



Board of Zoning Appeals MEETING AGENDA

Tuesday, April 18, 2023 - 9:00 AM
Council Chambers, Easton Town Office
14 S Harrison Street

1. Call to Order

2. Approval of Minutes.

- a. Approval of the Draft Decision Summary from the March 21, 2023 meeting.

3. Applications

- a. **Application:** V-872 / V 23-02
Applicant: Courtney Philbin
Location: 601 & 603 Walnut Lane
Tax Map 106, Grid 000, Parcel 2576
Zoning District: R-10A
Request: Variance request pursuant to Section 28-1303.5 (C) of the Zoning Ordinance of the Town of Easton, to request a variance from Section 28-303.2 (A), the minimum 10,000 square foot lot size in the R-10A Zoning District. In addition, the applicant seeks a variance from Section 28-303.2 (C2) for relief from the minimum rear yard setback requirements, and Section 28-303.2 (C3) for relief from the minimum side yard setback requirements. The Applicant seeks to create a new property line; and the proposed new line of division between the interior walls of the two existing units would be 0', as they share a common wall, rather than the required 8' side setback and 30' rear setback requirement in the R-10A zoning district.
- b. **Application:** SE-889 / SE 23-04
and V-889 / V 23-03
Applicant: Zachary A. Smith
Location: 25 S. Aurora Street
Tax Map 104, Grid 000, Parcel 1560
Zoning District: R-7A
Request: Special Exception request pursuant to Section 28-1303.5 B of the Zoning Ordinance of the Town of Easton, use (1) 101 in Table 2.1 of Section 28-202 to be utilized as an

Accessory Dwelling Unit in the R-7A zoning district.

The applicant is also requesting a Variance pursuant to Section 28-1303.5 C of the Zoning Ordinance of the Town of Easton, to obtain a Variance from Section 28-302.2 (C2) to request a variance from the minimum 25' rear yard setback requirements; and Section 28-302.2 (C3) to request a variance from the minimum 8' side yard setback requirements in the R-7A zoning district. The applicant seeks to develop one (1) single family home and a detached garage with an accessory apartment above.

c. Application:

Applicant:

Location:

Zoning District:

Request:

SE-909 / SE 23-05
and V-896 / V 23-04

Levi Chein, 313 LLC

313 North Street

Tax Map 103, Grid 0EA, Parcel 0717

R-7A

Special Exception request pursuant to Section 28-1303.5 B of the Town of Easton Zoning Ordinance, use (1) 105 in Table 2.1 of Section 28.202 to be utilized as a Multifamily Apartment Complex in the R-7A zoning district.

The applicant is also requesting a Variance pursuant to Section 28-1303.5 (C) of the Town of Easton Zoning Ordinance, to obtain a Variance from Section 28-302.2 G and 28-1007.1 (14) j (i) in the Zoning Ordinance. The Applicant seeks to create four (4) additional units to the existing eighteen (18) units onsite. The applicant is requesting a Variance of the permitted density of 8 units/acre to allow for a density of 21.78 units/acre. The Variance request is to permit a total of 22 units on the existing 43,995.6 sq. ft. lot.

d. Application:

Applicant:

Location:

Zoning District:

Request:

SE-911 / SE 23-06
and V-911 / V 23-05

Aspire Outdoors LLC

Camac Street

Tax Map 026, Grid 020, Parcel 0186

R-10A

Special Exception request pursuant to Section 28-1303.5 B of the Town of Easton Zoning Ordinance, use (1) 105 in Table 2.1, Section 28.202 to be utilized as a Multifamily

Apartment Complex in the R-10A zoning district.

The applicant is also requesting a Variance pursuant to Section 28-1303.5 C of the Town of Easton Zoning Ordinance, to obtain a Variance from Section 28-303.2.C.3 from the minimum 8' side yard setback requirement. The applicant is proposing to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units.



**Town of Easton Planning Commission
Draft Decision Summary**

Thursday, March 21, 2023 at 9:00 a.m.
Town Hall Chamber 2
14 S. Harrison Street, Easton

Archived video of the meeting is available at:
[Town of Easton Agendas and Minutes](https://www.eastonmd.gov/Agendas/Agendas%20and%20Minutes)
[\(eastonmd.gov\)](https://www.eastonmd.gov/)

Attendance:

Board Members:

Peter Cotter, Chairman
Gary Molchan, Vice Chairman
Zakary A. Krebeck

Staff:

Lynn B. Thomas, Town Planner
Joseph Mayer, Plan Reviewer
Nicholas Johnson, Planner

Absent:

Staff:

Miguel Salinas, Planning and Zoning Director

- 1. Call to Order**—Chairman Cotter called the meeting to order at 9:00 a.m.
- 2. Decision Summary Review**—
February 21, 2023

Vice Chairman Molchan moved to approve the February 21, 2023 Draft Decision Summary. Board Member Krebeck seconded the motion.

<u>Vote</u>	<u>3-0</u>
FOR:	3- Cotter, Molchan, Krebeck
AGAINST:	0
ABSTAIN:	0
ABSENT:	0

3. Applications —

- a. Applicant:** Courtney Philbin
File No.: V-872
Location: 601 & 603 Walnut Lane, Easton, MD 21601
Tax Map 106, Grid 000, Parcel 2576
Zoning: R-10A
Request: The applicant is requesting a continuance of the application.

Staff Presentation:

Nicholas Johnson, Planner
Lynn B. Thomas, Town Planner

Applicant Presentation— None

Public Comment— None

Chairman Cotter moved to continue the application to a future meeting. Vice Chairman Molchan seconded the motion.

<u>Vote</u>	<u>3-0</u>
FOR:	3- Cotter, Molchan, Krebeck
AGAINST:	0
ABSTAIN:	0
ABSENT:	0

- b. Applicant:** Talbot Bible Church
File No.: SE-875
Location: 9114 Chapel Road, Easton, MD 21601
Tax Map 025, Grid 018, Parcel 0142, Lot 1
Zoning: R-10A
Request: The applicant is requesting a Special Exception for Day Care, Group use pursuant to (2) 221 in Table 2.1 of Section 28-201 to be utilized as a daycare in the R-10A zoning district.

Staff Presentation:

Nicholas Johnson, Planner

Applicant Presentation:

Pastor Dan Zollinhofer, Talbot Bible Church
Mike Russell

Public Comment— None

Chairman Cotter moved to approve the Special Exception request as submitted by the applicant with conditions:

- 1. The applicant shall comply with all Town and State regulations, license requirements, and applicable permit requirements;**
- 2. The scope of work is limited to all applicable Town and State licensing and permitting requirements; and**
- 3. Any future expansion that would necessitate a site plan is to be coordinated with all applicable Town and County agencies.**

Board Member Krebeck seconded the motion.

<u>Vote</u>	<u>3-0</u>
FOR:	3- Cotter, Molchan, Krebeck
AGAINST:	0
ABSTAIN:	0
ABSENT:	0

- 4. Adjournment**– Chairman Cotter adjourned the meeting at 9:39 a.m.

14 South Harrison Street, Easton, MD 21601

Application Type

Property Information

Owner

Applicant or Agent

Surveyor / Engineer

Request Details

} PLEASE SEE
ATTACHED

PLEASE SEE ATTACHED

- Page 7 of 471

- Provide all information related to any restrictions to the property recorded among the Land Records of Talbot County.
- Provide all information related to any restrictions imposed by Homeowner Associations, etc.
- Include any additional information, related to the request being made of the Board of Appeals.
- Fee Payment

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date

Elizabeth Fink FWA
 3-21-23
 ELIZABETH FINK, FWA

Printed Name of Applicant or Agent

For Office Use Only

Project Number	V 23-02	Fee Received	\$250.00
Application Number	V-872	Application Notification	04/03/2023
Filing Date	ORG. 02/17/2023	Property Posting Date	04/03/2023
BOZA Hearing Date	04/18/2023	Notice(s) Published	04/02/2023
If ESDR, Date			

Revised 2-2019

**\$400 PAID on 02/17/2023
for (2) Record Plat Reviews*

RECEIVED

MAR 23 2023

TOWN OF EASTON



FINK, WHITTEN & ASSOCIATES, LLC

Land Surveying • Land Planning • Environmental Consulting • Permitting
www.finkwhitten.com

504 Maryland Avenue
Cambridge, MD 21613
410-228-8885 phone
410-228-8845 fax

113 East Dover Street
Unit C, 1st Floor
Easton, MD 21601
410-822-8484

February 20, 2023
March 21, 2023 (Revised)

Board of Zoning Appeals
Town of Easton – Engineering, Planning and Zoning
14 South Harrison Street
Easton, MD 21601

RE: Variance Request - Courtney Philbin, owner and applicant
601 / 603 Walnut Avenue, Easton
Map 106, Parcel 2976 – Zoned R-10A

ZONING ORDINANCE SECTION(S)

Seeking relief from:

1. 28-303.2A
2. 28-303.2C(3)
3. 28-303.2C(2)
4. 28-303.2G

CHANGE FROM:

1. Minimum lot size from 10,000 sq.ft to 5,235 sq.ft for Lot 1
Minimum lot size from 10,000 sq.ft. to 6,926 sq.ft. for Lot 2
2. Side setbacks for common property line for both lots from 8 feet to 0 feet
3. Rear setback for Lot 2 from 30 feet to 4.76 feet
4. Maximum density from 3.5 dwellings per acre to 2 dwellings per 12,161 sq.ft.

Sincerely,
Fink, Whitten & Associates, LLC

Elizabeth

Elizabeth Fink, Co-owner, Planner



FINK, WHITTEN & ASSOCIATES, LLC

Land Surveying • Land Planning • Environmental Consulting • Permitting
www.finkwhitten.com

**504 Maryland Avenue
Cambridge, MD 21613
410-228-8885 phone
410-228-8845 fax**

**113 East Dover Street
Unit C, 1st Floor
Easton, MD 21601
410-822-8484**

February 20, 2023
March 21, 2023 (Revised)

Board of Zoning Appeals
Town of Easton – Engineering, Planning and Zoning
14 South Harrison Street
Easton, MD 21601

RE: Variance Request - Courtney Philbin, owner and applicant
601 / 603 Walnut Avenue, Easton
Map 106, Parcel 2976 – Zoned R-10A

Dear Members of the Board of Zoning Appeals:

Ms. Courtney Philbin is the owner of property located at 601 / 603 Walnut Avenue, currently a duplex sharing one common tax parcel. Each unit, 601 Walnut Avenue and 603 Walnut Avenue, currently pays separate water, sewer and electric bills – and are individual units by all counts, except for the underlying land. Ms. Philbin has worked diligently to enhance the dwelling and would like the opportunity to sell the units individually to include the underlying lands. In order to do so, the units must be formally subdivided in which case, a variance of the following are required:

Town of Easton Zoning Code, Section 28-303.2A which states that the “minimum lot size for all uses shall be 10,000 square feet”: Per the attached subdivision plat, Proposed Lot 1 (601 Walnut) is 5,235 square feet and Proposed Lot 2 (603 Walnut) is 6,926 square feet. The new line of division follows the interior wall that separates the two units and includes the underlying land. It is this interior wall the dictates the lot areas to be subdivided for each unit. As no new construction is proposed and conditions are “existing”, with the exception of ownership of the underlying land with the proposed subdivision, we request the Board’s approval to reduce the minimum lot size for Lot 1 from 10,000 square feet to 5,235 square feet and for Lot 2 from 10,000 square feet to 6,926 square feet.

Town of Easton Zoning Code, Section 28-303.2C (3) which states that “Side setback – two side setbacks are required of eight (8) feet each”: Per the attached subdivision plat, the new line of division (as stated above) follows the interior wall that separates the two units and includes the underlying land. This new line of division is considered a “side” and therefore, is required to have a setback of 8’ on either side. However, as the dwelling has 2 existing units, separated by a common wall, it is not possible to meet the side setback. As no new construction is proposed and conditions are “existing”, with the exception of

ownership of the underlying land with the proposed subdivision, we request the Board's approval to reduce the side setback along the new line of division, between Lots 1 and 2, from the required 8' to 0'.

Town of Easton Zoning Code, Section 28-303.2C (2) which states that a "Rear setback of thirty (30) feet" is required. Per the attached subdivision plat, the new line of division (as stated above) follows the interior wall that separates the two units and includes the underlying land. This new line of division subdivides the unit and underlying land such that new Lot 2, by virtue of subdivision, no longer fronts on two streets (as a Corner Lot) as Hickory Lane is considered an Alley. As such, the property line opposite Walnut Lane is now considered a "rear", having a setback of 30 feet. As the dwelling has 2 existing units, separated by a common wall, it is not possible to meet this rear setback. As no new construction is proposed and structural conditions are "existing", we request the Board's approval to reduce the rear setback for Lot 2 from the required 30' to 4.76', which is the closest dimension of the existing deck to the rear property line.

Town of Easton Zoning Code, Section 28-303.2G which states "For single family dwellings, the maximum density permitted in the R-7A district shall be 3.5 dwelling units per acre". The parcel, before subdivision, is 12,161 square feet in area and currently contains 2 independent dwelling units, paying separate utility bills and having separate addresses. The density currently exceeds the code requirements and as an existing condition and nothing will change by virtue of the proposed subdivision with the exception of the ownership of the underlying lands. Further, generally, the density throughout the subdivision and this area exceeds the code requirements. As no new construction is proposed and conditions are "existing", with the exception of ownership of the underlying land proposed with the subdivision, we request the Board's approval to increase the density for this parcel only, to include proposed Lots 1 and 2.

In light of the above, we respectfully ask that you grant relief with the variance requests as outlined. Thank you in advance of this consideration.

Sincerely,
Fink, Whitten & Associates, LLC

Elizabeth

Elizabeth Fink
Co-owner, Planner

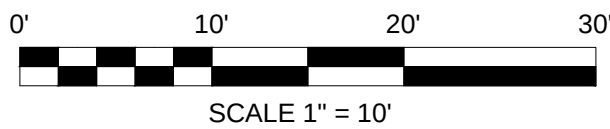


TAX PARCEL 2576
AREA =
12,161 SQ.FT.±
(BEFORE SUBDIVISION)

PARCEL 2577
N / F
JOYCE B. TOLSON
2283 / 009

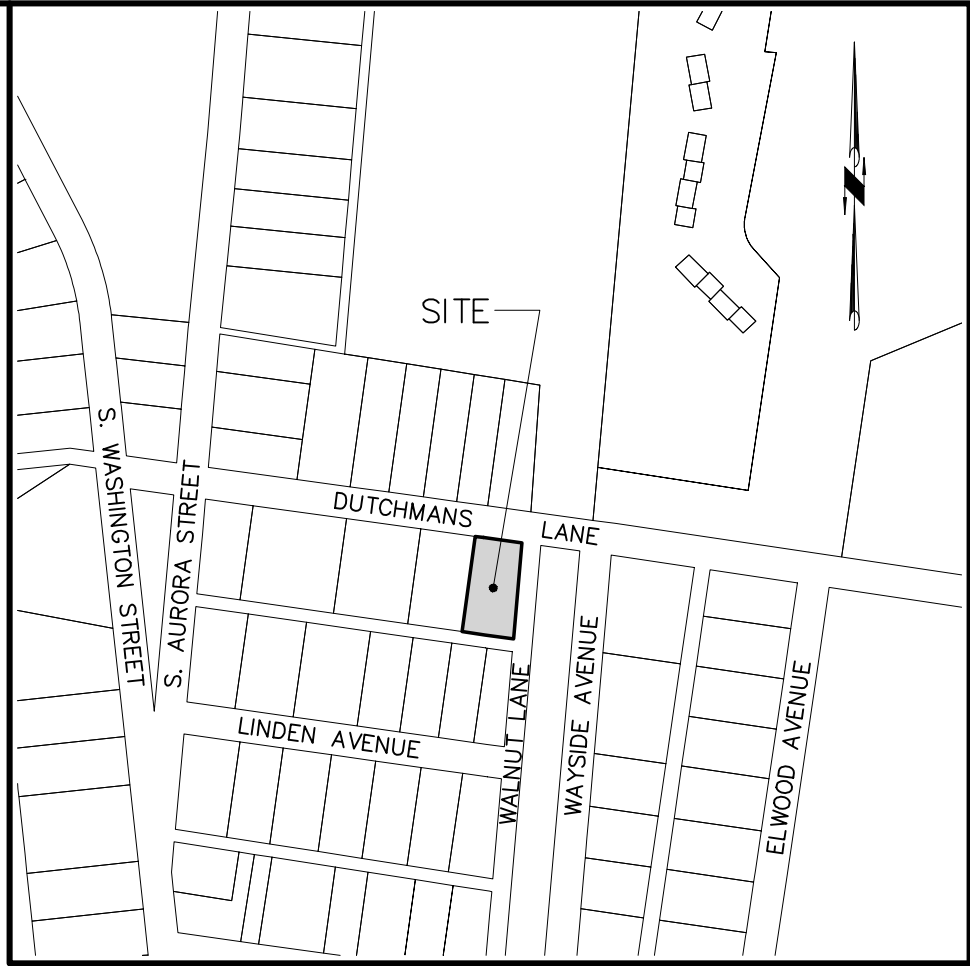
UNDERGROUND UTILITY WARNING:

NO INVESTIGATION AS TO THE EXISTENCE OF ANY UNDERGROUND UTILITIES WAS CONDUCTED IN THE PREPARATION OF THIS PLAT. IT IS THE RESPONSIBILITY OF THE OWNER, SUCCESSORS, OR ASSIGNS, AND/OR ANY CONTRACTOR TO COMPLY WITH THE UNDERGROUND FACILITIES DAMAGE PREVENTION LAW AND THE REQUISITE PERMITS ARISING THEREFROM.



LEGEND:

- = PAVED SURFACE
- = CONCRETE SURFACE
- = WOOD SURFACE
- = BRICK SURFACE
- = B.R.L. = BUILDING RESTRICTION LINE
- = WATER METER
- = SEWER CLEAN-OUT
- = TELEPHONE PEDESTAL
- = ELECTRIC TRANSFORMER
- = COMPUTED POINT
- = PROPERTY LINE (EXISTING)
- = PROPERTY LINE (HEREBY ESTABLISHED)



VICINITY MAP
SCALE: 1" = 300'

GENERAL NOTES:

- OWNER: COURTNEY PHILBIN
603 WALNUT LANE
EASTON, MD 21601
DEED REF.: 2989/256
PLAT REF.: 18/91 & 21/21
- CURRENT ZONING INFORMATION:
DISTRICT: R10A -- RESIDENTIAL DISTRICT
MINIMUM LOT SIZE: 10,000 SQ.FT.
MAXIMUM LOT COVERAGE: 100% WITHIN BUILDING ENVELOPE
MINIMUM SETBACKS:
FRONT 15'
SIDE 8'
REAR 30'
MINIMUM BUILDING ENVELOPE: 55' IN DEPTH X 30' IN WIDTH
MINIMUM STREET FRONTAGE: 35'
- ON CORNER LOTS, ALL SIDES OF THE LOT WHICH FACE A STREET MUST COMPLY WITH THE APPLICABLE FRONT SETBACK. FOR THE PURPOSE OF DETERMINING SETBACKS, THE OTHER TWO YARDS SHALL BE DEEMED SIDE YARDS.
- THE PROPERTIES SHOWN HEREON ARE LOCATED WITHIN FLOOD ZONE "X" AS SHOWN ON THE FLOOD INSURANCE RATE MAPS COMMUNITY PANEL NO. 24041C0189D FOR TALBOT COUNTY, MARYLAND DATED JULY 20, 2016.
- THE PROPERTIES SHOWN HEREON ARE LOCATED ENTIRELY OUTSIDE OF THE CHESAPEAKE BAY CRITICAL AREA.
- SETBACK DIMENSIONS SHOWN HEREON ARE ROUNDED TO THE NEAREST 0.1'.
- WATER SUPPLY & SEWAGE DISPOSAL: TOWN OF EASTON
- TOTAL AREA SUBJECT TO REVISION: 12,161 SQ.FT.±

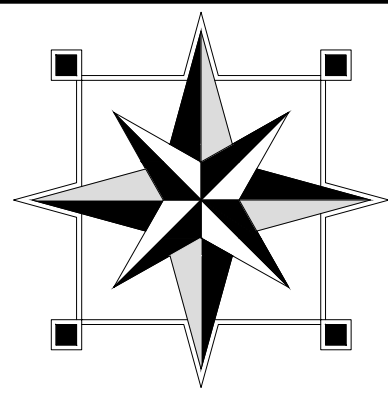
SURVEYOR'S CERTIFICATE:

I, STEVEN W. WHITTEN, HEREBY CERTIFY THAT THE FINAL PLAT HEREON IS CORRECT; THAT IT IS A SUBDIVISION OF THE LAND CONVEYED BY ROCK HALL BUILDERS, LLC. TO COURTNEY PHILBIN BY DEED DATED JUNE 13, 2022 AND RECORDED AMONG THE LAND RECORDS OF TALBOT COUNTY, MARYLAND IN LIBER 2989, FOLIO 256, AND THAT ALL MONUMENTS ARE IN PLACE. I ALSO CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION AND COMPLIES WITH SECTION 09.13.06.12 OF THE ANNOTATED CODE OF MARYLAND TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF. THIS PLAT WAS PREPARED WITHOUT BENEFIT OF REVIEW OF AN ABSTRACT OF TITLE.

