

Prepared for

Wash-Rite Unlimited Express Wash

400 2nd Avenue
Opelika, AL 36801

TRANSPORTATION IMPACT STUDY

FOR

Wash-Rite Car Wash
Ohio County, West Virginia

May 2025



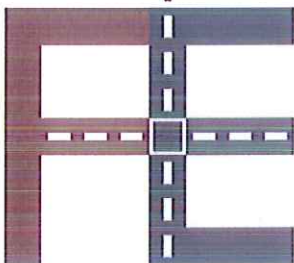
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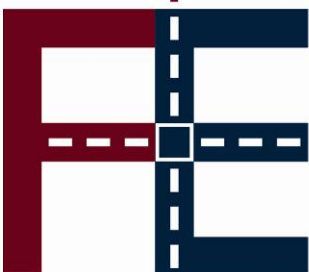
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EXECUTIVE SUMMARY

This Transportation Impact Study was conducted for a proposed Wash-Rite Car Wash to be located along Mount DeChantal Road off the Washington Avenue exit of I-70 in Wheeling, Ohio County, West Virginia. The proposed development will have two driveways that connect to Mount DeChantal Road. The car wash itself is served by the western-most driveway that sits at the western limit of the car wash property. To the east of the car wash, there is also an adjacent parking lot with 6 parking spaces that could be used for parking for purposes other than visiting the car wash.

The anticipated opening year of the car wash is within one year in 2026. As such, there is no need to account for background traffic growth. It is also assumed that there are no adjacent developments to consider.

The study area includes Mount DeChantal Road at CR 40/8 (Wheeling Hospital Road) / CR 70/1 (Washington Avenue), CR 70/1 (Washington Avenue) at I-70 EB Ramps, CR 70/1 (Washington Avenue) at I-70 WB On-Ramps. Traffic counts were collected for all intersections in the Friday PM peak from 3 PM to 6 PM on May 9th, 2025, and in the Saturday midday peak from 11 AM to 2 PM on May 10th, 2025. May 9th and May 10th were typical Friday and Saturdays respectively within the K-12 school year.

Trip generation was performed using the 11th edition of ITE Trip Generation Manual. ITE Land Use Code (LUC) #948 – Automated Car Wash was used. No internal capture or pass-by trips were assumed. It was determined that the new site would generate a total of 78 trips in the PM peak hour and 41 trips in the Saturday peak hour. Both of these forecasted numbers of trips are far below the WVDOH warrants for a traffic impact study.

Based on engineering judgment related to adjacent residences and street network, the overall trip distribution was as follows:

- 15% to/from CR 40/8 (Wheeling Hospital Road)
- 20% to/from EB I-70
- 20% to/from WB I-70
- 35% to/from CR 70/1 (Washington Avenue) to the north
- 10% to/from Mount DeChantal Rd

In short, the trip distribution is based on a 60/40 split between local streets and trips using I-70. Of the 60% using local roads, it is assumed that 25% originate in the local neighborhood south of I-70 and 35% come from the north. Although the car wash is located south of I-70, a higher percentage was assigned to the north because there are more residences there.

Level of service analyses were conducted using the Highway Capacity Manual (HCM) and Synchro methods contained in Synchro 12. The 2026 “Baseline,” and 2026 “With Development” scenarios were assessed. Queuing analysis was conducted for all lanes utilizing the 95% queue

projections from Synchro 12. Finally, left-turn and right-turn lane warrant analyses were conducted for Mount DeChantal Road at the two proposed development driveways using AASHTO methods and WVDOH standards.

The following are the key findings and recommendations of this study:

- In general, the road system in this area has adequate capacity compared to the prevailing volumes. The traffic volumes generated by the proposed car wash are not significant and do not result in traffic impacts that would require mitigation. No improvements are needed at off-site intersections.
- No turn lanes are warranted at the proposed access points with Mount DeChantal Road.

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1.0 INTRODUCTION

1.1 Purpose of Document

This study is to assess the impacts of the proposed Wash-Rite Car Wash to be located along Mount DeChantal Road in Wheeling, Ohio County, West Virginia. See Figure 1 for a Location Map. The Site Plan has been provided in Appendix D. The report presents existing and anticipated traffic volumes, levels of service (LOS), and queues on the adjacent road network.

1.2 Proposed Site Development

The proposed development is an automatic car wash. The anticipated opening year for the project is 2026.

1.3 Site Access Conditions

The proposed development will have two driveways that connect to Mount DeChantal Road. The car wash itself is served by the western-most driveway that sits at the western limit of the car wash property. To the east of the car wash, there is also an adjacent parking lot with 6 parking spaces that could be used for parking for purposes other than visiting the car wash. There are no road connections between the car wash property and the adjacent parking lot. Therefore, the study will assume all traffic generated is using the western-most driveway, and it will be referred to as the “driveway” for the remainder of the study.

1.4 Study Intersections

The following intersections were studied:

- Mount DeChantal Road at CR 40/8 (Wheeling Hospital Road) / CR 70/1 (Washington Avenue)
- CR 70/1 (Washington Avenue) at I-70 EB Ramps
- CR 70/1 (Washington Avenue) at I-70 WB On-Ramp

All intersections are signalized.

Mount DeChantal Road is classified as a collector (FHWA Urban Major Collector) and has an existing Annual Average Daily Traffic (AADT) volume of 1,579 vpd. This road was last counted by the WVDOH in 2023. Mount DeChantal Road is a two-lane highway with a speed limit of 25 mph.

CR 40/8 (Wheeling Hospital Road) is classified as a land access roadway (FHWA Urban Local Road) and is the primary access to Wheeling Hospital. CR 40/8 is a two-lane highway with a speed limit of 25 mph approaching the intersection with Mount DeChantal Road. CR 40/8 has a right-turn lane approaching the intersection with Mount DeChantal Road.

CR 70/1 (Washington Avenue) is classified as an essential arterial (FHWA Urban Major Collector). On the bridge over I-70, CR 70/1 is five total lanes in width, with two left-turn lanes and one right-turn lane at the intersection with the I-70 EB Ramps and one left-turn lane onto I-70 WB On-Ramp. CR 70/1 at the eastern leg of the intersection with the I-70 WB On-Ramp is classified as a collector. It is a two-lane highway with a left-turn lane onto the bridge across I-70.

The I-70 EB Ramps are classified as expressways (FHWA Urban Interstate). The WVDOH counted both ramps in 2024. Based on these counts, the I-70 EB Off-Ramp has an existing AADT of 6,627 vpd and the I-70 EB On-Ramp has an existing AADT of 2,357 vpd. The I-70 EB Off-Ramp has two lanes approaching the intersection consisting of one left-turn lane and one right-turn lane. The I-70 EB Off-Ramp has one lane departing the intersection.

The I-70 WB On-Ramp is classified as an expressway (FHWA Urban Interstate). Based on 2024 WVDOH counts, the I-70 WB On-Ramp has an existing AADT of 6,825 vpd. The ramp has two lanes departing the intersection that merge into one before the merge with I-70.



Figure 1 – Location Map

2.0 EXISTING VOLUMES

Turning movement counts were collected at the study area intersections on Friday May 9th, 2025, from 3 PM to 6 PM and on Saturday May 10th, 2025, from 11 AM to 2 PM. Ohio County Schools were in session and operating on a normal in-person schedule at the time of data collection. Appendix A contains the full set of turning movement count data.

The peak hours were identified as 3:00 PM to 4:00 PM on Friday and 11:15 AM to 12:15 PM on Saturday.

The anticipated opening year of the car wash is within one year in 2026. As such, there is no need to account for background traffic growth. Therefore, the 2025 existing analysis and 2026 baseline analysis are the same and will be referred to as the 2026 baseline analysis for the remainder of the report.

The 2026 baseline peak hour volumes are shown in Figure 2.

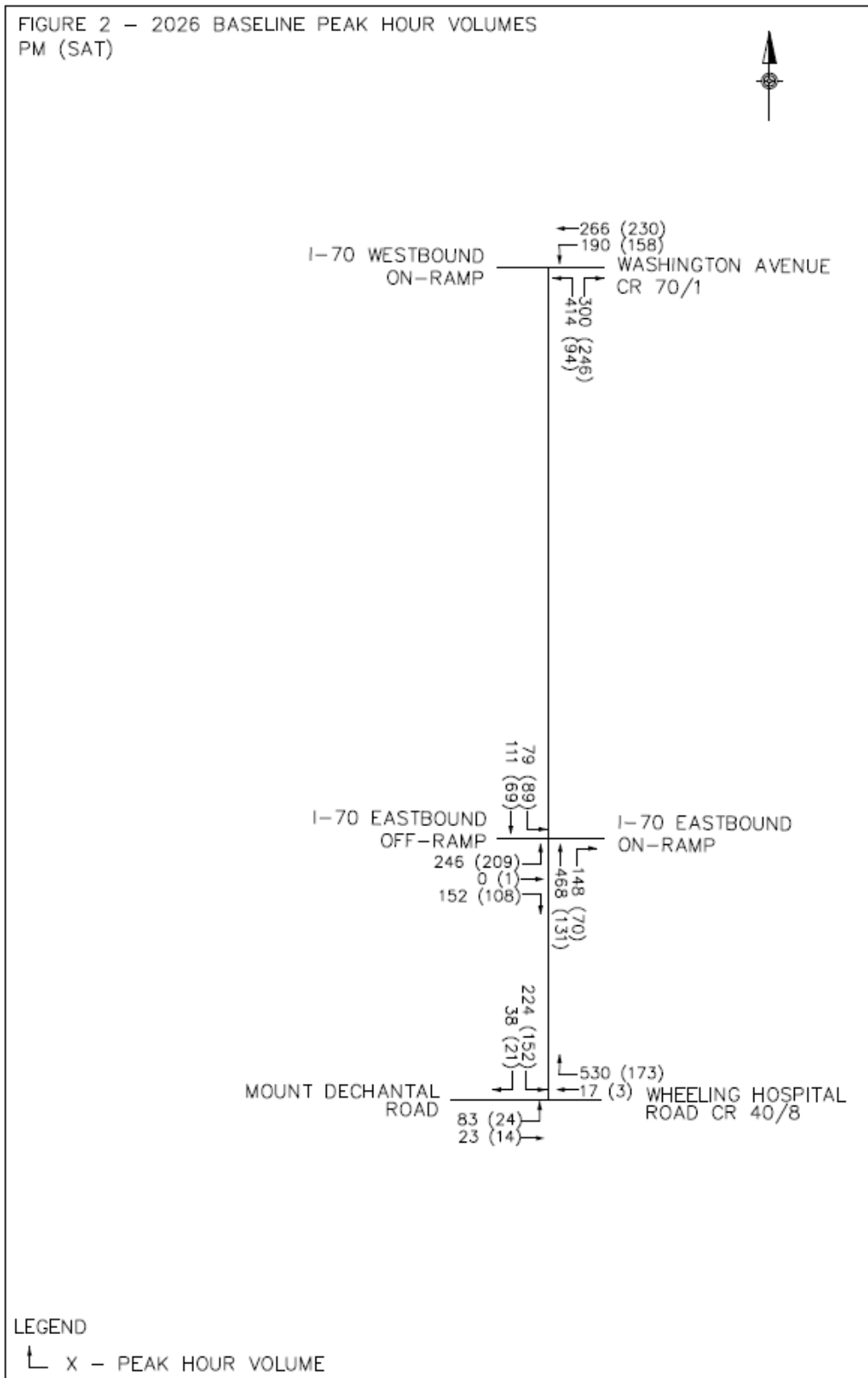


Figure 2 – 2026 Baseline Peak Hour Volumes

3.0 TRAFFIC PROJECTIONS

The anticipated opening year for the project is within one year in 2026. Therefore, there is no need for a background growth rate.

3.1 Trip Generation

The trip generation rates were obtained from the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. The ITE Land Use Code (LUC) used was #948 – Automated Car Wash.

No internal capture or pass-by trips were assumed. It was determined that the proposed development would generate 78 trips in the PM peak hour and 41 trips in the Saturday peak hour.

Table 1 shows the peak hour trip generation rates used. Table 2 shows the trip generation results for the proposed development.

Table 1 - Trip Generation Rates from ITE Trip Generation (11th Edition)

Land Use	Trip Generation Rate Per Car Wash Tunnel		Percent In/Out	
	Weekday PM	Saturday Peak	Weekday PM	Saturday Peak
Automated Car Wash (948)	77.50	41.00	50% / 50%	46% / 54%

Table 2 - Trip Generation Results

Land Use	PM PEAK			SATURDAY PEAK		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Automated Car Wash (948)	39	39	78	19	22	41

3.2 Trip Distribution

New trips were distributed using engineering judgment in proportion to the location of the potential customers.

- 15% to/from CR 40/8 (Wheeling Hospital Road)
- 20% to/from EB I-70
- 20% to/from WB I-70
- 35% to/from CR 70/1 (Washington Avenue) to the north
- 10% to/from Mount DeChantal Rd to the west

The trip distribution is based on a 60/40 split between local streets and trips using I-70. Of the 60% using local roads, it is assumed that 25% originate in the local neighborhood south of I-70 and use CR 40/8 (Wheeling Hospital Road) and Mount DeChantal Road. Additionally, it is assumed that 35% come from the north and use CR 70/1 (Washington Avenue). Although the car wash is located south of I-70, a higher percentage was assigned to the north because there are more residences there.

The trip distribution is shown in percentage form in Figure 3. The site trips generated by the proposed development are shown in Figure 4.

3.3 Traffic Assignment

Figure 5 shows the estimated peak hour turning movement volumes for the 2026 “With Development” scenario.

