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Carl R. Wilson, Jr., P.E., PTOE, RSP

Vice President

Email: cwilson@trafficgroup.com

DATE: November 1, 2022

TO: Mike Gerding, LEED GA
Project Manager
Manns Woodward Studios, Inc.
10839 Philadelphia Road
White Marsh, MD 21162

RE: Anne Arundel West County Swim Center
TRAFFIC IMPACT STUDY
Anne Arundel County, Maryland
Our Job No.: 2022-0424

At your request, The Traffic Group, Inc. has reviewed the proposed Anne Arundel West County Swim Center project and prepared this Traffic Impact Study to quantify projected demand at the site access point. A new 60,500-sq ft indoor swim facility is proposed to be developed on the north side of Disney Road within Provinces Park. It is important to recognize this site is being developed by Anne Arundel County's Department of Recreation and Parks. As a result, it is technically exempt from Adequate Public Facilities Ordinance (APFO) requirements.

This study will show that the site access intersection currently operates with an acceptable level of service during the morning, afternoon, and Saturday peak periods. When considering full buildout of this site, acceptable operations are projected to continue during typical peak periods without the need for additional traffic control measures.

To account for larger-scale competitions or meets that could occur on occasion at this facility, additional traffic control measures such as police direction should be considered to accommodate increased demand during those time periods. As larger numbers of vehicles could ingress or egress during a very short time period, delay could be significantly heavier with traditional stop control.

Site Description

Provinces Park is located on both the north and south sides of Disney Road, east of MD 175 in Anne Arundel County. The park currently features several multi-purpose athletic fields and associated parking on the north side. Tennis courts are available on the south side. A map showing the general area can be found in Figure 1.

Access to the park is available via one point along Disney Road. An aerial photograph depicting the site access point can be found in Figure 2.

FIGURE 1 – LOCATION MAP FOR SITE

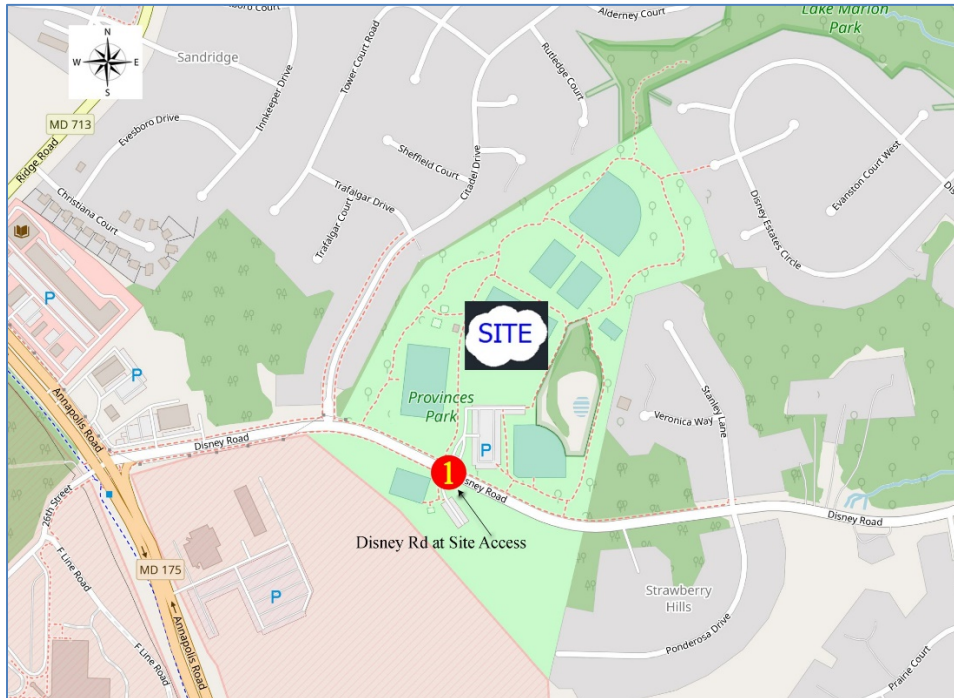


FIGURE 2 – AERIAL PHOTOGRAPH

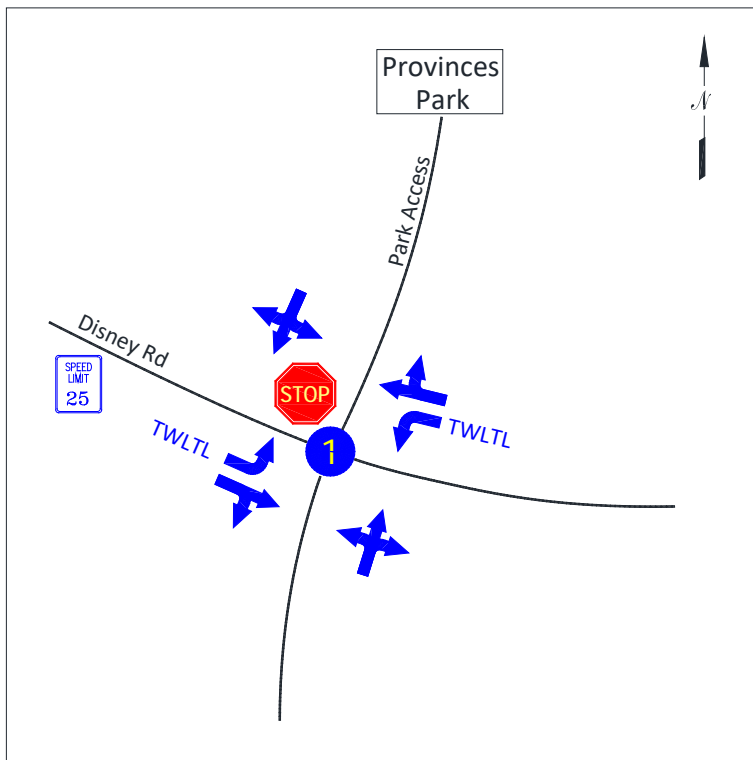


Disney Road is maintained by Anne Arundel County. It extends for a distance of approximately 2 miles in the east/west direction from MD 175 (Annapolis Road) easterly to MD 174 (Reece Road). A short portion of the roadway continues to the east of the signalized intersection of MD 174 as Redbridge Drive into a residential community. The roadway is designated both as Disney Road and continuously as New Disney Road throughout its section.

In the vicinity of Provinces Park, Disney Road features one travel lane in each direction with a two-way left turn lane. There are no auxiliary right turn lanes along the length of the road. To the west of Old Mill Court, the two-way left turn lane is eliminated in favor of a striped shoulder on the north and south sides of the roadway. The shoulder then becomes unmarked.

Access to Provinces Park operates under stop control for the minor approaches. The site egress features single lane approaches. Figure 3 provides a detail of the existing lane use.

FIGURE 3 – EXISTING LANE USE

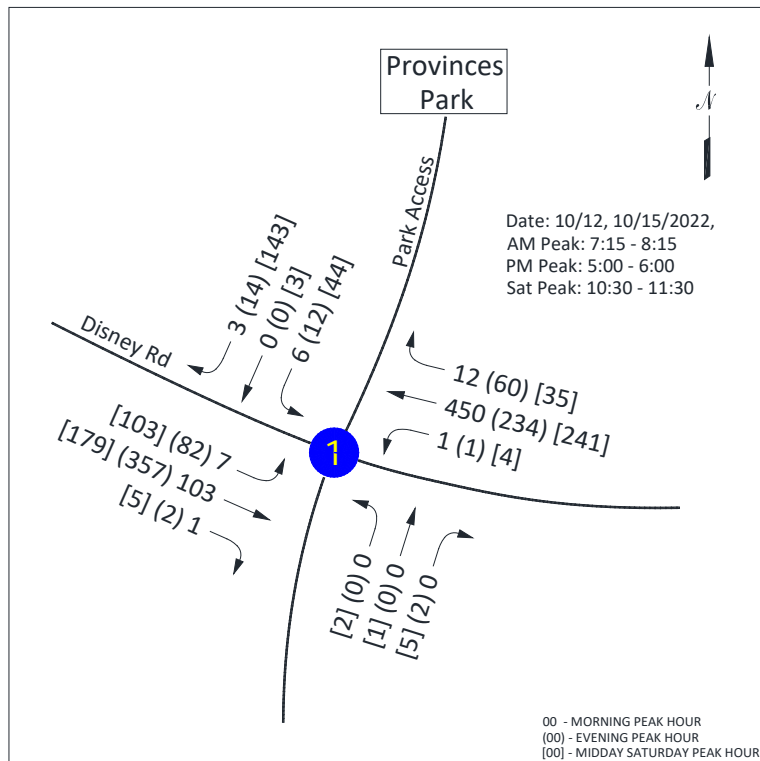


Sidewalk is currently available along both sides of Disney Road in the vicinity of Provinces Park. Crosswalks are also available spanning Disney Road on the west leg of the intersection to connect both the north and south portions of the park. The sidewalk provides connectivity to neighborhoods located to the east and west as well as to commercial destinations located along MD 175.