Steven W. Whitten

02 / 20 / 2023
DATE

STEVEN W. WHITTEN
PROFESSIONAL LAND SURVEYOR MD. NO. 21326
(CURRENT LICENSE EXPIRES/RENEWS: 1 / 8 / 2025)



FINK, WHITTEN & ASSOCIATES, LLC.

LAND SURVEYING LAND PLANNING
ENVIRONMENTAL CONSULTING
PERMITTING

EASTON CAMBRIDGE
410-822-8484 410-228-8885
113 E. Dover St., Unit C 264 Maryland Avenue
Easton, Maryland 21601 Cambridge, Maryland 21613

www.FINKWHITTEN.com

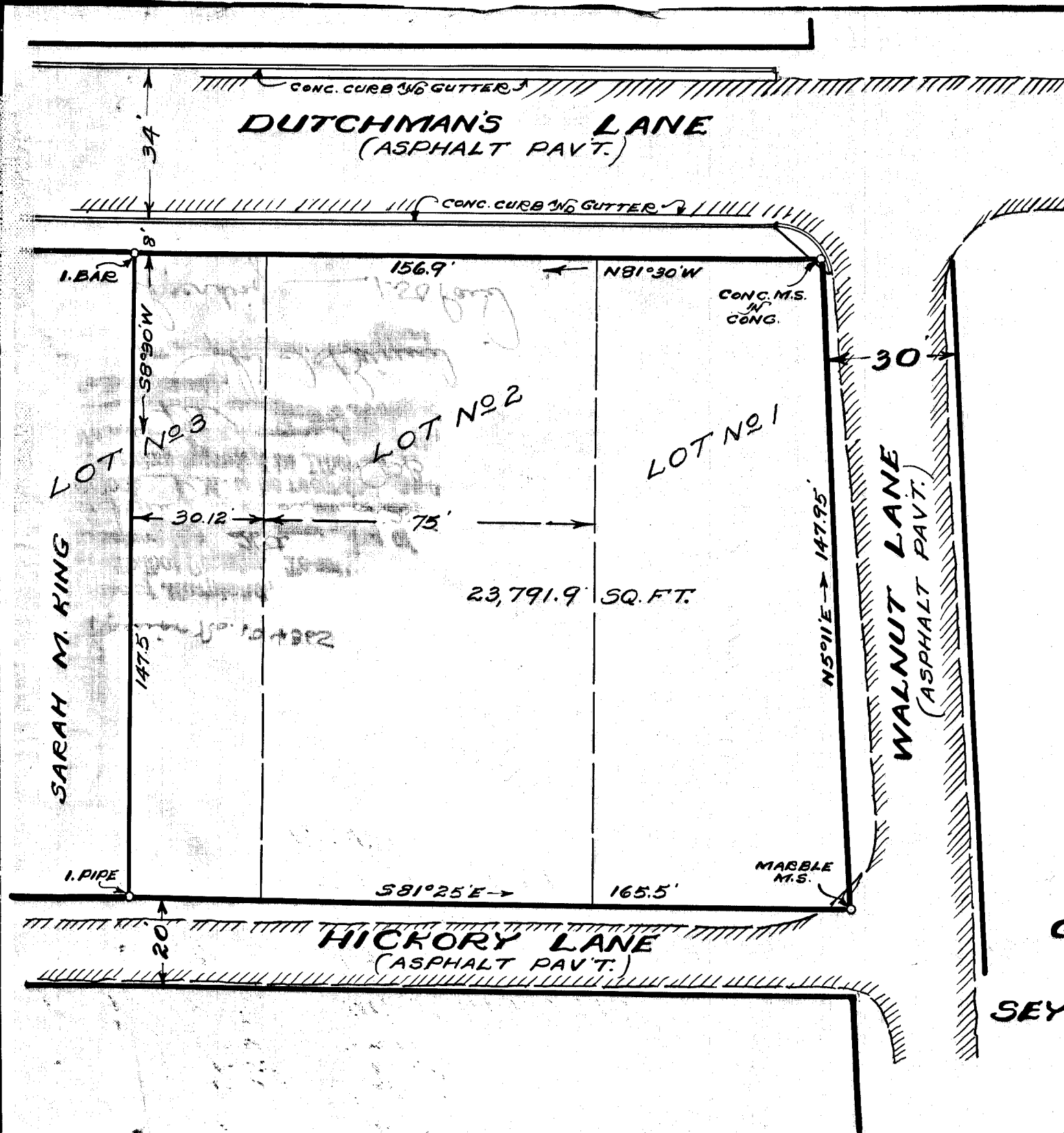
DATE	REVISION

SUBDIVISION
OF THE LAND OF

COURTNEY PHILBIN

TAX MAP 106, GRID EA, PARCEL 2576
IN THE FIRST ELECTION DISTRICT
TOWN OF EASTON, TALBOT COUNTY, MARYLAND

DRAWN B.S.F.	CHECKED S.W.W.
DATE 2/20/2023	
SCALE 1" = 10'	
JOB NO. T-106-EA-2576	



TO U.S.-MD. ROUTE 50

THE MAYOR'S COUNCIL OF EASTON

WAYSIDE AVE.

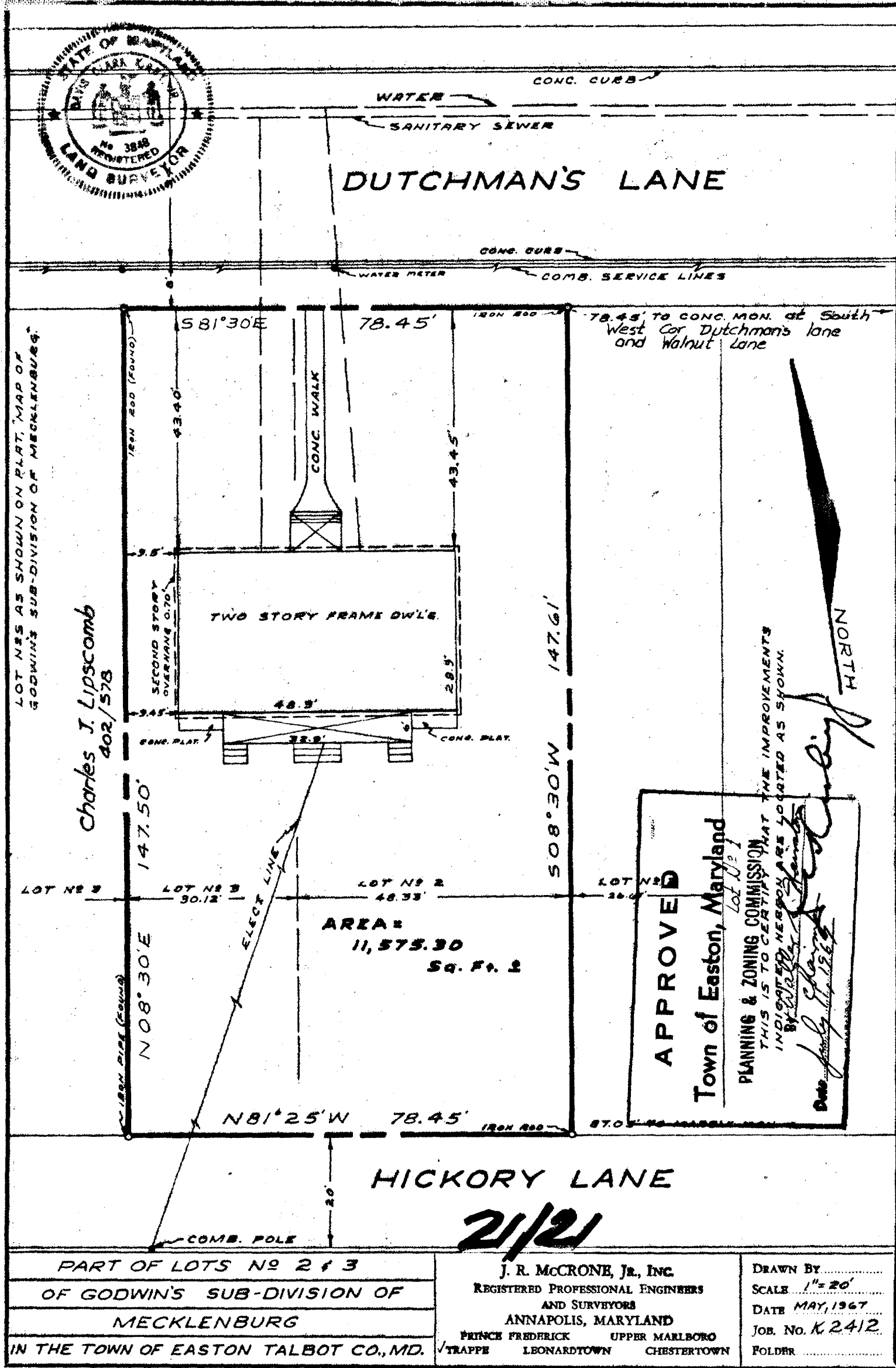
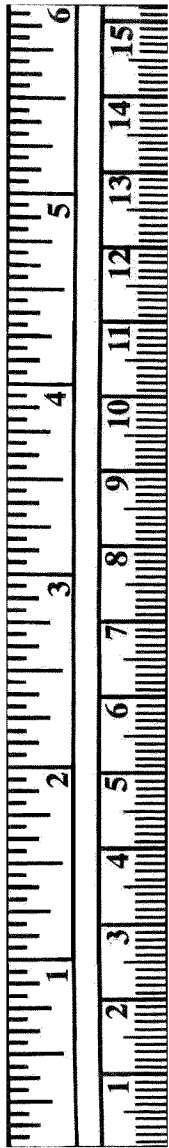
MAP
SHOWING
LOTS NOS. 1, 2, & A PORTION OF 3
GODWIN'S SUB-DIVISION
OF
"MECKLENBURG"
SURVEYED FOR
SEYMOUR BUILDING SUPPLY, INC.
IN
THE TOWN OF EASTON
TALBOT COUNTY
MARYLAND.

SCALE: ~30' TO 1" JAN., 1965.

BY: *[Signature]*
SURVEYOR, MD. REG. 1445
ODD FELLOWS BUILDING, EASTON, MD.
J.K.

NOTE: BEARINGS ARE COMPUTED FROM THE ANGLES WHICH HAVE BEEN OBSERVED PRECISELY AND ARE REFERRED TO A MAGNETIC MERIDIAN CORRECTED FOR THE DECLINATION: DECLINATION AT PRESENT BEING APPROXIMATELY 8° DEGREES 25' MINUTES WEST

18/91





94 0 47 94 Feet

June 13, 2022

This map is for reference only. Land use layers that appear on this map may or may not be accurate.

Legend

- Parcels
- Municipalities
- Address_point
- Roads
 - Other Roads
 - County Roads
 - State Roads
 - US Highway
- Streams
- lakes
- Water
- Driveways
- Docks
- Airport
- Chesapeake Bay Critical Area
- MD_SixInchImagery

Notes

Enter note.



Talbot County Cir Crt	
IMP FD SURE	\$40.00
RECORDING FEE	\$20.00
TR TAX STATE	\$1,687.50
TR TAX CTY	\$6,250.00
TOTAL	\$7,997.50
KMD CV	
Jul 08, 2022	02:40 pm

AFTER RECORDING, PLEASE RETURN TO:
Brennan Title Company
4910 Massachusetts Avenue, NW
Suite 206
Washington, DC 20016

File No. **56222004**
Tax ID # **01-001116**

Talbot County Finance Office
Recordation Tax \$8,100.00
PK 07/08/2022
Prop ID: 01-001116

This Deed, made this 13th day of June, 2022, by and between **Rock Hall Builders, LLC**, GRANTOR, and **Courtney Philbin**, GRANTEE.

Witnesseth –

That in consideration of the sum of Six Hundred Seventy-Five Thousand and 00/100 Dollars (\$675,000.00), which includes the amount of any outstanding Mortgage or Deed of Trust, if any, the receipt of which is hereby acknowledged, the said Grantor does hereby grant and convey to the said Grantee, as sole owner, in fee simple, all that lot of ground situate in the County of Talbot, State of Maryland and described as follows, that is to say:

ALL those lots or parts of lots of ground situate, lying and being on Dutchman’s Lane in the Town of Easton, Maryyland, and being Lots No. 1 and 2 and a portion of Lot No. 3 as are more particularly shown on a Plat entitled: “MAP SHOWING LOTS NOS 1,2 AND A PORTION OF 3 IN GODWIN’S SUBDIVISION OF ‘MECKLENBURG’ SURVEYED FOR SEYMOUR BUILDING SUPPLY INC. IN THE TOWN OF EASTON TALBOT COUNTY, MARYLAND”, dated January 1965, prepared by James R. Kinnamon, Surveyor, and recorded among the Plat Records of Talbot County, Maryland in Liber No.18 folio 91, and being more particularly described as follows:

BEGINNING at a concrete monument or market set in the top of the concrete curb return at the Southwestern corner of the intersection of Dutchman’s Lane and Walnut Lane and running thence the following four courses and distances: (1) with the sourtherly sideline of Dutchman’s Lane North 81 degrees 30’ West 156.9 feet to an iron bar driven at the Northeasterly corner of a portion of Lot No. 3 now or formerly owned by Sarah M. King; (2) with the Easterline line of said King land South 8 degrees 30’ West 147.5 feet to an iron pipe driven on the Northerly sideline of Hickory Lane; (3) with the Northerly line of Hickory Lane South 91 degrees 25’ East 165.5 feet to a marble monument or marker set in the roadway pavement on the Westerly sideline of Walnut Lane; (4) with the Westerly sideline of Walnut Lane North 5 degrees 11’ East 147.95 feet to the place of beginning; containing 23,791.9 square feet of land, more or less.

SAVING AND EXCEPTING THEREFROM all the portion of Lots No. 2 and 3 conveyed to Seymour Building Supply, Inc., to John J. Brady et ux., by a Deed dated July 10, 1967 and recorded among the Land Records of Talbot County, Maryland in Liber No. 421, Folio 303, and more particularly shown on a Plat made by J.R. McCrone Jr., Inc., dated May 1967 and recorded amount the Plat Record Bookds of Talbot County, Maryland in Liber No. 21, Folio 21.

BEING the same parcel of land conveyed to Ernest E. Fisher Jr. and Anita L. Fisher, his wife, by deed dated June 2, 2006, and recorded among the Land Records of Talbot County, Maryland in Liber 1450, Folio 406.

TOGETHER with the buildings and improvements theron erected, made or being, and all and every the rights of roads, ways,waters, easements, alleys, privileges, appurtenances and advantages to the same belonging or in anywise appertaining.

Tax Account #01-001116

BEING the fee simple property which, by Trustees Deed dated April 29, 2022, and recorded in the Land Records of the County of Talbot, Maryland, in Liber 2976, Folio 480, was granted and conveyed by Christine M. Drexel, Substitute Trustee unto Rock Hall Builders LLC

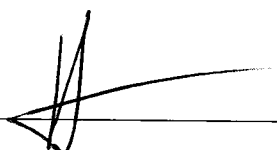
Together with the buildings and improvements thereon erected, made or being; and all and every, the rights, alleys, ways, waters, privileges, appurtenances and advantages thereto belonging, or in anywise appertaining.

Subject to covenants, restrictions, rights of way, easements and other conditions contained in Deeds and instruments forming the chain of title to the subject property.

To Have and To Hold the said tract of ground and premises above described and mentioned, and hereby intended to be conveyed, together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto and to the proper use and benefit of the said Courtney Philbin, as sole owner, in fee simple.

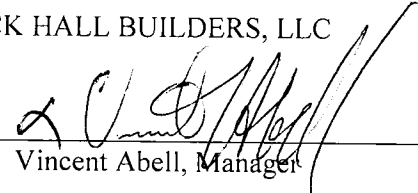
And the Grantor hereby covenants that it has not done or suffered to be done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that it will warrant Specially the property hereby granted; and that it will execute such further assurances of the same as may be requisite.

In Witness Whereof, Grantor has caused this Deed to be properly executed and sealed the day and year first above written.

Witness 

[Corporate Seal]

ROCK HALL BUILDERS, LLC

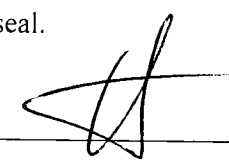
By:  (SEAL)
Vincent Abell, Manager

DISTRICT OF COLUMBIA

} ss

I hereby certify that on this 13th day of June, 2022 before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared Vincent Abell, and that as such officer, being authorized to do so, executed the foregoing Deed for the purposes therein contained, by signing the name of the limited liability company, by himself/herself as such officer, giving oath under penalties of perjury that the consideration recited herein is correct.

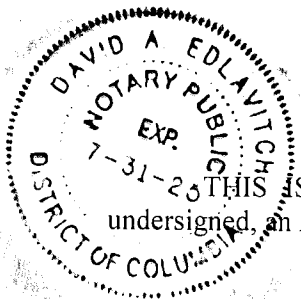
IN WITNESS WHEREOF, I hereunto set my hand and official seal.


Notary Public

My Commission Expires: 7-31-25

THIS IS TO CERTIFY that the within Deed was prepared under the supervision of the undersigned, an Attorney duly admitted to practice before the Court of Appeals of Maryland.


John M. Brennan, Attorney



This is to certify that this Deed was prepared under the supervision of an attorney duly admitted to practice before the Court of Appeals for Maryland.



John M. Brennan, Attorney

Exhibit 'B'



BOARD OF ZONING APPEALS FOR EASTON, MARYLAND

14 S. Harrison Street

Easton, Maryland 21601

Planning and Zoning Office: 410-822-1943

March 23, 2023

RE: Application No. V-872 / V 23-02
601 & 603 Walnut Lane
Tax Map 106, Grid 000, Parcel 2576
Easton, Maryland 21601
Zoning: R-10A - Residential District

Courtney Philbin
603 Walnut Lane
Easton, Maryland 21601

Town of Easton
R E P R I N T
*** CUSTOMER RECEIPT ***
Oper: SMILES Type: DC Drawer: 1
Date: 2/20/23 01 Receipt no: 7423

Year	Number	Amount
2023	872	
PZ	PZ - PAYMENTS	
		\$650.00
SVFEE	CSTP - SERVICE FEE	\$16.25
Tender detail		
58 DTC PZ PAYME		\$650.00
58 DTC PZ PAYME		\$16.25
Total tendered		\$666.25
Total payment		\$666.25
Trans date: 2/20/23 Time: 15:26:34		
THANK YOU FOR YOUR PAYMENT.		

* \$400 PAID on 02/17/202
for (2) Record Plat Reviews

Exhibit 'C'



Sign posted on April 3, 2023

Exhibit 'D'

Date of Hearing: April 18, 2023

#3A

Board of Zoning Appeals STAFF REPORT

SUBJECT: Variance-872

ELECTION WARD: Ward 2

CRITICAL ACTION DATE: At the pleasure of the board

STAFF CONTACT(S): Nicholas H Johnson, Planner
Miguel Salinas, Director

APPLICANT: Courtney Philbin

PURPOSE: To obtain variances from the minimum lot size (28-303.2.A), the minimum side setback requirement (28-303.2.C), and the minimum rear setback requirement (28-303.2.C). This would allow the applicant to subdivide the existing duplex into two separate lots.

RECOMMENDATION(S):

Staff supports a Board of Zoning Appeals **approval**.

APPLICATION INFORMATION:	
APPLICANT: Courtney Philbin 602-295-6047 azphilbin@gmail.com	REPRESENTATIVE: Same
PARCELS/ACREAGE:	
Parcel Information	Square Feet
Tax Map 106, Parcel 2576	12,161
ACCEPTANCE DATE: March 21, 2023	LOCATION: 601 & 603 Walnut Lane
EXISTING ZONING R-10A	EXISTING LAND USE: Residential
HISTORIC DISTRICT: No	FUTURE LAND USE: Residential

CONTEXT:

Location/Site Access – The subject property is currently a duplex located on one lot with frontages on Dutchmans Lane, Walnut Lane, and Hickory Lane. Off street parking is currently provided from Hickory Lane and Walnut Lane.