FIGURE 3 – TRIP DISTRIBUTION
PERCENTAGES IN *OUT*

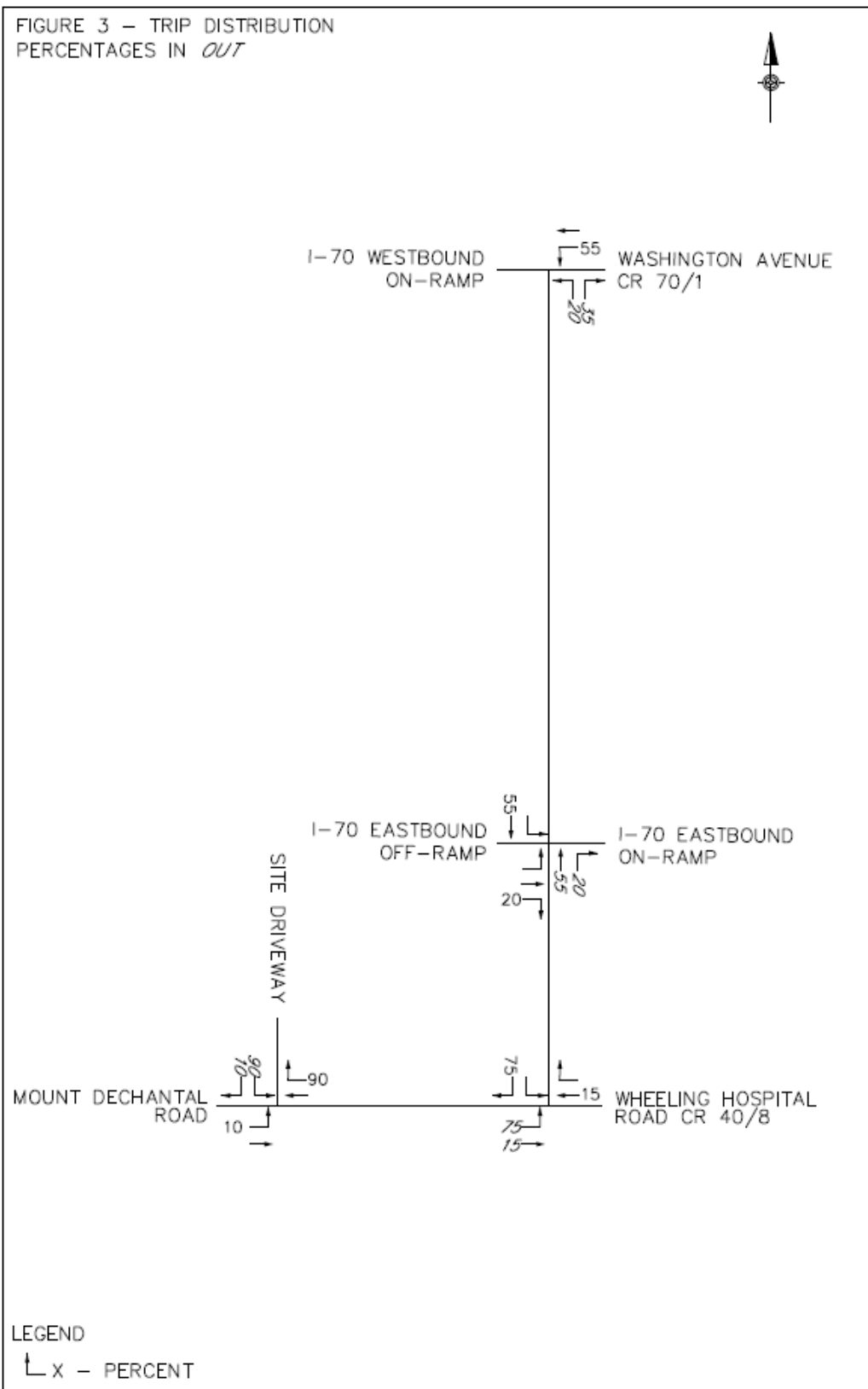


Figure 3 – Trip Distribution

FIGURE 4 – SITE TRIPS
PM (SAT)

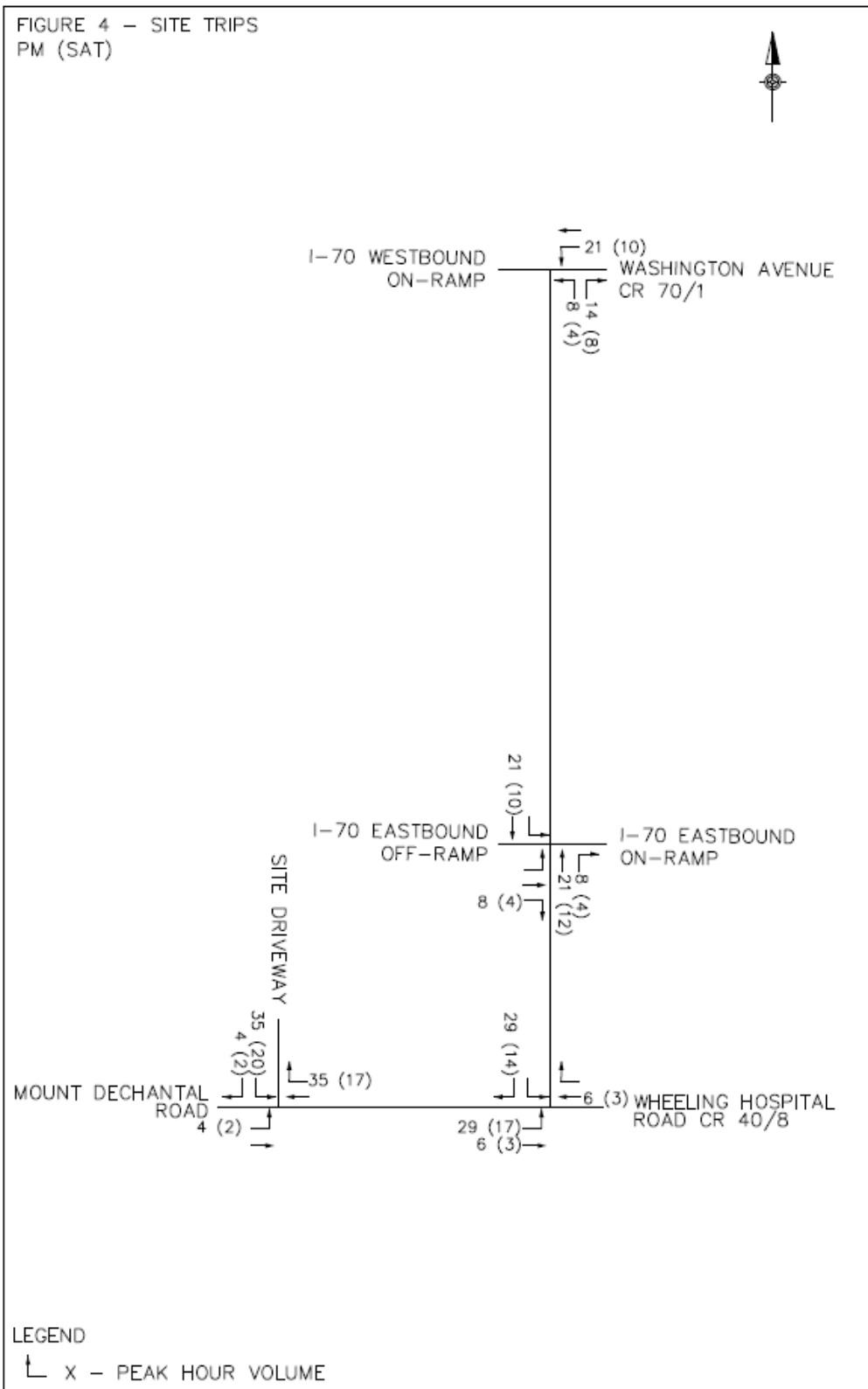


Figure 4 – Site Trips

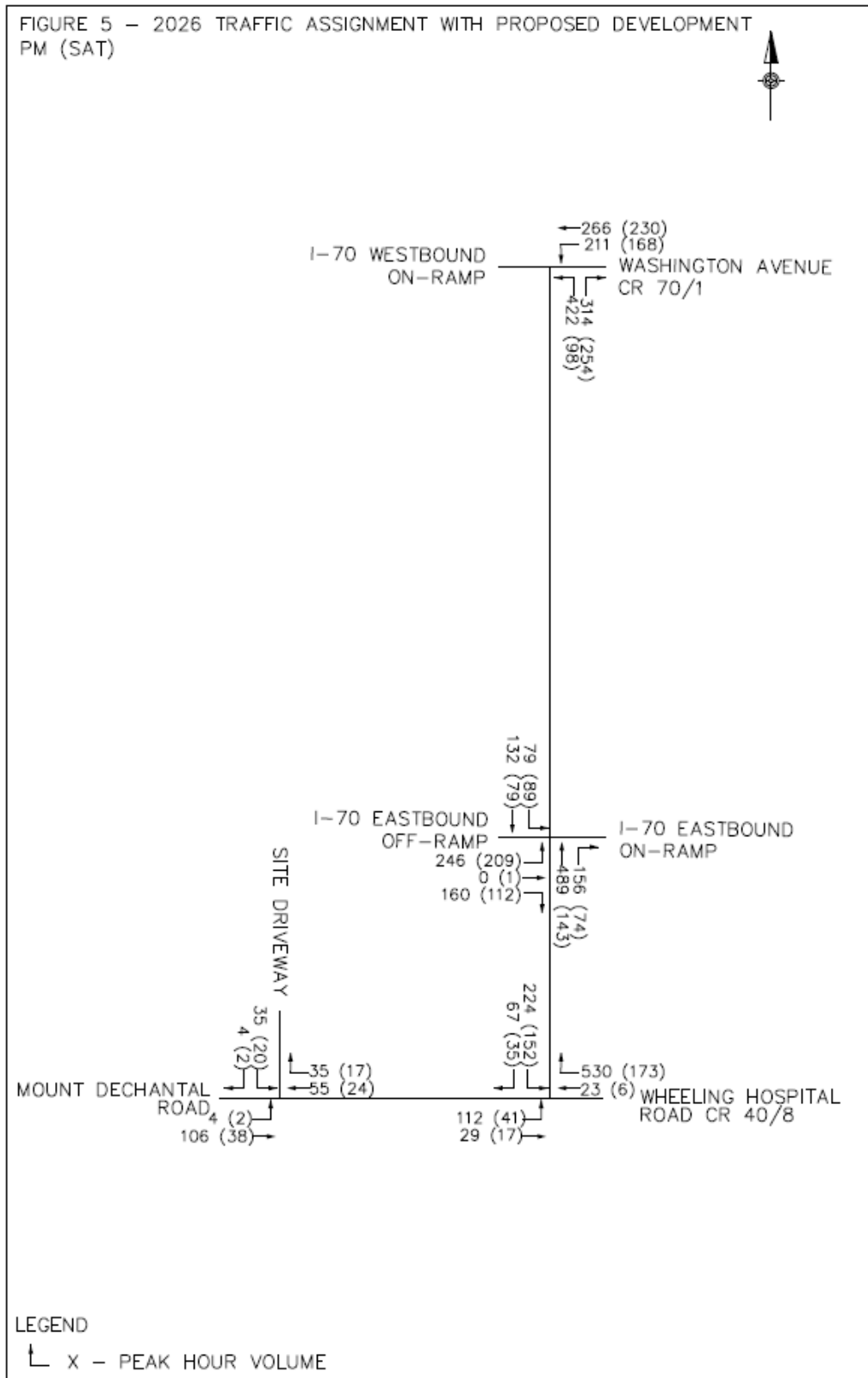


Figure 5 – 2026 Traffic Assignment with Proposed Development

4.0 TRAFFIC ANALYSES

4.1 Level of Service (LOS) Analysis

Level of service (LOS) and queuing analyses were conducted for all the intersections studied. The 2026 “Baseline,” and “With Development” scenarios were analyzed. Highway Capacity Manual (HCM) methods within Synchro 12 were used to evaluate unsignalized intersections and Synchro LOS methods were used to evaluate signalized intersections. All traffic analyses were performed in accordance with WVDOT Traffic Engineering Directive (TED) 106-2, dated November 10, 2010. The capacity analysis results are summarized in Tables 3 and 4. Synchro and HCM printouts are provided in Appendix B.

Cycle lengths and yellow and all red times were approximated by observing the operations of the signals, as existing signal plans were not available. The yellow and all red clearance interval times were approximated to be four seconds and one second respectfully throughout the corridor and were held constant across the baseline and build condition analyses. Signal timings used in the analysis of the signalized intersections were optimized to minimize delay and alleviate overcapacity conditions to the extent feasible. The signal timings were not changed from the “Baseline” to the “With Development” scenario to simplify the comparisons between the two scenarios.

Overall, the proposed development has virtually no impact on the adjacent street network. The largest delay is the EB Mount DeChantal Road approach, with an increase of 2.9 seconds in the PM peak, which is negligible and indiscernible to drivers. Although the LOS for the EB I-70 Off-Ramp approach to Washington Avenue drops from LOS B to C, this is only because the 0.3-second increase in delay crosses the threshold between LOS B and C. From a practical perspective, drivers would not perceive any change in LOS. The driveway connection to the road system operates at a high level of service with no issues expected.

Table 3 - LOS Summary (2026 Baseline LOS (Delay in seconds per vehicle) / 2026 With Development (Delay in seconds per vehicle))

Approach	Lane	PM	SAT
CR 70/1 (Washington Avenue) at Mount DeChantal Road/CR 40/8 (Wheeling Hospital Road)			
EB Mount DeChantal Road	LT / TH	D (40.8) / D (43.7)	C (29.1) / C (30.7)
WB CR 40/8	TH / RT	B (12.6) / B (13.2)	B (13.1) / B (14.0)
	RT	B (10.4) / B (10.4)	B (12.2) / B (12.2)
SB CR 70/1	LT	A (7.8) / A (7.4)	A (4.6) / A (4.6)
	RT	A (0.2) / A (0.3)	A (0.2) / A (0.1)
EB Mount DeChantal Road	Approach	D (40.8) / D (43.7)	C (29.1) / C (30.7)
WB CR 40/8	Approach	B (11.5) / B (11.8)	B (12.7) / B (13.1)
SB CR 70/1	Approach	A (6.7) / A (5.8)	A (4.1) / A (3.8)
Overall Intersection		B (13.5) / B (14.6)	B (10.4) / B (11.4)
CR 70/1 (Washington Avenue) at I-70 EB Ramps			
EB I-70 Off-Ramps	LT	D (38.7) / D (39.4)	C (26.5) / C (27.2)
	RT	A (7.3) / A (7.3)	A (6.7) / A (6.9)
NB CR 70/1	TH	A (6.0) / A (5.9)	A (3.5) / A (3.2)
	RT	A (0.3) / A (0.3)	A (0.2) / A (0.2)
SB CR 70/1	LT	D (42.8) / D (42.8)	C (28.8) / C (29.6)
	TH	C (31.4) / (31.4)	C (22.1) / C (22.8)
EB I-70 Off-Ramps	Approach	C (26.7) / C (26.8)	B (19.8) / C (20.1)
NB CR 70/1	Approach	A (4.6) / A (4.5)	A (2.3) / A (2.2)
SB CR 70/1	Approach	D (36.1) / D (35.7)	C (25.9) / C (26.4)
Overall Intersection		B (16.9) / B (16.9)	B (16.0) / B (16.1)
CR 70/1 (Washington Avenue) at I-70 WB On-Ramp			
WB CR 70/1	LT	B (10.7) / B (11.1)	A (7.5) / A (7.7)
	LT/TH	B (12.8) / B (12.8)	A (9.4) / A (9.3)
NB CR 70/1	LT	A (9.9) / A (10.0)	A (8.3) / A (8.3)
	RT	A (3.3) / A (3.3)	A (3.5) / A (3.6)
WB CR 70/1	Approach	B (12.0) / B (12.1)	A (8.7) / A (8.7)
NB CR 70/1	Approach	A (7.1) / A (7.2)	A (4.8) / A (4.9)
Overall Intersection		A (9.0) / A (9.1)	A (6.9) / A (6.9)
Mount DeChantal Road at Driveway			
EB Mount DeChantal Road	LT / TH	--- / A (7.4)	--- / A (7.3)
SB Driveway	LT / RT	--- / A (9.8)	--- / A (9.0)

4.2 Turning Lane Lengths / Queuing Analysis

Queue analysis was performed for all lane groups using the 95th percentile back of queue estimates from Synchro. The results are shown in Table 4. As can be seen, most of the increases from the 2026 Baseline to the With Development scenario are on the order of a few feet and are negligible. The exception is the 42-ft increase in queue length on EB Mount DeChantal Road at Washington Avenue. However, this increase in queue length is not expected

to cause any operational difficulties. The queue already extends past Armory Drive in the existing condition, and in the proposed, it would not reach any additional driveways or side streets (i.e., Hunter Avenue).

The queues that exceed the available length are shown in bold. These exceed the available length in both the Baseline and the With Development scenarios. Therefore, there are no additional problematic queues caused by the development that would require mitigation.