Traffic Volumes

Intersection turning movement counts were collected on Wednesday, October 12 and Saturday, October 15, 2022, during the AM, PM, and Saturday midday peak periods. The volumes were collected through the use of Miovision cameras posted at the intersection. The peak hour volumes are summarized in Figure 4. Complete details on the 15-minute traffic volumes can be found in Appendix A.

FIGURE 4 – 2022 EXISTING PEAK HOUR TRAFFIC VOLUMES



A review of the traffic volumes shows minimal park usage currently occurs during the AM peak period. During the 5:00 – 6:00 PM hour, approximately 142 vehicles entered the park presumably for afternoon sports practices. On Saturday, the midday peak period was found to occur between the hours of 10:30 and 11:30 AM. Significant traffic volumes entering and exiting the park were noted. Primarily, the traffic volumes on Saturday were oriented to and from the west. During the PM peak, the traffic volumes were distributed relatively similarly.

Background Conditions

Anne Arundel County’s Development Activity Maps were reviewed to determine if any unbuilt developments in the area will contribute future traffic to the intersection. A map showing developments can be found in Figure 5. As shown, Parkside Phase 1B (P2021-0034-00), which contains 35 townhouse units, is the only approved plan near this location that could impact the study intersection.

Parkside Phase 1B is located to the west of this site. The Institute of Transportation Engineers (ITE) Trip Generation (11th Edition) was utilized to quantify the trips associated with the 35-unit development during the AM, PM, and Saturday peak periods. Table 1 summarizes the equation for each time period. Applying the equations to this site results in the trip generation as detailed in Table 2. As shown, a total of 13 AM peak hour trips, 17 PM peak hour trips, and 28 Saturday peak hour trips are expected. The trips were distributed and assigned to the road network based on the relative location of this project to the subject site. Figure 6 details the background trip assignment. Adding the trips to the existing peak hour traffic volumes results in the background peak hour traffic volumes as shown in Figure 7.

FIGURE 5 – DEVELOPMENT ACTIVITY NEAR STUDY INTERSECTION

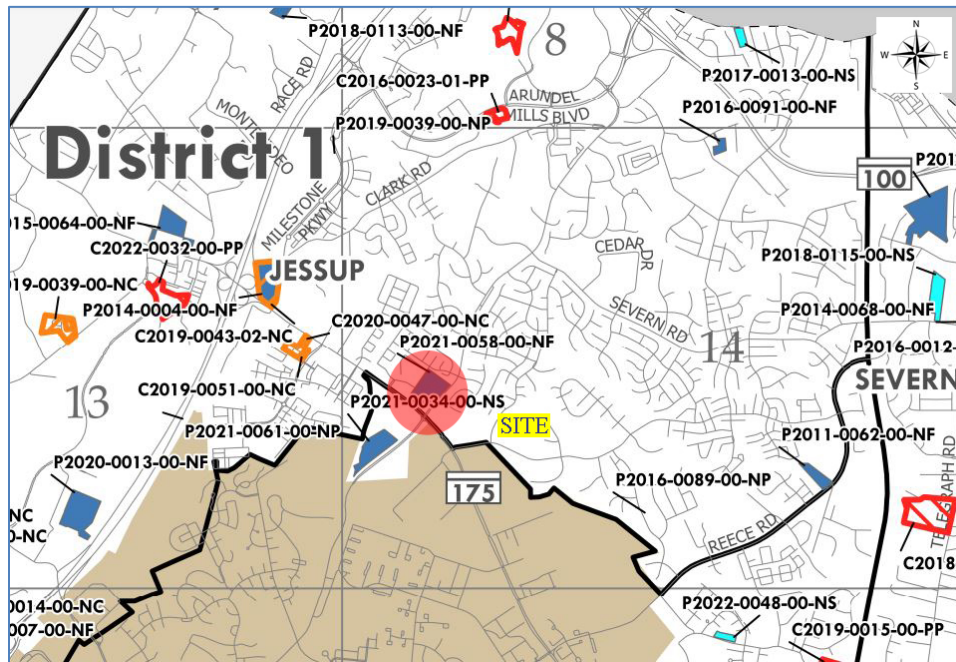


TABLE 1 – TRIP GENERATION FOR BACKGROUND DEVELOPMENT

Formula/Rate	Directional Distribution					
	AM Peak		PM Peak		Mid. Sat. Peak	
	IN	OUT	IN	OUT	IN	OUT
Single-Family Attached (ITE-215, Units)						
AM Peak Hour Trips = 0.52 x Units - 5.70	31%	69%	57%	43%	48%	52%
PM Peak Hour Trips = 0.60 x Units - 3.93						
Ln(Sat. Midday Peak Hour Trips) = 0.82 x Ln(Units) + 0.43						

** Trip rates obtained from ITE Trip Generation Manual 11th Edition, 2021.

TABLE 2 – TRIP GENERATION FOR BACKGROUND DEVELOPMENT

Land Use	Size	AM Peak Hour			PM Peak Hour			Mid. Sat. Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
P2021-0034-00, Parkside Phase 1B (Sub Div# S2005-008)										
Townhouses	35 units	4	9	13	10	7	17	13	15	28

FIGURE 6 – TRIP ASSIGNMENT FOR BACKGROUND DEVELOPMENT

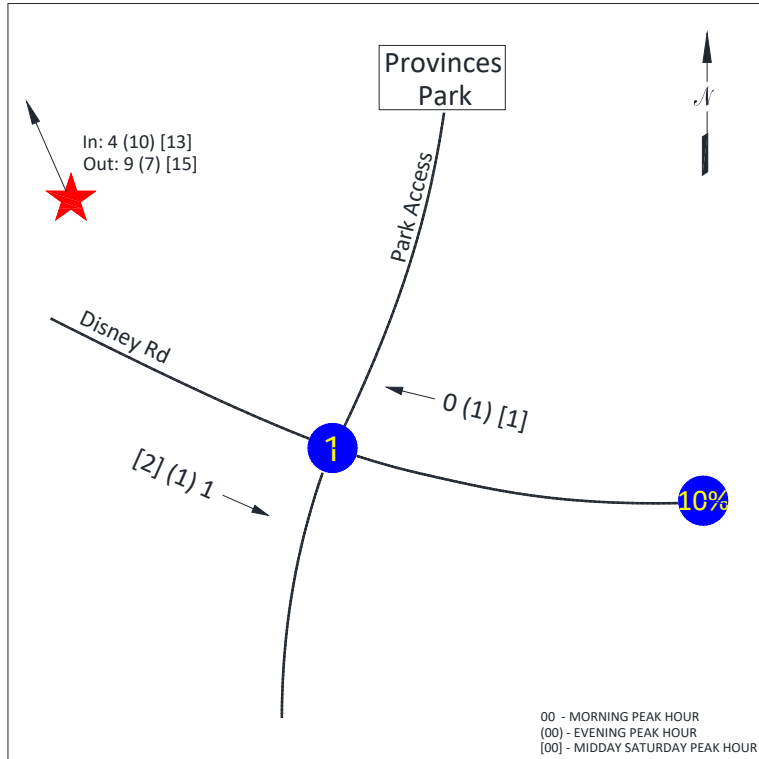
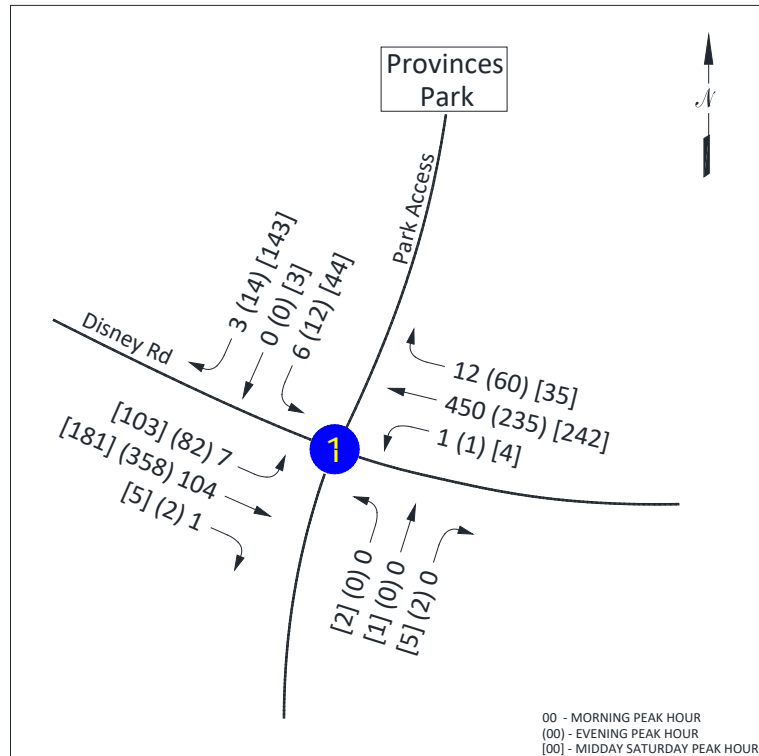