Existing Conditions – There is currently a duplex on this lot with a special exception for one unit to operate as a short-term rental unit.

Surrounding Properties

318 Dutchmans Lane – R-10A

Figure 1: Vicinity Map



PROPOSAL: The applicant is seeking a setback variance from §28-303.2.C which requires a minimum side setback of 8-feet and a minimum rear setback of 30-feet. The applicant is also seeking a variance from §28-303.2.A to allow the creation of a lot size below the minimum lot size.

BACKGROUND:

This property recently appeared before the Board of Zoning Appeals on July 19, 2022 and obtained a special exception to operate a short-term rental unit in one of the units of the existing duplex. The applicant would now like to separate the two existing units into separate lots.

ZONING ANALYSIS:

28-303.2.A

A. The minimum lot size for all uses shall be 10,000 square feet except as modified below.

1. Minimum lot sizes – Up to 50% of the lots within an R-10A subdivision may be less than the required minimum lot size. Of these smaller lots, 75% must have a minimum lot size of at least 7,000 square feet.

Analysis: Both lots formed during the subdivision process would have a lot size under the minimum lot size of 10,000 square feet for the R-10A Zoning District.

28-303.2.C

C. Minimum setbacks for all uses and structures:

2. Rear setback – thirty (30) feet
3. Side setback – two side setbacks are required of eight (8) feet each.

Analysis: Both lots would need to have a variance to allow one side setback of zero (0) feet since the new property line would split the existing duplex in two. A variance from the rear setback requirements on the southern lot would also be required since this lot would cease to be considered a corner lot and would thus be subject to a rear setback of 30 feet. Without this variance from the rear setback requirements, a minor subdivision could not be obtained since it would create a non-conforming lot.

POLICY ANALYSIS (VARIANCE):

- a. **Granting the application: (i) will not be contrary to the public interest, (ii) will be in harmony with the purpose and intent of the Ordinance and (iii) will not be injurious to the neighborhood or otherwise detrimental to the public welfare;**

These lots if created, would continue to function the same way they currently are as two units separated by one wall. Given that a duplex already exists on this property, there should be no new negative effects on the surrounding neighborhood with the

exception of possibly increased demand for parking spaces. The northern lot appears to meet the minimum parking requirement via an existing driveway while the southern lot appears to meet the parking requirement via off street parallel parking spaces.

- b. Owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.**

A literal interpretation of the Zoning requirements for would not allow this existing duplex to be subdivided into two units with separate owners. The Town does not have any record of when this structure was originally converted into a duplex but the current owner purchased the property in July of 2022.

RECOMMENDED CONDITION

1. Two off street parking spaces shall be provided on each lot that meet the Zoning Ordinance's dimensional requirements.
2. A minor subdivision shall be obtained.

DRAFT MOTIONS:

1. I move that the Board of Zoning Appeals approve V-872 with the staff's recommended conditions.

OR

2. I move that the Board of Zoning Appeals deny V-872.

OR

3. I move an alternate motion.

Exhibit 'E'

THE STAR DEMOCRAT - ONE TIME - SUNDAY, APRIL 2nd, 2023

NOTICE

Notice is hereby given that Ms. Courtney Philbin has filed Application V-872 / V 23-02, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to request a variance from Section 28-303.2.A, the minimum 10,000 square foot lot size in the R-10A Zoning District. In addition, the applicant seeks a variance from Section 28-303.2. C.2 for relief from the minimum rear yard setback requirements, and Section 28-303.2.C.3 for relief from the minimum side yard setback requirements. The Applicant seeks to create a new property line; and the proposed new line of division between the interior walls of the two existing units would be 0', as they share a common wall, rather than the required 8' side setback and 30' rear setback requirement in the R-10A zoning district.

The property is located at 601 & 603 Walnut Lane, Easton, Maryland and is situated in the R-10A – Residential District. The property is owned by Ms. Courtney Philbin. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.

EASTON BOARD OF ZONING APPEALS

Notice to Star Democrat: Please publish as indicated above and send Certificate of Publication to Planning and Zoning, Town of Easton, P.O. Box 520, Easton, Maryland 21601, prior to date of hearing.

Exhibit 'E'

APG Media of Chesapeake, LLC
29088 Airpark Drive
Easton, MD 21601

03/30/23

Phone: Fax:
<http://www.chespub.com>

Cust. AcctID:	Creation Date: 03/30/23
	Ad Date: 04/02/23
	Class: 10
Name: Joanne Drummer	Ad ID: 3017921
Company: TOWN OF EASTON (L)	Ad Taker: TLANG
Address: PO Box 520	Sales Person: 503
EASTON, MD 21601	Words: 226
	Lines: 23
Telephone: (410) 822-2525	Agate Lines: 72
Email:	Depth: 3.0
Description: Application V-872 / V 23-02	Inserts: 2
	Blind Box:

Other Charges:	\$0.00	Total:	\$105.00
Discount:	\$0.00		
Surcharge:	\$0.00	Paid Amount:	- \$0.00
Credits:	\$0.00		
Bill Depth:	3.0	Amount Due:	\$105.00

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	Cost
The Star Democrat	04/02/23	04/02/23	1	\$105.00

NOTICE Notice is hereby given that Ms. Courtney Philbin has filed Application V-872 / V 23-02, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to request a variance from Section 28-303.2.A, the minimum 10,000 square foot lot size in the R-10A Zoning District. In addition, the applicant seeks a variance from Section 28-303.2. C.2 for relief from the minimum rear yard setback requirements, and Section 28-303.2.C.3 for relief from the minimum side yard setback requirements. The Applicant seeks to create a new property line; and the proposed new line of division between the interior walls of the two existing units would be 0', as they share a common wall, rather than the required 8' side setback and 30' rear setback requirement in the R-10A zoning district. The property is located at 601 & 603 Walnut Lane, Easton, Maryland and is situated in the R-10A - Residential District. The property is owned by Ms. Courtney Philbin. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend. EASTON BOARD OF ZONING APPEALS 3017921 SD 4/2/2023
--

Ad Note:

Customer Note:

We Appreciate Your Business!
Thank You Joanne Drummer!

Exhibit 'F'



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY

2023-04-18

V-872 / V 23-02

Applicant notified of hearing date: Email: 2023-04-03 – 15 days

Exhibit A: Application – 2023-02-17 – 58 days

Exhibit B: Paid Receipt – 2023-02-17 – 58 days

Exhibit C: Picture of Property Sign Posting – 2023-04-03 – 15 days

Exhibit D: Staff Report – 2023-04-11 – 7 days

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2023-03-30 – 19 days

Advertisement run in Star Democrat: 2023-04-02 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: Email: 2023-04-03 – 15 days

400' Notices Distributed: 2023-04-03 – 15 days



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Ms. Courtney Philbin
601 & 603 Walnut Lane
Easton, MD 21601

Re: Application No. V-872 / V 23-02
601 & 603 Walnut Lane
Tax Map 106 Grid 000 Parcel 2576
Easton, MD 21601

Ms. Philbin,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. That granting the application will not be contrary to the public interest;
2. that granting the application will be in harmony with the purpose and intent of the Ordinance;
3. that granting the application will not be injurious to the neighborhood or otherwise detrimental to the public welfare;
4. that owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Please be prepared to answer the four listed items above at the time of the Hearing.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

14 South Harrison Street
Easton, Maryland 21601

April 3, 2023

Dear Resident,

The Easton Board of Zoning Appeals will hold a public meeting on **Tuesday, April 18, 2023 at 9:00 a.m.** in the Easton Town Council Chambers located on the second floor of 14 South Harrison Street. The Town of Easton Zoning Ordinance requires that owners of property located within 400 feet of a parcel on which certain types of applications are pending be given notice of upcoming meetings or hearings. If you are a tenant in or an owner of a multi-unit building, please distribute or post this notice in a visible location for all other tenants or owners to view. If you are a tenant of a rental property, please notify the property owner that this notice letter has been distributed to their property. Notice has also been sent to the Star Democrat, a sign has been posted at the subject property and the hearing agenda has been posted on the Town of Easton website: <http://eastonmd.gov/>.

This letter is sent to inform you that an application for 601 & 603 Walnut Lane has been filed to request a variance pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to request a variance from Section 28-303.2.A, the minimum 10,000 square foot lot size in the R-10A zoning district. In addition, the applicant seeks a variance from Section 28-303.2.C.2 for relief from the minimum rear yard setback requirements; and Section 28-303.2.C.3 for relief from the minimum side yard setback requirements. The applicant seeks to create a new property line, and the proposed new line of division between the interior walls of the two existing units would be 0', as they share a common wall, rather than the required 8' side setback and 30' rear setback requirement in the R-10A zoning district.

Copies of the proposed application are on file and available for public review in the Town's Planning Office at 14 South Harrison Street between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday. **In addition, digital copies are also available for review via the Town's website at <https://www.eastonmd.gov/129/Agendas-Minutes>.** If you have any questions regarding this application, please contact the Planning Office at (410) 822-1943 or via e-mail at ssmith@eastonMD.gov.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov

Exhibit 'A'



Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

Board of Zoning Appeals Application

Application Type

☒ Variance ☐ Appeal ☒ Special Exception

Property Information

Address 25 S. Aurora Street
Tax Map 104 Grid Parcel 1560 Lot
Deed Reference: Liber 2514 Folio 424
Plat Reference: Liber Folio
Existing Use Vacant Residential Lot
Zoning District R7A
Historic District Y ☒ N ☐ PRD Y ☐ N ☒

Owner

Name Chris & Debra Soussanin
Mailing Address P.O. Box 1205, Leonardtown, MD 20650
Telephone No. Email

Applicant or Agent

Name Zachary A. Smith
Mailing Address 114 Bay Street, Building C, Easton, Maryland 21601
Telephone No. 410-819-8989 Email zachsmith@alrwlaw.com

Surveyor / Engineer

Name N/A License No. Expiration Date
Mailing Address
Telephone No. Email

Request Details

Subject to Previous BOZA Application Y ☐ N ☒ (not to Applicant's knowledge)

Zoning Ordinance Section 28-202 Table 2.1.A & 28-302.2 C
Change From N/A to N/A

Please describe the purpose of the request being made to the Board of Appeals including all information pertinent to said request. Attach a formal letter detailing request.

See Attached

- If the applicant is other than the owner, include a letter of certification from the owner.
- Attach five (5) copies of the recorded Deed conveying present ownership of the property.
- Attach five (5) copies of scaled plat sketch or site plan with all dimensions of lot, setbacks, improvements and the distances between any improvements.

- Provide all information related to any restrictions to the property recorded among the Land Records of Talbot County.
- Provide all information related to any restrictions imposed by Homeowner Associations, etc.
- Include any additional information, related to the request being made of the Board of Appeals.
- Fee Payment

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date 3/10/23

Printed Name of Applicant or Agent

Zach A. Smith, Agent

For Office Use Only

Project Number	SE 23-04 / V 23-03	Fee Received	\$950.00
Application Number	SE-889 / V-889	Application Notification	04/03/2023
Filing Date	03/10/2023	Property Posting Date	04/03/2023
BOZA Hearing Date	04/18/2023	Notice(s) Published	04/02/2023
If ESDR, Date			

Revised 2-2019

RECEIVED
MAR 10 2023
TOWN OF EASTON

SE-889 / SE 23-04

V-889 / V 23-03

ATTACHMENT A

PURPOSE OF APPLICATION

The purpose of this Application is to: (i) obtain a special exception to permit an accessory dwelling unit, and (ii) obtain a variance(s) from the minimum setbacks for the new home and detached garage (with accessory apartment above) that are shown on the enclosed site plan. This Application pertains to the property known as 25 S. Aurora Street ("Property"). The Property is zoned R7A (Residential), and is owned by Chris and Debra Soussanin ("Applicants").

The Property is currently vacant, but was previously developed with at least one (1) single family home and multiple outbuildings. It is very likely that historically the Property was improved with more than a single dwelling unit, as it consists of multiple lots that were established during or before the 1800s. In 2001 the Easton Planning Commission approved a PRD (Planned Redevelopment) application for the Property, authorizing (i) the configuration of the Property into two (2) lots as shown on the Lot Line Revision Plat attached hereto, and (ii) the construction of two (2) single family homes, with one home on each lot. Following the 2001 approval the then owner (Mr. Nick Turner) did not immediately pursue development on either lot, and the Property has remained vacant since that time.

In 2018 the Applicants purchased the Property from Mr. Turner, specifically purchasing the two (2) lots together with the entitlement to construct two (2) single family homes. Earlier this year the Applicants were informed by the Planning Director that the Property is no longer in the PRD Zone, and that pursuant to Section 28-1202 of the Town Code, the two (2) lots are now combined into one (1) single parcel for zoning purposes. Based on this determination by the Planning Director, the Applicants have decided to proceed with the development of one (1) single family home and a detached garage with an accessory apartment above.

Special Exception:

Pursuant to §28-202 Table 2.1.A of the Town Code, an "*Accessory Dwelling Unit*" is permitted in the R7A Zone by Special Exception. This Application seeks a Special Exception to permit the proposed accessory dwelling unit. The accessory dwelling unit will be located within the upper floor of the proposed detached garage. The Applicants will reside in the proposed primary dwelling, and plan to rent out the accessory dwelling unit. The Applicants will coordinate with any prospective tenant to provide at least one (1) off-street parking space pursuant to the requirements of §28-1007.1 7 of the Town Code.

Variance:

The Property is relatively small compared to the minimum bulk requirements that currently apply in the R7A Zone, however the Property is located within a historic part of Easton and the parcel size and proposed setbacks are consistent with the established context. Due to the small parcel size, the Applicants cannot configure a reasonable home without encroaching into the minimum rear and side yard setbacks.¹

¹ The minimum front yard setback in the R7A Zone is generally 25', however §28-1004 of the Town Code permits dwellings to essentially line up with neighboring structures when those structures are closer than 25'.

Pursuant to §28-302.2 C 2 of the Town Code, the minimum rear yard setback in the R7A Zone for a primary structure is 25'.² The Property is only 66' at its deepest point, and only 51' deep at its shallowest point. The Applicants propose a 40' deep home, which is consistent with the depth of homes on adjacent properties. The home is proposed to be built at or very near the front property line, consistent with the established streetscape in this area. This configuration provides for a rear yard setback of approximately 22.5' between the home and the rear property line, and approximately 14.5' between the rear property line and the proposed rear porch. While the proposed setback does not adhere to the current minimum that is specified in the Town Code, the proposed setback is consistent with the established pattern of development in this area, and is the greatest setback that can be provided for while allowing for the construction of a reasonable home.

Pursuant to §28-302.2 C 3 of the Town Code, the minimum side yard setback in the R7A Zone is 8'. The Applicants have configured the proposed home to generally meet the 8' setback on each side, apart from the setback from the jog in the rear property line that runs east west between the two lots shown on the 2001 Lot Line Revision Plat. In this area portions of the new home will be located to within 1.25' of the subject property line. This line abuts the rear yard of an adjacent property fronting on Thorogood Lane. Again, while the proposed development is closer to the property line than the current regulations permit, the proposed development is consistent with the established pattern of development in this part of Easton, where homes are often located at or very near a side property line.

Considering the site constraints, the requested variance from the required setbacks is warranted – as without the requested relief the Applicants will be unable to construct the reasonable and modest home that is sought. Because the proposed development will comport with the established pattern of development in this area, the granting of the requested relief is appropriate. Please grant the variance(s) needed to permit the development of the Property that is shown on the attached site plan.

² Pursuant to §28-1007.1 6 of the Town Code, the minimum rear yard setback for a detached garage is zero feet when there is no alley present.

March 8, 2023

Easton Board of Zoning Appeals
c/o Samantha Smith
14 S. Harrison Street
Easton, Maryland 21601

Re: Board of Zoning Appeals Special Exception & Variance Application
25 S. Aurora Street Easton, Maryland

Ladies and Gentlemen:

Please be advised that we, the undersigned, hereby authorize Zach Smith and Armistead, Lee, Rust & Wright, P.A. to act on our behalf in connection with the Special Exception and Variance Application related to our property referenced above, such authority to include the execution of the Application and representation at the hearing before the Board of Zoning Appeals.

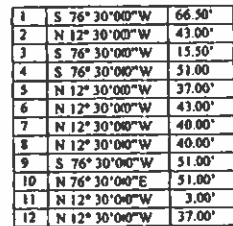
Sincerely,



Chris Soussanin

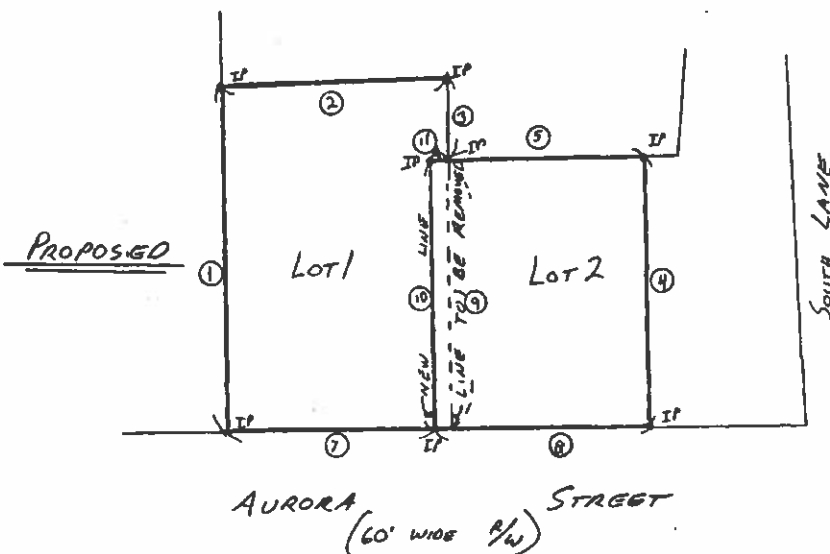


Debra Soussanin



LOT 1	LOT 2	
2,859.5' SQ. FT.	1,887.0' SQ. FT.	(EXISTING)
0.066 ACRE	0.043 ACRE	
2,706.5' SQ. FT.	2,040.8' SQ. FT.	(PROPOSED)
0.062 ACRE	0.047 ACRE	

PLANNING & ZONING
MAGNETO DISK 1/10/2001
CHAIRMAN, EASTON, MARYLAND
TOWN ENGINEER
JIMMY W. ELLER
TOWN ENGINEER, EASTON, MARYLAND



MAGNETIC REFERENCE

GOLDY D. TURNER
GOLDY D. TURNER

MY COMMISSIONER: LIT. 100



1. PROPERTY LOCATED ON TAX MAP 104, PARCEL 1560.
2. DEED REFERENCES: LIBER 909, FOLIO 355 (PARCEL 1560).
3. OWNERS: NICHOLAS E. TURNER, JR., ETAL
P.O. BOX 1934
EASTON, MD 21601
4. THE ZONING CLASSIFICATION IS RTA (RESIDENTIAL) PR (PLANNED REDEVELOPMENT).
5. THIS PROPERTY DOES NOT CONTAIN WETLANDS.
6. THE PROPERTY IS NOT WITHIN THE CHESAPEAKE BAY CRITICAL AREA.
7. THE BUILDING SETBACKS AS SHOWN HEREON ARE MINIMUM:
FRONT: 10'
REAR: 10'
SIDE: 10'
8. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF REVIEW OF AN ABSTRACT OF TITLE.
9. THE REVISION OF THE LOT LINES WAS MADE SOLELY FOR THE PURPOSES OF ADDING THE 153 SQ. FT. OF LOT 1 TO LOT 2. SAID 153 SQ. FT. DOES NOT CONSTITUTE A SEPARATE BUILDING LOT AND MAY NOT BE TRANSFERRED SEPARATELY FROM SAID ADJOINING LANDS. ANY FUTURE SUBDIVISION OF SAID PARCEL, OR BUILDING DEVELOPMENT, SHALL BE SUBMITTED FOR APPROVAL IN ACCORDANCE WITH THE ZONING ORDINANCE AND SUBDIVISION REGULATIONS IN EFFECT AT THAT TIME.
10. SURVEYOR: RUSSELL R. KLAGES
124 LONG DRIVE
QUEENSTOWN, MD 21658
410-827-7986
PROFESSIONAL LAND SURVEYOR
LICENSE #8685