Table 4 - 95th Percentile Queue Summary (ft) (2026 Baseline / 2026 With Development)

Approach	PM	SAT	Available Length
CR 70/1 (Washington Avenue) at Mount DeChantal Road/CR 40/8 (Wheeling Hospital Road)			
EB Mount DeChantal Road	137 / 179	48 / 67	30' to Armory Drive
WB CR 40/8 TH / RT	94 / 100	45 / 48	> 1000'
WB CR 40/8 RT	76 / 77	44 / 44	870' right turn lane
SB CR 70/1 LT	48 / 45	23 / 23	30' to northern limit of median
SB CR 70/1 RT	0	0 / 0	30' to northern limit of median
CR 70/1 (Washington Avenue) at I-70 EB Ramps			
EB I-70 Off-Ramp LT	250 / 250	159 / 163	190' left turn lane
EB I-70 Off-Ramp RT	51 / 53	38 / 39	780' to EB I-70 mainline
NB CR 70/1 TH	110 / 107	20 / 20	35' to Wheeling Hospital Road intersection
NB CR 70/1 RT	0 / 0	0 / 0	35' to Wheeling Hospital Road intersection
SB CR 70/1 LT	106 / 106	84 / 86	95' left turn lane
SB CR 70/1 TH	63 / 73	32 / 36	235' to I-70 WB On-Ramp
CR 70/1 (Washington Avenue) at I-70 WB On-Ramp			
WB CR 70/1 LT	72 / 81	38 / 41	140' left turn lane
WB CR 70/1 LT / TH	117 / 120	65 / 65	240' to next intersection
NB CR 70/1 LT	72 / 73	15 / 15	66' left turn lane
NB CR 70/1 RT	37 / 38	28 / 29	215' to I-70 EB on ramps intersection
Mount DeChantal Road at Driveway			
EB Mount DeChantal Road	--- / 0	--- / 0	20' to easternmost garage driveway
SB Driveway	--- / 5	--- / 3	140' storage

4.3 Left-Turn Lane Warrant Analysis, Mount DeChantal Road at the Driveway

As per typical WVDOT practice, Table 9-23 Guide for Left-Turn Lanes on Two-Lane Highways from *A Policy on Geometric Design of Highways and Streets* (AASHTO Green Book, 2011) was used to determine the need for left-turn lanes on Mount DeChantal Road at the proposed development driveway. This table is provided in Figure 6. As can be seen, for a given Operating Speed, Opposing Volume, and % Left-Turns, a minimum volume threshold for

Advancing Volume is provided. A left-turn lane is considered to be warranted if the advancing volume is greater than the minimum from this table.

Table 9-23. Guide for Left-Turn Lanes on Two-Lane Highways (10)

Metric					U.S. Customary				
Opposing Volume (veh/h)	Advancing Volume (veh/h)				Opposing Volume (veh/h)	Advancing Volume (veh/h)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns		5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
60-km/h Operating Speed					40-mph Operating Speed				
800	330	240	180	160	800	330	240	180	160
600	410	305	225	200	600	410	305	225	200
400	510	380	275	245	400	510	380	275	245
200	640	470	350	305	200	640	470	350	305
100	720	515	390	340	100	720	515	390	340
80-km/h Operating Speed					50-mph Operating Speed				
800	280	210	165	135	800	280	210	165	135
600	350	260	195	170	600	350	260	195	170
400	430	320	240	210	400	430	320	240	210
200	550	400	300	270	200	550	400	300	270
100	615	445	335	295	100	615	445	335	295
100-km/h Operating Speed					60-mph Operating Speed				
800	230	170	125	115	800	230	170	125	115
600	290	210	160	140	600	290	210	160	140
400	365	270	200	175	400	365	270	200	175
200	450	330	250	215	200	450	330	250	215
100	505	370	275	240	100	505	370	275	240

Figure 6 - Left-Turn Lane Warrants - Source: *A Policy on Geometric Design of Highways and Streets* (AASHTO Green Book, 2011)

The 40-mph operating speed information was used based on the posted speed limit of 25 mph. The relevant volumes for the 2026 PM and SAT “With Development” are shown. As can be seen, the lane is not warranted in the PM or SAT peak.

Table 5 – 2026 “With Development” Driveway Volume

Approach	Movement	PM Peak 2026 With Development (vpd)	SAT Peak 2026 With Development (vpd)
EB Mount DeChantal Road	LT	4	2
	TH	106	38
WB Mount DeChantal Road	TH	55	24
	RT	35	17
SB Driveway	LT	35	20
	RT	4	2

Table 6 - Left-Turn Lane Warrant Analysis

Parameter	2026 PM Peak Driveway	2026 SAT Peak Driveway
Opposing Volume (vph)	90*	41*
% Lefts	4%*	5%
Advancing Volume (vph)	110	40
Minimum Volume Threshold for Advancing Volume (vph)	720 vpd +/-	720 vpd +/-
Lane Warranted	NO	NO

*Values are less than the minimums provided in the table. Minimum volume threshold was therefore the maximum value in the table.

As can be seen, the left-turn lane is not warranted for the driveway based on the 2026 PM and Saturday afternoon “With Development” volumes.

4.4 Right-Turn Lane Warrant Analysis, Mount DeChantal Road at the Driveway

Typical WVDOT practice considers right-turn volumes into the driveway of 100 vehicles per hour (vph) as the minimum threshold for a right-turn lane. The maximum hourly right-turn volume into the driveway is 35 vph in the Friday PM peak, which is far below this minimum threshold. As such, a right-turn lane is not recommended.

5.0 SUMMARY AND RECOMMENDED DEVELOPER ACTIVITIES

The Wash-Rite Car Wash development proposed along Mount DeChantal in Wheeling, Ohio County. The proposed development will have one car wash tunnel. The development will have two driveways that connect to Mount DeChantal Road. The car wash itself is served by the western-most driveway that sits at the western limit of the car wash property. To the east of the car wash, there is also an adjacent parking lot with 6 parking spaces that could be used in a variety of ways.

The following are the key findings and recommendations of this study:

- In general, the road system in this area has adequate capacity compared to the prevailing volumes. The traffic volumes generated by the proposed car wash are not significant and do not result in traffic impacts that would require mitigation. No improvements are needed at off-site intersections.
- No turn lanes are warranted at the proposed access points with Mount DeChantal Road.

APPENDIX A – TRAFFIC DATABASE

Washington Avenue at Wheeling Hospital Road / Mount DeChantal Road (Fri 5/9/2025 & Sat 5/10/2025)

	EB Mount DeChantal Road						WB Wheeling Hospital Road						NB Driveway						SB Washington Avenue						
Time	LT		TH		RT		LT		TH		RT		LT		TH		RT		LT		TH		RT		
	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks			
PM																									
3:00	3:15	14	0	5	0	0	0	0	0	4	0	141	1	0	0	0	0	0	0	68	0	1	0	10	0
3:15	3:30	31	0	5	0	1	0	0	0	3	0	124	2	0	0	1	0	0	0	53	1	0	0	10	2
3:30	3:45	25	1	8	0	0	0	1	0	3	0	150	1	0	0	1	0	0	0	51	1	0	0	7	2
3:45	4:00	13	0	5	0	0	0	0	0	7	0	115	2	0	0	1	0	0	0	52	1	0	0	11	1
4:00	4:15	16	0	3	0	0	0	0	0	3	0	150	0	0	0	0	0	0	0	44	2	1	0	11	0
4:15	4:30	17	0	5	0	0	0	0	0	7	0	121	2	0	0	1	0	0	0	45	2	1	0	14	0
4:30	4:45	18	0	6	0	0	0	0	0	2	0	124	2	1	0	1	0	0	0	50	2	2	0	12	1
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5:00	5:15	10	0	7	0	0	0	1	0	1	0	91	2	1	0	2	0	0	0	34	0	3	0	8	1
5:15	5:30	9	0	6	0	0	0	1	0	5	0	76	0	1	0	5	0	0	0	50	1	3	0	4	0
5:30	5:45	6	0	1	0	2	0	0	0	8	0	77	1	1	0	1	0	0	0	56	2	1	0	6	0
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SAT																									
11:00	11:15	4	0	2	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	41	0	1	0	1	0
11:15	11:30	7	0	0	0	0	0	0	0	1	0	49	0	0	0	0	0	0	0	39	0	1	0	5	0
11:30	11:45	3	0	5	0	0	0	0	0	1	0	41	0	0	0	2	0	0	0	41	1	0	0	6	0
11:45	12:00	7	0	3	0	0	0	0	0	0	0	37	1	0	0	0	0	0	0	34	0	1	0	5	0
12:00	12:15	7	0	6	0	2	0	0	0	1	0	46	0	0	0	2	0	0	0	38	1	2	0	5	0
12:15	12:30	7	0	0	0	0	0	0	0	1	0	33	1	0	0	3	0	0	0	39	1	2	0	3	0
12:30	12:45	11	1	0	0	2	0	0	0	3	0	40	1	0	0	0	0	0	0	36	2	1	0	2	0
12:45	1:00	5	0	2	0	0	0	0	0	2	0	41	0	0	0	1	0	1	0	41	2	1	0	4	0
1:00	1:15	5	1	4	0	0	0	0	0	0	0	38	1	0	0	1	0	0	0	29	0	0	0	3	0
1:15	1:30	10	0	0	0	0	0	0	0	2	0	34	1	0	0	0	0	0	0	29	1	0	0	4	0
1:30	1:45	5	0	12	0	2	0	1	0	3	0	56	1	0	0	0	0	0	0	38	3	1	0	5	0
1:45	2:00	8	0	0	0	0	0	0	0	0	0	37	2	0	0	0	0	0	0	33	0	0	0	6	0

PM Peak Hour - (3:00 to 4:00 PM)

		EB Mount DeChantal Road				WB Wheeling Hospital Road				NB Driveway				SB Washington Avenue			
Time		LT	Trucks	TH	RT	LT	Trucks	TH	RT	LT	Trucks	TH	RT	LT	Trucks	TH	RT
		All		All		All		All		All		All		All		All	
3:00	3:15	14	0	5	0	0	0	0	0	4	0	141	1	0	0	0	0
3:15	3:30	31	0	5	0	1	0	0	0	3	0	124	2	0	0	1	0
3:30	3:45	25	1	8	0	0	0	1	0	3	0	150	1	0	0	1	0
3:45	4:00	13	0	5	0	0	0	0	0	7	0	115	2	0	0	1	0
Total		83	1	23	0	1	0	17	0	530	6	0	0	3	0	224	3
Peak 15		31		8		1		7		150		0		1		68	
PHF		0.67		0.72		0.25		0.25		0.88		#DIV/0!		0.75		0.82	
% trucks		1%		0%		0%		0%		1%		#DIV/0!		0%		#DIV/0!	

SAT Peak Hour - (11:15 AM to 12:15 PM)

		EB Mount DeChantal Road				WB Wheeling Hospital Road				NB Driveway				SB Washington Avenue			
Time		LT	Trucks	TH	RT	LT	Trucks	TH	RT	LT	Trucks	TH	RT	LT	Trucks	TH	RT
		All		All		All		All		All		All		All		All	
11:15	11:30	7	0	0	0	0	0	0	0	49	0	0	0	0	0	39	0
11:30	11:45	3	0	5	0	0	0	0	0	41	0	0	0	2	0	41	1
11:45	12:00	7	0	3	0	0	0	0	0	37	1	0	0	0	0	34	0
12:00	12:15	7	0	6	0	2	0	0	0	46	0	0	0	2	0	38	1
Total		24	0	14	0	2	0	3	0	173	1	0	0	4	0	152	2
Peak 15		7		6		2		0		49		0		2		41	
PHF		0.86		0.58		0.25		#DIV/0!		0.75		0.88		#DIV/0!		0.50	
% trucks		0%		0%		0%		#DIV/0!		0%		1%		#DIV/0!		0%	

Washington Avenue at Wheeling Hospital Road / Mount DeChantal Road (Fri 5/9/2025 & Sat 5/10/2025)

		Peds				Bikes			
Time		Xing Washington Avenue on N side	Xing Driveway on S Side	X-ing Wheeling Hospital Road on E side	X-ing Mount DeChantal Road on W side	Xing Washington Avenue on N side	Xing Driveway on S Side	X-ing Wheeling Hospital Road on E side	X-ing Mount DeChantal Road on W side
PM									
3:00	3:15	0	0	0	0	1	0	0	0
3:15	3:30	0	1	0	0	0	0	0	0
3:30	3:45	1	4	0	0	0	0	0	0
3:45	4:00	1	1	0	0	0	0	0	0
4:00	4:15	1	4	1	0	0	0	0	0
4:15	4:30	0	0	0	0	2	0	0	0
4:30	4:45	0	0	0	0	0	1	0	0
4:45	5:00	0	0	0	0	1	0	0	0
5:00	5:15	0	1	0	0	0	0	0	0
5:15	5:30	0	6	0	0	0	0	0	0
5:30	5:45	1	2	1	0	0	0	0	0
5:45	6:00	0	3	0	0	1	0	0	0
SAT									
11:00	11:15	0	1	2	0	0	0	0	0
11:15	11:30	1	0	0	0	5	0	0	0
11:30	11:45	3	1	0	0	6	0	0	0
11:45	12:00	3	1	1	0	0	0	0	0
12:00	12:15	2	0	0	0	4	0	0	0
12:15	12:30	0	3	0	0	2	0	0	0
12:30	12:45	0	2	0	0	1	0	0	0
12:45	1:00	1	4	0	0	2	0	0	0
1:00	1:15	1	0	0	0	5	0	0	0
1:15	1:30	1	0	0	0	2	0	0	0
1:30	1:45	1	1	0	0	3	0	0	0
1:45	2:00	0	0	0	0	0	0	0	0

PM Vehicular Peak Hour - (3:00 to 4:00 PM)

		Peds				Bikes			
Time		Xing Washington Avenue on N side	Xing Driveway on S Side	X-ing Wheeling Hospital Road on E side	X-ing Mount DeChantal Road on W side	Xing Washington Avenue on N side	Xing Driveway on S Side	X-ing Wheeling Hospital Road on E side	X-ing Mount DeChantal Road on W side
3:00	3:15	0	0	0	0	1	0	0	0
3:15	3:30	0	1	0	0	0	0	0	0
3:30	3:45	1	4	0	0	0	0	0	0
3:45	4:00	1	1	0	0	0	0	0	0

SAT Vehicular Peak Hour - (11:15 AM to 12:15 PM)

		Peds				Bikes			
Time		Xing Washington Avenue on N side	Xing Driveway on S Side	X-ing Wheeling Hospital Road on E side	X-ing Mount DeChantal Road on W side	Xing Washington Avenue on N side	Xing Driveway on S Side	X-ing Wheeling Hospital Road on E side	X-ing Mount DeChantal Road on W side
11:15	11:30	1	0	0	0	5	0	0	0
11:30	11:45	3	1	0	0	6	0	0	0
11:45	12:00	3	1	1	0	0	0	0	0
12:00	12:15	2	0	0	0	4	0	0	0

Washington Avenue at EB Ramps (Fri 5/9/2025 & Sat 5/10/2025)

		EB I-70 Off-Ramp						NB Washington Avenue						SB Washington Avenue					
		LT		TH		RT		TH		RT		LT		TH					
Time		All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks				
PM																			
3:00	3:15	55	0	0	0	46	0	116	1	39	0	15	0	30	0				
3:15	3:30	80	1	0	0	32	0	117	2	35	0	25	0	28	2				
3:30	3:45	55	0	0	0	26	0	131	1	50	0	24	1	29	2				
3:45	4:00	54	0	0	0	34	1	104	2	24	0	15	0	24	0				
4:00	4:15	59	0	1	0	33	2	131	0	37	0	15	0	20	0				
4:15	4:30	58	0	0	0	34	0	94	2	43	0	12	0	26	1				
4:30	4:45	82	1	0	0	39	0	106	2	37	0	28	0	24	1				
4:45	5:00	67	0	0	0	39	0	96	3	19	0	16	0	29	1				
5:00	5:15	79	0	0	0	20	0	80	1	23	0	13	0	23	0				
5:15	5:30	62	1	0	0	26	0	79	0	15	0	17	0	30	1				
5:30	5:45	43	1	0	0	32	0	65	0	19	1	18	0	30	3				
5:45	6:00	49	0	0	0	34	0	48	1	26	1	12	0	23	2				
SAT																			
11:00	11:15	45	0	0	0	23	0	34	0	14	0	18	0	21	0				
11:15	11:30	55	0	0	0	23	0	32	0	23	0	27	0	19	0				
11:30	11:45	49	1	1	0	26	0	36	0	11	0	23	0	20	1				
11:45	12:00	48	0	0	0	25	0	27	1	16	0	20	0	14	0				
12:00	12:15	57	0	0	0	27	1	36	0	20	0	19	0	16	0				
12:15	12:30	46	2	0	0	19	0	37	1	5	0	16	0	21	0				
12:30	12:45	49	0	0	0	19	1	38	2	13	0	15	0	20	1				
12:45	1:00	52	0	0	0	24	0	37	0	10	0	15	0	20	0				
1:00	1:15	50	0	0	0	21	0	33	0	11	0	16	0	12	0				
1:15	1:30	30	0	0	0	19	1	36	1	9	0	10	0	11	0				
1:30	1:45	48	1	0	0	27	2	48	0	12	0	10	0	16	1				
1:45	2:00	42	0	0	0	15	0	35	2	10	0	14	0	21	0				