FIGURE 7 – BACKGROUND PEAK HOUR TRAFFIC VOLUMES



Proposed Development

The proposed 60,500-sq ft Anne Arundel West County Swim Center is located on the north side of Disney Road within Provinces Park. A total of 260 parking spaces will be paved with an additional 59 parking spaces available within an overflow lot. The existing athletic fields located on site will remain. Additional pedestrian connectivity on site is also proposed. Approaching Disney Road, the site access point is proposed to be enhanced with a separate right turn lane exiting the site to facilitate site egress. A concept plan showing the proposed development can be found in Figure 8.

Site Trip Generation/Distribution

Since this is a unique use, information was obtained from Anne Arundel County representatives regarding programs and attendance for existing swim centers located within the county. The data was utilized to project peak hour trips for this facility. The following programs are anticipated to occur during the AM peak period during the school year:

- Water Aerobics
- Drop In Swim
- Morning Masters
- Arundel Swim Club (ASC)
- Drownproofing

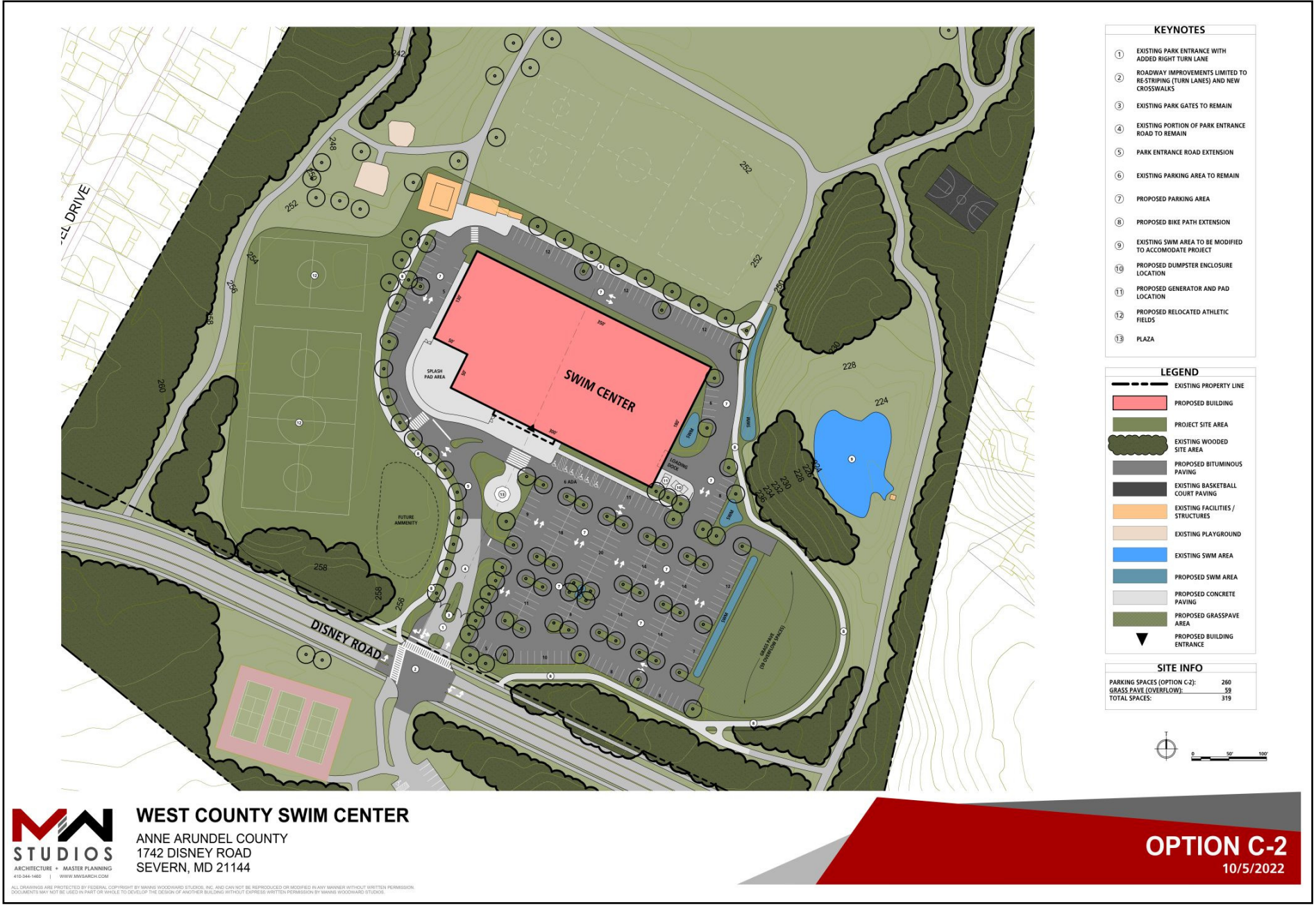
During the PM peak period, the following activities are anticipated:

- Drop In Swim
- Dance
- Swim Lessons
- Water Aerobics
- Zumba
- High School Swim Team
- ASC

On Saturday, the following uses are expected:

- ASC
- Water Park Sessions
- Drop In Swim
- Dance

FIGURE 8 - CONCEPT PLAN FOR SITE



Based on the average attendance count for periods extending from 7–9 AM, 4–6 PM, and from 11 AM – 2PM on Saturday, the peak hour trips were projected. It is important to recognize it is anticipated that the high school swim team component will utilize buses, therefore, the trips associated with the swim team are relatively limited. As shown in Table 3, a total of 100 AM peak hour trips, 190 PM peak hour trips, and 124 Saturday peak hour trips are expected for the new West County Swim Center. Details on the existing land uses that were utilized to project these volumes can be found in Appendix B.

TABLE 3 – TRIP GENERATION FOR SITE

Land Use	Size	AM Peak Hour			PM Peak Hour			Mid. Sat. Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
<i>Swim Center</i>										
Swim Center	1 facility	75	25	100	114	76	190	62	62	124

Based on current traffic patterns and existing arrival and departures from Provinces Park, the site trips were distributed and assigned to the road network. Figure 9 contains the trip assignment. Adding the site trips to the background peak hour traffic volumes results in the total peak hour traffic volumes as shown in Figure 10.