Rec. 01/11/2001 9:16am

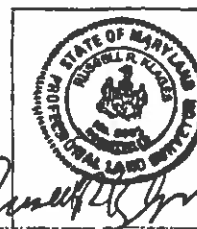
STATE OF MARYLAND
Talbot County, TO WIT: *Plat*
Recorded in the Land Records
of Talbot County *PCS-56J*
MaryAnn Shortall
Mary Ann Shortall, Clerk
Circuit Court for Talbot County

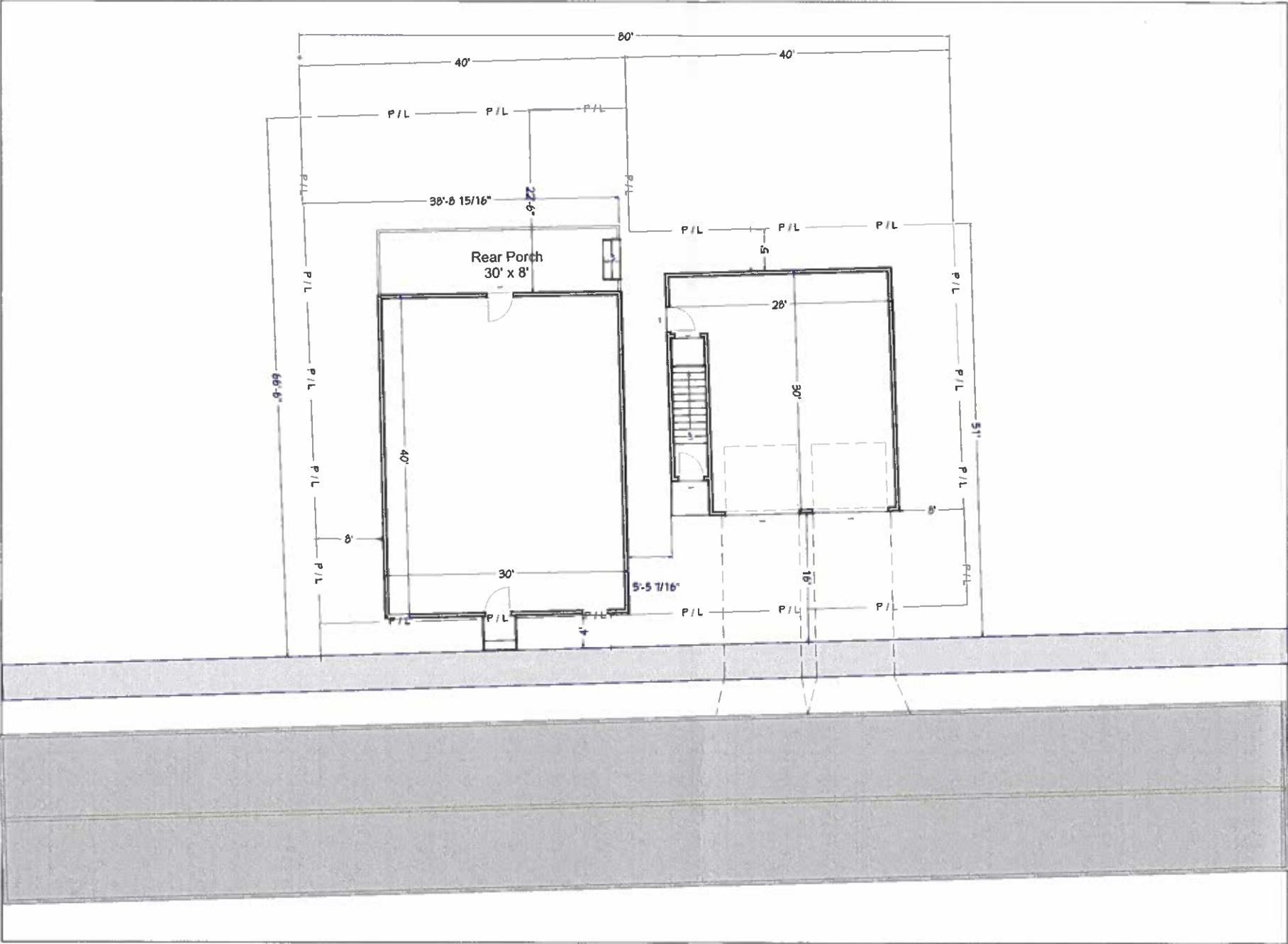
RUSSELL R. KLAGES
LAND SURVEYOR
QUEENSTOWN, MARYLAND 21658
410-827-7986

LOT LINE REVISION
NICHOLAS E. TURNER, JR., ETAL
#25 SOUTH AURORA STREET
EASTON, MARYLAND
1ST DISTRICT, TALBOT COUNTY

SCALE: 1" = 20'
JOB# 492-99

SEPTEMBER 28, 2000
SHEET 1 OF 1

[illegible]



NO.	DESCRIPTION	BY	DATE

NO.	DESCRIPTION	BY	DATE

SHEET TITLE: Mr. and Mrs. Soussanin
25 S. Aurora Street
Easton, MD 21601
Klages 2-21-00 drawing
Deed Reference 90q/555

PROJECT DESCRIPTION:
One story home and garage with
apartment inside the
individual footprints



DATE:

3/10/23

SCALE:

1" = 10'

SHEET:

A-1







EASTERN SHORE TITLE COMPANY
 114 N. West Street
 Easton, Maryland 21601
 410-820-4426 Fax 410-820-4429
 Website: www.eastenshoretile.com
 Email: info@eastenshoretile.com

CERTIFICATION IS MADE THAT ALL TAXES
 DUE ON THE PROPERTY INDICATED IN
 THIS DEED HAVE BEEN PAID.
 FINANCE OFFICER OF TALBOT COUNTY
 R. ANDREW HOLLIS, FIN. OFFICER

DATE 2/20/2018 KB

This Deed, made this 20th day of February, 2018, by and between NICHOLAS E. TURNER, Jr. and HILBERT H. TURNER, Maryland resident(s), Grantors; and CHRISTOPHER N. SOUSSANIN and DEBRA ANN SOUSSANIN, Grantees.

- Witnesseth -

THAT FOR AND IN CONSIDERATION of the sum of Forty-Two Thousand Five Hundred And 00/100 Dollars (\$42,500.00) and other good, valuable and sufficient consideration, in hand paid, the receipt of which is hereby acknowledged, the said NICHOLAS E. TURNER, Jr. and HILBERT H. TURNER do hereby grant and convey unto the said CHRISTOPHER N. SOUSSANIN and DEBRA ANN SOUSSANIN, husband and wife, as tenants by the entireties, their assigns, the survivor of them, and the heirs, personal representatives and assigns of the survivor, forever, in fee simple, all the hereinafter described property:

ALL those two lots, pieces or parcels of ground situate, lying and being in the Town of Easton, First Election District of Talbot County, State of Maryland and described as follows, that is to say:

ALL those two lots, pieces or parcels of ground situate, lying and being in the First Election District of Talbot County, Maryland, and designated as Proposed Lot 1 and Lot 2, on a Plat entitled: "LOT LINE REVISION, NICHOLAS E. TURNER, JR., ET AL, #25 SOUTH AURORA STREET, EASTON, MARYLAND, 1ST DISTRICT, TALBOT COUNTY", prepared by Russell R. Klages, Land Surveyor, dated September 28, 2000 and recorded among the Plat Records of Talbot County, Maryland in Plat Liber No. 5, folio 56J; reference to said Plat and the recording thereof is hereby made for a more particular description of said lots by metes and bounds, courses and distances.

BEING a one-half (1/2) interest in said property conveyed unto NICHOLAS E. TURNER, JR. by Deed from NICHOLAS E. TURNER, JR. and CHARLOTTE A. ACREE, dated January 17, 2006, and recorded among the Land Records of Talbot County, Maryland in Liber M.A.S. No. 1416, folio 36; ALSO BEING a one-half (1/2) interest in said property conveyed unto HILBERT H. TURNER and GOLDY B. TURNER, as tenants by the entireties, by Deed from WILLIS B. SCOTT, JR. and MILDRED JONES, dated November 20, 1998, and recorded among the Land Records of Talbot County, Maryland in Liber M.A.S. No. 909, folio 555; the said Goldy B. Turner having departed this life on or about November 27, 2009 (Talbot County Estate No. 19966), thus vesting title in Hilbert H. Turner, surviving tenant by the entirety.

Together with the buildings and improvements thereon erected, made or being; and all and every, the rights, alleys, ways, waters, privileges, appurtenances and advantages to the same belonging, or in anywise appertaining.

To Have and To Hold the said tract of ground and premises above described and mentioned, and hereby intended to be conveyed, together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto and to the proper use and benefit of the said CHRISTOPHER N. SOUSSANIN and DEBRA ANN SOUSSANIN, husband and wife, as tenants by the entireties, their assigns, the survivor of them, and the heirs, personal representatives and assigns of the survivor, forever, in fee simple.

TALBOT COUNTY CIRCUIT COURT (Land Records) MAS 2514, p. 0424, MSA_CE91_2453, Date available 02/22/2018, Printed 03/10/2023

TALBOT COUNTY FINANCE OFFICE

RECORDATION TAX

AMT: \$510.00

DATE: 2/20/2018

INITIALS: KB

Prop ID: 01-0191694

And the said Grantors do hereby covenant that they have not done or suffered to be done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that they will warrant specially the property hereby conveyed; and that they will execute such other and further assurances of the same, as may be requisite.

As Witness the hands and seals of said Grantors, the day and year first above written.

WITNESS:

Candace L. Harrison
Candace L. Harrison

NICHOLAS E. TURNER, Jr. {Seal}
HILBERT H. TURNER {Seal}

STATE OF MARYLAND, COUNTY OF TALBOT, to wit:

I hereby certify that on this **20th** day of **February, 2018**, before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared **NICHOLAS E. TURNER, Jr. and HILBERT H. TURNER**, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged the same for the purposes therein contained, and further acknowledged the foregoing Deed to be their respective act, and in my presence signed and sealed the same, giving oath under penalties of perjury that the consideration recited herein is correct.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Candace L. Harrison
Notary Public

My commission expires: 10.2.21



This document was prepared under the supervision of an attorney admitted to practice before the Court of Appeals of Maryland, or by one of the parties named in the within instrument.

Sharon Van Emburgh
SHARON VAN EMBURGH, ATTORNEY

AFTER RECORDING, PLEASE RETURN TO:
EASTERN SHORE TITLE COMPANY
114 N. West Street
410-820-4426 fax 410-820-4429
Easton, Maryland 21601
File No. EST-2018-21221CLH

Mary Ann Shortall, Clerk
Circuit Court For Talbot County
11 N. Washington St., Suite 16
Easton, Maryland 21601

License and Recording
(410) 822-2611 Ext. 4

LR - Deed (w Taxes)
Recording Fee no RT 20.00
Name: Turner/Soussanin
Ref:
LR - Deed (with Taxes)
Surcharge 40.00
LR - Deed State
Transfer Tax 212.50
LR - County Transfer
Tax - linked 425.00
LR - NR Tax - 1kd 0.00
=====

SubTotal:	697.50
=====	
Total:	757.50

02/20/2018 03:01
CC20-MG
#0871004 CC0205 -
Talbot
County/CC02.05.02 -
Register 02

DOCUMENT VALIDATION
(excluded from page count)

State of Maryland Land Instrument Intake Sheet
BOOK: 2514, PAGE: 427
☐ Baltimore City ☒ County: Talbot
Information provided is for the use of the Clerk's Office, State Department of Assessments and Taxation, and County Finance Office Only.
 (Type or Print in Black Ink Only—All Copies Must Be Legible)

1 Type(s) of Instruments
 (: Check Box if addendum Intake Form is Attached)
 1 Deed ☐ Mortgage ☐ Other ☐
 2 Deed of Trust ☐ Lease ☐ Other ☐

2 Conveyance Type Check Box
☒ Improved Sale Arms-Length (1) ☐ Unimproved Sale Arms-Length (2) ☐ Multiple Accounts Arms-Length (3) ☐ Not an Arms-Length Sale (9)

3 Tax Exemptions (if applicable)
 Cite or Explain Authority
 Recordation ☐
 State Transfer ☐
 County Transfer ☐

4 Consideration and Tax Calculations

Consideration Amount		Finance Office Use Only Transfer and Recordation Tax Consideration	
Purchase Price/Consideration	\$ 42,500.00	Transfer Tax Consideration	\$
Any New Mortgage	\$ 31,875.00	N () % =	\$
Balance of Existing Mortgage	\$	Less Exemption Amount	\$
Other:	\$	Total Transfer Tax	\$
Other:	\$	Recordation Tax Consideration	\$
Full Cash Value:	\$	N () per \$500 =	\$
		TOTAL DUE	\$

5 Fees

Amount of Fees	Doc. 1	Doc. 2	Agent:
Recording Charge	\$ 20.00	\$ 20.00	
Surcharge	\$ 40.00	\$ 40.00	Tax Dill
State Recordation Tax	\$ 510.00	\$	
State Transfer Tax	\$ 212.50	\$	C.B. Credit:
County Transfer Tax	\$ 425.00	\$	
Other	\$	\$	Ag. Tax/Other:
Other	\$	\$	

6 Description of Property
 SDAT requires submission of all applicable information. A maximum of 40 characters will be indexed in accordance with the priority cited in Real Property Article Section 3-104(g)(3)(i).

District	Property Tax ID No. (1)	Grantor Liber/Folio	Map	Parcel No.	Var. LOG
01	01-019894	1416/36	0104	1560	(5)
Subdivision Name				Lot (3a)	Block (3b) Sect/AR (3c)
Location/Address of Property Being Conveyed (2)				Plat Ref.	Sq Ft/Acreage (4)
25 S. AURORA STREET, (LOTS 8 & 9), EASTON, MD 21601				5/56J	
Other Property Identifiers (if applicable)				Water Meter Account No.	
Residential, X, or Non-Residential ☐		Fee Simple ☒ or Ground Rent		Amount: N/A	
Partial Conveyance? Yes ☒ No ☐		Description/Amt. of Sq Ft/Acreage Transferred: N/A			
If Partial Conveyance, List Improvements Conveyed: N/A					

7 Transferred From

Doc. 1 – Grantor(s) Name(s)	Doc. 2 – Grantor(s) Name(s)
NICHOLAS E. TURNER, Jr.	CHRISTOPHER N. SOUSSANIN
HILBERT H. TURNER	DEBRA ANN SOUSSANIN
Doc. 1 – Owner(s) of Record, if Different from Grantor(s)	Doc. 2 – Owner(s) of Record, if Different from Grantor(s)

8 Transferred To

Doc. 1 – Grantee(s) Name(s)	Doc. 2 – Grantee(s) Name(s)
CHRISTOPHER N. SOUSSANIN	SHORE UNITED BANK
DEBRA ANN SOUSSANIN	
New Owner's (Grantee) Mailing Address	
PO BOX 1205, LEONARDTOWN, MD 20650	
Doc. 1 – Additional Names to be Indexed (Optional)	Doc. 2 – Additional Names to be Indexed (Optional)

9 Other Names to Be Indexed

10 Contact/Mail Information

Instrument Submitted By or Contact Person		☒ Return to Contact Person
Name: Candace Harrison		☐ Hold for Pickup
Firm: EASTERN SHORE TITLE COMPANY		☐ Return Address Provided
Address: 114 N. West Street		
Easton, Maryland 21601	Phone: (410) 820-4426	

11 IMPORTANT: BOTH THE ORIGINAL DEED AND A PHOTOCOPY MUST ACCOMPANY EACH TRANSFER

Assessment Information: Yes ☐ No ☒ Will the property being conveyed be the grantee's principal residence? Does transfer include personal property? If yes, identify: Was property surveyed? If yes, attach copy of survey (if recorded, no copy required).

Assessment Use Only – Do Not Write Below This Line

Terminal Verification	Agricultural Verification	Whole	Part	Tran. Process Verification
Transfer Number	Date Received	Deed Reference:		Assigned Property No.
Year	20	20	Geo. Map	Sub Block
Land			Zoning Grid	Plat Lot
Buildings			Use Parcel	Section
Total			Town Cd Ex St	Occ. Cd

REMARKS:

Distribution: ☐ Clerk's Office ☐ Office of Finance ☐ SDAT Preparer ☐ AOC-CE-300 (5/2007)

EST-2018-21221CLH

Exhibit 'B'



BOARD OF ZONING APPEALS FOR EASTON, MARYLAND

14 S. Harrison Street

Easton, Maryland 21601

Planning and Zoning Office: 410-822-1943

March 14, 2023

RE: BOZA Application- 25 S. Aurora Street
Tax Map 0104, Grid 0000, Parcel 1560
Easton, Maryland 21601
Zoning: R-7A - Residential District

Zachary A. Smith
114 Bay Street, Building C
Easton, MD 21601

Town of Easton
*** CUSTOMER RECEIPT ***
Oper: CKAHANE Type: OC Drawer: 1
Date: 3/13/23 01 Receipt no: 7935

Year	Number	Amount
2023	889	
PZ	PZ - PAYMENTS	\$950.00

BRUCE C ARMISTEAD
114 BAY ST BUILDING C
EASTON MD 21601
PZ 23-889 \$950.00
25 S AURORA ST

Tender detail
CK CHECK 6655 \$950.00
Total tendered \$950.00
Total payment \$950.00

Trans date: 3/13/23 Time: 9:37:34

THANK YOU FOR YOUR PAYMENT.

- \$700.00 Application: SE-889 / SE 23-04
- \$250.00 Application: V-889 / V 23-03

Exhibit 'C'



Sign posted on April 3, 2023

Exhibit 'D'

Date of Hearing: April 18, 2023

#3B

Board of Zoning Appeals STAFF REPORT

SUBJECT: Special Exception – 889, Variance-889

ELECTION WARD: Ward 4

CRITICAL ACTION DATE: At the pleasure of the board

STAFF CONTACT(S): Nicholas H Johnson, Planner
Miguel Salinas, Director

APPLICANT: Zachary A. Smith on behalf of Chris and Debra Soussanin

PURPOSE: To obtain a special exception allowing the applicant to create an accessory dwelling unit (ADU) within the R-7A Zoning District and variances from the side and rear setback requirements (28-302.2C).

RECOMMENDATION(S):

Staff supports a Board of Zoning Appeals **approval with conditions.**

APPLICATION INFORMATION:	
APPLICANT: Chris and Debra Soussanin	REPRESENTATIVE: Zachary A. Smith 410-819-8989 zachsmith@alrwlaw.com
PARCELS/ACREAGE:	
Parcel Information	Square Feet
Tax Map 104, Parcel 1560	3,876
ACCEPTANCE DATE: March 10, 2023	LOCATION: 25 S Aurora Street
EXISTING ZONING R-7A, HD	EXISTING LAND USE: Vacant
HISTORIC DISTRICT: Yes	FUTURE LAND USE: Residential

CONTEXT:

Location/Site Access – The subject property is a vacant lot located on S Aurora Street near the intersection of Aurora Street and South Lane. There is no off-street parking access currently on this site.

Existing Conditions – Vacant 3,876 square feet lot.

Surrounding Properties

21 S Aurora Street – R-7A
10 Thorogood Lane – R-7A
18 Thorogood Lane – R-7A
31 S Aurora Street – R-7A



Figure 1 Vicinity Map

PROPOSAL: The applicant is seeking to obtain a Special Exception from the following sections of the Zoning Ordinance: §28-201 Permitted Uses (Table 2.1 (1) (101)) to allow an ADU in the R-7A zone. The applicant is also seeking setback variances from §28-302.2.C to allow a structure within 8-feet of the side property line and 25-feet of the rear property line. The scope of work consists of constructing a new 30-foot wide by 40-foot deep single-family home, a 8-foot deep rear porch, and a 30-foot deep by 28-foot wide two car garage with a second story ADU.

BACKGROUND:

As noted in the applicant's narrative, this property was subdivided into two separate lots in 2001 with the intent of constructing two single family dwelling units. The existing single-family home and outbuildings were subsequently demolished in 2002 and the property was returned to vacant lots. In 2005, the Planning Commission approved a PRD application allowing two single family homes to be constructed as shown in Figure 2. At some point between 2005 and now, the property was removed from the PRD district. The two lots are now considered non-conforming lots of record in accordance with §28-1202.B and are treated as a single lot.