PM Peak Hour - (3:00 to 4:00 PM)

		EB I-70 Off-Ramp				NB Washington Avenue				SB Washington Avenue					
		LT		TH		RT		TH		RT		LT		TH	
Time		All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks
3:00	3:15	55	0	0	0	46	0	116	1	39	0	15	0	30	0
3:15	3:30	80	0	0	0	32	0	117	2	35	0	25	0	28	2
3:30	3:45	55	0	0	0	26	0	131	1	50	0	24	1	29	2
3:45	4:00	54	0	0	0	34	0	104	2	24	0	15	0	24	0
	Total	244	0	0	0	138	0	468	6	148	0	79	1	111	4
	Peak 15	80		0		46		131		50		25		30	
	PHF	0.76		#DIV/0!		0.75		0.89		0.74		0.79		0.93	
	% trucks	0%		#DIV/0!		0%		1%		0%		1%		4%	

SAT Peak Hour - (11:15 AM to 12:15 PM)

Time		EB I-70 Off-Ramp				NB Washington Avenue				SB Washington Avenue					
		LT		TH		RT		TH		RT		LT		TH	
		All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks
11:15	11:30	55	0	0	0	23	0	32	0	23	0	27	0	19	0
11:30	11:45	49	0	1	0	26	0	36	0	11	0	23	0	20	1
11:45	12:00	48	0	0	0	25	0	27	1	16	0	20	0	14	0
12:00	12:15	57	0	0	0	27	0	36	0	20	0	19	0	16	0
Total		209	0	1	0	101	0	131	1	70	0	89	0	69	1
Peak 15		57		1		27		36		23		27		20	
PHF		0.92		0.25		0.94		0.91		0.76		0.82		0.86	
% trucks		0%		0%		0%		1%		0%		0%		1%	

Washington Avenue at EB Ramps (Fri 5/9/2025 & Sat 5/10/2025)

Time		Peds				Bikes			
		Xing Washington Avenue on N side	Xing Washington Avenue on S Side	X-ing I-70 EB On-Ramp on E side	X-ing I-70 EB Off-Ramp on W side	Xing Washington Avenue on N side	Xing Washington Avenue on S Side	X-ing I-70 EB On-Ramp on E side	X-ing I-70 EB Off-Ramp on W side
PM									
3:00	3:15	0	0	0	0	0	1	1	0
3:15	3:30	0	0	0	0	0	0	0	0
3:30	3:45	0	0	1	0	0	0	0	0
3:45	4:00	0	1	2	0	0	0	0	0
4:00	4:15	0	1	3	0	0	0	0	0
4:15	4:30	0	0	0	0	0	2	0	0
4:30	4:45	0	0	1	0	0	0	0	0
4:45	5:00	0	0	0	0	0	1	0	0
5:00	5:15	0	0	0	0	0	0	0	0
5:15	5:30	0	0	0	0	0	0	0	0
5:30	5:45	0	1	4	0	0	0	0	0
5:45	6:00	0	0	1	0	0	1	0	0
SAT									
11:00	11:15	0	0	1	0	0	0	0	0
11:15	11:30	0	1	1	0	0	4	0	0
11:30	11:45	0	3	0	0	0	5	1	0
11:45	12:00	0	4	5	0	0	1	2	0
12:00	12:15	0	3	3	0	0	3	0	0
12:15	12:30	0	0	0	0	0	1	0	0
12:30	12:45	0	0	0	0	0	1	0	0
12:45	1:00	0	1	0	0	0	2	1	0
1:00	1:15	0	1	1	0	0	5	0	0
1:15	1:30	0	1	1	0	0	2	1	0
1:30	1:45	0	1	0	0	0	3	0	0
1:45	2:00	0	0	1	0	0	0	0	0

PM Vehicular Peak Hour - (3:00 to 4:00 PM)

Time		Peds				Bikes			
		Xing Washington Avenue on N side	Xing Washington Avenue on S Side	X-ing I-70 EB On-Ramp on E side	X-ing I-70 EB Off-Ramp on W side	Xing Washington Avenue on N side	Xing Washington Avenue on S Side	X-ing I-70 EB On-Ramp on E side	X-ing I-70 EB Off-Ramp on W side
3:00	3:15	0	0	0	0	0	1	1	0
3:15	3:30	0	0	0	0	0	0	0	0
3:30	3:45	0	0	1	0	0	0	0	0
3:45	4:00	0	1	2	0	0	0	0	0

SAT Vehicular Peak Hour - (11:15 AM to 12:15 PM)

Time		Peds				Bikes			
		Xing Washington Avenue on N side	Xing Washington Avenue on S Side	X-ing I-70 EB On-Ramp on E side	X-ing I-70 EB Off-Ramp on W side	Xing Washington Avenue on N side	Xing Washington Avenue on S Side	X-ing I-70 EB On-Ramp on E side	X-ing I-70 EB Off-Ramp on W side
11:15	11:30	0	1	1	0	0	4	0	0
11:30	11:45	0	3	0	0	0	5	1	0
11:45	12:00	0	4	5	0	0	1	2	0
12:00	12:15	0	3	3	0	0	3	0	0

Washington Avenue at I-70 WB On-Ramp (Fri 5/9/2025 & Sat 5/10/2025)

		WB Washington Ave				NB Washington Avenue				Peds		Bikes	
Time		LT		TH		LT		RT		Xing Washington Avenue	Xing Washington Avenue	Xing Washington Avenue	Xing Washington Avenue
		All	Trucks	All	Trucks	All	Trucks	All	Trucks	on S Side	on E side	on S Side	on E side
PM													
3:00	3:15	46	0	71	0	97	1	73	0	0	0	0	0
3:15	3:30	47	2	59	0	108	2	90	0	0	0	0	0
3:30	3:45	51	3	76	0	114	1	76	0	0	0	0	0
3:45	4:00	34	0	60	1	95	2	61	0	0	0	0	0
4:00	4:15	37	0	56	1	110	0	80	0	0	0	0	0
4:15	4:30	39	1	55	0	82	2	71	0	0	0	0	0
4:30	4:45	49	1	72	0	90	2	95	2	0	0	0	0
4:45	5:00	40	1	39	1	76	2	90	0	0	0	0	0
5:00	5:15	34	0	70	0	65	1	91	0	0	0	0	0
5:15	5:30	47	1	45	0	60	0	80	1	0	0	0	0
5:30	5:45	43	3	48	1	52	0	66	1	0	0	0	0
5:45	6:00	34	2	41	0	39	1	58	0	0	0	0	0
SAT													
11:00	11:15	42	0	71	2	20	0	58	0	0	0	0	0
11:15	11:30	37	0	65	0	20	0	63	0	0	0	0	0
11:30	11:45	43	1	55	2	26	0	63	1	0	0	0	0
11:45	12:00	34	0	50	0	21	1	53	0	0	0	0	0
12:00	12:15	34	0	60	0	27	0	61	0	0	0	0	0
12:15	12:30	37	0	53	0	28	1	60	3	0	0	0	0
12:30	12:45	36	1	48	0	26	2	66	0	0	0	0	0
12:45	1:00	35	0	50	0	31	0	59	0	0	0	0	0
1:00	1:15	28	0	60	1	32	1	54	0	0	0	0	0
1:15	1:30	22	0	58	0	26	1	41	0	0	0	0	0
1:30	1:45	27	1	41	0	42	1	48	1	0	0	0	0
1:45	2:00	32	0	51	0	32	2	45	0	0	0	0	0

PM Peak Hour - (3:00 to 4:00 PM)

Time		WB Washington Ave				NB Washington Avenue				Peds		Bikes	
		LT		TH		LT		RT		Xing Washington Avenue on S Side	Xing Washington Avenue on E side	Xing Washington Avenue on S Side	Xing Washington Avenue on E side
		All	Trucks	All	Trucks	All	Trucks	All	Trucks				
3:00	3:15	46	0	71	0	97	1	73	0	0	0	0	0
3:15	3:30	47	2	59	0	108	2	90	0	0	0	0	0
3:30	3:45	51	3	76	0	114	1	76	0	0	0	0	0
3:45	4:00	34	0	60	1	95	2	61	0	0	0	0	0
	Total	178	5	266	1	414	6	300	0				
	Peak 15	51		76		114		90					
	PHF	0.87		0.88		0.91		0.83					
	% trucks	3%		0%		1%		0%					

SAT Peak Hour - (11:15 AM to 12:15 PM)

Time		WB Washington Ave				NB Washington Avenue				Peds		Bikes	
		LT		TH		LT		RT		Xing Washington Avenue on S Side	Xing Washington Avenue on E side	Xing Washington Avenue on S Side	Xing Washington Avenue on E side
		All	Trucks	All	Trucks	All	Trucks	All	Trucks				
11:15	11:30	37	0	65	0	20	0	63	0	0	0	0	0
11:30	11:45	43	1	55	2	26	0	63	1	0	0	0	0
11:45	12:00	34	0	50	0	21	1	53	0	0	0	0	0
12:00	12:15	34	0	60	0	27	0	61	0	0	0	0	0
	Total	148	1	230	2	94	1	240	1				
	Peak 15	43		65		27		63					
	PHF	0.86		0.88		0.87		0.95					
	% trucks	1%		1%		1%		0%					

APPENDIX B – SYNCHRO PRINTOUTS

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025

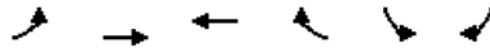


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Lane Configurations									
Traffic Volume (vph)	83	23	17	530	224	38			
Future Volume (vph)	83	23	17	530	224	38			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	12	12			
Grade (%)		0%	1%		-4%				
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00			
Ped Bike Factor		1.00	0.98	0.98					
Frt			0.859	0.850		0.850			
Flt Protected		0.962			0.950				
Satd. Flow (prot)	0	1814	1454	1461	1823	1458			
Flt Permitted		0.962			0.950				
Satd. Flow (perm)	0	1810	1454	1436	1823	1458			
Right Turn on Red				Yes		Yes			
Satd. Flow (RTOR)			276	288		40			
Link Speed (mph)		30	30		30				
Link Distance (ft)		371	504		87				
Travel Time (s)		8.4	11.5		2.0				
Confl. Peds. (#/hr)	2			2					
Confl. Bikes (#/hr)				1					
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	1%	0%	0%	1%	1%	13%			
Adj. Flow (vph)	88	24	18	564	238	40			
Shared Lane Traffic (%)				49%					
Lane Group Flow (vph)	0	112	294	288	238	40			
Turn Type	Split	NA	NA	custom	Prot	Perm			
Protected Phases	5	5	6	6	4 9		2	4	9
Permitted Phases				6		4 9			
Detector Phase	5	5	6	6	4 9	4 9			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	23.0	23.0			22.5	23.0	23.0
Total Split (s)	20.0	20.0	30.0	30.0			50.0	30.0	40.0
Total Split (%)	16.7%	16.7%	25.0%	25.0%			42%	25%	33%
Yellow Time (s)	4.0	4.0	4.0	4.0			3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		5.0	5.0	5.0					
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min			None	Min	None
Act Effect Green (s)		14.4	13.7	13.7	40.1	40.1			
Actuated g/C Ratio		0.17	0.16	0.16	0.48	0.48			
v/c Ratio		0.36	0.63	0.60	0.27	0.06			
Control Delay (s/veh)		40.8	12.5	10.3	7.8	0.2			
Queue Delay		0.0	0.1	0.1	0.0	0.0			
Total Delay (s/veh)		40.8	12.6	10.4	7.8	0.2			
LOS		D	B	B	A	A			
Approach Delay (s/veh)		40.8	11.5		6.7				

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Approach LOS		D	B		A				
Queue Length 50th (ft)		49	8	0	37	0			
Queue Length 95th (ft)		137	94	76	48	0			
Internal Link Dist (ft)		291	424		7				
Turn Bay Length (ft)									
Base Capacity (vph)		343	648	658	1275	1031			
Starvation Cap Reductn		0	0	0	0	0			
Spillback Cap Reductn		0	34	36	0	0			
Storage Cap Reductn		0	0	0	0	0			
Reduced v/c Ratio		0.33	0.48	0.46	0.19	0.04			

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 84.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 13.5

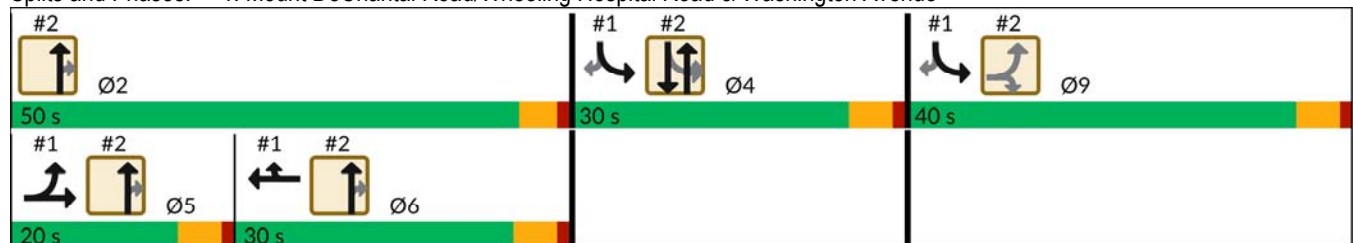
Intersection LOS: B

Intersection Capacity Utilization 42.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue



HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	246	0	152	0	0	0	0	468	148	79	111	0
Future Volume (vph)	246	0	152	0	0	0	0	468	148	79	111	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	12	12	12	12	12	12	12	12	12
Grade (%)		1%			2%			0%				-2%
Storage Length (ft)	190		0	0		0	0		0	95		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.99						0.97	0.99		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1976	0	1768	0	0	0	0	1881	1615	1805	3506	0
Flt Permitted	0.950									0.481		
Satd. Flow (perm)	1976	0	1742	0	0	0	0	1881	1566	909	3506	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			162						157			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		374			411			87			335	
Travel Time (s)		10.2			11.2			2.4			9.1	
Confl. Peds. (#/hr)			1						3	3		
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	4%	0%
Adj. Flow (vph)	262	0	162	0	0	0	0	498	157	84	118	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	262	0	162	0	0	0	0	498	157	84	118	0
Turn Type	Perm		Perm					NA	Perm	Perm	NA	
Protected Phases								2 5 6 4				4
Permitted Phases	9		9						2 5 6 4	4		
Detector Phase	9		9					2 5 6 4	2 5 6 4	4		4
Switch Phase												
Minimum Initial (s)	5.0		5.0							5.0	5.0	
Minimum Split (s)	23.0		23.0							23.0	23.0	
Total Split (s)	40.0		40.0							30.0	30.0	
Total Split (%)	33.3%		33.3%							25.0%	25.0%	
Yellow Time (s)	4.0		4.0							4.0	4.0	
All-Red Time (s)	1.0		1.0							1.0	1.0	
Lost Time Adjust (s)	0.0		0.0							0.0	0.0	
Total Lost Time (s)	5.0		5.0							5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None							Min	Min	
Act Effect Green (s)	18.0		18.0					56.0	56.0	16.8	16.8	
Actuated g/C Ratio	0.21		0.21					0.67	0.67	0.20	0.20	
v/c Ratio	0.62		0.32					0.40	0.14	0.46	0.17	
Control Delay (s/veh)	38.7		7.3					6.0	0.3	42.8	31.4	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	

Lane Group	Ø2	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	5	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	23.0
Total Split (s)	50.0	20.0	30.0
Total Split (%)	42%	17%	25%
Yellow Time (s)	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes
Recall Mode	None	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay (s/veh)			
Queue Delay			