FIGURE 9 – TRIP ASSIGNMENT FOR SITE

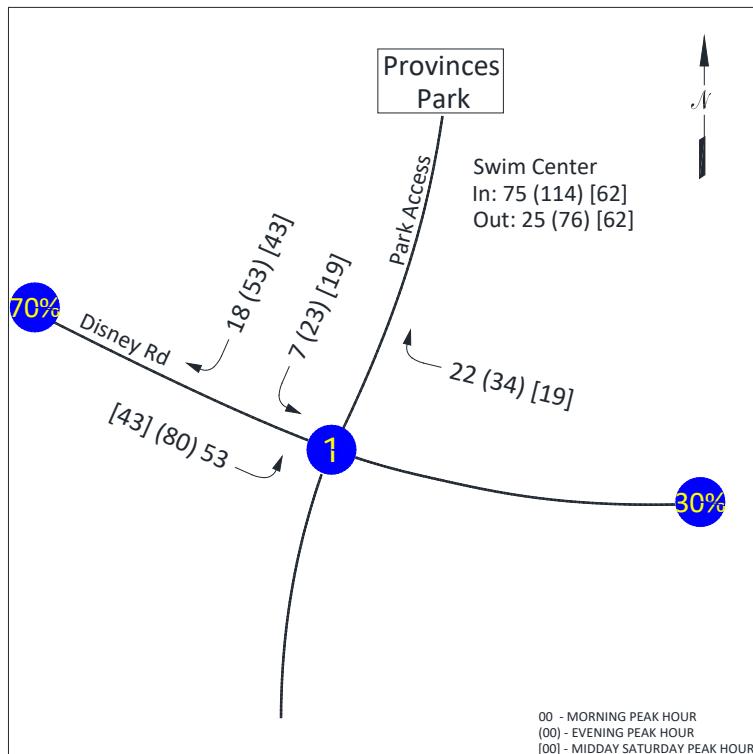
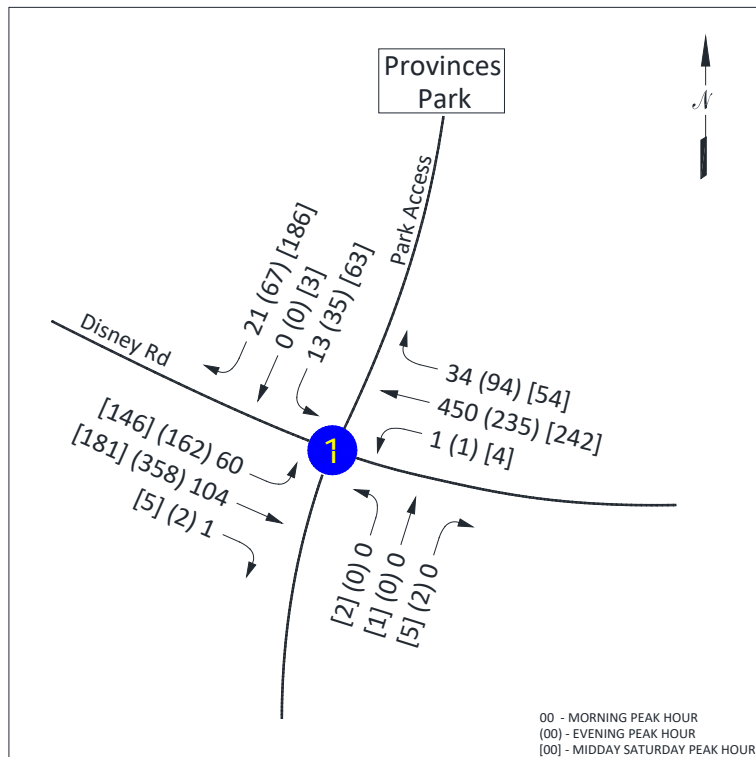


FIGURE 10 – TOTAL PEAK HOUR TRAFFIC VOLUMES



Intersection Capacity Analysis

Intersection capacity analysis was undertaken for the study intersection using Highway Capacity Manual (HCM) methodology. The HCM quantifies level of service at an intersection and for individual approaches based on existing and calculated delay. A letter grade ranging from A to F is then assigned to each approach where Level of Service “A” represents no delay and Level of Service “F” accounts for 50 seconds or more of delay for the minor approach. Table 4 summarizes the level of service delay thresholds.

TABLE 4 – LEVEL OF SERVICE CRITERIA

Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Control Delay (seconds/vehicle)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

The HCM results are summarized in Table 5. Complete capacity worksheets can be found in Appendix C.

TABLE 5 – RESULTS OF INTERSECTION CAPACITY ANALYSIS

Intersection	Control Type	HCM - LOS/Delay (seconds)								
		Existing Peak Hour			Back'd Peak Hour			Total Peak Hour		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Disney Rd at Park Access	Two Way									
EB/Left - Disney Rd	Stop	A/8.7	A/8.1	A/8.1	A/8.7	A/8.1	A/8.1	A/8.8	A/8.5	A/8.3
WB/Left - Disney Rd		A/7.4	A/8.1	A/7.6	A/7.4	A/8.1	A/7.6	A/7.4	A/8.1	A/7.6
NB/LTR - Park Access		---	B/10.5	B/11.7	---	B/10.5	B/11.7	---	B/10.5	B/12.8
SB/LTR - Site Access		B/13.2	B/12.5	B/13.1	B/13.2	B/12.6	B/13.2	B/13.4	C/15.1	C/15.9
w/SB improvement L + TR		---	---	---	---	---	---	B/13.0	B/13.8	B/12.9

A review of Table 5 shows that under existing conditions, the eastbound and westbound movements along Disney Road turning left into the site operate at Level of Service “A.” The southbound park access currently operates at Level of Service “B.” Minimal changes are expected for the background condition as the volumes remain relatively unchanged.

For the total peak period, delay increases slightly during the PM and Saturday peak periods where a Level of Service “C” is projected for the site access points. The delay corresponds with an average wait time of less than 16 seconds during typical operations.

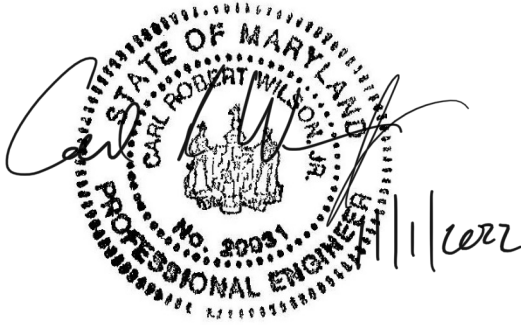
To enhance traffic operations, a separate right turn lane is proposed for the site access. HCM analysis shows a slight improvement to Level of Service “B” with its implementation.

It is important to recognize these calculations are based on typical operations at the West County Swim Center. When a swim meet or competition occurs that significantly increases traffic volumes to the site, additional delay could be incurred. It is recommended that additional traffic control measures such as police direction be provided to safely and efficiently control traffic during these event times.

Summary and Conclusions

Traffic along Disney Road is relatively light. An existing two-way left turn lane will facilitate traffic volumes entering the site in the future. Traffic delay is shown to be minimal during the AM, PM, and Saturday peak periods with the addition of the West County Swim Center at the site access point.

Since this site is being developed by Anne Arundel County, an Adequate Public Facilities Ordinance (APFO) Traffic Impact Study is not required. This analysis, however, was prepared to measure impact at the existing site access point. Since acceptable levels of service are projected in the future, additional improvements are not needed from a capacity standpoint. The addition of a separate right turn lane along the southbound site access approach is recommended to enhance traffic operations.



Professional Certification - I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No: 29931 Expiration Date: 11/8/2024

CRW:amr

(F:\2022\2022-0424_Anne Arundel West County Swim Center\DOCS\REPORTS\TIS Memo Rpt_Gerding.docx)

APPENDIX A

Intersection Turning Movement Counts



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 12, 2022
Weather: Sunny/Warm
Entered by: SN

Wednesday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
7:00 - 7:15	1	0	0	0	1	0	0	0	0	0	0	87	0	0	87	0	12	0	0	12	100
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	111	1	0	112	0	19	0	0	19	131
7:30 - 7:45	0	0	1	0	1	0	0	0	0	0	2	117	0	0	119	0	15	2	0	17	137
7:45 - 8:00	1	0	3	0	4	0	0	0	0	0	9	116	0	0	125	1	37	0	0	38	167
8:00 - 8:15	2	0	2	0	4	0	0	0	0	0	1	106	0	0	107	0	32	5	0	37	148
8:15 - 8:30	0	0	1	0	1	1	0	0	0	1	0	89	0	0	89	0	39	1	0	40	131
8:30 - 8:45	4	0	2	0	6	0	0	0	0	0	2	84	0	0	86	1	30	2	0	33	125
8:45 - 9:00	1	0	4	0	5	0	0	0	0	0	3	59	0	0	62	0	30	0	0	30	97
2 Hr Totals	9	0	13	0	22	1	0	0	0	1	17	769	1	0	787	2	214	10	0	226	1036
1 Hr Totals																					
7:00 - 8:00	2	0	4	0	6	0	0	0	0	0	11	431	1	0	443	1	83	2	0	86	535
7:15 - 8:15	3	0	6	0	9	0	0	0	0	0	12	450	1	0	463	1	103	7	0	111	583
7:30 - 8:30	3	0	7	0	10	1	0	0	0	1	12	428	0	0	440	1	123	8	0	132	583
7:45 - 8:45	7	0	8	0	15	1	0	0	0	1	12	395	0	0	407	2	138	8	0	148	571
8:00 - 9:00	7	0	9	0	16	1	0	0	0	1	6	338	0	0	344	1	131	8	0	140	501
PEAK HOUR																					
7:15 - 8:15	3	0	6	0	9	0	0	0	0	0	12	450	1	0	463	1	103	7	0	111	583
PM																					
4:00 - 4:15	1	0	3	0	4	0	0	0	0	0	2	45	0	0	47	0	91	0	0	91	142
4:15 - 4:30	2	0	1	0	3	0	0	0	0	0	1	48	0	0	49	0	83	1	0	84	136
4:30 - 4:45	0	0	1	0	1	0	0	1	0	1	2	55	0	0	57	0	80	9	0	89	148
4:45 - 5:00	1	0	1	0	2	0	0	0	0	0	5	64	1	0	70	1	92	14	0	107	179
5:00 - 5:15	2	0	4	0	6	0	0	0	0	0	8	70	0	0	78	0	70	16	0	86	170
5:15 - 5:30	1	0	1	0	2	0	0	0	0	0	17	44	0	0	61	1	102	23	0	126	189
5:30 - 5:45	7	0	4	0	11	1	0	0	0	1	23	54	0	0	77	1	95	26	0	122	211
5:45 - 6:00	4	0	3	0	7	1	0	0	0	1	12	66	1	0	79	0	90	17	0	107	194
2 Hr Totals	18	0	18	0	36	2	0	1	0	3	70	446	2	0	518	3	703	106	0	812	1369
1 Hr Totals																					
4:00 - 5:00	4	0	6	0	10	0	0	1	0	1	10	212	1	0	223	1	346	24	0	371	605
4:15 - 5:15	5	0	7	0	12	0	0	1	0	1	16	237	1	0	254	1	325	40	0	366	633
4:30 - 5:30	4	0	7	0	11	0	0	1	0	1	32	233	1	0	266	2	344	62	0	408	686
4:45 - 5:45	11	0	10	0	21	1	0	0	0	1	53	232	1	0	286	3	359	79	0	441	749
5:00 - 6:00	14	0	12	0	26	2	0	0	0	2	60	234	1	0	295	2	357	82	0	441	764
PEAK HOUR																					
5:00 - 6:00	14	0	12	0	26	2	0	0	0	2	60	234	1	0	295	2	357	82	0	441	764

