0	1	0	1	0	0	1	0	3
8:00 AM	3	2	0	0	1	0	0	0	6
8:15 AM	0	0	0	1	0	0	2	0	3
8:30 AM	4	0	0	0	0	0	2	1	7
8:45 AM	0	0	0	2	0	1	1	1	5
9:00 AM	3	2	0	0	1	0	0	0	6
9:15 AM	3	0	0	0	0	1	0	0	4
9:30 AM	1	0	1	0	0	0	0	0	2
9:45 AM	2	1	0	2	1	0	1	0	7
TOTAL VOLUMES :	EB 20	WB 6	EB 3	WB 7	NB 4	SB 3	NB 11	SB 4	TOTAL 58
APPROACH %'s :	76.92%	23.08%	30.00%	70.00%	57.14%	42.86%	73.33%	26.67%	
PEAK HR :	09:00 AM - 10:00 AM								TOTAL 19
PEAK HR VOL :	9	3	1	2	2	1	1	0	0.679
PEAK HR FACTOR :	0.750	0.375	0.250	0.250	0.500	0.250	0.250	0.250	
	0.600		0.375		0.750		0.250		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	4	1	0	0	1	1	1	0	8
10:15 AM	0	0	0	2	0	0	2	2	6
10:30 AM	9	1	0	0	0	1	1	0	12
10:45 AM	1	0	0	1	0	1	1	1	5
11:00 AM	4	0	2	2	0	0	0	3	11
11:15 AM	0	1	1	0	1	1	0	0	4
11:30 AM	4	0	0	2	0	1	3	0	10
11:45 AM	5	3	1	2	0	0	0	0	11
12:00 PM	4	0	0	2	1	6	2	0	15
12:15 PM	3	0	0	0	3	0	0	0	6
12:30 PM	2	2	3	0	0	0	0	0	7
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	6	1	1	0	0	0	0	1	9
1:15 PM	0	5	0	2	0	1	5	0	13
1:30 PM	6	5	0	4	0	0	1	0	16
1:45 PM	0	0	0	2	0	0	2	0	4
TOTAL VOLUMES :	EB 48	WB 19	EB 8	WB 19	NB 6	SB 12	NB 18	SB 7	TOTAL 137
APPROACH %'s :	71.64%	28.36%	29.63%	70.37%	33.33%	66.67%	72.00%	28.00%	
PEAK HR :	01:00 PM - 02:00 PM								TOTAL 42
PEAK HR VOL :	12	11	1	8	0	1	8	1	0.656
PEAK HR FACTOR :	0.500	0.550	0.250	0.500	0.250	0.250	0.400	0.250	
	0.523		0.563		0.250		0.450		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	4	1	0	0	2	1	0	0	8
2:15 PM	3	2	0	1	0	0	0	0	6
2:30 PM	1	1	0	0	3	0	0	0	5
2:45 PM	2	0	0	3	1	0	0	0	6
3:00 PM	1	0	0	1	1	0	0	0	3
3:15 PM	0	2	0	0	0	1	0	0	3
3:30 PM	1	3	0	0	1	2	0	0	7
3:45 PM	0	0	1	0	1	0	0	0	2
4:00 PM	0	0	1	3	0	0	1	1	6
4:15 PM	1	1	0	0	0	0	0	0	2
4:30 PM	0	0	0	2	0	1	0	0	3
4:45 PM	1	5	0	0	2	0	0	0	8
5:00 PM	8	1	0	2	0	0	1	0	12
5:15 PM	2	1	1	3	1	1	1	0	10
5:30 PM	5	0	0	0	2	0	0	1	8
5:45 PM	0	0	0	0	0	0	1	0	1
6:00 PM	1	2	2	1	0	1	4	3	14
6:15 PM	2	3	0	1	2	0	2	0	10
6:30 PM	0	1	0	2	0	1	0	0	4
6:45 PM	0	1	0	1	1	0	1	0	4
TOTAL VOLUMES :	EB 32	WB 24	EB 5	WB 20	NB 17	SB 8	NB 11	SB 5	TOTAL 122
APPROACH %'s :	57.14%	42.86%	20.00%	80.00%	68.00%	32.00%	68.75%	31.25%	
PEAK HR :	03:00 PM - 04:00 PM								TOTAL 15
PEAK HR VOL :	2	5	1	1	3	3	0	0	0.536
PEAK HR FACTOR :	0.500	0.417	0.250	0.250	0.750	0.375			
	0.438		0.500		0.500				

Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy

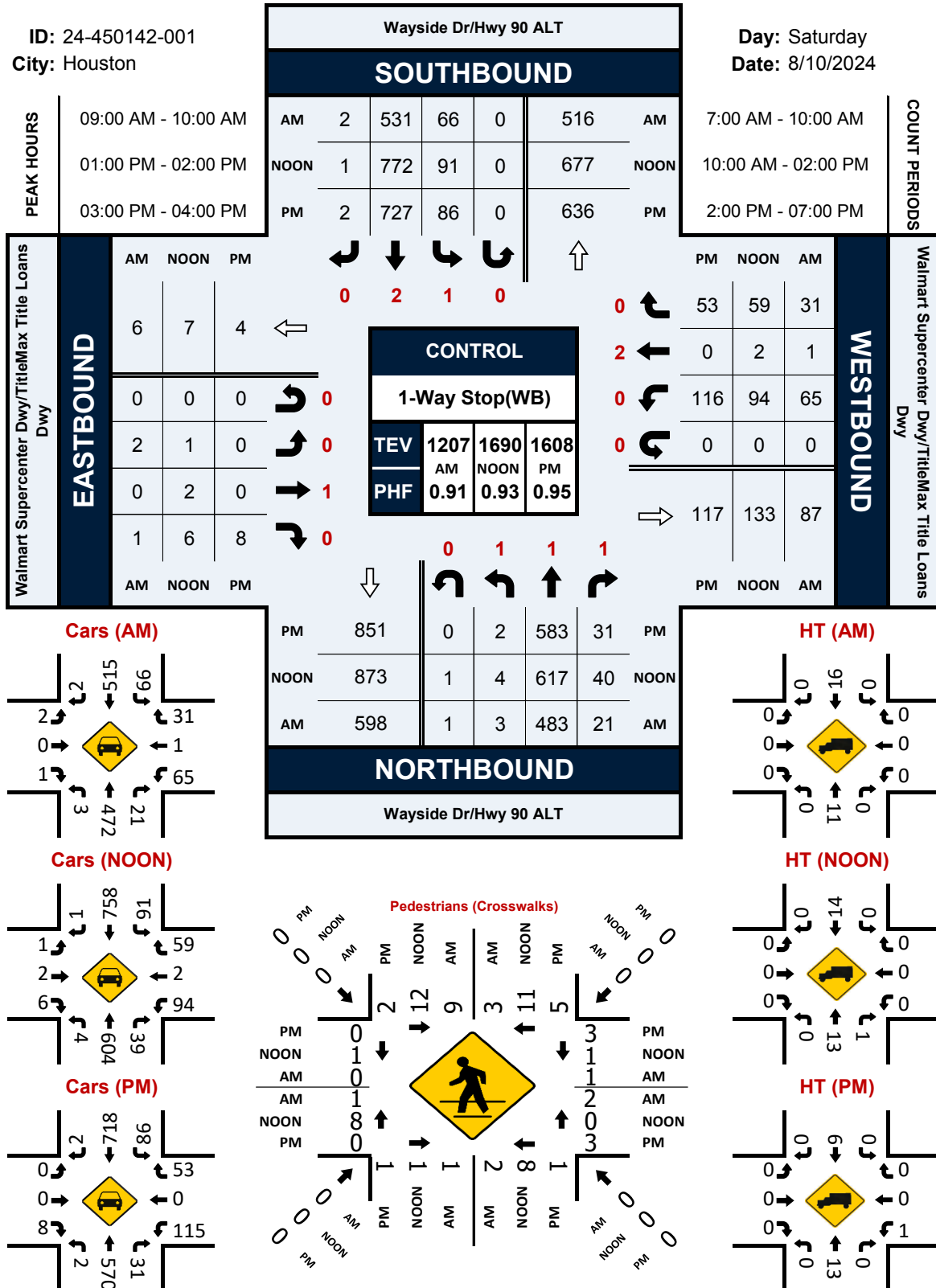
Peak Hour Turning Movement Count

ID: 24-450142-001

City: Houston

Day: Saturday

Date: 8/10/2024



National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/14/2024

Data - Total

NS/EW Streets:		Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
	7:00 AM	0	119	2	0	11	223	0	0	0	0	0	0	9	0	10	0	374
7:15 AM	0	121	1	0	7	243	0	0	0	0	0	0	1	0	6	0	379	
7:30 AM	0	115	1	0	13	262	0	0	0	0	0	0	3	0	4	0	398	
7:45 AM	0	117	2	0	11	241	0	0	0	0	0	0	6	0	6	0	383	
8:00 AM	0	98	3	0	9	219	2	0	1	0	0	0	6	0	9	0	347	
8:15 AM	1	128	2	0	19	225	0	0	0	0	0	0	6	0	7	0	388	
8:30 AM	0	101	8	0	14	182	0	0	0	0	0	0	12	0	8	0	325	
8:45 AM	2	114	7	0	17	174	1	0	1	0	1	0	6	1	7	0	321	
9:00 AM	1	112	9	0	18	160	3	0	0	0	1	18	0	3	9	0	326	
9:15 AM	1	101	4	0	14	146	0	0	1	0	0	0	17	0	9	0	293	
9:30 AM	2	114	6	0	17	146	0	0	1	0	2	0	18	0	10	0	315	
9:45 AM	1	143	5	1	12	130	1	0	0	0	0	0	14	0	9	0	316	
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %s :		8	1383	50	1	152	2351	7	0	3	0	5	0	116	1	88	0	4165
		0.55%	95.91%	3.47%	0.07%	6.06%	93.67%	0.28%	0.00%	37.50%	0.00%	62.50%	0.00%	56.59%	0.49%	42.93%	0.00%	
PEAK HR :		07:00 AM - 08:00 AM																
PEAK HR VOL :		0	472	6	0	42	969	0	0	0	0	0	0	19	0	26	0	1534
PEAK HR FACTOR :		0.000	0.975	0.750	0.000	0.808	0.925	0.000	0.000	0.000	0.000	0.000	0.000	0.528	0.000	0.650	0.000	0.964