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)	38.7		7.3					6.0	0.3	42.8	31.4	
LOS	D		A					A	A	D	C	
Approach Delay (s/veh)		26.7						4.6			36.1	
Approach LOS		C						A			D	
Queue Length 50th (ft)	120		0					77	0	37	25	
Queue Length 95th (ft)	250		51					110	0	106	63	
Internal Link Dist (ft)		294			331			7			255	
Turn Bay Length (ft)	190									95		
Base Capacity (vph)	873		860					1471	1259	287	1107	
Starvation Cap Reductn	0		0					0	0	0	0	
Spillback Cap Reductn	0		18					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.30		0.19					0.34	0.12	0.29	0.11	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 84.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 16.9

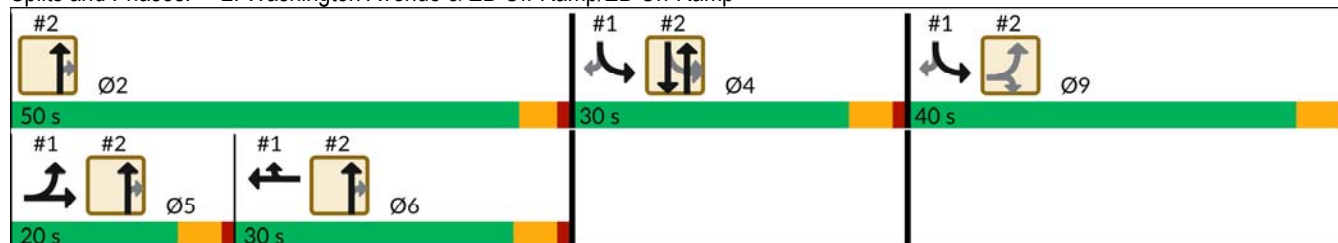
Intersection LOS: B

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Washington Avenue & EB Off-Ramp/EB On-Ramp



Lane Group	Ø2	Ø5	Ø6
Total Delay (s/veh)			
LOS			
Approach Delay (s/veh)			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

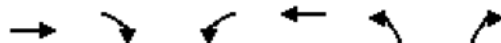
HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

3: Washington Avenue & WB On-Ramp

05/21/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↘	↙	↖	↗
Traffic Volume (vph)	0	0	190	266	414	300
Future Volume (vph)	0	0	190	266	414	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	12	14
Grade (%)	-3%			3%	2%	
Storage Length (ft)		0	0		67	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.97	1.00
Frt						0.850
Flt Protected			0.950	0.997	0.950	
Satd. Flow (prot)	0	0	1640	1769	3432	1705
Flt Permitted			0.950	0.997	0.950	
Satd. Flow (perm)	0	0	1640	1769	3432	1705
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						330
Link Speed (mph)	25			25	25	
Link Distance (ft)	368			350	335	
Travel Time (s)	10.0			9.5	9.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	3%	0%	1%	0%
Adj. Flow (vph)	0	0	209	292	455	330
Shared Lane Traffic (%)			10%			
Lane Group Flow (vph)	0	0	188	313	455	330
Turn Type			Perm	NA	Prot	Perm
Protected Phases				8	2	
Permitted Phases			8			2
Detector Phase			8	8	2	2
Switch Phase						
Minimum Initial (s)			5.0	5.0	5.0	5.0
Minimum Split (s)			22.5	22.5	22.5	22.5
Total Split (s)			30.0	30.0	30.0	30.0
Total Split (%)			50.0%	50.0%	50.0%	50.0%
Yellow Time (s)			4.0	4.0	4.0	4.0
All-Red Time (s)			1.0	1.0	1.0	1.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0
Total Lost Time (s)			5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode			None	None	Min	Min
Act Effect Green (s)			12.0	12.0	12.2	12.2
Actuated g/C Ratio			0.35	0.35	0.35	0.35
v/c Ratio			0.33	0.51	0.38	0.41
Control Delay (s/veh)			10.7	12.8	9.9	3.3
Queue Delay			0.0	0.0	0.0	0.0
Total Delay (s/veh)			10.7	12.8	9.9	3.3
LOS			B	B	A	A
Approach Delay (s/veh)				12.0	7.1	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS				B	A	
Queue Length 50th (ft)			24	43	28	0
Queue Length 95th (ft)			72	117	72	37
Internal Link Dist (ft)	288			270	255	
Turn Bay Length (ft)					67	
Base Capacity (vph)			1241	1338	2598	1370
Starvation Cap Reductn			0	0	0	0
Spillback Cap Reductn			0	0	0	0
Storage Cap Reductn			0	0	0	0
Reduced v/c Ratio			0.15	0.23	0.18	0.24

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 34.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay (s/veh): 9.0

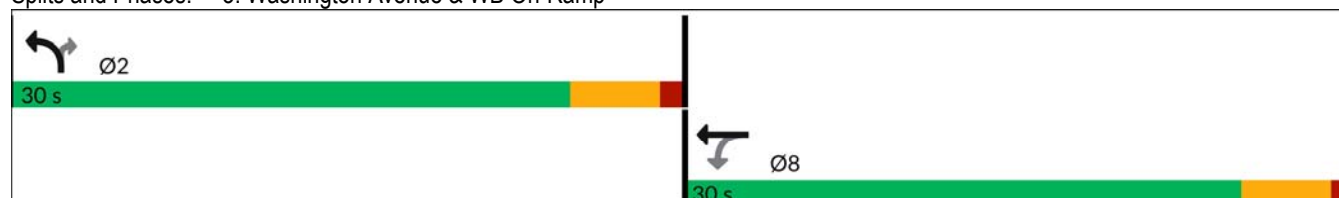
Intersection LOS: A

Intersection Capacity Utilization 34.1%

ICU Level of Service A

Analysis Period (min) 15

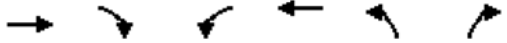
Splits and Phases: 3: Washington Avenue & WB On-Ramp



HCM 7th Signalized Intersection Summary

3: Washington Avenue & WB On-Ramp

05/21/2025

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	190	266	414	300
Future Volume (veh/h)	0	0	190	266	414	300
Initial Q (Qb), veh			0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.04
Ped-Bike Adj(A_pbT)			1.00		1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach			No	No		
Adj Sat Flow, veh/h/ln			1803	1847	1862	1952
Adj Flow Rate, veh/h			209	292	455	0
Peak Hour Factor			0.91	0.91	0.91	0.91
Percent Heavy Veh, %			3	0	1	0
Cap, veh/h			725	780	0	
Arrive On Green			0.42	0.42	0.00	0.00
Sat Flow, veh/h			1717	1847	0	
Grp Volume(v), veh/h			209	292	0.0	
Grp Sat Flow(s), veh/h/ln			1717	1847		
Q Serve(g_s), s			0.7	0.9		
Cycle Q Clear(g_c), s			0.7	0.9		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			725	780		
V/C Ratio(X)			0.29	0.37		
Avail Cap(c_a), veh/h			4959	5335		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.6	1.7		
Incr Delay (d2), s/veh			0.2	0.3		
Initial Q Delay(d3), s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh			1.9	2.0		
LnGrp LOS			A	A		
Approach Vol, veh/h				501		
Approach Delay, s/veh				2.0		
Approach LOS				A		
Timer - Assigned Phs						8
Phs Duration (G+Y+Rc), s						8.7
Change Period (Y+Rc), s						5.0
Max Green Setting (Gmax), s						25.0
Max Q Clear Time (g_c+I1), s						2.9
Green Ext Time (p_c), s						2.3
Intersection Summary						
HCM 7th Control Delay, s/veh			2.0			
HCM 7th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Lane Configurations		↰	↰	↰	↰	↰			
Traffic Volume (vph)	24	14	3	173	152	21			
Future Volume (vph)	24	14	3	173	152	21			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	12	12			
Grade (%)		0%	1%		-4%				
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00			
Ped Bike Factor		0.99	0.96	0.95	1.00				
Frt			0.855	0.850		0.850			
Flt Protected		0.969			0.950				
Satd. Flow (prot)	0	1841	1406	1461	1823	1647			
Flt Permitted		0.969			0.950				
Satd. Flow (perm)	0	1823	1406	1395	1817	1647			
Right Turn on Red				Yes		Yes			
Satd. Flow (RTOR)			93	97		23			
Link Speed (mph)		25	25		25				
Link Distance (ft)		371	504		87				
Travel Time (s)		10.1	13.7		2.4				
Confl. Peds. (#/hr)	9			9	1				
Confl. Bikes (#/hr)				15					
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%			
Adj. Flow (vph)	26	15	3	190	167	23			
Shared Lane Traffic (%)				49%					
Lane Group Flow (vph)	0	41	96	97	167	23			
Turn Type	Split	NA	NA	custom	Prot	Perm			
Protected Phases	5	5	6	6	4 9		2	4	9
Permitted Phases				6		4 9			
Detector Phase	5	5	6	6	4 9	4 9			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	23.0	23.0			22.5	23.0	23.0
Total Split (s)	20.0	20.0	30.0	30.0			50.0	30.0	40.0
Total Split (%)	16.7%	16.7%	25.0%	25.0%			42%	25%	33%
Yellow Time (s)	4.0	4.0	4.0	4.0			3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		5.0	5.0	5.0					
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min			None	Min	None
Act Effect Green (s)		7.8	7.0	7.0	29.4	29.4			
Actuated g/C Ratio		0.13	0.12	0.12	0.49	0.49			
v/c Ratio		0.17	0.39	0.38	0.19	0.03			
Control Delay (s/veh)		29.1	13.1	12.2	4.6	0.2			
Queue Delay		0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)		29.1	13.1	12.2	4.6	0.2			
LOS		C	B	B	A	A			
Approach Delay (s/veh)		29.1	12.7		4.1				

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Approach LOS		C	B		A				
Queue Length 50th (ft)		13	1	0	17	0			
Queue Length 95th (ft)		48	45	44	23	0			
Internal Link Dist (ft)		291	424		7				
Turn Bay Length (ft)									
Base Capacity (vph)		479	663	689	1607	1455			
Starvation Cap Reductn		0	0	0	0	0			
Spillback Cap Reductn		0	0	0	0	0			
Storage Cap Reductn		0	0	0	0	0			
Reduced v/c Ratio		0.09	0.14	0.14	0.10	0.02			

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 59.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay (s/veh): 10.4

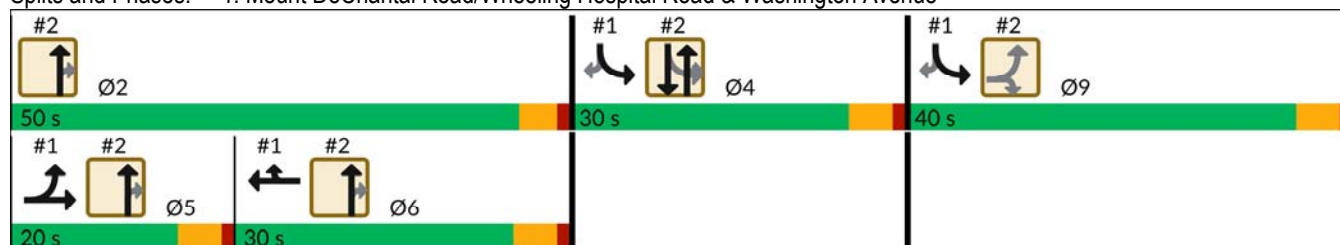
Intersection LOS: B

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue



HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Traffic Volume (vph)	209	0	108	0	0	0	0	131	70	89	69	0
Future Volume (vph)	209	0	108	0	0	0	0	131	70	89	69	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	12	12	12	12	12	12	12	12	12
Grade (%)		1%			2%			0%			-2%	
Storage Length (ft)	190		0	0		0	0		0	95		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.96						0.95	0.98		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1976	0	1768	0	0	0	0	1881	1615	1823	3610	0
Flt Permitted	0.950									0.668		
Satd. Flow (perm)	1976	0	1691	0	0	0	0	1881	1532	1250	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115						74			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		374			411			87			335	
Travel Time (s)		10.2			11.2			2.4			9.1	
Confl. Peds. (#/hr)			11						9	9		
Confl. Bikes (#/hr)			13						3			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	222	0	115	0	0	0	0	139	74	95	73	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	0	115	0	0	0	0	139	74	95	73	0
Turn Type	Perm		Perm					NA	Perm	Perm	NA	
Protected Phases								2 5 6 4				4
Permitted Phases	9		9						2 5 6 4	4		
Detector Phase	9		9					2 5 6 4	2 5 6 4	4		4
Switch Phase												
Minimum Initial (s)	5.0		5.0							5.0	5.0	
Minimum Split (s)	23.0		23.0							23.0	23.0	
Total Split (s)	40.0		40.0							30.0	30.0	
Total Split (%)	33.3%		33.3%							25.0%	25.0%	
Yellow Time (s)	4.0		4.0							4.0	4.0	
All-Red Time (s)	1.0		1.0							1.0	1.0	
Lost Time Adjust (s)	0.0		0.0							0.0	0.0	
Total Lost Time (s)	5.0		5.0							5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None							Min	Min	
Act Effect Green (s)	13.0		13.0					36.9	36.9	11.2	11.2	
Actuated g/C Ratio	0.22		0.22					0.62	0.62	0.19	0.19	
v/c Ratio	0.52		0.25					0.12	0.08	0.41	0.11	
Control Delay (s/veh)	26.5		6.7					3.5	0.2	28.8	22.1	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	

Lane Group	Ø2	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	5	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	23.0
Total Split (s)	50.0	20.0	30.0
Total Split (%)	42%	17%	25%
Yellow Time (s)	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes
Recall Mode	None	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay (s/veh)			
Queue Delay			

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)	26.5		6.7					3.5	0.2	28.8	22.1	
LOS	C		A					A	A	C	C	
Approach Delay (s/veh)		19.8						2.3			25.9	
Approach LOS		B						A			C	
Queue Length 50th (ft)	66		0					14	0	28	10	
Queue Length 95th (ft)	159		38					20	0	84	32	
Internal Link Dist (ft)		294			331			7			255	
Turn Bay Length (ft)	190									95		
Base Capacity (vph)	1202		1073					1620	1330	543	1568	
Starvation Cap Reductn	0		0					0	0	0	0	
Spillback Cap Reductn	0		0					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.18		0.11					0.09	0.06	0.17	0.05	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 59.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay (s/veh): 16.0

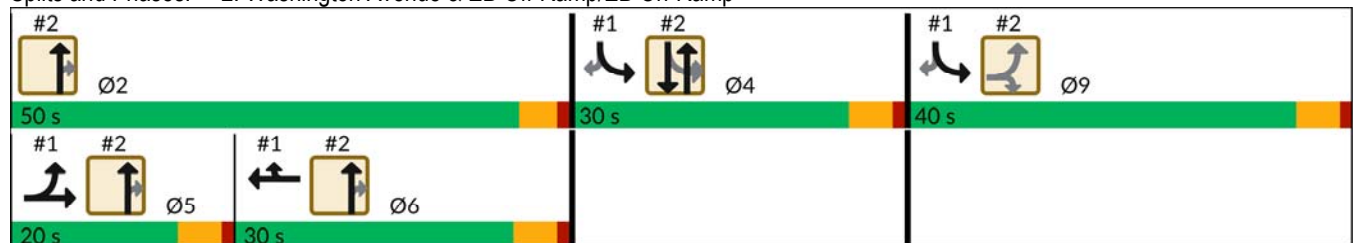
Intersection LOS: B

Intersection Capacity Utilization 37.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Washington Avenue & EB Off-Ramp/EB On-Ramp



Lane Group	Ø2	Ø5	Ø6
Total Delay (s/veh)			
LOS			
Approach Delay (s/veh)			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

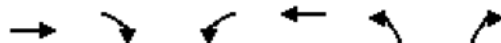
HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