CARS TURNING MOVEMENT COUNT - SUMMARY

Counted by: VCU

Date: October 12, 2022

Wednesday

Intersection of: Disney Road
and: Provinces Park Access

Weather: Sunny/Warm

Location: Anne Arundel County, Maryland

Entered by: SN

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
7:00 - 7:15	1	0	0	0	1	0	0	0	0	0	0	87	0	0	87	0	8	0	0	8	96
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	110	1	0	111	0	17	0	0	17	128
7:30 - 7:45	0	0	0	0	0	0	0	0	0	0	2	117	0	0	119	0	14	1	0	15	134
7:45 - 8:00	1	0	3	0	4	0	0	0	0	0	9	113	0	0	122	1	36	0	0	37	163
8:00 - 8:15	1	0	2	0	3	0	0	0	0	0	1	104	0	0	105	0	31	5	0	36	144
8:15 - 8:30	0	0	1	0	1	1	0	0	0	1	0	88	0	0	88	0	34	1	0	35	125
8:30 - 8:45	4	0	2	0	6	0	0	0	0	0	2	81	0	0	83	1	29	2	0	32	121
8:45 - 9:00	1	0	4	0	5	0	0	0	0	0	3	59	0	0	62	0	29	0	0	29	96
2 Hr Totals	8	0	12	0	20	1	0	0	0	1	17	759	1	0	777	2	198	9	0	209	1007
1 Hr Totals																					
7:00 - 8:00	2	0	3	0	5	0	0	0	0	0	11	427	1	0	439	1	75	1	0	77	521
7:15 - 8:15	2	0	5	0	7	0	0	0	0	0	12	444	1	0	457	1	98	6	0	105	569
7:30 - 8:30	2	0	6	0	8	1	0	0	0	1	12	422	0	0	434	1	115	7	0	123	566
7:45 - 8:45	6	0	8	0	14	1	0	0	0	1	12	386	0	0	398	2	130	8	0	140	553
8:00 - 9:00	6	0	9	0	15	1	0	0	0	1	6	332	0	0	338	1	123	8	0	132	486
PEAK HOUR																					
7:15 - 8:15	2	0	5	0	7	0	0	0	0	0	12	444	1	0	457	1	98	6	0	105	569
PM																					
4:00 - 4:15	1	0	3	0	4	0	0	0	0	0	2	45	0	0	47	0	90	0	0	90	141
4:15 - 4:30	2	0	1	0	3	0	0	0	0	0	1	48	0	0	49	0	80	1	0	81	133
4:30 - 4:45	0	0	1	0	1	0	0	1	0	1	2	55	0	0	57	0	80	9	0	89	148
4:45 - 5:00	1	0	1	0	2	0	0	0	0	0	5	63	1	0	69	1	90	14	0	105	176
5:00 - 5:15	2	0	4	0	6	0	0	0	0	0	8	69	0	0	77	0	70	16	0	86	169
5:15 - 5:30	1	0	1	0	2	0	0	0	0	0	17	44	0	0	61	1	102	23	0	126	189
5:30 - 5:45	7	0	4	0	11	1	0	0	0	1	23	53	0	0	76	1	95	26	0	122	210
5:45 - 6:00	4	0	3	0	7	1	0	0	0	1	12	66	1	0	79	0	90	17	0	107	194
2 Hr Totals	18	0	18	0	36	2	0	1	0	3	70	443	2	0	515	3	697	106	0	806	1360
1 Hr Totals																					
4:00 - 5:00	4	0	6	0	10	0	0	1	0	1	10	211	1	0	222	1	340	24	0	365	598
4:15 - 5:15	5	0	7	0	12	0	0	1	0	1	16	235	1	0	252	1	320	40	0	361	626
4:30 - 5:30	4	0	7	0	11	0	0	1	0	1	32	231	1	0	264	2	342	62	0	406	682
4:45 - 5:45	11	0	10	0	21	1	0	0	0	1	53	229	1	0	283	3	357	79	0	439	744
5:00 - 6:00	14	0	12	0	26	2	0	0	0	2	60	232	1	0	293	2	357	82	0	441	762
PEAK HOUR																					
5:00 - 6:00	14	0	12	0	26	2	0	0	0	2	60	232	1	0	293	2	357	82	0	441	762

MEDIUMS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 12, 2022
Weather: Sunny/Warm
Entered by: SN

Wednesday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
7:00 - 7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
7:30 - 7:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3
7:45 - 8:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	4
8:00 - 8:15	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	4
8:15 - 8:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	0	0	5	6
8:30 - 8:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	4
8:45 - 9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
2 Hr Totals	1	0	1	0	2	0	0	0	0	0	0	10	0	0	10	0	15	1	0	16	28
1 Hr Totals																					
7:00 - 8:00	0	0	1	0	1	0	0	0	0	0	0	4	0	0	4	0	7	1	0	8	13
7:15 - 8:15	1	0	1	0	2	0	0	0	0	0	0	6	0	0	6	0	5	1	0	6	14
7:30 - 8:30	1	0	1	0	2	0	0	0	0	0	0	6	0	0	6	0	8	1	0	9	17
7:45 - 8:45	1	0	0	0	1	0	0	0	0	0	0	9	0	0	9	0	8	0	0	8	18
8:00 - 9:00	1	0	0	0	1	0	0	0	0	0	0	6	0	0	6	0	8	0	0	8	15
PEAK HOUR																					
7:15 - 8:15	1	0	1	0	2	0	0	0	0	0	0	6	0	0	6	0	5	1	0	6	14
PM																					
4:00 - 4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 - 4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
4:30 - 4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 - 5:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
5:00 - 5:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:15 - 5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 - 5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 - 6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Hr Totals	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
4:15 - 5:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
4:30 - 5:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
4:45 - 5:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
5:00 - 6:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
PEAK HOUR																					
5:00 - 6:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1

HEAVY TRUCKS TURNING MOVEMENT COUNT - SUMMARY

Counted by: VCU

Date: October 12, 2022

Wednesday

Intersection of: Disney Road
and: Provinces Park Access

Weather: Sunny/Warm

Location: Anne Arundel County, Maryland

Entered by: SN

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
7:00 - 7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Hr Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 - 8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 - 8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 - 8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 - 9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																					
7:15 - 8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM																					
4:00 - 4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 - 4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 - 4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 - 5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:00 - 5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 - 5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 - 5:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:45 - 6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Hr Totals	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
4:15 - 5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
4:30 - 5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 - 5:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
5:00 - 6:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
PEAK HOUR																					
5:00 - 6:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 12, 2022
Weather: Sunny/Warm
Entered by: SN

Wednesday
Star Rating: 4



TIME	NORTH LEG Provinces Park Access		SOUTH LEG Parking Lot	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	2	0	0	0
7:15 - 7:30	0	0	2	0
7:30 - 7:45	5	0	0	0
7:45 - 8:00	4	0	0	0
8:00 - 8:15	5	0	0	0
8:15 - 8:30	3	0	2	0
8:30 - 8:45	4	0	2	0
8:45 - 9:00	4	0	1	0
TOTALS	27	0	7	0
PM				
4:00 - 4:15	0	0	5	0
4:15 - 4:30	0	0	7	0
4:30 - 4:45	1	0	1	0
4:45 - 5:00	5	0	1	0
5:00 - 5:15	4	0	1	1
5:15 - 5:30	1	0	0	0
5:30 - 5:45	5	0	1	1
5:45 - 6:00	5	1	3	2
TOTALS	21	1	19	4