		0.980				0.919								0.592				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	1	127	6	0	14	155	0	0	0	0	0	0	9	0	9	0	321
10:15 AM	2	131	8	0	7	155	1	0	0	0	1	0	16	0	13	0	334
10:30 AM	1	113	7	0	14	158	2	0	1	1	4	0	17	0	12	0	330
10:45 AM	3	113	6	0	6	133	0	0	0	0	2	0	17	0	10	0	290
11:00 AM	0	130	9	0	10	155	3	0	0	0	2	0	15	0	8	0	332
11:15 AM	1	132	7	0	15	134	2	0	1	0	4	0	21	0	6	0	323
11:30 AM	0	116	8	0	15	136	3	0	0	0	1	0	14	0	11	0	304
11:45 AM	2	133	2	0	13	149	0	0	2	0	1	0	14	0	8	0	324
12:00 PM	3	136	9	0	19	162	0	0	0	1	0	0	8	0	13	0	351
12:15 PM	2	120	10	0	16	160	1	0	1	0	2	0	16	0	11	0	339
12:30 PM	4	147	9	0	10	158	1	0	0	0	2	0	24	0	13	0	368
12:45 PM	1	130	6	0	6	123	1	0	2	0	2	0	22	0	10	0	303
1:00 PM	0	121	6	0	15	145	1	0	2	0	5	0	25	0	16	0	334
1:15 PM	2	133	11	1	14	142	0	0	0	0	0	0	16	0	11	0	330
1:30 PM	4	136	6	0	16	135	0	1	3	0	2	0	16	0	14	0	333
1:45 PM	0	120	12	0	12	156	0	0	0	0	1	0	22	0	10	0	333
TOTAL VOLUMES : APPROACH %'s :	NL 1.19%	NT 2038 93.19%	NR 128 5.58%	NU 1 0.05%	SL 202 7.85%	ST 2356 91.53%	SR 15 0.58%	SU 1 0.04%	EL 24.39%	ET 2 4.88%	ER 29 70.73%	EU 0 0.00%	WL 272 60.85%	WT 0 0.00%	WR 175 39.15%	WU 0 0.00%	TOTAL 5249
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	11 0.688	536 0.912	30 0.750	0 0.000	58 0.763	629 0.971	2 0.500	0 0.000	3 0.375	1 0.250	5 0.625	0 0.000	62 0.646	0 0.000	45 0.865	0 0.000	1382 0.939
PEAK HR FACTOR :	0.9020.9520.7500.723																