3: Washington Avenue & WB On-Ramp

05/21/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↘	↙	↖	↗
Traffic Volume (vph)	0	0	158	230	94	246
Future Volume (vph)	0	0	158	230	94	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	12	14
Grade (%)	-3%			3%	2%	
Storage Length (ft)		0	0		67	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.97	1.00
Frt						0.850
Flt Protected			0.950	0.997	0.950	
Satd. Flow (prot)	0	0	1672	1755	3432	1705
Flt Permitted			0.950	0.997	0.950	
Satd. Flow (perm)	0	0	1672	1755	3432	1705
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						259
Link Speed (mph)	25			25	25	
Link Distance (ft)	368			350	335	
Travel Time (s)	10.0			9.5	9.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	1%	1%	0%
Adj. Flow (vph)	0	0	166	242	99	259
Shared Lane Traffic (%)			10%			
Lane Group Flow (vph)	0	0	149	259	99	259
Turn Type			Perm	NA	Prot	Perm
Protected Phases				8	2	
Permitted Phases			8			2
Detector Phase			8	8	2	2
Switch Phase						
Minimum Initial (s)			5.0	5.0	5.0	5.0
Minimum Split (s)			22.5	22.5	22.5	22.5
Total Split (s)			30.0	30.0	30.0	30.0
Total Split (%)			50.0%	50.0%	50.0%	50.0%
Yellow Time (s)			4.0	4.0	4.0	4.0
All-Red Time (s)			1.0	1.0	1.0	1.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0
Total Lost Time (s)			5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode			None	None	Min	Min
Act Effect Green (s)			9.5	9.5	8.3	8.3
Actuated g/C Ratio			0.34	0.34	0.30	0.30
v/c Ratio			0.26	0.44	0.10	0.38
Control Delay (s/veh)			7.5	9.4	8.3	3.5
Queue Delay			0.0	0.0	0.0	0.0
Total Delay (s/veh)			7.5	9.4	8.3	3.5
LOS			A	A	A	A
Approach Delay (s/veh)				8.7	4.8	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS				A	A	
Queue Length 50th (ft)			12	23	4	0
Queue Length 95th (ft)			38	65	15	28
Internal Link Dist (ft)	288			270	255	
Turn Bay Length (ft)					67	
Base Capacity (vph)			1502	1577	3084	1558
Starvation Cap Reductn			0	0	0	0
Spillback Cap Reductn			0	0	0	0
Storage Cap Reductn			0	0	0	0
Reduced v/c Ratio			0.10	0.16	0.03	0.17

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 28

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay (s/veh): 6.9

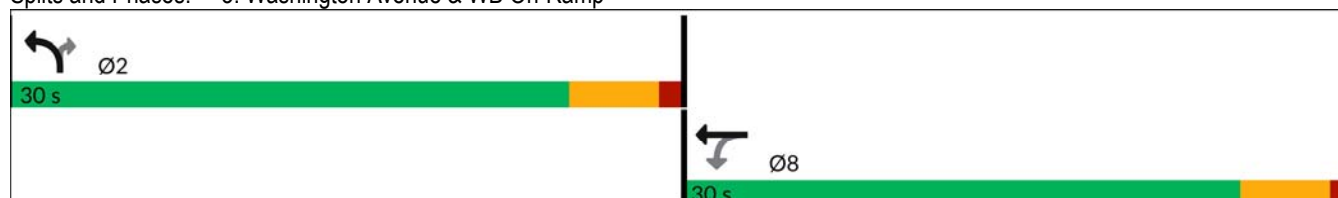
Intersection LOS: A

Intersection Capacity Utilization 24.6%

ICU Level of Service A

Analysis Period (min) 15

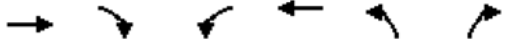
Splits and Phases: 3: Washington Avenue & WB On-Ramp



HCM 7th Signalized Intersection Summary

3: Washington Avenue & WB On-Ramp

05/21/2025

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	158	230	94	246
Future Volume (veh/h)	0	0	158	230	94	246
Initial Q (Qb), veh			0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.04
Ped-Bike Adj(A_pbT)			1.00		1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach			No	No		
Adj Sat Flow, veh/h/ln			1832	1832	1862	1952
Adj Flow Rate, veh/h			166	242	99	0
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			1	1	1	0
Cap, veh/h			651	683	0	
Arrive On Green			0.37	0.37	0.00	0.00
Sat Flow, veh/h			1745	1832	0	
Grp Volume(v), veh/h			166	242	0.0	
Grp Sat Flow(s), veh/h/ln			1745	1832		
Q Serve(g_s), s			0.5	0.8		
Cycle Q Clear(g_c), s			0.5	0.8		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			651	683		
V/C Ratio(X)			0.26	0.35		
Avail Cap(c_a), veh/h			5470	5744		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.7	1.8		
Incr Delay (d2), s/veh			0.2	0.3		
Initial Q Delay(d3), s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh			1.9	2.1		
LnGrp LOS			A	A		
Approach Vol, veh/h				408		
Approach Delay, s/veh				2.0		
Approach LOS				A		
Timer - Assigned Phs						8
Phs Duration (G+Y+Rc), s						8.0
Change Period (Y+Rc), s						5.0
Max Green Setting (Gmax), s						25.0
Max Q Clear Time (g_c+I1), s						2.8
Green Ext Time (p_c), s						1.8
Intersection Summary						
HCM 7th Control Delay, s/veh			2.0			
HCM 7th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025

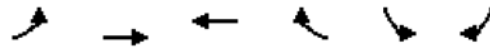


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Lane Configurations									
Traffic Volume (vph)	112	29	23	530	224	67			
Future Volume (vph)	112	29	23	530	224	67			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	12	12			
Grade (%)		0%	1%		-4%				
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00			
Ped Bike Factor		1.00	0.98	0.98					
Frt			0.862	0.850		0.850			
Flt Protected		0.962			0.950				
Satd. Flow (prot)	0	1813	1460	1461	1823	1458			
Flt Permitted		0.962			0.950				
Satd. Flow (perm)	0	1810	1460	1436	1823	1458			
Right Turn on Red				Yes		Yes			
Satd. Flow (RTOR)			271	293		71			
Link Speed (mph)		30	30		30				
Link Distance (ft)		710	504		87				
Travel Time (s)		16.1	11.5		2.0				
Confl. Peds. (#/hr)	2			2					
Confl. Bikes (#/hr)				1					
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	1%	0%	0%	1%	1%	13%			
Adj. Flow (vph)	119	31	24	564	238	71			
Shared Lane Traffic (%)				48%					
Lane Group Flow (vph)	0	150	295	293	238	71			
Turn Type	Split	NA	NA	custom	Prot	Perm			
Protected Phases	5	5	6	6	4 9		2	4	9
Permitted Phases				6		4 9			
Detector Phase	5	5	6	6	4 9	4 9			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	23.0	23.0			22.5	23.0	23.0
Total Split (s)	20.0	20.0	30.0	30.0			50.0	30.0	40.0
Total Split (%)	16.7%	16.7%	25.0%	25.0%			42%	25%	33%
Yellow Time (s)	4.0	4.0	4.0	4.0			3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		5.0	5.0	5.0					
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min			None	Min	None
Act Effect Green (s)		14.6	14.2	14.2	41.0	41.0			
Actuated g/C Ratio		0.17	0.17	0.17	0.48	0.48			
v/c Ratio		0.49	0.63	0.60	0.27	0.10			
Control Delay (s/veh)		43.7	13.0	10.3	7.4	0.3			
Queue Delay		0.0	0.1	0.1	0.0	0.0			
Total Delay (s/veh)		43.7	13.2	10.4	7.4	0.3			
LOS		D	B	B	A	A			
Approach Delay (s/veh)		43.7	11.8		5.8				

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Approach LOS		D	B		A				
Queue Length 50th (ft)		71	11	0	35	0			
Queue Length 95th (ft)		#179	100	77	45	0			
Internal Link Dist (ft)		630	424		7				
Turn Bay Length (ft)									
Base Capacity (vph)		336	638	654	1255	1026			
Starvation Cap Reductn		0	0	0	0	0			
Spillback Cap Reductn		0	35	37	0	0			
Storage Cap Reductn		0	0	0	0	0			
Reduced v/c Ratio		0.45	0.49	0.47	0.19	0.07			

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 85.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 14.6

Intersection LOS: B

Intersection Capacity Utilization 45.1%

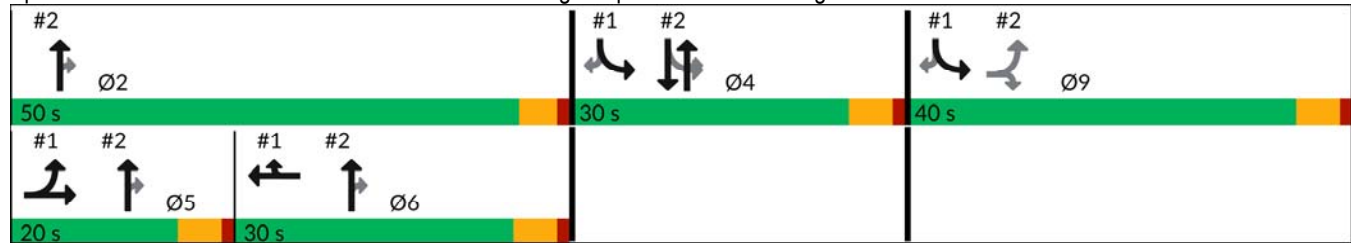
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue



HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	246	0	160	0	0	0	0	489	156	79	132	0
Future Volume (vph)	246	0	160	0	0	0	0	489	156	79	132	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	12	12	12	12	12	12	12	12	12
Grade (%)		1%			2%			0%			-2%	
Storage Length (ft)	190		0	0		0	0		0	95		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.99						0.97	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1976	0	1768	0	0	0	0	1881	1615	1805	3506	0
Flt Permitted	0.950									0.471		
Satd. Flow (perm)	1976	0	1742	0	0	0	0	1881	1566	891	3506	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			170						166			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		374			411			87			335	
Travel Time (s)		10.2			11.2			2.4			9.1	
Confl. Peds. (#/hr)			1						3	3		
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	4%	0%
Adj. Flow (vph)	262	0	170	0	0	0	0	520	166	84	140	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	262	0	170	0	0	0	0	520	166	84	140	0
Turn Type	Perm		Perm					NA	Perm	Perm	NA	
Protected Phases								2 5 6 4				4
Permitted Phases	9		9						2 5 6 4	4		
Detector Phase	9		9					2 5 6 4	2 5 6 4	4		4
Switch Phase												
Minimum Initial (s)	5.0		5.0							5.0	5.0	
Minimum Split (s)	23.0		23.0							23.0	23.0	
Total Split (s)	40.0		40.0							30.0	30.0	
Total Split (%)	33.3%		33.3%							25.0%	25.0%	
Yellow Time (s)	4.0		4.0							4.0	4.0	
All-Red Time (s)	1.0		1.0							1.0	1.0	
Lost Time Adjust (s)	0.0		0.0							0.0	0.0	
Total Lost Time (s)	5.0		5.0							5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None							Min	Min	
Act Effect Green (s)	18.3		18.3					57.4	57.4	17.4	17.4	
Actuated g/C Ratio	0.21		0.21					0.67	0.67	0.20	0.20	
v/c Ratio	0.62		0.34					0.41	0.15	0.46	0.20	
Control Delay (s/veh)	39.4		7.3					5.9	0.3	42.8	31.4	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	

Lane Group	Ø2	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	5	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	23.0
Total Split (s)	50.0	20.0	30.0
Total Split (%)	42%	17%	25%
Yellow Time (s)	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes
Recall Mode	None	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay (s/veh)			
Queue Delay			

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)	39.4		7.3					5.9	0.3	42.8	31.4	
LOS	D		A					A	A	D	C	
Approach Delay (s/veh)		26.8						4.5			35.7	
Approach LOS		C						A			D	
Queue Length 50th (ft)	124		0					80	0	38	31	
Queue Length 95th (ft)	250		53					107	0	106	73	
Internal Link Dist (ft)		294			331			7			255	
Turn Bay Length (ft)	190									95		
Base Capacity (vph)	855		850					1457	1250	275	1083	
Starvation Cap Reductn	0		0					0	0	0	0	
Spillback Cap Reductn	0		17					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.31		0.20					0.36	0.13	0.31	0.13	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 85.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 16.9

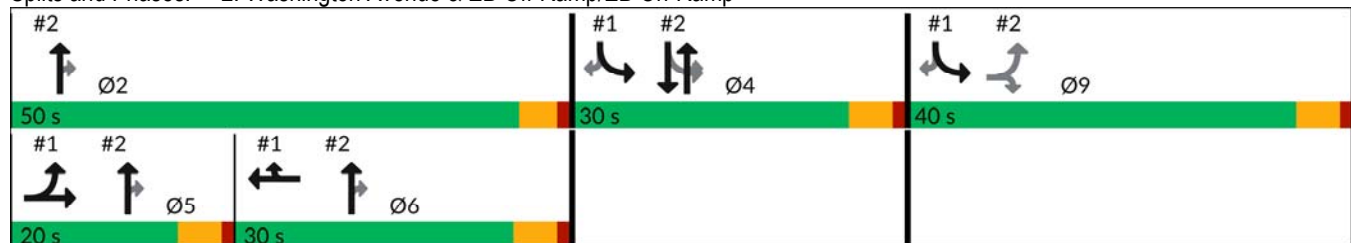
Intersection LOS: B

Intersection Capacity Utilization 55.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Washington Avenue & EB Off-Ramp/EB On-Ramp



Lane Group	Ø2	Ø5	Ø6
Total Delay (s/veh)			
LOS			
Approach Delay (s/veh)			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

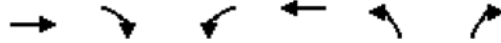
HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

3: Washington Avenue & WB On-Ramp

05/21/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↘	↙	↖	↗
Traffic Volume (vph)	0	0	211	266	422	314
Future Volume (vph)	0	0	211	266	422	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	12	14
Grade (%)	-3%			3%	2%	
Storage Length (ft)		0	0		67	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.97	1.00
Frt						0.850
Flt Protected			0.950	0.996	0.950	
Satd. Flow (prot)	0	0	1640	1767	3432	1705
Flt Permitted			0.950	0.996	0.950	
Satd. Flow (perm)	0	0	1640	1767	3432	1705
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						345
Link Speed (mph)	25			25	25	
Link Distance (ft)	368			350	335	
Travel Time (s)	10.0			9.5	9.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	3%	0%	1%	0%
Adj. Flow (vph)	0	0	232	292	464	345
Shared Lane Traffic (%)			10%			
Lane Group Flow (vph)	0	0	209	315	464	345
Turn Type			Perm	NA	Prot	Perm
Protected Phases				8	2	
Permitted Phases			8			2
Detector Phase			8	8	2	2
Switch Phase						
Minimum Initial (s)			5.0	5.0	5.0	5.0
Minimum Split (s)			22.5	22.5	22.5	22.5
Total Split (s)			30.0	30.0	30.0	30.0
Total Split (%)			50.0%	50.0%	50.0%	50.0%
Yellow Time (s)			4.0	4.0	4.0	4.0
All-Red Time (s)			1.0	1.0	1.0	1.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0
Total Lost Time (s)			5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode			None	None	Min	Min
Act Effect Green (s)			12.0	12.0	12.1	12.1
Actuated g/C Ratio			0.35	0.35	0.35	0.35
v/c Ratio			0.37	0.51	0.39	0.42
Control Delay (s/veh)			11.1	12.8	10.0	3.3
Queue Delay			0.0	0.0	0.0	0.0
Total Delay (s/veh)			11.1	12.8	10.0	3.3
LOS			B	B	A	A
Approach Delay (s/veh)				12.1	7.2	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS				B	A	
Queue Length 50th (ft)			27	43	28	0
Queue Length 95th (ft)			81	120	73	38
Internal Link Dist (ft)	288			270	255	
Turn Bay Length (ft)					67	
Base Capacity (vph)			1248	1345	2613	1380
Starvation Cap Reductn			0	0	0	0
Spillback Cap Reductn			0	0	0	0
Storage Cap Reductn			0	0	0	0
Reduced v/c Ratio			0.17	0.23	0.18	0.25