ZONING ANALYSIS:

28-302.2.C Development Standards R-7A

C. Minimum setbacks for all uses and structures:

1. Front setback – fifteen (15) feet.
2. Rear setback – twenty-five (25) feet.
3. Side setback – two side setbacks are required of eight (8) feet each

Analysis: The proposed site plan encroaches into the front setback of eight (8) feet and the rear setback of twenty-five (25) feet. The top right corner of the proposed primary structure and porch encroaches into the required side setback where the rear lot line comes back towards S Aurora Street. The proposed garage encroaches into the required rear setback of twenty-five (25) feet with a rear setback of five (5) feet. While the proposed front setback of four (4) feet encroaches into the prescribed front setback, §28-1004 allows front yard depths to be equal to or greater than that of dwelling units on surrounding properties that are within 100-feet of the proposed structure. Because the proposed site plan shows a front yard depth that is equal to the two surrounding dwelling units, a front setback variance is not required.

28-201 Table 2.1 (1) 101 R-7A (R-7A)

101	Accessory Dwelling Unit *	SE	SE	SE	--	SE	--	--	--	--	--
-----	---------------------------	----	----	----	----	----	----	----	----	----	----

Analysis: An ADU is proposed above the detached garage. ADU's are permitted within the R-7A zoning district via a special exception. They are subject to supplemental standards such as obtaining a rental license and providing one additional off-street parking space. In addition, the principal residence must be occupied by the owner of the property.

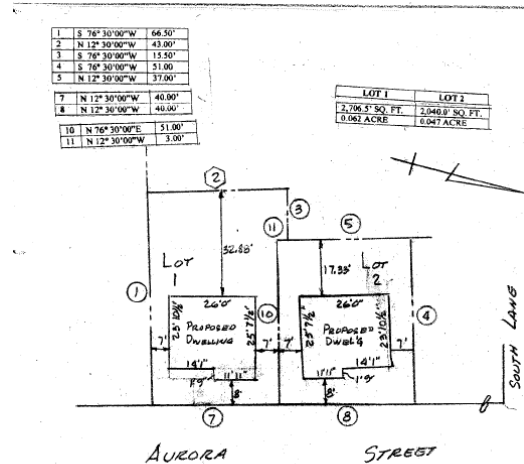


Figure 2 Approved PRD Site Plan

POLICY ANALYSIS (SPECIAL EXCEPTION):

a. The proposed use conforms in all aspects to minimum requirements of the district in which it is located;

There is question regarding the provision of off-street parking. There is currently no curb cut for this property providing access for off-street parking. Without either obtaining a parking waiver or providing an addition off-street parking space the parking requirements may not be met.

b. The proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;

The proposed use should not have any adverse effects on health, safety, and general welfare since it fits within the character of the existing neighborhood.

c. The proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exceptions;

This property has been previously used as a residential unit and was previously approved for two single family dwelling units. There are no documented issues regarding the provision of public facilities to this property.

d. The proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;

Ingress and egress have not yet been provided for the accessory dwelling unit. There is no existing curb cut on S Aurora Street allowing the required off-street parking. Surrounding homes generally do not have any off-street parking and curb cuts are rare in this area of S. Aurora Street.

e. The proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;

There should be no changes to the property causing any adverse environmental conditions since a single-family residence was previously located on the property.

f. The proposed use will not adversely affect the established character of the area.

This use should not affect the established character of the area since it is a primarily residential area.

g. The proposed use shall be in conformity with the provisions of the Easton Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complimentary and uses customarily found near or in conjunction with one

another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

The Comprehensive Plan's Housing chapter talks about the need to facilitate infill development on vacant lands that are served by adequate infrastructure and public facilities. Principle 7 of the Community Character chapter states that "neighborhoods should contain a diversity of housing types." The proposed ADU provides a form of missing middle housing that is not prevalent throughout the Town and provides an opportunity for more affordable housing.

POLICY ANALYSIS (VARIANCE):

- a. Granting the application: (i) will not be contrary to the public interest, (ii) will be in harmony with the purpose and intent of the Ordinance and (iii) will not be injurious to the neighborhood or otherwise detrimental to the public welfare;**

The lot in question is also much shallower than the surrounding lots making the rear setback difficult to meet. Surrounding new construction on this block have rear setbacks that are in keeping with the proposed construction. The bend in the rear lot line also creates a side setback that limits the building envelope in the rear yard.

- b. Owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.**

Given the depth of this lot, it would be extremely difficult to construct a home similar to the surrounding structures that meets both the front and rear setbacks. It is in the public's interest to have the primary structure located as close as possible to the front setback line to create a uniform street scape. It is also in the public's interest to have the garage setback significantly further from the street than the primary structure. This allows for off street parking and helps make the single-family home the dominant structure.

RECOMMENDED CONDITIONS

- 1. The applicant shall obtain a Historic District Commission certificate of appropriateness for the new construction.**
- 2. The applicant shall obtain a Right-of-way permit to install the proposed off-street parking spaces or shall obtain a parking waiver**
- 3. The applicant shall obtain a Town of Easton rental license for the accessory dwelling unit.**
- 4. The principal residence shall be occupied by the owner of the property.**

DRAFT MOTIONS:

1. I move that the Board of Zoning Appeals approve V-889 and SE-889 with staff's recommended conditions

OR

2. I move that the Board of Zoning Appeals deny SE-889 and V-889.

OR

3. I move an alternate motion.

Exhibit 'E'

THE STAR DEMOCRAT - ONE TIME - SUNDAY, APRIL 2, 2023

NOTICE

Notice is hereby given that Zachary A. Smith on behalf of Chris and Debra Soussanin has filed Application SE-889 / SE-23-04, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to permit an Accessory Dwelling Unit per 1.101 in Table 2.1, Section 28-202 of the Ordinance. The applicant has also filed Application V-889 / V 23-03, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a Variance from Section 28-302.2.C.2 from the minimum 25' rear yard setback requirement; and Section 28-302.2.C.3 to request a variance from the minimum 8' side yard setback requirement. The Applicant seeks to develop one (1) single family home and a detached garage with an accessory apartment above.

The property is located at 25 S. Aurora Street, Easton, Maryland and is situated in the R-7A – Residential District and the Historic District Overlay Zone. The property is owned by Chris and Debra Soussanin. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.

EASTON BOARD OF ZONING APPEALS

Notice to Star Democrat: Please publish as indicated above and send Certificate of Publication to Planning and Zoning, Town of Easton, P.O. Box 520, Easton, Maryland 21601, prior to date of hearing.

Exhibit 'E'

APG Media of Chesapeake, LLC
29088 Airpark Drive
Easton, MD 21601

03/30/23

Phone: Fax:
<http://www.chespub.com>

Cust. AcctID:	Creation Date: 03/30/23
	Ad Date: 04/02/23
	Class: 10
Name: Joanne Drummer	Ad ID: 3017924
Company: TOWN OF EASTON (L)	Ad Taker: TLANG
Address: PO Box 520	Sales Person: 503
EASTON, MD 21601	Words: 224
	Lines: 24
Telephone: (410) 822-2525	Agate Lines: 72
Email:	Depth: 3.0
Description: Application SE-889 / SE-23-	Inserts: 2
	Blind Box:

Other Charges:	\$0.00	Total:	\$105.00
Discount:	\$0.00		
Surcharge:	\$0.00	Paid Amount:	- \$0.00
Credits:	\$0.00		
Bill Depth:	3.0	Amount Due:	\$105.00

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	Cost
The Star Democrat	04/02/23	04/02/23	1	\$105.00

NOTICE	
Notice is hereby given that Zachary A. Smith on behalf of Chris and Debra Soussanin has filed Application SE-889 / SE-23-04, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to permit an Accessory Dwelling Unit per 1.101 in Table 2.1, Section 28-202 of the Ordinance. The applicant has also filed Application V-889 / V 23-03, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a Variance from Section 28-302.2.C.2 from the minimum 25' rear yard setback requirement; and Section 28-302.2.C.3 to request a variance from the minimum 8' side yard setback requirement. The Applicant seeks to develop one (1) single family home and a detached garage with an accessory apartment above. The property is located at 25 S. Aurora Street, Easton, Maryland and is situated in the R-7A – Residential District and the Historic District Overlay Zone. The property is owned by Chris and Debra Soussanin. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.	
EASTON BOARD OF ZONING APPEALS	
3017924 SD	4/2/2023

Ad Note:

Customer Note:

We Appreciate Your Business!
Thank You Joanne Drummer!



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY

2023-04-18

SE-889 / SE 23-04 AND V-889 / V 23-03

Applicant notified of hearing date: Email: 2023-04-03 – 15 days

Exhibit A: Application – 2023-03-10 – 39 days

Exhibit B: Paid Receipt – 2023-03-13 – 36 days

Exhibit C: Picture of Property Sign Posting – 2023-04-03 – 15 days

Exhibit D: Staff Report – 2023-04-11 – 7 days

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2023-03-30 – 19 days

Advertisement run in Star Democrat: 2023-04-02 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: Email: 2023-04-03 – 15 days

400' Notices Distributed: 2023-04-03 – 15 days



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Zachary A. Smith
114 Bay Street, Building C
Easton, MD 21601

Re: Application No. SE-889 / SE 23-04
25 S. Aurora Street
Tax Map 104, Grid 000, Parcel 1560
Easton, MD 21601

Mr. Smith,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. the proposed use conforms in all aspects to minimum requirements of the district in which it is located;
2. the proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;
3. the proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exception;
4. the proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;
5. the proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;
6. the proposed use will not adversely affect the established character of the area;
7. the proposed use shall be in conformity with the provisions of the Easton

Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complementary to uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

NOTE: In the event your application pending before the Easton Board of Zoning Appeals requires a recommendation to the Board from the Easton Planning and Zoning Commission, the Appeals Board will not hear your application until it is in receipt of the Planning and Zoning Commission's recommendation. It is your responsibility to see that the recommendation required is before the Board of Zoning Appeals before any evidence is heard.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning and Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Zachary A. Smith
114 Bay Street, Building C
Easton, MD 21601

Re: Application No. V-889 / V 23-03
25 S. Aurora Street
Tax Map 104, Grid 000, Parcel 1560
Easton, MD 21601

Mr. Smith,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. That granting the application will not be contrary to the public interest;
2. that granting the application will be in harmony with the purpose and intent of the Ordinance;
3. that granting the application will not be injurious to the neighborhood or otherwise detrimental to the public welfare;
4. that owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Please be prepared to answer the four listed items above at the time of the Hearing.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

14 South Harrison Street
Easton, Maryland 21601

April 3, 2023

Dear Resident,

The Easton Board of Zoning Appeals will hold a public meeting on **Tuesday, April 18, 2023 at 9:00 a.m.** in the Easton Town Council Chambers located on the second floor of 14 South Harrison Street. The Town of Easton Zoning Ordinance requires that owners of property located within 400 feet of a parcel on which certain types of applications are pending be given notice of upcoming meetings or hearings. If you are a tenant in or an owner of a multi-unit building, please distribute or post this notice in a visible location for all other tenants or owners to view. If you are a tenant of a rental property, please notify the property owner that this notice letter has been distributed to their property. Notice has also been sent to the Star Democrat, a sign has been posted at the subject property and the hearing agenda has been posted on the Town of Easton website: <http://eastonmd.gov/>.

This letter is sent to inform you that an application for 25 S. Aurora Street has been filed for a special exception request pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to permit an Accessory Dwelling Unit per 1.101 in Table 2.1, Section 28-202 of the Ordinance. The applicant has also filed a variance request, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a variance from Section 28-302.2.C.2 from the minimum 25' rear yard setback requirement; and Section 28-302.2.C.3 to request a variance from the minimum 8' side yard setback requirement. The Applicant seeks to develop one (1) single family home and a detached garage with an accessory apartment above.

Copies of the proposed application are on file and available for public review in the Town's Planning Office at 14 South Harrison Street between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday. **In addition, digital copies are also available for review via the Town's website at <https://www.eastonmd.gov/129/Agendas-Minutes>.** If you have any questions regarding this application, please contact the Planning Office at (410) 822-1943 or via e-mail at ssmith@eastonMD.gov.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: April 10th, 2023
TO: Levi Chein – Owner
Cc: Rick Van Emburgh – Town Engineer
Miguel Salinas – Planning and Zoning Department
Aaron Goller – EUC
FROM: Sierra Clem – Engineering Department
SUBJECT: 313 North Street - BOZA application for Variance and Special Exception

I have reviewed the special exception and the variance application for the proposed multi-family use for 313 North Street which was received on 4/6/2023. The Town Of Easton Engineering Department does not have any comments regarding the use which is the subject of the BOZA Applications.

The site is currently existing; however, the application appears to show proposed site and ROW improvements. I have the following comments:

1. Please verify the Right of Way widths that are labeled on the site plan per the 1973 Plat 29/22.
2. Provide calculations for the limits of disturbance to the site. The project may require compliance with stormwater management regulations.
3. Any proposed improvements to the Town ROW must be compliant with the Town Standards and Details.
4. Please submit a Grading Permit Application and Right of Way application to our office for review.
5. The parking layout does not appear to be compliant. Our office will defer to the Planning and Zoning Department for compliance with the Zoning Code.
6. Please note, parking is required to be of a dust free material such as asphalt or permeable pavers.
7. The ROW along North Locust Lane and Higgins Street is 40'. The existing trash refuse location appears to be located within the ROW.
8. The improvements to parking locations are shown to be located within the ROW that is dedicated for road widening.
9. Per section 28-1016 of the Zoning Ordinance, sidewalks or sidewalk easement are required to be dedicated to the Town of Easton for construction or the eventual construction of sidewalks. Since the 1973 plat dedicated 10' along Locust Lane and Higgins Street, the proposed parking entrances need to be designed with consideration to sidewalk installation. Along Cherry Street, a sidewalk easement is to be dedicated to the Town of Easton.

Please contact me if you have any questions. Thank you.

P.O. Box 520, Easton, Maryland 21601
410-820-8822
Engineering@EastonMD.gov - www.EastonMD.gov

Exhibit 'A'



Town of Easton

Engineering, Planning and Zoning

14 South Harrison Street, Easton, MD 21601

Board of Zoning Appeals Application

Application Type

☒ Variance ☐ Appeal ☒ Special Exception ☒

Property Information

Address	313 North St. Easton MD				
Tax Map	0103	Grid	000EA	Parcel	0717
Deed Reference:	Liber	/02967	Folio	00156	Lot
Plat Reference:	Liber		Folio		
Existing Use	Apartment Building				
Zoning District					
Historic District	Y ☒	N ☐	PRD	Y ☐	N ☐

Owner

Name	313 LLC / Levi Chein	
Mailing Address	450 Crown St Brooklyn NY 11225	
Telephone No.	201-245-3759	Email LCYITZ@gmail.com

Applicant or Agent

Name	Levi Chein	
Mailing Address	450 Crown St Brooklyn NY 11225	
Telephone No.	201-245-3759	Email LCYITZ@gmail.com

Surveyor / Engineer

Name	Christopher D. Waters,	License No.		Expiration Date	
Mailing Address	106 N. Washington Street, Suite 103, Easton, MD 21601				
Telephone No.	410-770-4744	Email	cdw@dbfinc.com		

Request Details

Subject to Previous BOZA Application Y ☐ N ☒

Zoning Ordinance Section use (1) 105 in Table 2.1 of Section 28-202

Change From to

Please describe the purpose of the request being made to the Board of Appeals including all information pertinent to said request. Attach a formal letter detailing request.

Currently There are 2 Buildings on this (over 1 Acre) lot: 1) a 6 unit building on cherry street and 2) a 12 unit building on North St. The 12 unit building has a 3rd floor which used to be apartments but is currently vacant. I would like to renovate the 3rd floor and make 4 apartments in this area

- If the applicant is other than the owner, include a letter of certification from the owner.
- Attach five (5) copies of the recorded Deed conveying present ownership of the property.
- Attach five (5) copies of scaled plat sketch or site plan with all dimensions of lot, setbacks, improvements and the distances between any improvements.

- Provide all information related to any restrictions to the property recorded among the Land Records of Talbot County.
- Provide all information related to any restrictions imposed by Homeowner Associations, etc.
- Include any additional information, related to the request being made of the Board of Appeals.
- Fee Payment

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

DocuSigned by:


Signature of Applicant or Agent

Date3/20/2023

Printed Name of Applicant or Agent

Levi chein

For Office Use Only

Project Number	SE-909	Fee Received	\$700.00
Application Number	SE 23-05	Application Notification	04/03/2023
Filing Date	03/29/2023	Property Posting Date	04/03/2023
BOZA Hearing Date	04/18/2023	Notice(s) Published	04/03/2023
If ESDR, Date			

Revised 2-2019

RECEIVED
MAR 29 2023
TOWN OF EASTON



Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
MAR 20 2023

TOWN OF EASTON

Board of Zoning Appeals Application

Application Type

☒ Variance ☐ Appeal ☐ Special Exception

Property Information

Address: 313 North St. Easton MD
Tax Map: 0103 Grid: 000EAD Parcel: 0717 Lot:
Deed Reference: Liber /02967 Folio 00156
Plat Reference: Liber Folio
Existing Use: Apartment Building
Zoning District:
Historic District Y ☐ N ☐ PRD Y ☐ N ☐

Owner

Name: 313 LLC / Levi Chein
Mailing Address: 450 Crown St Brooklyn NY 11225
Telephone No.: 201-245-3759 Email: LCYITZ@gmail.com

Applicant or Agent

Name: Levi Chein
Mailing Address: 450 Crown St Brooklyn NY 11225
Telephone No.: 201-245-3759 Email: LCYITZ@gmail.com ; sluhrman@benesonandmangold.com

Surveyor/ Engineer

Name: Christopher D. Waters, License No: Expiration Date:
Mailing Address: 106 N. Washington Street, Suite 103, Easton, MD 21601
Telephone No.: 410-770-4744 Email: cdw@dbfinc.com

Request Details

Subject to Previous BOZA Application Y ☐ N ☒

Zoning Ordinance Section:
Change From: to:

Please describe the purpose of the request being made to the Board of Appeals including all information pertinent to said request. Attach a formal letter detailing request.

Currently there are 2 buildings on this (over 1 acre) lot: 1) a 6 unit building on Cherry street and 2) a 12 unit building on North St. The 12 unit building has a 3rd floor which used to be apartments but is currently vacant. I would like to renovate the 3rd floor and make 4 apartments in this area

- If the applicant is other than the owner, include a letter of certification from the owner.
- Attach five (5) copies of the recorded Deed conveying present ownership of the property.
- Attach five (5) copies of scaled plat sketch or site plan with all dimensions of lot, setbacks, improvements and the distances between any improvements.