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU		
2:00 PM	1	136	11	0	17	152	0	0	0	0	0	0	23	0	8	0	348	
2:15 PM	2	126	9	0	10	127	0	0	1	0	0	0	22	0	14	0	311	
2:30 PM	2	152	9	1	16	147	0	0	0	0	0	0	15	0	13	0	355	
2:45 PM	1	152	11	1	21	147	0	0	1	0	0	0	16	0	9	0	359	
3:00 PM	1	119	9	0	15	186	0	0	0	0	1	0	26	0	10	0	367	
3:15 PM	1	161	8	0	17	146	1	0	1	0	2	0	16	1	9	0	363	
3:30 PM	2	143	5	0	10	153	0	0	0	0	2	0	20	0	15	0	350	
3:45 PM	0	173	7	0	11	147	0	0	1	0	2	0	24	1	10	0	376	
4:00 PM	2	137	8	1	13	161	0	0	0	1	2	0	18	0	14	0	357	
4:15 PM	1	203	8	0	14	172	0	0	0	0	0	0	22	0	17	0	437	
4:30 PM	2	178	10	1	13	174	2	0	1	0	3	0	28	0	3	0	415	
4:45 PM	2	194	8	0	17	167	1	0	1	0	4	0	16	0	5	0	415	
5:00 PM	1	166	3	0	15	180	0	0	0	0	3	0	15	0	17	0	400	
5:15 PM	0	195	12	0	21	174	0	0	0	0	3	0	20	1	9	0	435	
5:30 PM	2	161	6	0	10	190	0	0	0	0	0	0	14	0	12	0	405	
5:45 PM	0	191	16	0	9	177	0	0	0	0	0	0	17	0	11	0	431	
6:00 PM	0	138	20	0	13	186	0	0	0	0	2	0	23	0	11	0	393	
6:15 PM	2	174	8	0	21	155	0	0	0	0	1	0	27	0	10	0	398	
6:30 PM	1	149	5	0	13	169	1	0	0	0	3	0	23	0	9	0	373	
6:45 PM	1	156	11	0	17	147	0	0	0	0	3	0	19	0	7	0	361	
TOTAL VOLUMES : APPROACH %s :	NL 24 0.70%	NT 3204 93.79%	NR 184 5.39%	NU 4 0.12%	SL 303 8.50%	ST 3257 91.36%	SR 15 0.14%	SU 0 0.00%	EL 6 15.79%	ET 1 2.63%	ER 31 81.58%	EU 0 0.00%	WL 414 65.71%	WT 3 0.48%	WR 213 33.81%	WU 0 0.00%	TOTAL 7649	
PEAK HR :	05:00 PM - 06:00 PM																	TOTAL
PEAK HR VOL :	3	713	37	0	65	721	0	0	0	0	6	0	76	1	49	0	1671	
PEAK HR FACTOR :	0.375	0.914	0.578	0.000	0.774	0.949	0.000	0.000	0.000	0.000	0.500	0.000	0.792	0.250	0.721	0.000	0.960	
	0.909				0.983				0.500				0.875					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/14/2024