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 34.6

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay (s/veh): 9.1

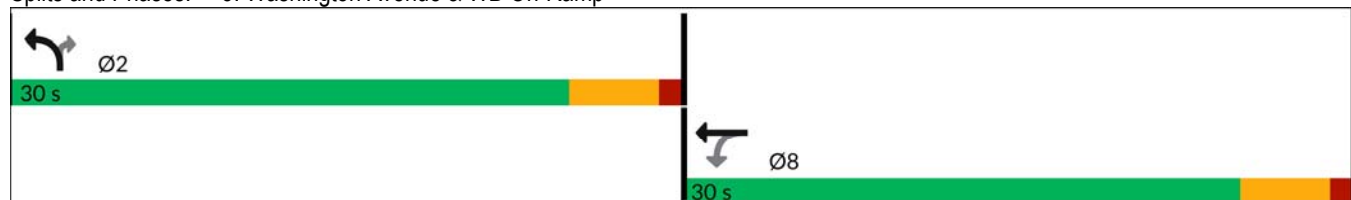
Intersection LOS: A

Intersection Capacity Utilization 34.4%

ICU Level of Service A

Analysis Period (min) 15

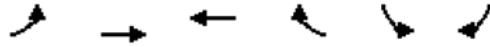
Splits and Phases: 3: Washington Avenue & WB On-Ramp



HCM 7th Signalized Intersection Summary 3: Washington Avenue & WB On-Ramp

05/21/2025

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	211	266	422	314
Future Volume (veh/h)	0	0	211	266	422	314
Initial Q (Qb), veh			0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.04
Ped-Bike Adj(A_pbT)			1.00		1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach			No	No		
Adj Sat Flow, veh/h/ln			1803	1847	1862	1952
Adj Flow Rate, veh/h			232	292	464	0
Peak Hour Factor			0.91	0.91	0.91	0.91
Percent Heavy Veh, %			3	0	1	0
Cap, veh/h			749	806	0	
Arrive On Green			0.44	0.44	0.00	0.00
Sat Flow, veh/h			1717	1847	0	
Grp Volume(v), veh/h			232	292	0.0	
Grp Sat Flow(s),veh/h/ln			1717	1847		
Q Serve(g_s), s			0.8	0.9		
Cycle Q Clear(g_c), s			0.8	0.9		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			749	806		
V/C Ratio(X)			0.31	0.36		
Avail Cap(c_a), veh/h			4836	5203		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.6	1.7		
Incr Delay (d2), s/veh			0.2	0.3		
Initial Q Delay(d3), s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh			1.9	1.9		
LnGrp LOS			A	A		
Approach Vol, veh/h				524		
Approach Delay, s/veh				1.9		
Approach LOS				A		
Timer - Assigned Phs						8
Phs Duration (G+Y+Rc), s						8.9
Change Period (Y+Rc), s						5.0
Max Green Setting (Gmax), s						25.0
Max Q Clear Time (g_c+I1), s						2.9
Green Ext Time (p_c), s						2.4
Intersection Summary						
HCM 7th Control Delay, s/veh			1.9			
HCM 7th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	106	55	35	35	4
Future Volume (vph)	4	106	55	35	35	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	13	13
Grade (%)		3%	-3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.987	
Flt Protected		0.998			0.957	
Satd. Flow (prot)	0	1709	1673	0	1818	0
Flt Permitted		0.998			0.957	
Satd. Flow (perm)	0	1709	1673	0	1818	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		168	710		220	
Travel Time (s)		4.6	19.4		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	115	60	38	38	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	119	98	0	42	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.8% ICU Level of Service A

Analysis Period (min) 15

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations

Traffic Vol, veh/h 4 106 55 35 35 4

Future Vol, veh/h 4 106 55 35 35 4

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # - 0 0 - 0 -

Grade, % - 3 -3 - 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 4 115 60 38 38 4

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All 98 0 - 0 203 79

Stage 1 - - - - 79 -

Stage 2 - - - - 124 -

Critical Hdwy 4.12 - - - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy 2.218 - - - 3.518 3.318

Pot Cap-1 Maneuver 1495 - - - 786 982

Stage 1 - - - - 944 -

Stage 2 - - - - 902 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1495 - - - 783 982

Mov Cap-2 Maneuver - - - - 783 -

Stage 1 - - - - 941 -

Stage 2 - - - - 902 -

Approach	EB	WB	SB
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HCM Ctrl Dly, s/v 0.27 0 9.75

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h) 65 - - - 800

HCM Lane V/C Ratio 0.003 - - - 0.053

HCM Ctrl Dly (s/v) 7.4 0 - - 9.8

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0 - - - 0.2

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Lane Configurations		↰	↰	↰	↰	↰			
Traffic Volume (vph)	41	17	6	173	152	35			
Future Volume (vph)	41	17	6	173	152	35			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	12	12			
Grade (%)		0%	1%		-4%				
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00			
Ped Bike Factor		0.99	0.96	0.95	1.00				
Frt			0.861	0.850		0.850			
Flt Protected		0.966			0.950				
Satd. Flow (prot)	0	1835	1419	1461	1823	1647			
Flt Permitted		0.966			0.950				
Satd. Flow (perm)	0	1815	1419	1395	1817	1647			
Right Turn on Red				Yes		Yes			
Satd. Flow (RTOR)			91	99		38			
Link Speed (mph)		25	25		25				
Link Distance (ft)		720	504		87				
Travel Time (s)		19.6	13.7		2.4				
Confl. Peds. (#/hr)	9			9	1				
Confl. Bikes (#/hr)				15					
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%			
Adj. Flow (vph)	45	19	7	190	167	38			
Shared Lane Traffic (%)				48%					
Lane Group Flow (vph)	0	64	98	99	167	38			
Turn Type	Split	NA	NA	custom	Prot	Perm			
Protected Phases	5	5	6	6	4 9		2	4	9
Permitted Phases				6		4 9			
Detector Phase	5	5	6	6	4 9	4 9			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	23.0	23.0			22.5	23.0	23.0
Total Split (s)	20.0	20.0	30.0	30.0			50.0	30.0	40.0
Total Split (%)	16.7%	16.7%	25.0%	25.0%			42%	25%	33%
Yellow Time (s)	4.0	4.0	4.0	4.0			3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		5.0	5.0	5.0					
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min			None	Min	None
Act Effect Green (s)		8.2	7.3	7.3	30.2	30.2			
Actuated g/C Ratio		0.13	0.12	0.12	0.49	0.49			
v/c Ratio		0.26	0.40	0.38	0.19	0.05			
Control Delay (s/veh)		30.7	14.0	12.2	4.6	0.1			
Queue Delay		0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)		30.7	14.0	12.2	4.6	0.1			
LOS		C	B	B	A	A			
Approach Delay (s/veh)		30.7	13.1		3.8				

Lanes, Volumes, Timings

1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue

05/21/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø4	Ø9
Approach LOS		C	B		A				
Queue Length 50th (ft)		20	2	0	17	0			
Queue Length 95th (ft)		67	48	44	23	0			
Internal Link Dist (ft)		640	424		7				
Turn Bay Length (ft)									
Base Capacity (vph)		468	655	678	1582	1435			
Starvation Cap Reductn		0	0	0	0	0			
Spillback Cap Reductn		0	0	0	0	0			
Storage Cap Reductn		0	0	0	0	0			
Reduced v/c Ratio		0.14	0.15	0.15	0.11	0.03			

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 61.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay (s/veh): 11.4

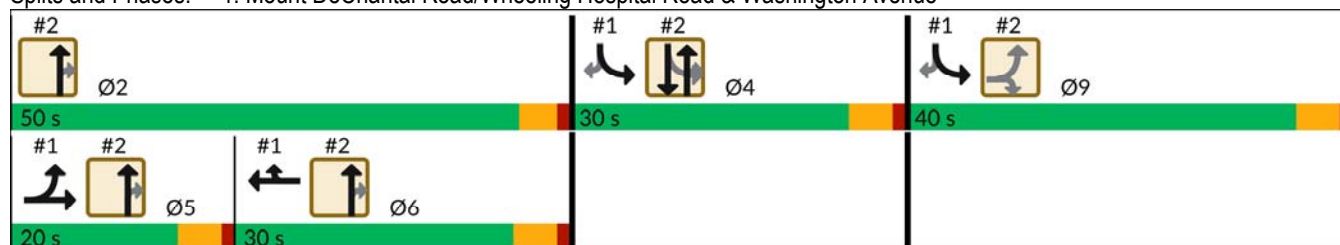
Intersection LOS: B

Intersection Capacity Utilization 26.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Mount DeChantal Road/Wheeling Hospital Road & Washington Avenue



HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	0	112	0	0	0	0	143	74	89	79	0
Future Volume (vph)	209	0	112	0	0	0	0	143	74	89	79	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	12	12	12	12	12	12	12	12	12
Grade (%)		1%			2%			0%				-2%
Storage Length (ft)	190		0	0		0	0		0	95		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.96						0.95	0.98		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1976	0	1768	0	0	0	0	1881	1615	1823	3610	0
Flt Permitted	0.950									0.660		
Satd. Flow (perm)	1976	0	1691	0	0	0	0	1881	1532	1236	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			119						79			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		374			411			87			335	
Travel Time (s)		10.2			11.2			2.4			9.1	
Confl. Peds. (#/hr)			11						9	9		
Confl. Bikes (#/hr)			13						3			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	222	0	119	0	0	0	0	152	79	95	84	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	0	119	0	0	0	0	152	79	95	84	0
Turn Type	Perm		Perm					NA	Perm	Perm	NA	
Protected Phases								2 5 6 4				4
Permitted Phases	9		9						2 5 6 4	4		
Detector Phase	9		9					2 5 6 4	2 5 6 4	4	4	
Switch Phase												
Minimum Initial (s)	5.0		5.0							5.0	5.0	
Minimum Split (s)	23.0		23.0							23.0	23.0	
Total Split (s)	40.0		40.0							30.0	30.0	
Total Split (%)	33.3%		33.3%							25.0%	25.0%	
Yellow Time (s)	4.0		4.0							4.0	4.0	
All-Red Time (s)	1.0		1.0							1.0	1.0	
Lost Time Adjust (s)	0.0		0.0							0.0	0.0	
Total Lost Time (s)	5.0		5.0							5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None							Min	Min	
Act Effect Green (s)	13.4		13.4					38.1	38.1	11.6	11.6	
Actuated g/C Ratio	0.22		0.22					0.62	0.62	0.19	0.19	
v/c Ratio	0.52		0.26					0.13	0.08	0.41	0.12	
Control Delay (s/veh)	27.2		6.9					3.2	0.2	29.6	22.8	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	

Lane Group	Ø2	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	5	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	23.0
Total Split (s)	50.0	20.0	30.0
Total Split (%)	42%	17%	25%
Yellow Time (s)	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes
Recall Mode	None	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay (s/veh)			
Queue Delay			

Lanes, Volumes, Timings

2: Washington Avenue & EB Off-Ramp/EB On-Ramp

05/21/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)	27.2		6.9					3.2	0.2	29.6	22.8	
LOS	C		A					A	A	C	C	
Approach Delay (s/veh)		20.1						2.2			26.4	
Approach LOS		C						A			C	
Queue Length 50th (ft)	67		0					15	0	29	12	
Queue Length 95th (ft)	163		39					20	0	86	36	
Internal Link Dist (ft)		294			331			7			255	
Turn Bay Length (ft)	190									95		
Base Capacity (vph)	1176		1054					1605	1319	525	1535	
Starvation Cap Reductn	0		0					0	0	0	0	
Spillback Cap Reductn	0		0					0	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.19		0.11					0.09	0.06	0.18	0.05	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 61.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay (s/veh): 16.1

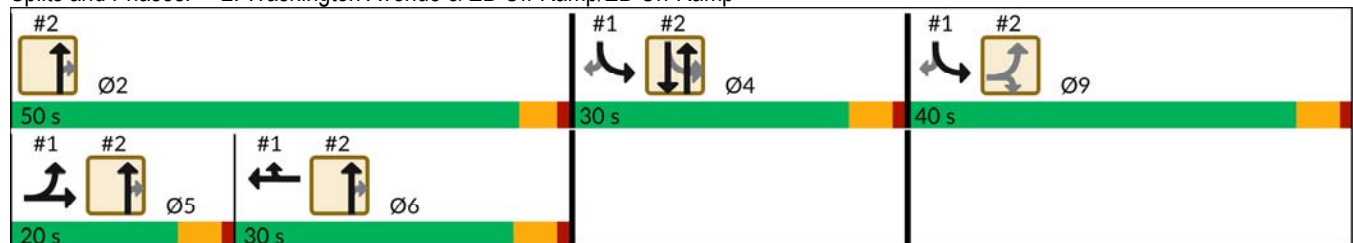
Intersection LOS: B

Intersection Capacity Utilization 37.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Washington Avenue & EB Off-Ramp/EB On-Ramp



Lane Group	Ø2	Ø5	Ø6
Total Delay (s/veh)			
LOS			
Approach Delay (s/veh)			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

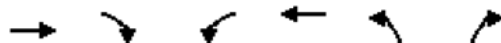
HCM 7th Edition methodology does not support clustered intersections.