- Provide all information related to any restrictions to the property recorded among the Land Records of Talbot County.
- Provide all information related to any restrictions imposed by Homeowner Associations, etc.
- Include any additional information, related to the request being made of the Board of Appeals.
- Fee Payment

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

DocuSigned by:

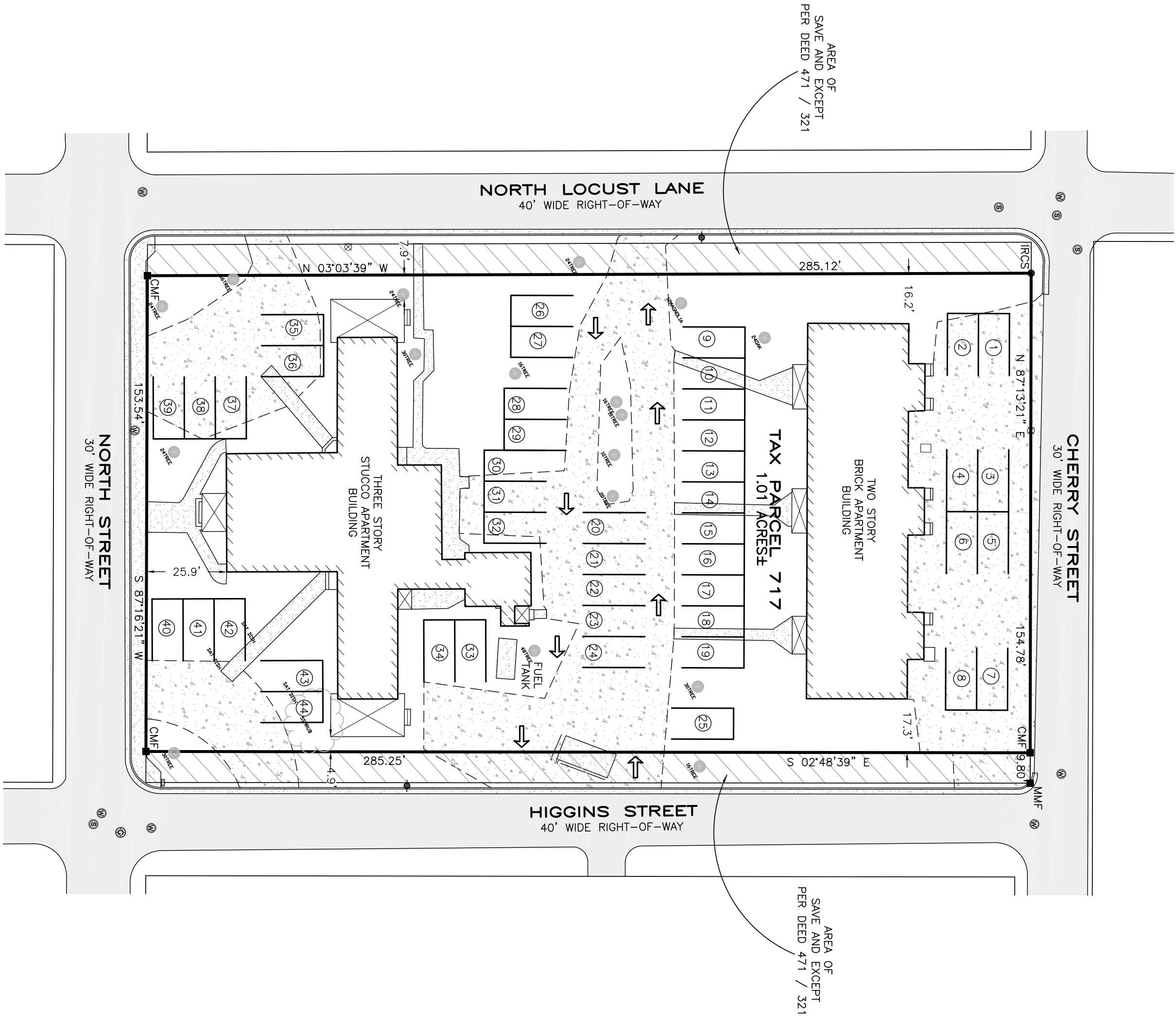

Date3/20/2023

Printed Name of Applicant or AgentLevi chein

For Office Use Only

Project Number	V-23-04	Fee Received	\$250.00
Application Number	V-896	Application Notification	04/03/2023
Filing Date	03/20/2023	Property Posting Date	04/03/2023
BOZA Hearing Date	04/18/2023	Notice(s) Published	04/03/2023
If ESDR, Date			

Revised 2-2019



Talbot County Cir Crt	
IMP FD SURE	\$40.00
RECORDING FEE	\$20.00
TR TAX STATE	\$7,050.00
TR TAX CTY	\$14,100.00
TOTAL	\$21,210.00
KMD MG	
Apr 14, 2022	04:28 pm

AFTER RECORDING, PLEASE RETURN TO:
Clear Title & Escrow Group, LLC, t/a Clear Title Group
 106 Old Court Road, Suite 104
 Baltimore, MD 21208
 (410) 486-5456
 File No. 22-1120TS

113

DEED

THIS DEED, made this **7th** day of **April, 2022**, by and between **The Eley & Moore Concrete Cinder Block Company**, Grantor, party of the first part; and **313 LLC**, Grantee, party of the second part.

WITNESSETH, that in consideration of the sum of **One Million Four Hundred Ten Thousand And 00/100 Dollars (\$1,410,000.00)**, and other good and valuable considerations, the receipt whereof is hereby acknowledged, the said Grantor does grant and convey to the said Grantee, its successors and assigns in fee simple all that lot of ground situate in the County of Talbot, State of Maryland, and described as follows, that is to say:

313 North Street—Easton, MD 21601
District 01 Account 006983

ALL that piece or parcel of land lying and being in the Town of Easton, bounded on the north by Cherry Street, on the east by Higgins Street, on the south by North Street, and on the west by North Locust Lane, as shown on a plat titled "Plat Showing the Lands of The Eley and Moore Cinder Block Company" to be recorded in the land records of Talbot County. Said piece or parcel being more particularly described as follows:

BEGINNING at a concrete monument found at the intersection of North Street (30' wide right-of-way) and Higgins Street (40' wide right-of-way). Said point being the south-easterly most corner of the herein described land;

1) **THENCE**, with said North Street right-of-way S 87°16'21" W a distance of 153.54 feet to a concrete monument found at the intersection of North Street and North Locust Lane (40' wide right-of-way);

2) **THENCE**, with said North Locust Lane right-of-way N 03°03'39" W a distance of 285.12 feet to an iron rod with cap set at the intersection of North Locust Lane and Cherry Street (30' wide right-of-way);

3) **THENCE**, with said Cherry Street right-of-way N 87°13'21" E a distance of 154.78 feet to a concrete monument found at the intersection of Cherry Street and the aforementioned Higgins Street;

4) **THENCE**, with said Higgins Street right-of-way S 02°48'39" E a distance of 285.25 feet to the place of beginning.

CONTAINING 1.01 acres of land, more or less.

Certification is made that all taxes due on the property indicated in this deed have been paid.
 Finance Office of Talbot County
 Clay B. Stamp Fin. Officer
 CL 04/13/2022

Talbot County Finance Office
 Recordation Tax \$16,920.00
 PK 04/13/2022
 Prop ID: 01-006983

BEING that property which, by Deed dated February 18, 1959, and recorded among the Land Records of the County of Talbot, State of Maryland, in Liber No. 352, folio 601, was granted and conveyed by The Children's Home of the Eastern Shore of Maryland unto The Eley and Moore Cinder Block Company, the Grantor herein.

BY THE EXECUTION OF THIS DEED, the party of the first part hereby certify under the penalties of perjury that the actual consideration paid or to be paid, including the amount of any Mortgage or Deed of Trust outstanding, is as hereinbefore set forth.

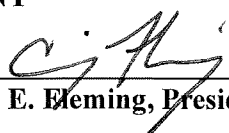
TOGETHER with the buildings thereupon, and the rights, alleys, ways, waters, privileges, appurtenances and advantages thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the said described lot of ground and premises to the said Grantee, its successors and assigns, in fee simple.

AND the said party of the first part hereby covenants that it has not done or suffered to be done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that it will warrant specially the property hereby granted; and that it will execute such further assurances of the same as may be requisite.

WITNESS the hand and seal of the said Grantor.

THE ELEY & MOORE CONCRETE CINDER BLOCK COMPANY

By:  {SEAL}
Craig E. Fleming, President

COUNTY OF TALBOT, STATE OF MARYLAND:

AND NOW, this 7th day of April, 2022, before me, the undersigned Notary Public, appeared **Craig E. Fleming**, who acknowledged himself to be the **President** of **The Eley & Moore Concrete Cinder Block Company**, a limited liability company, and he, as such **President** being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing in my presence the name of the company by himself as such **President**.

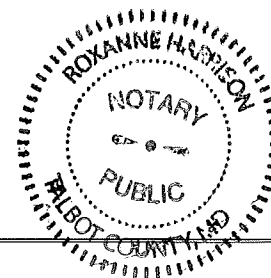
IN WITNESS WHEREOF, I hereunder set my hand and official seal.

My commission expires:

01-14-2025



Notary Public



THIS IS TO CERTIFY that the within Deed was prepared by, or under the supervision of the undersigned, an Attorney duly admitted to practice before the Court of Appeals of Maryland.



David A. Rosenberg, Attorney

MARYLAND
FORM
WH-AR**Certification of Exemption from Withholding Upon
Disposition of Maryland Real Estate Affidavit of
Residence or Principal Residence****2022**

Based on the certification below, Transferor claims exemption from the tax withholding requirements of §10-912 of the Tax-General Article, Annotated Code of Maryland. Section 10-912 provides that certain tax payments must be withheld and paid when a deed or other instrument that effects a change

in ownership of real property is presented for recordation. The requirements of §10-912 do not apply when a transferor provides a certification of Maryland residence or certification that the transferred property is the transferor's principal residence.

1. Transferor Information

Name of Transferor The Eley & Moore Concrete Cinder Block Company

2. Description of Property (Street address. If no address is available, include county, district, subdistrict and lot numbers).

313 North Street, Easton, MD 21601

3. Reasons for Exemption**Resident Status**☐

As of the date this form is signed, I, Transferor, am a resident of the State of Maryland.

☒

Transferor is a resident entity as defined in Code of Maryland Regulations (COMAR)03.04.12.02B(11), I am an agent of Transferor, and I have authority to sign this document on Transferor's behalf.

Principal Residence☐

Although I am no longer a resident of the State of Maryland, the Property is my principal residence as defined in IRC 121 (principal residence for 2 (two) of the last 5 (five) years) and is currently recorded as such with the State Department of Assessments and Taxation.

Under penalty of perjury, I certify that I have examined this declaration and that, to the best of my knowledge, it is true, correct, and complete.

3a. Individual Transferors

Witness

Name

**Date

Signature

3b. Entity Transferors

Roxanne Harrison

Witness/Attest

**THE ELEY & MOORE CONCRETE CINDER BLOCK
COMPANY**

Name of Entity

By

Craig E. Fleming

Name

4/7/22

**Date

President

Title

** Form must be dated to be valid.

Note: Form is only valid if it was executed on the date the Property was transferred and is properly recorded with the Clerk of the Court.

To the Clerk of the Court: Only an un-altered Form WH-AR should be considered a valid certification for purposes of Section 10-912.

Space Reserved for County Validation

Addendum

State of Maryland Land Instrument Intake Sheet

☐ Baltimore City ☒ County: Talbot

The addendum form should be used when one transaction involves more than two instruments.
Each instrument should be itemized in accordance with Section No. 1 of the Intake Sheet.

(Type or Print in Black Ink Only—All Copies Must Be Legible)

5	(Continued) Fees	Amount of Fees	Doc. 3	Doc. 4	Doc. 5	Doc. 6
		Recording Charge	\$ 20.00	\$	\$	\$
		Surcharge	\$ 40.00	\$	\$	\$
		State Recordation Tax	\$	\$	\$	\$
		State Transfer Tax	\$	\$	\$	\$
		County Transfer Tax	\$	\$	\$	\$
		Other	\$	\$	\$	\$
		Other	\$	\$	\$	\$
7	(Continued) Transferred From	Doc. 3 – Grantor(s) Names(s)			Doc. 4 – Grantor(s) Names(s)	
		313 LLC				
		Doc. 5 – Grantor(s) Names(s)			Doc. 6 – Grantor(s) Names(s)	
		Doc. 3 – Owners(s) of Record, if Different from Grantor(s)			Doc. 4 – Owners(s) of Record, if Different from Grantor(s)	
		Doc. 5 – Owners(s) of Record, if Different from Grantor(s)			Doc. 6 – Owners(s) of Record, if Different from Grantor(s)	
8	(Continued) Transferred To	Doc. 3 – Grantee(s) Names(s)			Doc. 4 – Grantee(s) Names(s)	
		Provident State Bank, Inc.				
		Doc. 5 – Grantee(s) Names(s)			Doc. 6 – Grantee(s) Names(s)	
9	(Continued) Other Names to be Indexed	Doc. 3 – Additional Names to be Indexed (Optional)			Doc. 4 – Additional Names to be Indexed (Optional)	
		Doc. 5 – Additional Names to be Indexed (Optional)			Doc. 6 – Additional Names to be Indexed (Optional)	
Special Instructions		Special Recording Instructions (if any)				

Exhibit 'B'



BOARD OF ZONING APPEALS FOR EASTON, MARYLAND

14 S. Harrison Street

Easton, Maryland 21601

Planning and Zoning Office: 410-822-1943

March 23, 2023

**RE: BOZA Application- 313 North Street
SE-909 / SE 23-05 and V-896 / V 23-04
Tax Map 103, Grid 0EA, Parcel 0717
Easton, Maryland 21601
Zoning: R-7A - Residential District**

Levi Chain
313 LLC
450 Crown Street
Brooklyn, New York 11225

Town of Easton
R E P R I N T
*** CUSTOMER RECEIPT ***
Oper: CKAHANE Type: OC Drawer: 1
Date: 3/23/23 01 Receipt no: 8207

Year	Number	Amount
2023	896	
PZ	PZ - PAYMENTS	
SVFEE	CSTP - SEVRICE FEE	\$250.00
		\$6.25
Tender detail		
58 OTC PZ PAYME		\$250.00
58 OTC PZ PAYME		\$6.25
Total tendered		\$256.25
Total payment		\$256.25
Trans date: 3/23/23 Time: 11:32:54		
THANK YOU FOR YOUR PAYMENT.		

➤ Application No. V-896 / V 23-04

Town of Easton
R E P R I N T
*** CUSTOMER RECEIPT ***
Oper: SMILES Type: OC Drawer: 1
Date: 3/29/23 01 Receipt no: 8325

Year	Number	Amount
2023	909	
PZ	PZ - PAYMENTS	
SVFEE	CSTP - SEVRICE FEE	\$700.00
		\$17.50
Tender detail		
58 OTC PZ PAYME		\$700.00
58 OTC PZ PAYME		\$17.50
Total tendered		\$717.50
Total payment		\$717.50
Trans date: 3/29/23 Time: 14:54:48		
THANK YOU FOR YOUR PAYMENT.		

➤ Application No. SE-909 / SE 23-05

Exhibit 'C'



Sign posted on April 3, 2023

Exhibit 'D'

Date of Hearing: April 18, 2023

#3C

Board of Zoning Appeals STAFF REPORT

SUBJECT: Special Exception – 909, Variance-896

ELECTION WARD: Ward 1

CRITICAL ACTION DATE: At the pleasure of the board

STAFF CONTACT(S): Nicholas H Johnson, Planner
Miguel Salinas, Director

APPLICANT: Levi Chein on behalf of 313 LLC.

PURPOSE: To obtain a special exception allowing four additional multi-family units to be constructed within an existing mansion style apartment building and to obtain a variance from the maximum density requirements in the R-7A Zoning District.

RECOMMENDATION(S):

Staff supports a Board of Zoning Appeals **continuance**.

APPLICATION INFORMATION:	
APPLICANT: Levi Chein 201-245-3759	REPRESENTATIVE: Same
PARCELS/ACREAGE:	
Parcel Information	Acres
Tax Map 103, Parcel 717	1.01
ACCEPTANCE DATE: March 20, 2023	LOCATION: 313 North Street
EXISTING ZONING R-7A, HD	EXISTING LAND USE: Residential
HISTORIC DISTRICT: Yes	FUTURE LAND USE: Residential

CONTEXT:

Location/Site Access – The subject property includes an existing mansion style apartment building bounded on four sides by North Street, Locust Lane, Aurora Street, and Cherry Street. Site access

is currently provided via a gravel parking area along Cherry Street and informal gravel areas surrounding the principal structure.

Existing Conditions – The subject property includes a twelve (12) unit, 3-story, mansion style apartment located within a historic orphanage. There is also a six-unit apartment structure, located on the subject property along Cherry Street.

Surrounding Properties

The property is bounded on all four sides by public rights-of-way and residential land uses.

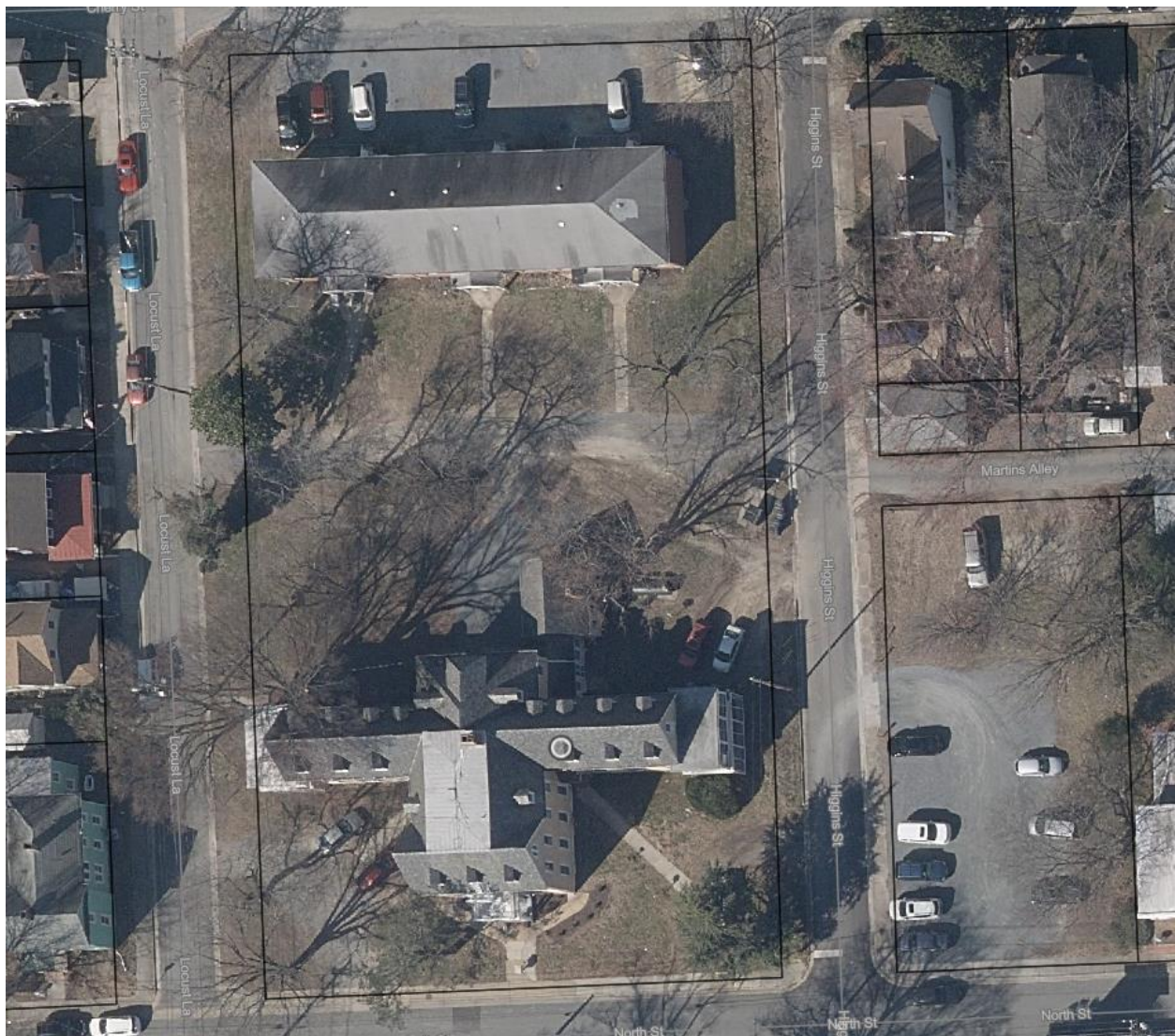


Figure 1 Vicinity Map

PROPOSAL: The applicant is seeking to obtain a Special Exception from the following sections of the Zoning Ordinance: §28-201 Permitted Uses (Table 2.1 (1) (105)) to allow additional multi-family units to be constructed in the R-7A zone. The applicant is also seeking a density variance from §28-302.2.G to permit four (4) additional apartments to be constructed. This would increase the existing density to 21.78 dwelling units per acre.

BACKGROUND:

The applicant recently purchased the existing 18-unit apartment complex located at 313 North Street. The new owner would like to add four (4) additional units in the unused third story of the principal mansion style apartment building. The Town does not have any record of when the structure was converted into an apartment building or when the second apartment structure was built.

ZONING ANALYSIS:

28-302.2.G “For multi-family dwellings the maximum allowed density shall be eight (8) dwelling units per acre.”

Analysis: The existing structures already are already over the allowed density of eight (8) dwelling units per acre. The applicant would now like to intensify the existing use to a density of 21.78 units per acre

28-201 Table 2.1 (1) 105 (R-7A)

105	Multifamily Apartment Complex*	--	SE	SE	SE	SE	--	--	--	--	--	
-----	--------------------------------	----	----	----	----	----	----	----	----	----	----	--

Analysis: Multifamily apartment complexes are permitted via special exception in the R-7A zoning district. Because the applicant is proposing to intensify an existing use where no previous special exception is recorded, a new special exception is necessary.

28-1001.2 Development Standards

E. All off-street parking facilities shall be constructed of dust-free materials, have a surface resistant to erosion, drained so as to prevent damage to abutting properties or public streets, and maintained properly by the owner.

Analysis: The existing and proposed parking spaces are all made of gravel which is not considered a dust-free material that is resistant to erosion.

F. Each automobile parking space shall be clearly marked appropriately to the dimensions required for each space exclusive of the access drive.