Data - Cars

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	115	2	0	11	217	0	0	0	0	0	0	9	0	10	0	364
7:15 AM	0	119	1	0	7	229	0	0	0	0	0	0	1	0	6	0	363
7:30 AM	0	112	1	0	13	252	0	0	0	0	0	0	3	0	4	0	385
7:45 AM	0	111	2	0	11	230	0	0	0	0	0	0	6	0	6	0	366
8:00 AM	0	91	3	0	9	202	2	0	1	0	0	0	6	0	9	0	323
8:15 AM	1	117	2	0	19	209	0	0	0	0	0	0	5	0	7	0	360
8:30 AM	0	92	8	0	14	169	0	0	0	0	0	0	12	0	8	0	303
8:45 AM	2	101	7	0	7	160	1	0	1	0	1	0	6	1	7	0	294
9:00 AM	1	104	9	0	18	146	3	0	0	0	2	0	18	0	3	0	304
9:15 AM	1	88	4	0	14	135	0	0	1	0	0	0	17	0	9	0	269
9:30 AM	2	110	6	0	17	136	0	0	0	0	2	0	18	0	10	0	301
9:45 AM	1	137	5	1	12	121	1	0	0	0	0	0	14	0	9	0	301
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	8	1297	50	1	152	2206	7	0	3	0	5	0	115	1	88	0	3933
	0.59%	95.65%	3.69%	0.07%	6.43%	93.28%	0.30%	0.00%	37.50%	0.00%	62.50%	0.00%	56.37%	0.49%	43.14%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	457	6	0	42	928	0	0	0	0	0	0	19	0	26	0	1478
PEAK HR FACTOR :	0.000	0.960	0.750	0.000	0.808	0.921	0.000	0.000	0.000	0.000	0.000	0.000	0.528	0.000	0.650	0.000	0.960
	0.965				0.915								0.592				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	1	110	6	0	14	144	0	0	0	0	0	0	9	0	9	0	293
10:15 AM	2	122	8	0	6	143	0	0	0	0	1	0	16	0	12	0	310
10:30 AM	1	104	7	0	14	142	1	0	0	1	3	0	17	0	11	0	301
10:45 AM	3	105	6	0	6	124	0	0	0	0	2	0	17	0	10	0	273
11:00 AM	0	120	9	0	10	148	3	0	0	0	2	0	15	0	8	0	315
11:15 AM	1	120	7	0	15	126	2	0	1	0	4	0	21	0	6	0	303
11:30 AM	0	104	8	0	15	125	3	0	0	0	1	0	14	0	11	0	281
11:45 AM	2	120	2	0	12	141	0	0	2	0	1	0	14	0	8	0	302
12:00 PM	3	129	9	0	19	152	0	0	0	1	0	0	8	0	13	0	334
12:15 PM	2	119	9	0	16	154	1	0	1	0	2	0	16	0	11	0	331
12:30 PM	4	138	9	0	10	148	1	0	0	0	2	0	24	0	13	0	349
12:45 PM	0	122	6	0	6	117	1	0	2	0	1	0	22	0	10	0	287
1:00 PM	0	115	6	0	15	136	1	0	0	0	5	0	25	0	16	0	319
1:15 PM	2	127	11	1	14	135	0	0	0	0	0	0	16	0	11	0	317
1:30 PM	4	126	6	0	16	124	0	1	3	0	2	0	16	0	14	0	312
1:45 PM	0	114	12	0	12	147	0	0	0	0	1	0	21	0	10	0	317
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	25	1895	121	1	200	2206	13	1	9	2	27	0	271	0	173	0	4944
	1.22%	92.80%	5.93%	0.05%	8.26%	91.16%	0.54%	0.04%	23.68%	5.26%	71.05%	0.00%	61.04%	0.00%	38.96%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	11	506	29	0	57	595	2	0	3	1	5	0	62	0	45	0	1316
PEAK HR FACTOR :	0.688	0.917	0.806	0.000	0.750	0.966	0.500	0.000	0.375	0.250	0.625	0.000	0.646	0.000	0.865	0.000	0.943
	0.904				0.956				0.750				0.723				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	1	125	11	0	17	144	0	0	0	0	0	0	22	0	8	0	328
2:15 PM	2	121	9	0	10	118	0	0	1	0	0	0	21	0	14	0	296
2:30 PM	2	143	9	1	16	139	0	0	0	0	0	0	15	0	13	0	338
2:45 PM	1	141	11	0	21	143	0	0	1	0	0	0	15	0	9	0	342
3:00 PM	1	113	9	0	15	178	0	0	0	0	1	0	26	0	10	0	353
3:15 PM	1	156	8	0	17	136	1	0	1	0	2	0	16	1	9	0	348
3:30 PM	2	135	4	0	10	145	0	0	0	0	2	0	20	0	15	0	333
3:45 PM	0	162	7	0	11	136	0	0	1	0	2	0	24	1	10	0	354
4:00 PM	2	129	8	1	13	155	0	0	0	1	2	0	18	0	13	0	342
4:15 PM	1	197	8	0	14	167	0	0	0	0	0	0	21	0	17	0	425
4:30 PM	2	168	10	1	13	169	2	0	1	0	3	0	28	0	3	0	400
4:45 PM	2	183	8	0	17	164	1	0	1	0	4	0	16	0	5	0	401
5:00 PM	1	163	3	0	15	175	0	0	0	0	3	0	15	0	17	0	392
5:15 PM	0	191	12	0	21	162	0	0	0	0	3	0	20	1	9	0	419
5:30 PM	2	158	6	0	10	189	0	0	0	0	0	0	24	0	12	0	401
5:45 PM	0	183	16	0	18	170	0	0	0	0	0	0	17	0	10	0	414
6:00 PM	0	135	17	0	13	176	0	0	0	0	2	0	23	0	11	0	377
6:15 PM	2	170	8	0	21	148	0	0	0	0	1	0	26	0	10	0	386
6:30 PM	1	146	4	0	13	162	1	0	0	0	3	0	23	0	9	0	362
6:45 PM	1	147	11	0	17	145	0	0	0	0	3	0	19	0	7	0	350
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	24	3066	179	3	302	3121	5	0	6	1	31	0	409	3	211	0	7361
	0.73%	93.70%	5.47%	0.09%	8.81%	91.04%	0.15%	0.00%	15.79%	2.63%	81.58%	0.00%	65.65%	0.48%	33.87%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	3	695	37	0	64	696	0	0	0	0	6	0	76	1	48	0	1626
PEAK HR FACTOR :	0.375	0.910	0.578	0.000	0.762	0.921	0.000	0.000	0.000	0.000	0.500	0.000	0.792	0.250	0.706	0.000	0.970
	0.905				0.955				0.500				0.868				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/14/2024