TIME	EAST LEG Disney Road		WEST LEG Disney Road	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	1	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	1	0
PM				
4:00 - 4:15	0	0	2	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	1
4:45 - 5:00	0	0	0	1
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	1	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	3	2

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 15, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	31	0	21	0	52	1	0	1	0	2	8	55	1	0	64	1	39	22	0	62	180
10:15 - 10:30	9	0	4	0	13	0	0	0	0	0	5	60	1	0	66	1	31	10	0	42	121
10:30 - 10:45	40	0	15	0	55	1	0	0	0	1	8	66	1	0	75	0	44	26	0	70	201
10:45 - 11:00	36	0	7	0	43	3	0	0	0	3	11	64	1	0	76	0	53	22	0	75	197
11:00 - 11:15	25	1	4	0	30	1	0	1	0	2	11	47	0	0	58	3	39	30	1	73	163
11:15 - 11:30	42	2	18	0	62	0	1	1	0	2	5	64	2	0	71	2	43	24	0	69	204
11:30 - 11:45	15	0	2	0	17	0	0	1	0	1	6	73	0	2	81	1	42	12	0	55	154
11:45 - 12:00	20	0	6	0	26	0	0	2	0	2	5	57	0	0	62	0	37	14	0	51	141
12:00 - 12:15	19	0	7	0	26	0	0	1	0	1	3	61	0	0	64	1	60	3	0	64	155
12:15 - 12:30	38	0	9	0	47	2	0	5	0	7	2	59	2	0	63	1	56	1	0	58	175
12:30 - 12:45	45	0	14	0	59	0	2	2	0	4	1	44	1	0	46	2	50	4	0	56	165
12:45 - 1:00	11	0	0	0	11	1	0	0	0	1	1	46	1	0	48	3	58	1	0	62	122
1:00 - 1:15	18	0	5	0	23	1	0	2	0	3	1	69	0	0	70	0	38	10	0	48	144
1:15 - 1:30	12	0	5	0	17	0	0	0	0	0	5	50	0	0	55	0	72	5	0	77	149
1:30 - 1:45	3	0	1	0	4	1	0	0	0	1	4	55	0	0	59	1	63	19	0	83	147
1:45 - 2:00	2	0	1	0	3	2	0	0	0	2	6	67	0	0	73	0	57	10	0	67	145
4 Hr Totals	366	3	119	0	488	13	3	16	0	32	82	937	10	2	1031	16	782	213	1	1012	2563
1 Hr Totals																					
10:00 - 11:00	116	0	47	0	163	5	0	1	0	6	32	245	4	0	281	2	167	80	0	249	699
10:15 - 11:15	110	1	30	0	141	5	0	1	0	6	35	237	3	0	275	4	167	88	1	260	682
10:30 - 11:30	143	3	44	0	190	5	1	2	0	8	35	241	4	0	280	5	179	102	1	287	765
10:45 - 11:45	118	3	31	0	152	4	1	3	0	8	33	248	3	2	286	6	177	88	1	272	718
11:00 - 12:00	102	3	30	0	135	1	1	5	0	7	27	241	2	2	272	6	161	80	1	248	662
11:15 - 12:15	96	2	33	0	131	0	1	5	0	6	19	255	2	2	278	4	182	53	0	239	654
11:30 - 12:30	92	0	24	0	116	2	0	9	0	11	16	250	2	2	270	3	195	30	0	228	625
11:45 - 12:45	122	0	36	0	158	2	2	10	0	14	11	221	3	0	235	4	203	22	0	229	636
12:00 - 1:00	113	0	30	0	143	3	2	8	0	13	7	210	4	0	221	7	224	9	0	240	617
12:15 - 1:15	112	0	28	0	140	4	2	9	0	15	5	218	4	0	227	6	202	16	0	224	606
12:30 - 1:30	86	0	24	0	110	2	2	4	0	8	8	209	2	0	219	5	218	20	0	243	580
12:45 - 1:45	44	0	11	0	55	3	0	2	0	5	11	220	1	0	232	4	231	35	0	270	562
1:00 - 2:00	35	0	12	0	47	4	0	2	0	6	16	241	0	0	257	1	230	44	0	275	585
PEAK HOUR																					
10:30 - 11:30	143	3	44	0	190	5	1	2	0	8	35	241	4	0	280	5	179	102	1	287	765

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 15, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	31	0	21	0	52	1	0	1	0	2	8	55	1	0	64	1	38	22	0	61	179
10:15 - 10:30	9	0	4	0	13	0	0	0	0	0	5	60	1	0	66	1	31	10	0	42	121
10:30 - 10:45	40	0	15	0	55	1	0	0	0	1	8	66	1	0	75	0	44	26	0	70	201
10:45 - 11:00	36	0	7	0	43	3	0	0	0	3	11	64	1	0	76	0	53	22	0	75	197
11:00 - 11:15	25	1	4	0	30	1	0	1	0	2	11	47	0	0	58	3	39	30	1	73	163
11:15 - 11:30	42	2	18	0	62	0	1	1	0	2	5	64	2	0	71	2	43	24	0	69	204
11:30 - 11:45	15	0	2	0	17	0	0	1	0	1	6	73	0	2	81	1	42	12	0	55	154
11:45 - 12:00	20	0	6	0	26	0	0	2	0	2	5	57	0	0	62	0	37	14	0	51	141
12:00 - 12:15	19	0	7	0	26	0	0	1	0	1	3	61	0	0	64	1	60	3	0	64	155
12:15 - 12:30	38	0	9	0	47	2	0	5	0	7	2	59	2	0	63	1	56	1	0	58	175
12:30 - 12:45	45	0	14	0	59	0	2	2	0	4	1	44	1	0	46	2	50	4	0	56	165
12:45 - 1:00	10	0	0	0	10	1	0	0	0	1	1	46	1	0	48	3	58	1	0	62	121
1:00 - 1:15	18	0	5	0	23	1	0	2	0	3	1	67	0	0	68	0	38	9	0	47	141
1:15 - 1:30	11	0	5	0	16	0	0	0	0	0	5	50	0	0	55	0	72	5	0	77	148
1:30 - 1:45	3	0	1	0	4	1	0	0	0	1	4	55	0	0	59	1	62	19	0	82	146
1:45 - 2:00	2	0	1	0	3	2	0	0	0	2	6	67	0	0	73	0	57	10	0	67	145
4 Hr Totals	364	3	119	0	486	13	3	16	0	32	82	935	10	2	1029	16	780	212	1	1009	2556
1 Hr Totals																					
10:00 - 11:00	116	0	47	0	163	5	0	1	0	6	32	245	4	0	281	2	166	80	0	248	698
10:15 - 11:15	110	1	30	0	141	5	0	1	0	6	35	237	3	0	275	4	167	88	1	260	682
10:30 - 11:30	143	3	44	0	190	5	1	2	0	8	35	241	4	0	280	5	179	102	1	287	765
10:45 - 11:45	118	3	31	0	152	4	1	3	0	8	33	248	3	2	286	6	177	88	1	272	718
11:00 - 12:00	102	3	30	0	135	1	1	5	0	7	27	241	2	2	272	6	161	80	1	248	662
11:15 - 12:15	96	2	33	0	131	0	1	5	0	6	19	255	2	2	278	4	182	53	0	239	654
11:30 - 12:30	92	0	24	0	116	2	0	9	0	11	16	250	2	2	270	3	195	30	0	228	625
11:45 - 12:45	122	0	36	0	158	2	2	10	0	14	11	221	3	0	235	4	203	22	0	229	636
12:00 - 1:00	112	0	30	0	142	3	2	8	0	13	7	210	4	0	221	7	224	9	0	240	616
12:15 - 1:15	111	0	28	0	139	4	2	9	0	15	5	216	4	0	225	6	202	15	0	223	602
12:30 - 1:30	84	0	24	0	108	2	2	4	0	8	8	207	2	0	217	5	218	19	0	242	575
12:45 - 1:45	42	0	11	0	53	3	0	2	0	5	11	218	1	0	230	4	230	34	0	268	556
1:00 - 2:00	34	0	12	0	46	4	0	2	0	6	16	239	0	0	255	1	229	43	0	273	580
PEAK HOUR																					
10:30 - 11:30	143	3	44	0	190	5	1	2	0	8	35	241	4	0	280	5	179	102	1	287	765