Lanes, Volumes, Timings

3: Washington Avenue & WB On-Ramp

05/21/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↘	↙	↖	↗
Traffic Volume (vph)	0	0	168	230	98	254
Future Volume (vph)	0	0	168	230	98	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	12	14
Grade (%)	-3%			3%	2%	
Storage Length (ft)		0	0		67	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.97	1.00
Frt						0.850
Flt Protected			0.950	0.997	0.950	
Satd. Flow (prot)	0	0	1672	1755	3432	1705
Flt Permitted			0.950	0.997	0.950	
Satd. Flow (perm)	0	0	1672	1755	3432	1705
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						267
Link Speed (mph)	25			25	25	
Link Distance (ft)	368			350	335	
Travel Time (s)	10.0			9.5	9.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	1%	1%	0%
Adj. Flow (vph)	0	0	177	242	103	267
Shared Lane Traffic (%)			10%			
Lane Group Flow (vph)	0	0	159	260	103	267
Turn Type			Perm	NA	Prot	Perm
Protected Phases				8	2	
Permitted Phases			8			2
Detector Phase			8	8	2	2
Switch Phase						
Minimum Initial (s)			5.0	5.0	5.0	5.0
Minimum Split (s)			22.5	22.5	22.5	22.5
Total Split (s)			30.0	30.0	30.0	30.0
Total Split (%)			50.0%	50.0%	50.0%	50.0%
Yellow Time (s)			4.0	4.0	4.0	4.0
All-Red Time (s)			1.0	1.0	1.0	1.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0
Total Lost Time (s)			5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode			None	None	Min	Min
Act Effect Green (s)			9.5	9.5	8.2	8.2
Actuated g/C Ratio			0.34	0.34	0.29	0.29
v/c Ratio			0.28	0.44	0.10	0.39
Control Delay (s/veh)			7.7	9.3	8.3	3.6
Queue Delay			0.0	0.0	0.0	0.0
Total Delay (s/veh)			7.7	9.3	8.3	3.6
LOS			A	A	A	A
Approach Delay (s/veh)				8.7	4.9	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS				A	A	
Queue Length 50th (ft)			13	23	4	0
Queue Length 95th (ft)			41	65	15	29
Internal Link Dist (ft)	288			270	255	
Turn Bay Length (ft)					67	
Base Capacity (vph)			1510	1585	3101	1566
Starvation Cap Reductn			0	0	0	0
Spillback Cap Reductn			0	0	0	0
Storage Cap Reductn			0	0	0	0
Reduced v/c Ratio			0.11	0.16	0.03	0.17

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 27.8

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay (s/veh): 6.9

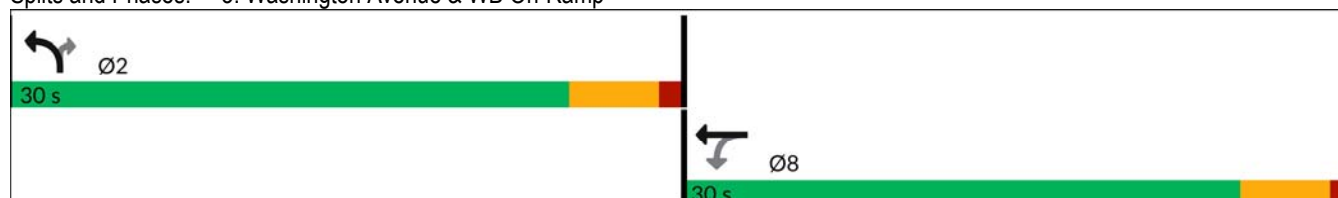
Intersection LOS: A

Intersection Capacity Utilization 24.6%

ICU Level of Service A

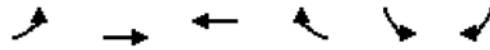
Analysis Period (min) 15

Splits and Phases: 3: Washington Avenue & WB On-Ramp



05/21/2025

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↘	↙	↖	↗
Traffic Volume (veh/h)	0	0	168	230	98	254
Future Volume (veh/h)	0	0	168	230	98	254
Initial Q (Qb), veh			0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.04
Ped-Bike Adj(A_pbT)			1.00		1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach			No	No		
Adj Sat Flow, veh/h/ln			1832	1832	1862	1952
Adj Flow Rate, veh/h			177	242	103	0
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			1	1	1	0
Cap, veh/h			660	692	0	
Arrive On Green			0.38	0.38	0.00	0.00
Sat Flow, veh/h			1745	1832	0	
Grp Volume(v), veh/h			177	242	0.0	
Grp Sat Flow(s),veh/h/ln			1745	1832		
Q Serve(g_s), s			0.6	0.8		
Cycle Q Clear(g_c), s			0.6	0.8		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			660	692		
V/C Ratio(X)			0.27	0.35		
Avail Cap(c_a), veh/h			5427	5698		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.7	1.8		
Incr Delay (d2), s/veh			0.2	0.3		
Initial Q Delay(d3), s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh			1.9	2.1		
LnGrp LOS			A	A		
Approach Vol, veh/h				419		
Approach Delay, s/veh				2.0		
Approach LOS				A		
Timer - Assigned Phs						8
Phs Duration (G+Y+Rc), s						8.0
Change Period (Y+Rc), s						5.0
Max Green Setting (Gmax), s						25.0
Max Q Clear Time (g_c+l1), s						2.8
Green Ext Time (p_c), s						1.9
Intersection Summary						
HCM 7th Control Delay, s/veh			2.0			
HCM 7th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	38	24	17	20	2
Future Volume (vph)	2	38	24	17	20	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	13	13
Grade (%)		3%	-3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.945		0.989	
Flt Protected		0.998			0.956	
Satd. Flow (prot)	0	1709	1668	0	1820	0
Flt Permitted		0.998			0.956	
Satd. Flow (perm)	0	1709	1668	0	1820	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		273	720		233	
Travel Time (s)		7.4	19.6		6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	41	26	18	22	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	44	0	24	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 13.6% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	38	24	17	20	2
Future Vol, veh/h	2	38	24	17	20	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	41	26	18	22	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	45	0	-	0	81	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1564	-	-	-	921	1037
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	977	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1564	-	-	-	920	1037
Mov Cap-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	977	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.37	0		8.98		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	90	-	-	-	-	929
HCM Lane V/C Ratio	0.001	-	-	-	-	0.026
HCM Ctrl Dly (s/v)	7.3	0	-	-	-	9
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0.1

APPENDIX C - PHOTOGRAPHS



WB CR 70/1 (Washington Avenue) at I-70 WB On-Ramp



WB CR 70/1 (Washington Avenue) at I-70 WB On-Ramp



WB CR 70/1 (Washington Avenue) at I-70 WB On-Ramp



I-70 WB On-Ramp at CR 70/1 (Washington Avenue)



I-70 WB On-Ramp at CR 70/1 (Washington Avenue)



I-70 WB On-Ramp at CR 70/1 (Washington Avenue)



NB CR 70/1 (Washington Avenue) at I-70 WB On-Ramp



NB CR 70/1 (Washington Avenue) at I-70 WB On-Ramp



SB CR 70/1 (Washington Avenue) at I-70 EB Ramps



SB CR 70/1 (Washington Avenue) at I-70 EB Ramps



1-70 EB On-Ramp at CR 70/1 (Washington Avenue)



1-70 EB On-Ramp at CR 70/1 (Washington Avenue)



**WB CR 40/8 (Wheeling Hospital Road) at Mount DeChantal Road and CR 70/1
(Washington Avenue)**



WB CR 40/8 (Wheeling Hospital Road) at Mount DeChantal Road and CR 70/1 (Washington Avenue)



EB Mount DeChantal Road at CR 40/8 (Wheeling Hospital Road) and CR 70/1 (Washington Avenue)



EB Mount DeChantal Road at CR 40/8 (Wheeling Hospital Road) and CR 70/1 (Washington Avenue)



CR 70/1 (Washington Avenue) at Mount DeChantal Road / CR 40/8 (Wheeling Hospital Road) looking NB



CR 70/1 (Washington Avenue) at Mount DeChantal Road / CR 40/8 (Wheeling Hospital Road) looking NB



SB CR 70/1 (Washington Avenue) at Mount DeChantal Road / CR 40/8 (Wheeling Hospital Road)



I-70 EB Off-Ramp at CR 70/1 (Washington Avenue)



I-70 EB Off-Ramp at CR 70/1 (Washington Avenue)



NB CR 70/1 (Washington Avenue) at I-70 EB Ramps



NB CR 70/1 (Washington Avenue) at I-70 EB Ramps

APPENDIX D – SITE PLAN

COUNTY	SHEET NO.	TOTAL SHEETS
-	4	15

PAVEMENT STRIPING NOTES:

1. ANY PROPOSED PAVEMENT MARKING SHALL BE STRIPED AS PART OF THIS WORK.
2. ALL PAVEMENT MARKINGS SHALL BE PER WVDOT SPECIFICATIONS. ALL PAVEMENT MARKINGS TO BE TYPE VIIC.
3. ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

NOTES:

1. ALL DIMENSIONS INVOLVING CURBING ARE TO THE FACE OF THE CURB, UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.
3. CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED DEVELOPMENT INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.
4. CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

ELECTRICAL/MECHANICAL NOTE:

CONTRACTOR SHALL REFER TO THE ELECTRICAL/MECHANICAL DRAWINGS FOR DEMOLITION AND/OR INSTALLATION INFORMATION OF ALL EXISTING AND PROPOSED ELECTRICAL/MECHANICAL ITEMS FOR THE SITE AND/OR HOW THESE ITEMS ARE TO BE HANDLED AND ADDRESSED.

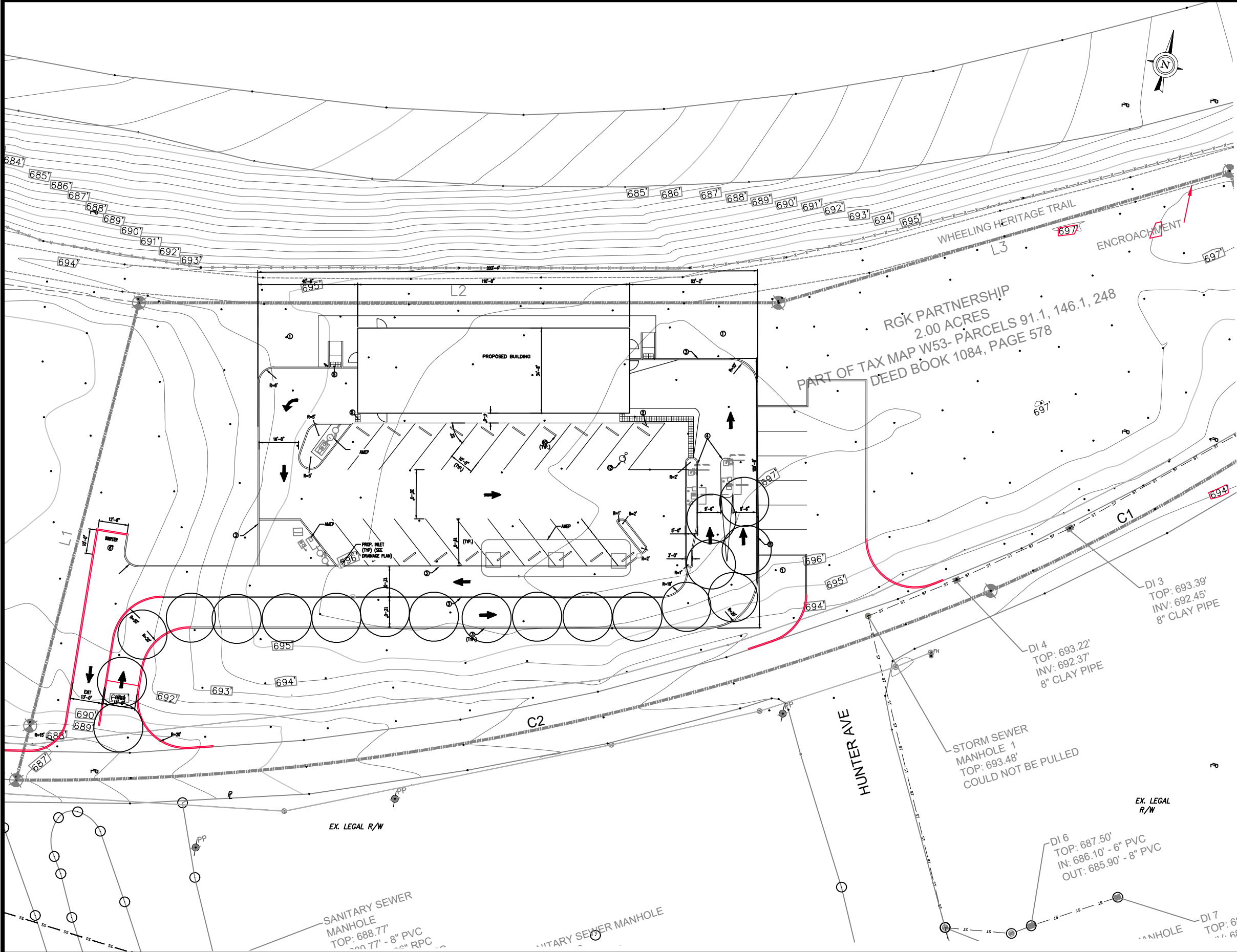
LEGEND

- CONCRETE SIDEWALK EQUIPMENT FOUNDATION (PER MANUFACTURER'S RECOMMENDATIONS)
- STRIPING
- DUMPSTER PAD
- CONCRETE PAVEMENT

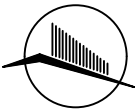
AMEP - SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING PLANS

- ① LANDSCAPE PLANTING AREA
- ② ADA PARKING SIGN "VAN ACCESSIBLE" (SEE AMEP)
- ③ MODIFIED TYPE 1 CURB OR CONCRETE WALL
- ④ ADA TRUNCATED WARNING DOME
- ⑤ CONCRETE DUMPSTER PAD WITH ENCLOSURE
- ⑥ 18" CURB CUT
- ⑦ CONCRETE PARKING BLOCK (SEE DETAIL)
- ⑧ HANDICAPPED ACCESSIBLE SYMBOL
- ⑨ METAL ISLAND FORMS TYP, (SEE AMEP)

SCALE
0 10 ft.



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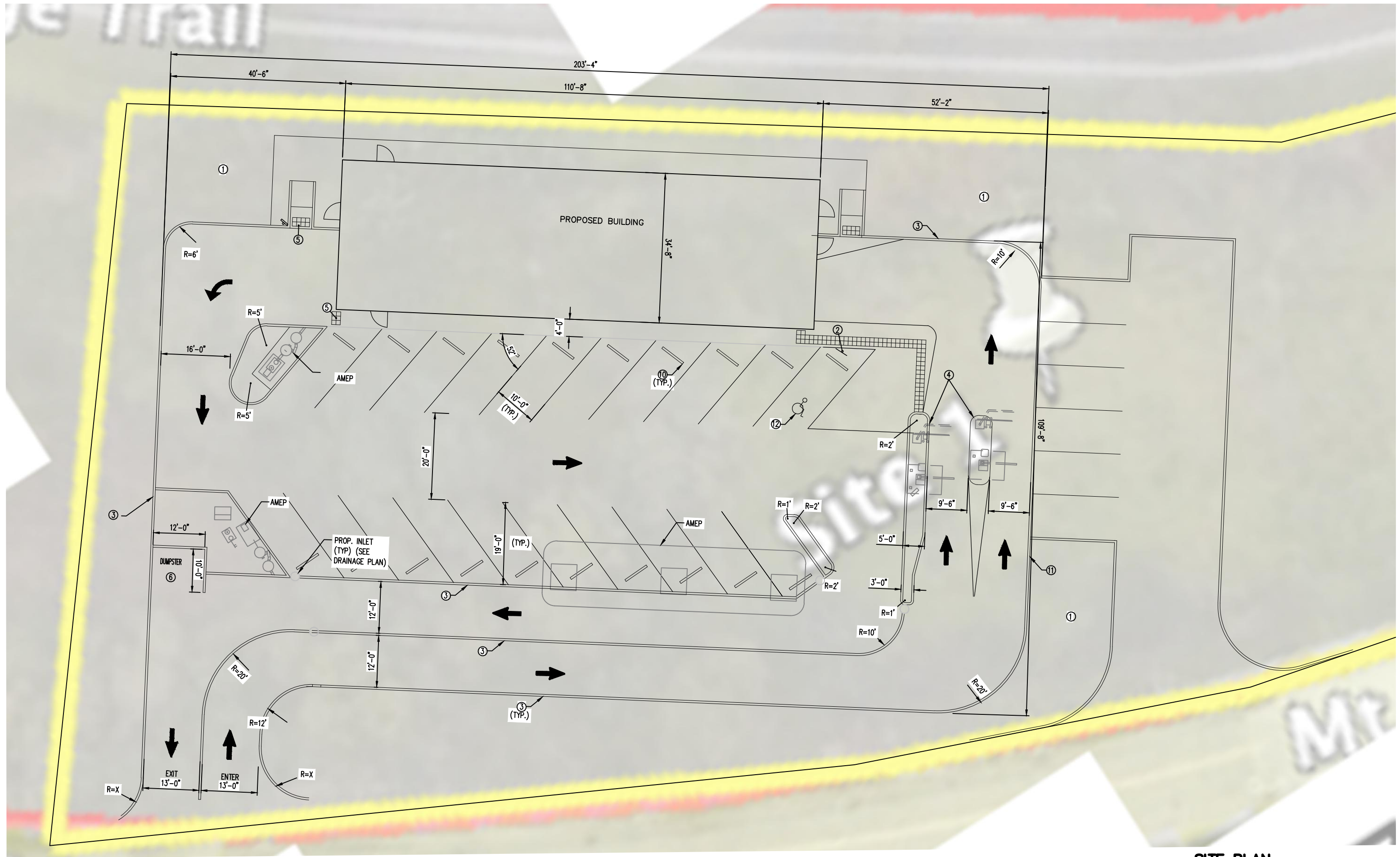


J.B. TURMAN ENGINEERING, PLLC

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

WASH-RITE CAR WASH
WEIRTON

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SITE PLAN



SITE PLAN