Analysis: Parking spaces should be marked and dimensioned appropriately. Currently, the parking spaces are not appropriately marked and cars park all over the yard. Table 10.1 in

28-1001.2 of the Zoning Ordinance specifies the minimum stall dimensions and aisle widths.

K. No part of any parking or maneuvering space shall be closer than ten (10) feet to any street line, sidewalk or property line for commercial or industrial uses, or three (3) feet for residential uses.

Analysis: Many of the proposed parking spaces are located within 3 (three) feet of sidewalk, property lines, and streets. These parking spaces should either be removed or obtain a setback variance.

28-1001.3.G. Parking areas for more than five (5) vehicles shall be effectively screened on each side which adjoins or is faced by any "R" District, by an ornamental wall, fence, or compact evergreen hedge. Such screen shall be not less than four (4) feet or more than six (6) feet in height and shall be maintained in good condition without any advertising thereon.

Analysis: Existing parking areas are not screened by any landscaped buffer or fencing. The proposed parking layout makes no mention of the installation of landscape buffer or fencing.

28-1007.1.14b. At least twenty-five (25%) percent of the gross development area shall be reserved as common open space.

Analysis: With the proposed parking spaces, nearly all of the existing open space will be transformed into parking. This leaves no green spaces for the residents of the building to utilize. This standard related to multi-family apartment complexes utilizes the property size to determine how much open space is required.

POLICY ANALYSIS (SPECIAL EXCEPTION):

a. The proposed use conforms in all aspects to minimum requirements of the district in which it is located;

The existing and proposed parking areas for this structure do not conform to the minimum requirements for screening or design. The parking area is not dust free, not clearly marked, and not screened by any sort of buffer. The proposed parking layout does not meet the requirements for minimum isle width and parking space dimensions are not labeled. The proposed density adds additional units to a site that already exceeds 8 dwelling units per acre and thus does not conform to the minimum requirements without a variance.

b. The proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;

This property has been used as a multi-family apartment complex. The addition of four units should not create any adverse effects regarding health, safety, and wealfare.

c. The proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exceptions;

The addition of four units should not interfere with the provision of public facilities since there is no proposed increase in the structure's footprint.

d. The proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;

The proposed parking configuration may cause congestion and traffic hazards and does not provide adequate ingress and egress. The proposed parking layout includes parking spaces that may interfere with vehicles entering the property from adjoining rights-of-way. There is currently an excess of parking on site given that only 22 parking spaces are required. Many parking spaces are within 3 feet of public sidewalks and streets and may introduce conflicts between parking vehicles and traffic.

e. The proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;

There should be no changes to the property causing any adverse environmental conditions since multi-family units are already located on the property.

f. The proposed use will not adversely affect the established character of the area.

This use should not affect the established character of the area since it is a primarily residential area.

g. The proposed use shall be in conformity with the provisions of the Easton Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complimentary and uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

Principle 7 of the Community Character chapter states that "neighborhoods should contain a diversity of housing types." The addition of units within an existing multi-family structure increases the diversity of housing types within the neighborhood without creating additional gross floor area. The proposed parking conflicts with the Comprehensive Plans guideline which states "parking should not be a dominant site feature." All areas not devoted to living space on this parcel are proposed to be used as parking spaces. No areas are being reserved for open space which is an important aspect of the Comprehensive Plan

POLICY ANALYSIS (VARIANCE):

- a. Granting the application: (i) will not be contrary to the public interest, (ii) will be in harmony with the purpose and intent of the Ordinance and (iii) will not be injurious to the neighborhood or otherwise detrimental to the public welfare;**

This project creates more multifamily units which are desperately needed within the Town of Easton. Given that the structure is already being used as a multi-family apartment complex, the addition of four units within the existing structure should not have an effect on the public welfare.

- b. Owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.**

The practical difficulty in this circumstance is the inability to improve and rent out the vacant space on the third floor of the existing structure. The applicant is a new owner of the property and did not take any action to create this issue regarding the third floor.

DRAFT MOTIONS:

1. I move that the Board of Zoning Appeals continue V-896 and SE-909 pending a revised site plan that includes parking, landscaping, and open space that is consistent with the Zoning Ordinance.

OR

2. I move that the Board of Zoning Appeals deny SE-889 and V-889 based upon the following findings...

OR

3. I move an alternate motion.

Exhibit 'E'

THE STAR DEMOCRAT - ONE TIME - SUNDAY, APRIL 2, 2023

NOTICE

Notice is hereby given that Levi Chein on behalf of 313 LLC has filed Application SE-909 / SE 23-05, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to establish an existing Multifamily apartment complex as a Special Exception use per 1.105 in Table 2.1, Section 28-202 of the Ordinance and to expand such use. The property is located in the R-7A zoning district and the Historic District Overlay Zone. The applicant has also filed Application V-896 / V 23-04, pursuant to Section 28-1303.5.C of the Town of Easton Zoning Ordinance, to obtain a Variance from Section 28-302.2.G and 28-1007.1.14.j.i in the Zoning Ordinance. The Applicant seeks to create four (4) additional units to the existing eighteen (18) units onsite and within the existing twelve (12) unit multifamily building facing North Street. The applicant is requesting a Variance of the permitted density of 8 units/acre to allow for a density of 21.78 units/acre. The Variance request is to permit a total of 22 units on the existing 43,995.6 sq. ft. lot.

The property is located at 313 North Street, Easton, Maryland and is owned by 313 LLC. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.

EASTON BOARD OF ZONING APPEALS

Notice to Star Democrat: Please publish as indicated above and send Certificate of Publication to Planning and Zoning, Town of Easton, P.O. Box 520, Easton, Maryland 21601, prior to date of hearing.

Exhibit 'E'

APG Media of Chesapeake, LLC
29088 Airpark Drive
Easton, MD 21601

03/30/23

Phone: Fax:
<http://www.chespub.com>

Cust. AcctID:	Creation Date: 03/30/23
	Ad Date: 04/02/23
	Class: 10
Name: Joanne Drummer	Ad ID: 3017925
Company: TOWN OF EASTON (L)	Ad Taker: TLANG
Address: PO Box 520	Sales Person: 503
EASTON, MD 21601	Words: 259
	Lines: 27
Telephone: (410) 822-2525	Agate Lines: 78
Email:	Depth: 3.25
Description: Application SE-909 / SE	Inserts: 2
	Blind Box:

Other Charges:	\$0.00	Total:	\$113.75
Discount:	\$0.00		
Surcharge:	\$0.00	Paid Amount:	- \$0.00
Credits:	\$0.00		
Bill Depth:	3.25	Amount Due:	\$113.75

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	Cost
The Star Democrat	04/02/23	04/02/23	1	\$113.75

NOTICE

Notice is hereby given that Levi Chain on behalf of 313 LLC has filed Application SE-909 / SE 23-05, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to establish an existing Multifamily apartment complex as a Special Exception use per 1.105 in Table 2.1, Section 28-202 of the Ordinance and to expand such use. The property is located in the R-7A zoning district and the Historic District Overlay Zone. The applicant has also filed Application V-896 / V 23-04, pursuant to Section 28-1303.5.C of the Town of Easton Zoning Ordinance, to obtain a Variance from Section 28-302.2.G and 28-1007.1.14.j.i in the Zoning Ordinance. The Applicant seeks to create four (4) additional units to the existing eighteen (18) units onsite and within the existing twelve (12) unit multifamily building facing North Street. The applicant is requesting a Variance of the permitted density of 8 units/acre to allow for a density of 21.78 units/acre. The Variance request is to permit a total of 22 units on the existing 43,995.6 sq. ft. lot.

The property is located at 313 North Street, Easton, Maryland and is owned by 313 LLC. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.

EASTON BOARD OF ZONING APPEALS
3017925 SD 4/2/2023

Ad Note:

Customer Note:

We Appreciate Your Business!
Thank You Joanne Drummer!



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY

2023-04-18

SE-909/ SE 23-05 AND V-896 / V 23-04

Applicant notified of hearing date: Email: 2023-04-03 – 15 days

Exhibit A: Application – 2023-03-20 – 29 days

Exhibit B: Paid Receipt – 2023-03-23 – 26 days

Exhibit C: Picture of Property Sign Posting – 2023-04-03 – 15 days

Exhibit D: Staff Report – 2023-04-11 – 7 days

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2023-03-30 – 19 days

Advertisement run in Star Democrat: 2023-04-02 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: Email: 2023-04-03 – 15 days

400' Notices Distributed: 2023-04-03 – 15 days



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Mr. Levi Chein
313 LLC
450 Crown Street
Brooklyn, NY 11225

Re: Application No. SE-909 / SE 23-05
313 North Street
Tax Map 103, Grid 0EA, Parcel 0717
Easton, MD 21601

Mr. Chein,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. the proposed use conforms in all aspects to minimum requirements of the district in which it is located;
2. the proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;
3. the proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exception;
4. the proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;
5. the proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;
6. the proposed use will not adversely affect the established character of the area;
7. the proposed use shall be in conformity with the provisions of the Easton

Mr. Levi Chein
April 3, 2023
Page 2

Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complementary to uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

NOTE: In the event your application pending before the Easton Board of Zoning Appeals requires a recommendation to the Board from the Easton Planning and Zoning Commission, the Appeals Board will not hear your application until it is in receipt of the Planning and Zoning Commission's recommendation. It is your responsibility to see that the recommendation required is before the Board of Zoning Appeals before any evidence is heard.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning and Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Mr. Levi Chein
313 LLC
450 Crown Street
Brooklyn, NY 11225

Re: Application No. V-896 / V 23-04
313 North Street
Tax Map 103, Grid 0EA, Parcel 0717
Easton, MD 21601

Mr. Chein,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. That granting the application will not be contrary to the public interest;
2. that granting the application will be in harmony with the purpose and intent of the Ordinance;
3. that granting the application will not be injurious to the neighborhood or otherwise detrimental to the public welfare;
4. that owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Please be prepared to answer the four listed items above at the time of the Hearing.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

14 South Harrison Street
Easton, Maryland 21601

April 3, 2023

Dear Resident,

The Easton Board of Zoning Appeals will hold a public meeting on **Tuesday, April 18, 2023 at 9:00 a.m.** in the Easton Town Council Chambers located on the second floor of 14 South Harrison Street. The Town of Easton Zoning Ordinance requires that owners of property located within 400 feet of a parcel on which certain types of applications are pending be given notice of upcoming meetings or hearings. If you are a tenant in or an owner of a multi-unit building, please distribute or post this notice in a visible location for all other tenants or owners to view. If you are a tenant of a rental property, please notify the property owner that this notice letter has been distributed to their property. Notice has also been sent to the Star Democrat, a sign has been posted at the subject property and the hearing agenda has been posted on the Town of Easton website: <http://eastonmd.gov/>.

This letter is sent to inform you that an application for 313 North Street has been filed for a special exception request pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to establish an existing Multifamily apartment complex as a Special Exception use per 1.105 in Table 2.1, Section 28-202 of the Ordinance and to expand such use. The property is located in the R-7A zoning district and the Historic District Overlay Zone. The applicant has also filed a variance pursuant to Section 28-1303.5.C of the Town of Easton Zoning Ordinance, to obtain a variance from Section 28-302.2.G and 28-1007.1.14.j.i in the Zoning Ordinance. The Applicant seeks to create four (4) additional units to the existing eighteen (18) units onsite and within the existing twelve (12) unit multifamily building facing North Street. The applicant is requesting a Variance of the permitted density of 8 units/acre to allow for a density of 21.78 units/acre. The Variance request is to permit a total of 22 units on the existing 43,995.6 sq. ft. lot.

Copies of the proposed application are on file and available for public review in the Town's Planning Office at 14 South Harrison Street between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday. **In addition, digital copies are also available for review via the Town's website at <https://www.eastonmd.gov/129/Agendas-Minutes>.** If you have any questions regarding this application, please contact the Planning Office at (410) 822-1943 or via e-mail at ssmith@eastonMD.gov.

Samantha N. Smith

Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov

Exhibit 'A'



Town of Easton

Engineering, Planning and Zoning

14 South Harrison Street, Easton, MD 21601

Board of Zoning Appeals Application

Application Type



Variance



Appeal



Special Exception

Property Information

Address	Camac St, Easton, MD, 21601						
Tax Map	0026	Grid	0020	Parcel	0186	Lot	
Deed Reference:	Liber	02644	Folio	00114			
Plat Reference:	Liber	82	Folio	151			
Existing Use	Residential						
Zoning District	R10A						
Historic District	Y ☐	N ☐	PRD	Y ☐	N ☒		

Owner

Name	Aspire Outdoors LLC		
Mailing Address	29760 Standish St, Easton, MD 21601		
Telephone No.	410-310-6241	Email	ddaly@baamboys.com

Applicant or Agent

Name	Aspire Outdoors LLC		
Mailing Address	29760 Standish St, Easton, MD 21601		
Telephone No.	410-310-6241	Email	ddaly@baamboys.com

Surveyor / Engineer

Name	Robert Rauch	License No.	11024	Expiration Date	7/24/2024
Mailing Address	106 N. Harrison St, Easton, MD, 21601				
Telephone No.	410-770-9081	Email	robert@raucheng.com; brian@raucheng.com		

Request Details

Subject to Previous BOZA Application Y ☐ N ☒

Zoning Ordinance Section 28-201 & 28-303

Change From to

Please describe the purpose of the request being made to the Board of Appeals including all information pertinent to said request. Attach a formal letter detailing request.

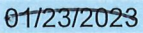
Aspire Outdoors LLC is seeking a special exception for use of an Apartment Complex within the R-10A zone.
There are 6 apartment buildings proposed on the Aspire property just South of the end of Camac St in Easton.
The plan for this complex will meet all requirements within the ordinance.

- If the applicant is other than the owner, include a letter of certification from the owner.
- Attach five (5) copies of the recorded Deed conveying present ownership of the property.
- Attach five (5) copies of scaled plat sketch or site plan with all dimensions of lot, setbacks, improvements and the distances between any improvements.

- Provide all information related to any restrictions to the property recorded among the Land Records of Talbot County.
- Provide all information related to any restrictions imposed by Homeowner Associations, etc.
- Include any additional information, related to the request being made of the Board of Appeals.
- Fee Payment

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent 
 Date  
 Printed Name of Applicant or Agent 

For Office Use Only

Project Number		Fee Received		\$700 - Special Exception Review
Application Number		Application Notification	04/03/2023	\$250 - Variance Review
Filing Date	03/30/2023	Property Posting Date	04/04/2023	
BOZA Hearing Date	04/18/2023	Notice(s) Published	04/02/2023	
If ESDR, Date				

Revised 2-2019

SE-911 / SE 23-06
 V-911 / V 23-05



EASTON BOARD OF ZONING APPEALS
APPLICATIONS FOR
VARIANCES, SPECIAL EXCEPTIONS AND APPEALS
Revised 02-2019

- 1.) Applications are available at the Town Office located at 14 S. Harrison Street, Easton, Maryland or online at www.town-eastonmd.com.
- 2.) The applicant shall submit one (1) copy of the 2-sided application and five (5) copies of the current deed of the subject property.
- 3.) The application should include five (5) copies of all information, including plans, sketches, required by the regulations for proper consideration of the application by the Board of Zoning Appeals.
- 4.) The fees for the application are:

Variance:

Commercial	\$250
Residential	\$200

Special Exception: \$700

Appeal: \$550 (Refunded if Appeal is successful)

- 5.) Combined applications for Variances and Special Exceptions for the same parcel are acceptable.
- 6.) Copies of the Town of Easton Zoning Ordinance are available on the Town's website. The Ordinance includes detailed information and requirements for Variances and Special Exceptions. It is recommended that all applicants refer to this Ordinance prior to filing an application.
- 7.) Applicants may represent themselves or have legal representation.
- 8.) The Planning Office will provide reasonable assistance to all applicants however, it is the applicant's responsibility to present all information required for proper consideration of the application by the Board of Zoning Appeals.
- 9.) After the application has been filed, each applicant will receive notice from the Board of Zoning Appeals of the scheduled public hearing requirements, which must

EASTERN SHORE TITLE COMPANY
 114 N. West Street
 Easton, Maryland 21601
 410-820-4426 Fax: 410-820-4429
 Website: www.easternshoretitle.com
 Email: info@easternshoretitle.com

This Deed, made this 17th day of September, 2019, by and between **SHORE UNITED BANK**, a Maryland banking corporation, Grantor; and **ASPIRE OUTDOORS, LLC**, a Maryland limited liability company, Grantee.

- Witnesseth -

THAT FOR AND IN CONSIDERATION of the sum of **Three Hundred Thousand And 00/100 Dollars (\$300,000.00)** and other good, valuable and sufficient consideration, in hand paid, the receipt of which is hereby acknowledged, the said **SHORE UNITED BANK**, a Maryland banking corporation does hereby grant and convey unto the said **ASPIRE OUTDOORS, LLC**, a Maryland limited liability company, its successors and assigns, forever, in fee simple, all the hereinafter described property:

ALL those lots, pieces or parcels of ground situate, lying and being in the First Election District of Talbot County, State of Maryland and more particularly described as follows, that is to say:

BEGINNING for the same at the intersection of the division line between lots 227 and 228 of section six of Matthewstown Run with the southern right-of-way line of Matthewstown Road, a 60 foot wide right-of-way. Thence leaving said point of beginning so fixed and running with said Matthewstown Road, North 51 degrees 48 minutes 58 seconds East, 1462.80 feet to a point. Thence leaving said Matthewstown Road and binding on the land of Theodore B. Passyn and Julia B. Passyn, 948/830, South 43 degrees 27 minutes 28 seconds East, 2132.37 feet to a point and the Holly Park Subdivision, PC1-40A. Thence with said Holly Park Subdivision the following three (3) courses and distances; North 84 degrees 08 minutes 50 seconds West, 750.50 feet to a point. South 28 degrees 21 minutes 13 seconds West, 275.80 feet to a point. South 05 degrees 17 minutes 49 seconds West, 1643.65 feet to a point and the land now or formerly of Swan Haven Limited Partnership, 650/60. Thence with said Swan Haven Limited Partnership, 650/60. Thence with said Swan Haven Limited Partnership, North 79 degrees 04 minutes 09 seconds West, 135.17 feet to a point. Thence leaving said Swan Haven Limited Partnership and running with various lots in sections three, four and five of Matthewstown Run the following North 32 degrees 00 minutes 17 seconds West, 205.61 feet to a point, North 63 degrees 36 minutes 20 seconds West, 26.41 feet to a point. North 74 degrees 02 minutes 28 seconds East, 112.34 feet to a point. North 54 degrees 14 minutes 14 seconds West, 90.39 to a point, North 35 degrees 55 minutes 18 seconds East, 247.79 feet to a point. North 04 degrees 47 minutes 08 seconds West, 101.63 feet to point. North 17 degrees 20 minutes 13 seconds East, 28.07 feet to a point. North 08 degrees 22 minutes 16 seconds East, 18.71 feet to a point. North 05 degrees 15 minutes 35 seconds West, 96.57 feet to a point. North 12 degrees 10 minutes 27 seconds East, 38.78 feet to a point. North 51 degrees 04 minutes 42 seconds West, 180.84 feet to a point. North 63 degrees 40 minutes 19 seconds West, 54.93 feet to a point. North 13 degrees 48 minutes 27 seconds West, 24.93 feet to a point. North 31 degrees 36 minutes 57 seconds West, 18.76 feet to a point. North 85 degrees 26 minutes 14 seconds West, 36.61 feet to a point. North 51 degrees 04 minutes 42 seconds West, 79.79 feet to a point. North 63 degrees 42 minutes 04 seconds West, 14.21 feet to a point. North 43 degrees 08 minutes 41 seconds West, 22.10 feet point. North 80 degrees 24