MEDIUMS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 15, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 1:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 - 1:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
1:15 - 1:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 - 1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:45 - 2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Hr Totals	2	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	2	1	0	3	7
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
10:15 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 1:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 - 1:15	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	4
12:30 - 1:30	2	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	5
12:45 - 1:45	2	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	1	1	0	2	6
1:00 - 2:00	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	1	1	0	2	5
PEAK HOUR																					
10:30 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 15, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Provinces Park Access					TRAFFIC FROM SOUTH on: Parking Lot					TRAFFIC FROM EAST on: Disney Road					TRAFFIC FROM WEST on: Disney Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 - 1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 - 1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 - 1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 - 2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Hr Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 - 2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																					
10:30 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: Disney Road
and: Provinces Park Access
Location: Anne Arundel County, Maryland

Counted by: VCU
Date: October 15, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	NORTH LEG Provinces Park Access		SOUTH LEG Parking Lot	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
10:00 - 10:15	4	0	0	0
10:15 - 10:30	1	0	0	0
10:30 - 10:45	1	0	0	0
10:45 - 11:00	1	0	0	0
11:00 - 11:15	1	0	3	0
11:15 - 11:30	0	1	0	0
11:30 - 11:45	1	0	0	0
11:45 - 12:00	1	0	1	0
12:00 - 12:15	0	0	1	0
12:15 - 12:30	0	0	0	0
12:30 - 12:45	5	0	2	0
12:45 - 1:00	0	0	1	0
1:00 - 1:15	0	0	0	0
1:15 - 1:30	0	0	0	0
1:30 - 1:45	1	0	0	0
1:45 - 2:00	2	0	0	0
TOTALS	18	1	8	0

TIME	EAST LEG Disney Road		WEST LEG Disney Road	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
10:00 - 10:15	0	0	1	0
10:15 - 10:30	0	0	2	0
10:30 - 10:45	1	0	3	0
10:45 - 11:00	0	0	0	0
11:00 - 11:15	0	0	0	0
11:15 - 11:30	0	0	3	0
11:30 - 11:45	0	0	0	0
11:45 - 12:00	0	0	1	0
12:00 - 12:15	0	0	2	0
12:15 - 12:30	0	0	4	0
12:30 - 12:45	0	0	4	0
12:45 - 1:00	0	0	3	0
1:00 - 1:15	0	0	1	0
1:15 - 1:30	0	0	0	0
1:30 - 1:45	0	0	1	0
1:45 - 2:00	0	0	0	0
TOTALS	1	0	25	0

APPENDIX B

Trip Generation



Trip Generation information

AOSC facility	Summer Programs	Average Count	Fall-Spring Programs	Average Count	Yearly Average
Weekday (7am - 9am)	Drop In Swim	42	Drop In Swim	56	
	Water Aerobics	12	Water Aerobics	12	
	Morning Masters	15	Morning Masters	15	
			Drownproofing	52	
	Total	69		135	102

Weekday (4pm - 6pm)	Drop In Swim	28	Drop In Swim	12	
	ASC	132	Water Aerobics	10	
	Swim Lessons	12	HS Swim Team	114	
			ASC	132	
	Total	172	Swim Lessons	15	227.5

Saturday (11am - 2pm)	Drop In Swim	40	Drop In Swim	52	
	ASC	114	ASC	114	
	Total	154		166	160

West County Swim Center		
0.75 Factor	IN	OUT
100	75	25

Assume Bus Service will be provided for the HS Swim team and some senior students may drive by themselves. 20 trips will replace the head count of 114.		
1.00 Factor	IN	OUT
190	114	76

0.75 Factor	IN	OUT
124	62	62

APPENDIX C

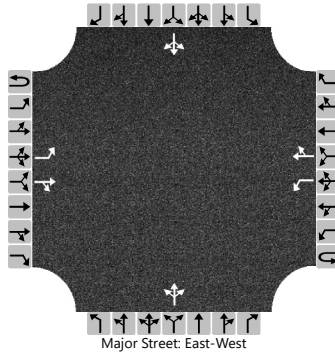
Intersection Capacity Worksheets



HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Existing AM			Peak Hour Factor	0.87		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0
Configuration		L		TR		L		TR			LTR				LTR	
Volume (veh/h)		7	103	1		1	450	12		0	0	0		6	0	3
Percent Heavy Vehicles (%)		14				0				0	0	0		17	0	33
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage					Left + Thru								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.24				4.10				7.10	6.50	6.20		7.27	6.50	6.53
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.33				2.20				3.50	4.00	3.30		3.65	4.00	3.60

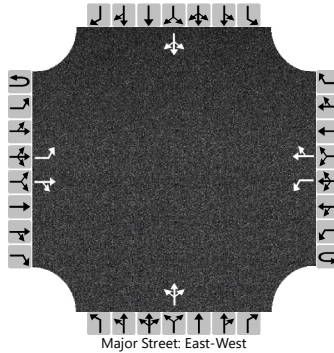
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8				1					0					10	
Capacity, c (veh/h)		978				1481					0					449	
v/c Ratio		0.01				0.00										0.02	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0										0.1	
Control Delay (s/veh)		8.7				7.4										13.2	
Level of Service (LOS)		A				A										B	
Approach Delay (s/veh)	0.5				0.0								13.2				
Approach LOS	A				A								B				

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Existing PM			Peak Hour Factor	0.91		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		82	357	2		1	234	60		0	0	2		12	0	14	
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

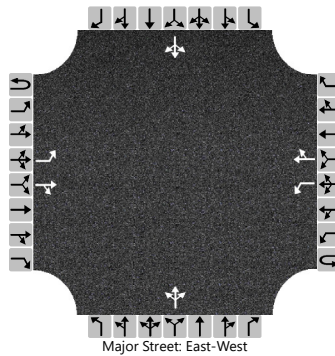
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		90				1					2					29		
Capacity, c (veh/h)		1248				1175					660					506		
v/c Ratio		0.07				0.00					0.00					0.06		
95% Queue Length, Q ₉₅ (veh)		0.2				0.0					0.0					0.2		
Control Delay (s/veh)		8.1				8.1					10.5					12.5		
Level of Service (LOS)		A				A					B					B		
Approach Delay (s/veh)		1.5				0.0					10.5				12.5			
Approach LOS		A				A					B				B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Existing Sat			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		103	179	5		4	241	35		2	1	5		44	3	143	
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

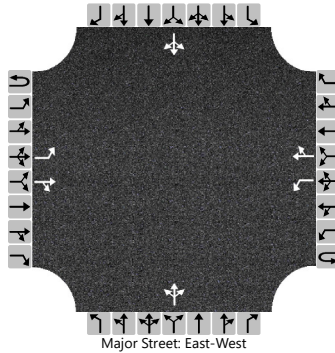
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		110				4					9					202		
Capacity, c (veh/h)		1279				1389					548					643		
v/c Ratio		0.09				0.00					0.02					0.31		
95% Queue Length, Q ₉₅ (veh)		0.3				0.0					0.0					1.3		
Control Delay (s/veh)		8.1				7.6					11.7					13.1		
Level of Service (LOS)		A				A					B					B		
Approach Delay (s/veh)		2.9				0.1					11.7				13.1			
Approach LOS		A				A					B				B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Back'd AM			Peak Hour Factor	0.87		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		7	104	1		1	450	12		0	0	0		6	0	3	
Percent Heavy Vehicles (%)		14				0				0	0	0		17	0	33	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.24				4.10				7.10	6.50	6.20		7.27	6.50	6.53
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.33				2.20				3.50	4.00	3.30		3.65	4.00	3.60

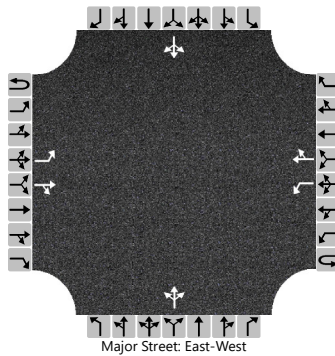
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8				1					0					10	
Capacity, c (veh/h)		978				1479					0					449	
v/c Ratio		0.01				0.00										0.02	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0										0.1	
Control Delay (s/veh)		8.7				7.4										13.2	
Level of Service (LOS)		A				A										B	
Approach Delay (s/veh)		0.5				0.0								13.2			
Approach LOS		A				A								B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Back'd PM			Peak Hour Factor	0.91		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	1	1	0	0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR	
Volume (veh/h)		82	358	2		1	235	60		0	0	2		12	0	14
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage					Left + Thru								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