Data - HT

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10
7:15 AM	0	2	0	0	0	14	0	0	0	0	0	0	0	0	0	0	16
7:30 AM	0	3	0	0	0	10	0	0	0	0	0	0	0	0	0	0	13
7:45 AM	0	6	0	0	0	11	0	0	0	0	0	0	0	0	0	0	17
8:00 AM	0	7	0	0	0	17	0	0	0	0	0	0	0	0	0	0	24
8:15 AM	0	11	0	0	0	16	0	0	0	0	0	0	1	0	0	0	28
8:30 AM	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	22
8:45 AM	0	13	0	0	0	14	0	0	0	0	0	0	0	0	0	0	27
9:00 AM	0	8	0	0	0	14	0	0	0	0	0	0	0	0	0	0	22
9:15 AM	0	13	0	0	0	11	0	0	0	0	0	0	0	0	0	0	24
9:30 AM	0	4	0	0	0	10	0	0	0	0	0	0	0	0	0	0	14
9:45 AM	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	0	15
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	86	0	0	0	145	0	0	0	0	0	0	1	0	0	0	232
PEAK HR:	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL:	0	15	0	0	0	41	0	0	0	0	0	0	0	0	0	0	56
PEAK HR FACTOR:	0.000	0.625	0.000	0.000	0.000	0.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.824
	0.625				0.732												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	17	0	0	0	11	0	0	0	0	0	0	0	0	0	0	28
10:15 AM	0	9	0	0	1	12	1	0	0	0	0	0	0	0	1	0	24
10:30 AM	0	9	0	0	0	16	1	0	1	0	1	0	0	0	1	0	29
10:45 AM	0	8	0	0	0	9	0	0	0	0	0	0	0	0	0	0	17
11:00 AM	0	10	0	0	0	7	0	0	0	0	0	0	0	0	0	0	17
11:15 AM	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0	0	20
11:30 AM	0	12	0	0	0	11	0	0	0	0	0	0	0	0	0	0	23
11:45 AM	0	13	0	0	1	8	0	0	0	0	0	0	0	0	0	0	22
12:00 PM	0	7	0	0	0	10	0	0	0	0	0	0	0	0	0	0	17
12:15 PM	0	1	1	0	0	6	0	0	0	0	0	0	0	0	0	0	8
12:30 PM	0	9	0	0	0	10	0	0	0	0	0	0	0	0	0	0	19
12:45 PM	1	8	0	0	0	6	0	0	0	0	1	0	0	0	0	0	15
1:00 PM	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	0	13
1:15 PM	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	13
1:30 PM	0	10	0	0	0	11	0	0	0	0	0	0	0	0	0	0	21
1:45 PM	0	6	0	0	0	9	0	0	0	0	0	0	1	0	0	0	16
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1	143	1	0	2	150	2	0	1	0	2	0	1	0	2	0	305
PEAK HR:	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL:	0	30	1	0	1	34	0	0	0	0	0	0	0	0	0	0	66
PEAK HR FACTOR:	0.000	0.577	0.250	0.000	0.250	0.850	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.596				0.875												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	0	11	0	0	0	8	0	0	0	0	0	0	1	0	0	0	20
2:15 PM	0	5	0	0	0	9	0	0	0	0	0	0	1	0	0	0	15
2:30 PM	0	9	0	0	0	8	0	0	0	0	0	0	0	0	0	0	17
2:45 PM	0	11	0	1	0	4	0	0	0	0	0	0	1	0	0	0	17
3:00 PM	0	6	0	0	0	8	0	0	0	0	0	0	0	0	0	0	14
3:15 PM	0	5	0	0	0	10	0	0	0	0	0	0	0	0	0	0	15
3:30 PM	0	8	1	0	0	8	0	0	0	0	0	0	0	0	0	0	17
3:45 PM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22
4:00 PM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	1	0	15
4:15 PM	0	6	0	0	0	5	0	0	0	0	0	0	1	0	0	0	12
4:30 PM	0	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	15
4:45 PM	0	11	0	0	0	3	0	0	0	0	0	0	0	0	0	0	14
5:00 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
5:15 PM	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16
5:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	8	0	0	1	7	0	0	0	0	0	0	0	0	1	0	17
6:00 PM	0	3	3	0	0	10	0	0	0	0	0	0	0	0	0	0	16
6:15 PM	0	4	0	0	0	7	0	0	0	0	0	0	1	0	0	0	12
6:30 PM	0	3	1	0	0	7	0	0	0	0	0	0	0	0	0	0	11
6:45 PM	0	9	0	0	0	2	0	0	0	0	0	0	0	0	0	0	11
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	138	5	1	1	136	0	0	0	0	0	0	5	0	2	0	288
PEAK HR:	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL:	0	18	0	0	1	25	0	0	0	0	0	0	0	0	1	0	45
PEAK HR FACTOR:	0.000	0.563	0.000	0.000	0.250	0.521	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.662
	0.563				0.542												

Project ID: 24-450142-001
Date: 8/14/2024

[illegible]