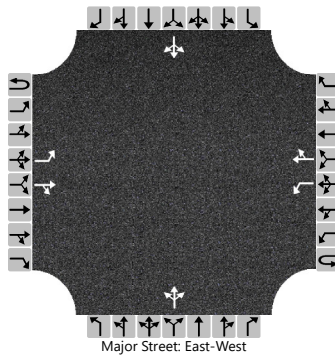
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		90				1					2					29	
Capacity, c (veh/h)		1247				1174					659					505	
v/c Ratio		0.07				0.00					0.00					0.06	
95% Queue Length, Q ₉₅ (veh)		0.2				0.0					0.0					0.2	
Control Delay (s/veh)		8.1				8.1					10.5					12.6	
Level of Service (LOS)		A				A					B					B	
Approach Delay (s/veh)	1.5				0.0				10.5				12.6				
Approach LOS	A				A				B				B				

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Back'd Sat			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		103	181	5		4	242	35		2	1	5		44	3	143	
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru						1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

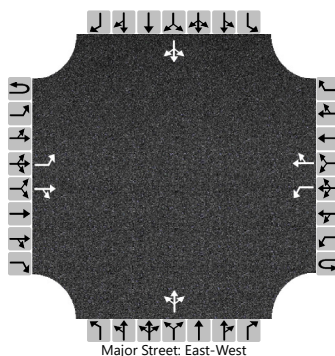
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		110				4					9					202		
Capacity, c (veh/h)		1278				1387					546					642		
v/c Ratio		0.09				0.00					0.02					0.32		
95% Queue Length, Q ₉₅ (veh)		0.3				0.0					0.0					1.3		
Control Delay (s/veh)		8.1				7.6					11.7					13.2		
Level of Service (LOS)		A				A					B					B		
Approach Delay (s/veh)		2.9				0.1					11.7				13.2			
Approach LOS		A				A					B				B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Total AM			Peak Hour Factor	0.87		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		60	104	1		1	450	34		0	0	0		13	0	21	
Percent Heavy Vehicles (%)		2				0				0	0	0		8	0	5	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.10				7.10	6.50	6.20		7.18	6.50	6.25
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.22				2.20				3.50	4.00	3.30		3.57	4.00	3.35

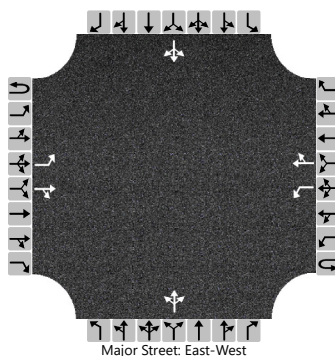
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		69				1					0					39	
Capacity, c (veh/h)		1014				1479					0					470	
v/c Ratio		0.07				0.00										0.08	
95% Queue Length, Q ₉₅ (veh)		0.2				0.0										0.3	
Control Delay (s/veh)		8.8				7.4										13.4	
Level of Service (LOS)		A				A										B	
Approach Delay (s/veh)		3.2				0.0								13.4			
Approach LOS		A				A								B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Total PM			Peak Hour Factor	0.91		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		162	358	2		1	235	94		0	0	2		35	0	67	
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

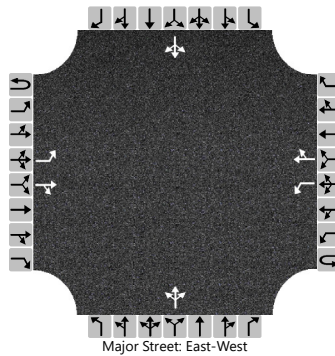
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		178				1					2					112	
Capacity, c (veh/h)		1208				1174					659					467	
v/c Ratio		0.15				0.00					0.00					0.24	
95% Queue Length, Q ₉₅ (veh)		0.5				0.0					0.0					0.9	
Control Delay (s/veh)		8.5				8.1					10.5					15.1	
Level of Service (LOS)		A				A					B					C	
Approach Delay (s/veh)		2.6				0.0				10.5				15.1			
Approach LOS		A				A				B				C			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Total Sat			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	0	
Configuration		L		TR		L		TR			LTR				LTR		
Volume (veh/h)		146	181	5		4	242	54		2	1	5		63	3	186	
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

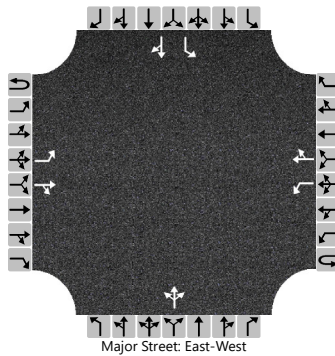
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		155				4					9					268		
Capacity, c (veh/h)		1257				1387					470					596		
v/c Ratio		0.12				0.00					0.02					0.45		
95% Queue Length, Q ₉₅ (veh)		0.4				0.0					0.1					2.3		
Control Delay (s/veh)		8.3				7.6					12.8					15.9		
Level of Service (LOS)		A				A					B					C		
Approach Delay (s/veh)		3.6				0.1					12.8				15.9			
Approach LOS		A				A					B				C			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Total AM w/imp			Peak Hour Factor	0.87		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		1	1	0
Configuration		L		TR		L		TR			LTR			L		TR
Volume (veh/h)		60	104	1		1	450	34		0	0	0		13	0	21
Percent Heavy Vehicles (%)		2				0				0	0	0		8	0	5
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage					Left + Thru								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.10				7.10	6.50	6.20		7.18	6.50	6.25
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.22				2.20				3.50	4.00	3.30		3.57	4.00	3.35

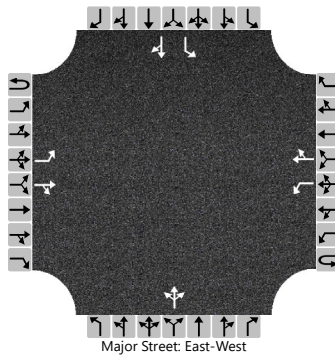
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		69				1				0				15		24
Capacity, c (veh/h)		1014				1479				0				390		538
v/c Ratio		0.07				0.00								0.04		0.04
95% Queue Length, Q ₉₅ (veh)		0.2				0.0								0.1		0.1
Control Delay (s/veh)		8.8				7.4								14.6		12.0
Level of Service (LOS)		A				A								B		B
Approach Delay (s/veh)	3.2				0.0				13.0							
Approach LOS	A				A				B							

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Total PM w/imp			Peak Hour Factor	0.91		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		1	1	0	
Configuration		L		TR		L		TR			LTR			L		TR	
Volume (veh/h)		162	358	2		1	235	94		0	0	2		35	0	67	
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type Storage					Left + Thru								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

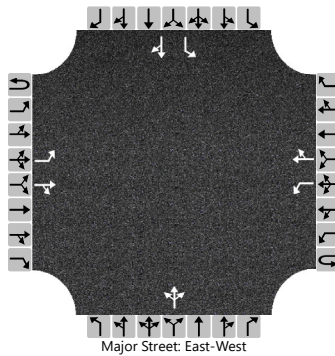
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		178				1					2			38		74		
Capacity, c (veh/h)		1208				1174					659			275		735		
v/c Ratio		0.15				0.00					0.00			0.14		0.10		
95% Queue Length, Q ₉₅ (veh)		0.5				0.0					0.0			0.5		0.3		
Control Delay (s/veh)		8.5				8.1					10.5			20.2		10.4		
Level of Service (LOS)		A				A					B			C		B		
Approach Delay (s/veh)		2.6				0.0					10.5				13.8			
Approach LOS		A				A					B				B			

HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	RH			Intersection	Disney Rd at Park Access		
Agency/Co.	The Traffic Group, Inc.			Jurisdiction	Anne Arundel County, MD		
Date Performed	10/31/2022			East/West Street	Disney Rd		
Analysis Year	2022			North/South Street	Park Access		
Time Analyzed	Total Sat w/imp			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Anne Arundel County Swim Center						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		1	1	0
Configuration		L		TR		L		TR			LTR			L		TR
Volume (veh/h)		146	181	5		4	242	54		2	1	5		63	3	186
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type Storage						Left + Thru						1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		155				4					9				67		201
Capacity, c (veh/h)		1257				1387					470				371		745
v/c Ratio		0.12				0.00					0.02				0.18		0.27
95% Queue Length, Q ₉₅ (veh)		0.4				0.0					0.1				0.6		1.1
Control Delay (s/veh)		8.3				7.6					12.8				16.8		11.6
Level of Service (LOS)		A				A					B				C		B
Approach Delay (s/veh)		3.6				0.1				12.8				12.9			
Approach LOS		A				A				B				B			