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston

Project ID: 24-450142-001
Date: 8/14/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Wayside Dr/Hwy 90 ALT		Wayside Dr/Hwy 90 ALT		Walmart Supercenter Dwy/TitleMax Title Loans		Walmart Supercenter Dwy/TitleMax Title Loans		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	1	0	2	1	1	2	1	9
7:15 AM	2	0	0	1	0	0	2	0	5
7:30 AM	6	0	0	0	0	1	2	1	10
7:45 AM	2	0	0	0	0	0	3	3	8
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	4	0	1	0	0	0	0	0	5
8:30 AM	0	3	0	0	0	0	0	0	3
8:45 AM	5	1	0	1	0	0	1	0	8
9:00 AM	0	1	0	0	0	0	1	1	3
9:15 AM	1	0	0	0	0	0	1	1	3
9:30 AM	4	0	1	0	0	0	1	0	6
9:45 AM	1	1	0	1	2	0	1	0	6
TOTAL VOLUMES :	EB 26	WB 7	EB 2	WB 5	NB 3	SB 2	NB 14	SB 7	TOTAL 66
APPROACH %'s :	78.79%	21.21%	28.57%	71.43%	60.00%	40.00%	66.67%	33.33%	
PEAK HR :	07:00 AM - 08:00 AM								TOTAL 32
PEAK HR VOL :	11	1	0	3	1	2	9	5	
PEAK HR FACTOR :	0.458	0.250		0.375	0.250	0.500	0.750	0.417	0.800
	0.500		0.375		0.375		0.583		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	1	1	0	0	1	2	0	0	5
10:15 AM	3	0	0	0	0	1	0	1	5
10:30 AM	3	2	0	0	2	1	0	0	8
10:45 AM	1	1	2	0	1	0	0	1	6
11:00 AM	3	1	0	2	0	1	2	0	9
11:15 AM	4	0	0	0	0	0	0	0	4
11:30 AM	0	2	0	0	2	2	0	0	6
11:45 AM	5	1	0	0	0	0	1	0	7
12:00 PM	2	0	0	0	1	1	0	0	4
12:15 PM	0	1	1	0	0	0	0	0	2
12:30 PM	6	1	0	2	0	1	2	2	14
12:45 PM	0	2	2	2	0	0	1	1	8
1:00 PM	5	0	0	2	0	0	1	0	8
1:15 PM	1	3	0	2	0	0	2	2	10
1:30 PM	0	2	1	0	2	0	0	1	6
1:45 PM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB 34	WB 18	EB 6	WB 10	NB 9	SB 9	NB 9	SB 8	TOTAL 103
APPROACH %'s :	65.38%	34.62%	37.50%	62.50%	50.00%	50.00%	52.94%	47.06%	
PEAK HR :	11:45 AM - 12:45 PM								TOTAL 27
PEAK HR VOL :	13	3	1	2	1	2	3	2	
PEAK HR FACTOR :	0.542	0.750	0.250	0.250	0.250	0.500	0.375	0.250	0.482
	0.571		0.375		0.375		0.313		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	6	6	0	0	0	0	1	1	14
2:15 PM	3	2	1	0	0	0	0	0	6
2:30 PM	0	2	0	0	0	0	1	0	3
2:45 PM	4	3	0	0	0	0	0	2	9
3:00 PM	1	0	1	2	0	0	2	3	9
3:15 PM	2	1	0	2	0	0	0	0	5
3:30 PM	0	6	1	1	0	0	0	0	8
3:45 PM	1	3	0	0	0	0	0	1	5
4:00 PM	1	0	2	1	0	0	1	3	8
4:15 PM	0	0	0	0	0	0	0	1	1
4:30 PM	2	5	1	0	0	0	0	1	9
4:45 PM	6	3	0	1	0	0	0	0	10
5:00 PM	0	3	1	0	0	0	0	0	4
5:15 PM	0	1	1	2	0	1	0	0	5
5:30 PM	0	1	0	2	0	0	0	0	3
5:45 PM	3	1	1	2	0	0	0	0	7
6:00 PM	0	0	0	1	1	0	1	2	5
6:15 PM	0	0	0	1	1	0	2	0	4
6:30 PM	4	0	1	1	0	0	2	1	9
6:45 PM	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES :	EB 33	WB 37	EB 10	WB 17	NB 2	SB 1	NB 10	SB 15	TOTAL 125
APPROACH %'s :	47.14%	52.86%	37.04%	62.96%	66.67%	33.33%	40.00%	60.00%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL 19
PEAK HR VOL :	3	6	3	6	0	1	0	0	
PEAK HR FACTOR :	0.250	0.500	0.750	0.750	0.250	0.250			0.679
	0.563		0.750		0.250				

Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy

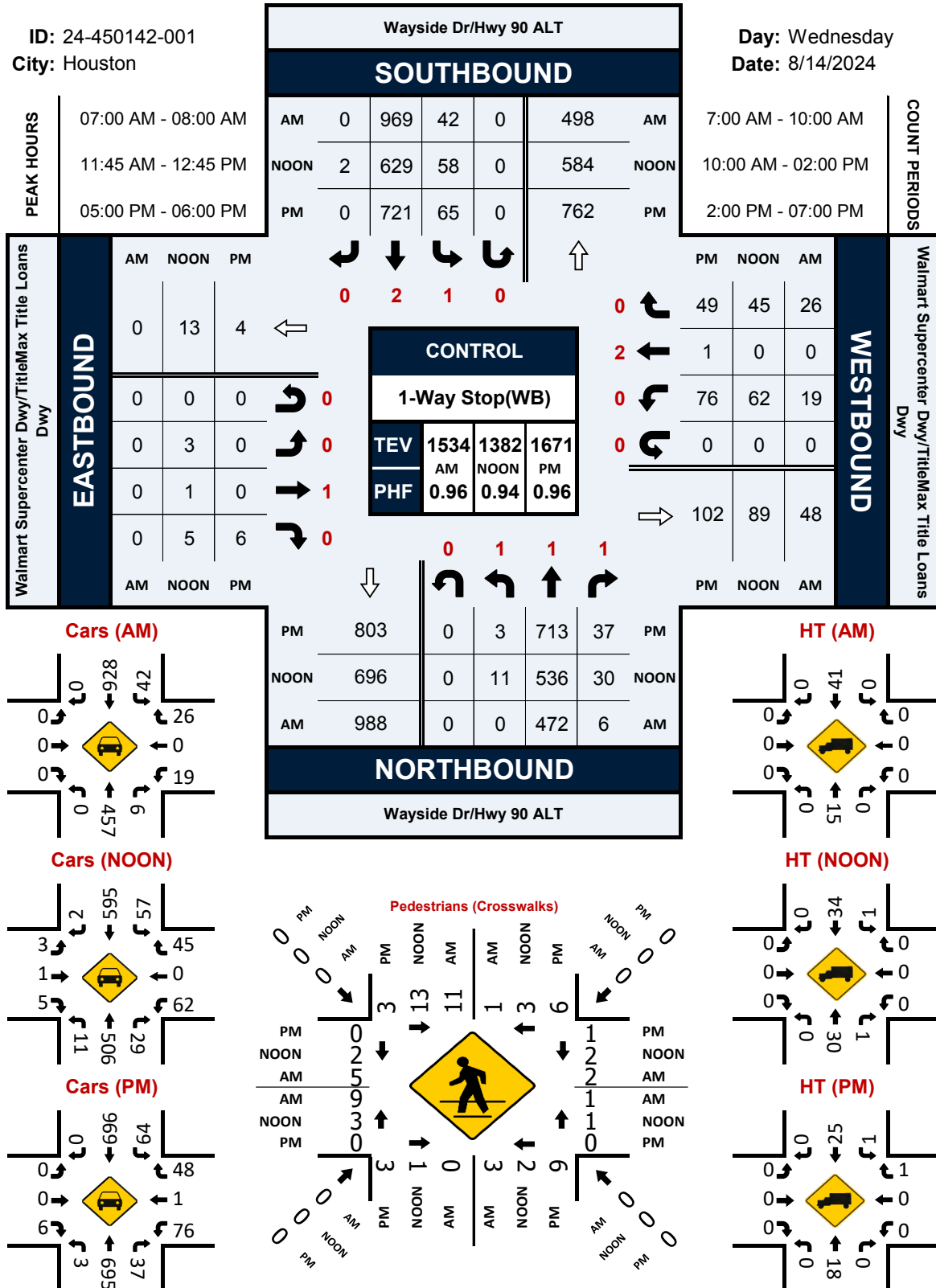
Peak Hour Turning Movement Count

ID: 24-450142-001

City: Houston

Day: Wednesday

Date: 8/14/2024





C.FIELD OBSERVATION PHOTOGRAPHS

Photograph 1 - Pedestrian Crossing EB on North Leg



Photograph 2 - Pedestrian Waiting in SB Left Turn Bay to Cross EB on North Leg



Photograph 3 - Pedestrian Crossing WB on North Leg



Photograph 4 – Pedestrians Waiting in NB Left Turn Bay to Cross WB on South Leg



Photograph 5 – Exiting Vehicle from Walmart Dwy waiting in NB Left Turn Bay



Photograph 6 – Existing Driveway on the West Side, just North of Study Intersection



Photograph 7 – Recently Relocated Bus Stop on the East Side, north of the Walmart Driveway