EASTERN SHORE TITLE COMPANY

P.O. BOX 357

EASTON, MD 21601

TALBOT COUNTY FINANCE OFFICE

RECORDATION TAX

AMT: \$ 3,600.00

DATE: 9/25/2019

INITIALS: SSA

Prop ID: 01-083793-01-0834062

minutes 26 seconds West, 18.83 feet to a point. North 47 degrees 33 minutes 08 seconds West 54.99 feet to a point. North 79 degrees 16 minutes 10 seconds West, 35.85 feet to a point. South 38 degrees 55 minutes 18 seconds West, 85.88 feet to a point. North 51 degrees 04 minutes 42 seconds West, 53.81 feet to a point. With the arc of a curve to the right a distance of 47.12 feet to a point. Said curve having a radius of 30.00 feet and being scribed by a North 06 degrees 04 minutes, 42 seconds West, 42.43 feet. North 38 degrees 55 minutes 18 seconds East, 90.00 feet to a point. North 51 degrees 04 minutes 42 seconds West, 60.00 feet to a point South 38 degrees 55 minutes 18 seconds West, 21.82 feet to a point. North 51 degrees 04 minutes 42 seconds West; 80.00 feet to a point. South 38 degrees 55 minutes 18 seconds West, 69.42 feet to a point. North 51 degrees 04 minutes 42 seconds West, 25.00 feet to a point. South 38 degrees 55 minutes 18 seconds West, 39.33 feet to a point. With the arc of a curve to the left a distance of 146.41 feet to a point. Said curve having a radius of 100.00 feet and being scribed by a chord of South 80 degrees 51 minutes 47seconds West 133.68 feet. South 38 degrees 55 minutes 18 seconds West, 14.00 feet to a point. North 51 degrees 04 minutes 42 seconds West, 93.13 feet to a point. North 79 degrees 45 minutes 03 seconds West, 27.21 feet to a point. South 38 degrees 55 minutes 18 seconds West, 37.99 feet to a point. North 51 degrees 04 minutes 42 Seconds West, 40.47 feet to a point, North 05 degrees 50 minutes 22 seconds West, 41.30 feet to a point. North 68 degrees 35 minutes 41 seconds West, 103.45 feet to a point. South 38 degrees 55 minutes 18 seconds West, 47.83 feet to a point. South 04 degrees 17 minutes 36 seconds East, 82.33 feet to a point. South 65 degrees 18 minutes 00 seconds East, 132.49 feet to a point. South 38 degrees 55 minutes 18 seconds West, 22.98 feet to a point. South 34 degrees 40 minutes 37 seconds East, 21.00 feet to a point. South 74 degrees 40 minutes 14 seconds West, 39.61 feet to a point. South 38 degrees 55 minutes 18 seconds West, 41.94 feet to a point. North 51 degrees 04 minutes 42 seconds West, 20.00 feet to a point. South 38 degrees 55 minutes 18 seconds West, 90.00 feet; North 51 degrees 04 minutes 42 seconds West, 818.24 feet to a point. North 51 degrees 38 minutes 16 second East, 397.96 feet to a point. South 38 degrees 21 minutes 44 seconds East, 73.20 feet to a point. North 81 degrees 52 minutes 40 seconds East, 148.49 feet to a point. With the arc of a curve to the left a distance of 87.33 feet to a point. Said curve having a radius of 50.00 feet and being scribed by a chord of South 83 degrees 24 minutes 45 seconds East, 76.65 feet. South 46 degrees 26 minutes 58 seconds East, 13.31 feet to a point. North 58 degrees 33 minutes 43 seconds East, 151.43 feet to a point. North 45 degrees 04 minutes 24 seconds East, 53.18 feet to a point North 47 degrees 47 minutes 21 seconds East, 78.58 feet to a point. North 05 degrees 07 minutes 00 seconds East, 38.74 feet to a point. North 09 degrees 35 minutes 49 seconds West, 39.04 feet to a point. North 51 degrees 38 minutes 16 seconds East, 110.52 feet to a point, With the arc of a curve to the right a distance of 38.42 feet to a point. Said curve having a radius of 30.00 feet and being scribed by a chord of North 88 degrees 19 minutes 38 seconds East, 35.85 feet. With the arc of a curve to the right a distance of 75.23 feet to a point. Said curve having a radius of 700.00 feet and being scribed by a chord of South 51 degrees 54 minutes 18 seconds East, 75.19 feet. With the arc of a curve to the left a distance of 143.78 feet to a point. Said curve having a radius of 50.00 feet and being scribed by a chord of South 82 degrees 54 minutes 57 seconds East, 99.12 feet. With the arc of a curve to the right a distance of 63.49 feet. Said curve having a radius of 760.00 feet and being scribed by a chord of South 40 degrees 13 minutes 57 seconds East, 63.47 feet. South 37 degrees 50 minutes 22 seconds East, 111.83 feet to a point. North 16 degrees 22 minutes 32 seconds East, 64.98 feet to a point. North 08 degrees 11 minutes 01 seconds West, 100.21 feet to a point. North 02 degrees 46 minutes 32 seconds East. 67.42 feet to a point. South 73 degrees 44 minutes 44 seconds West, 25.69 feet to a point. North 29 degrees 32 minutes 27seconds West, 82.88 feet to a point. South 84 degrees 34 minutes 29 seconds West, 59.86 feet to a point. North 53 degrees 18 minutes 14 seconds West, 86.12 feet to a point, North 36 degrees 26 minutes 06 seconds West, 79.48 feet to a point. North 72 degrees 16 minutes 24 seconds West, 126.16 feet to a point. North 76 degrees 03 minutes 42 seconds West, 76.61 feet to a point. South 23 degrees 59 minutes 07 seconds West, 21.01 feet to a point. North 66 degrees 00 minutes 53 seconds West, 35.32 feet to a point. North 41 degrees 09 minutes 13 seconds West, 51.13 feet to a point. North 61 degrees 09 minutes 40 seconds West, 149.24 feet to a point, North 59 degrees 21 minutes 46 seconds West, 112.65 feet to a point. North

82 degrees 18 minutes 17 seconds West, 131.81 feet to the place of beginning, Containing in all 81.97 acres of land more or less.

SAVE AND EXCEPT THEREFROM, all those Lots 1 through 50, rights-of-ways and easements, shown on a Plat entitled "SUBDIVISION PLAT HUNTERS MILL - PHASE 1", dated August 22, 2007, prepared by Professional Land Surveyor, John E. Harris, Jr. & Associates, Inc., and recorded among the Plat Records of Talbot County, Maryland, in Plat Book MAS Liber 82, folio 151-53 (said Phase 1 more specifically shown on folio 152) and as modified by plats recorded in the said Plat Records at Liber 83, folio 164-65 and Liber 83, folio 176.

BUT INCLUDING from the above mentioned Plat recorded at Liber 82, folio 153 all of "Parcel E SWM Pond", "Parcel H" and "Parcel C Park Area."

BEING the same property conveyed unto SHORE UNITED BANK, a Maryland banking corporation from ALEXIS E. KRAMER and GARRETT M. FITZGERALD, SUBSTITUTE TRUSTEES, by Deed dated December 15, 2016 and recorded among the Land Records of Talbot County, Maryland in Liber No. 2410, folio 094.

Together with the buildings and improvements thereon erected, made or being; and all and every, the rights, alleys, ways, waters, privileges, appurtenances and advantages to the same belonging, or in anywise appertaining.

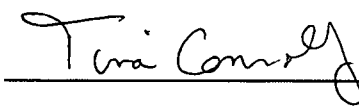
To Have and To Hold the said tract of ground and premises above described and mentioned, and hereby intended to be conveyed, together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto and to the proper use and benefit of the said **ASPIRE OUTDOORS, LLC**, a Maryland limited liability company, its successors and assigns, forever, in fee simple.

And the said Grantor does hereby covenant that it has not done or suffered to be done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that it will warrant specially the property hereby conveyed; and that it will execute such other and further assurances of the same, as may be requisite.

As Witness the hand and seal of said Grantor, the day and year first above written.

WITNESS:

SHORE UNITED BANK, A
MARYLAND BANKING
CORPORATION



 {Seal}
BY: W. DAVID MORSE, EXECUTIVE
VICE PRESIDENT

STATE OF MARYLAND, COUNTY OF TALBOT, to wit:

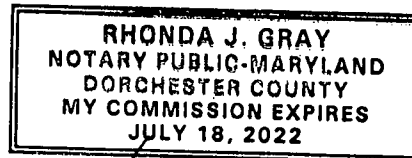
I hereby certify that on this 17th day of **September**, 2019 before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared **W. DAVID MORSE**, who acknowledged himself to be the **EXECUTIVE VICE PRESIDENT** of **SHORE UNITED BANK, a Maryland banking corporation** (the Corporation), and that as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the Corporation, by himself as such officer and further made oath that this conveyance is not part of a transaction in which there is a sale, lease, exchange or other transfer

or all, or substantially all, of the property and assets of the Corporation, giving oath under penalties of perjury that the consideration recited herein is correct.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Rhonda Gray
Notary Public

My commission expires: _____



This document was prepared under the supervision of an attorney admitted to practice before the Court of Appeals of Maryland, or by one of the parties named in the within instrument.

Willard C. Parker, II
WILLARD C. PARKER, II, ESQUIRE

AFTER RECORDING, PLEASE RETURN TO:
EASTERN SHORE TITLE COMPANY
114 N. West Street
410-820-4426 fax 410-820-4429
Easton, Maryland 21601
File No. EST-2019-22640CLH

CERTIFICATION IS MADE THAT ALL TAXES
DUE ON THE PROPERTY INDICATED IN
THIS DEED HAVE BEEN PAID.

FINANCE OFFICER OF TALBOT COUNTY

ANDREW HOLLIS, FIN. OFFICER cl

DATE 9/25/2019 cl

EXHIBIT A

Purpose of Appeal

Derick Daly, an official representative of Aspire Outdoors LLC (the “Applicant”), is seeking two approvals from the Board of Zoning Appeals for Aspire Outdoor LLC’s property at the end of Camac Street in Easton, Maryland. The subject property location is documented as Tax Map 0026, Grid 0020, Parcel 0186 (See application).

In addition to the application, fees, and copies of the deed of the subject property, the following exhibits are submitted in support of this purpose of appeal:

- Exhibit A, Purpose of Appeal (this document)
- Exhibit B, Overall Site Plan
- Exhibit C, Enlarged Site Plan (Variance)
- Exhibit D, Enlarged Site Plan (Color depiction, noting Variance)
- Exhibit E, Color Site Plan Concept Rendering
- Exhibit F, Concept Aerial Rendering 1
- Exhibit G, Concept Aerial Rendering 2
- Exhibit H, Concept Pool Amenity Rendering 1 (for site use context)
- Exhibit I, Concept Pool Amenity Rendering 2
- Exhibit J, Concept Apartment Building Rendering

Item 1: Special Exception for Use:

A special exception for use as a multi-family apartment complex is requested for the subject property, which is in the R-10A zone. Per the Town of Easton Zoning Ordinance, Table of Permitted Uses (2.1) and pages 2-3, the use of Multifamily Apartment Complex within R-10A requires a Special Exception (SE) granted via the Board of Zoning Appeals. Refer to Exhibits B and C for site plans and Exhibits D through J for conceptual renderings of the proposed apartment complex, amenities, location, and relationship to neighboring properties.

The applicant’s project includes high density residential housing, which is consistent with the goals of the Town of Easton Comprehensive Plan. Specifically, on page 45 of the “Land Use” section, the comprehensive plan includes a goal “to limit the geographic outward expansion of the Town of Easton”. One objective listed to accomplish this goal of the comprehensive plan states “slow the demand for more land by increasing the density of future residential areas”. The Aspire Apartment Complex project aims to accomplish the goal of limiting geographic outward expansion of the

Town of Easton through the objective of providing high density residential apartment buildings on an undeveloped, in-fill parcel.

The applicant is looking to provide high quality and luxury apartments, specifically, for working professionals or those within the “move-up market” as stated in the Town’s Comprehensive Plan:

Excerpt:

Comprehensive Plan, Community Character, Pg. 107-108:

Principle #7 – Neighborhoods Should Contain a Diversity of Housing Types:

This was a new Design Principle added to the list in 2004. It is similar in nature to Principle # 1 above concerning mixed or integrated uses. However, this Principle goes further to look at one specific component of the mix of uses, residential, and says that this component itself should be mixed.

In recent years Easton has experienced a significant absence of affordable housing. The problem is not just within the realm of low-income housing. That level of housing is certainly needed in Easton, but more recently we have seen fewer and fewer homes built in the general “entry-level” market, as well as the “move-up” market. In addition, there is a demonstrated need for apartment units in Town.

The applicant aims to provide these apartment units for the “move-up” market within the Town if the Board approves his application for Special Exception of Use, to include Multi-Family Apartment Complex in the R-10A zone, at Aspire Outdoors LLC’s property South of Camac Street.

The applicant submits that the proposed Multi-Family Apartment Complex use at the subject property adheres to and/or is consistent with the principles outlined in the Zoning Ordinance, Section 28 – 1303.5.B.6, Items a through g, as follows:

- a. *The proposed use conforms in all aspects to the minimum requirements of the district in which it is located;*

RESPONSE:

This application includes, under Item 2 below, a variance request to reduce the rear yard setback. All other minimum requirements of the base zoning district are met.

- b. *The proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;*

RESPONSE:

The proposed development does not adversely affect the health, safety and general welfare of residents of the area, and will serve to provide residential rental housing which is known to be in short supply in the community.

- c. *The proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exceptions;*

RESPONSE:

Public facilities and coordination of necessary connections of services for the proposed project will adhere to the requirements of the Town of Easton, Easton Utilities Commission, Talbot County, and the State of Maryland, as applicable.

- d. *The proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;*

RESPONSE:

The applicant has commissioned a traffic study which conservatively accounted for the proposed number of daily vehicle trips for the proposed apartments, as well as inclusion of proposed neighboring developments (commonly known as Gannon Farm PUD and the Elliot Road Apartments) between U.S. Route 50 and Black Dog Alley. The study also included volumes for approximately 75 townhouses on the subject property which are not currently in the Applicant's proposed development plan. The traffic study concluded that proposed traffic from these additional residential developments will not create congestion or undue traffic hazards, and that adequate egress and ingress are provided.

- e. *The proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or adequate access;*

RESPONSE:

The proposed multi-family apartment complex residential use does not include activities or features which would contribute to adverse environmental conditions, smoke, odor, noise, improper drainage, or adequate access.

- f. *The proposed use will not adversely affect the established character of the area;*

RESPONSE:

The proposed multi-family apartment complex residential use is an appropriate property use in a well-established residential zone. Additionally, the subject property exists as an infill property on underutilized land. Development of such land for use as a multi-family apartment complex is aligned with the goals of the Town's Comprehensive Plan, specifically noted in the "Housing" section.

- g. *The proposed use shall be in conformity with the provisions of the Easton Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional uses shall be compatible and complimentary and uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.*

RESPONSE:

As noted above, the proposed development and use as a Multi-Family Apartment Complex is in conformity with the provisions of the Town Comprehensive Plan. Most notably, the proposed project aims to provide quality residential rental apartments, which are in short supply in the Town of Easton.

Item 2: Setback Variance Request:

Aspire Outdoors LLC seeks a variance to the setback of the rear property line shown in plan Exhibits B, C, and D. Exhibits D through G are conceptual renderings depicting the relationship of the proposed project to the neighboring properties. The planning department interprets the lot line in question to be a rear lot line adjacent to a single-family residential lot. The rear lot line of the subject property abuts the side lot line of the Smith property to the South.

Excerpt:

Zoning Ordinance, Section 28 – 1007.1.14.I Supplemental Uses – Residential Uses – Multi-Family Apartment Complex:

Rear yard setback requirements for apartment buildings adjacent to a single-family residence or vacant residential lot shall be seventy-five (75) feet. The setback for parking areas is also seventy-five (75) feet.

The applicant is requesting a variance to allow reduction of the rear setback dimension for both the apartment building and parking areas to be reduced to fifty (50) feet. The unusual size and configuration of the available building envelope on the property is caused by the arrangement of adjacent lots from prior subdivisions combined with the natural forest and stream/wetland features on the site. As these are conditions peculiar to the property, and not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in a practical difficulty to the applicant. The proposed design has achieved a balance of density, parking, amenities, landscaping, grading, forest conservation, buffer protection of wetlands and streams, and stormwater management provisions. Specifically, the density proposed is within the permitted density for the base residential zone, despite the limited building area. The feasible design as proposed includes two locations along the rear property line which encroach upon the seventy-five (75) foot setback. The first is the Southwest corner of one of the Southernmost apartment structures, the location of which is limited by the parking areas and stormwater management areas nearby. The second location is the row of parking spaces which extend East. The Southern row of this leg of parking lot includes stalls which are within the seventy-five (75) foot setback. Both locations and conditions noted would abut the neighboring property (Smith property) which is almost entirely naturally forested. Measurement of aerial imagery shows that the primary structure on the neighboring property is approximately one hundred eighty (180) feet from the property line. An outbuilding exists approximately twenty-five (25) from the property line. Both existing structures on the neighboring property are situated just South of the Easternmost tip of the Aspire Outdoors LLC property, and are not aligned directly across from, or faced towards, the location where the proposed building would encroach on the required setback. The existing, well-established forest buffer between the applicant's property and the neighboring residence will provide adequate screening with a fifty (50) foot setback for buildings and parking. Altering the design to abide by the seventy five (75) foot setback would result in fewer apartment units and/or less parking than is required. As the applicant is not exceeding the permitted density for the size of their property, this creates a practical difficulty to the applicant.

The odd shape of the property includes environmental areas which the applicant is avoiding disturbing with the proposed project. The property contains lot lines which have abnormal bearings in relation to one another which will limit buildable areas in tighter corners with the setbacks required as seen with the lot line in question. There is a perennial stream and wetland areas on the site as well as the property being almost entirely forested area. The applicant aims to limit the amount of disturbance to these environmentally sensitive areas and granting a variance of a 50-foot setback from that

rear lot line for buildings and parking areas allows the applicant to limit this environmental disturbance in order to obtain the density allowed on his property within the R-10A zone.

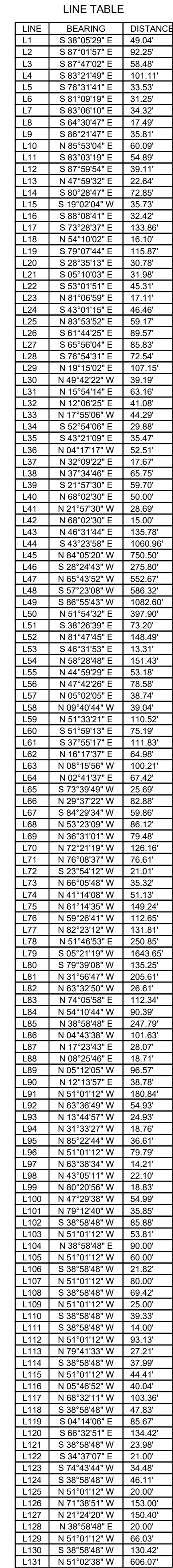
The applicant is not seeking any variance for increased density. The Aspire Outdoors LLC apartment project aims to achieve the maximum density of 5 units per acre. Upon completion of a proposed lot line revision between the two existing, contiguous, Aspire Outdoors LLC owned lot, the subject property for the apartment project will be 33 acres. The maximum density results in a total allowable quantity of 165 units. The applicant project is currently proposing 162 apartment units.

The applicant submits that granting of the variance to reduce the required rear yard setback from seventy-five (75) feet to fifty (50) feet:

- a. Will not be contrary to the public interest**
- b. Will be in harmony with the purpose and intent of the Ordinance**
- c. Will not be injurious to the neighborhood or otherwise detrimental to the public welfare.**
- d. Is owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.**

Conclusion

Based on the statements above, the applicant respectfully requests the Board of Zoning Appeals to grant approval for the Special Exception of use for a Multi-Family Apartment Complex in Zone R-10A **AND** to approve the variance request to reduce the rear yard setback from seventy five (75) to 50 (fifty) feet for apartment buildings and parking areas adjacent to a single family residence for Aspire Outdoors LLC's proposed apartment project.

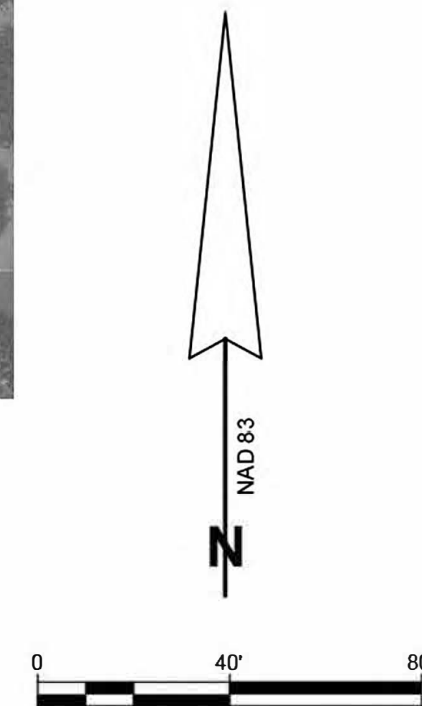


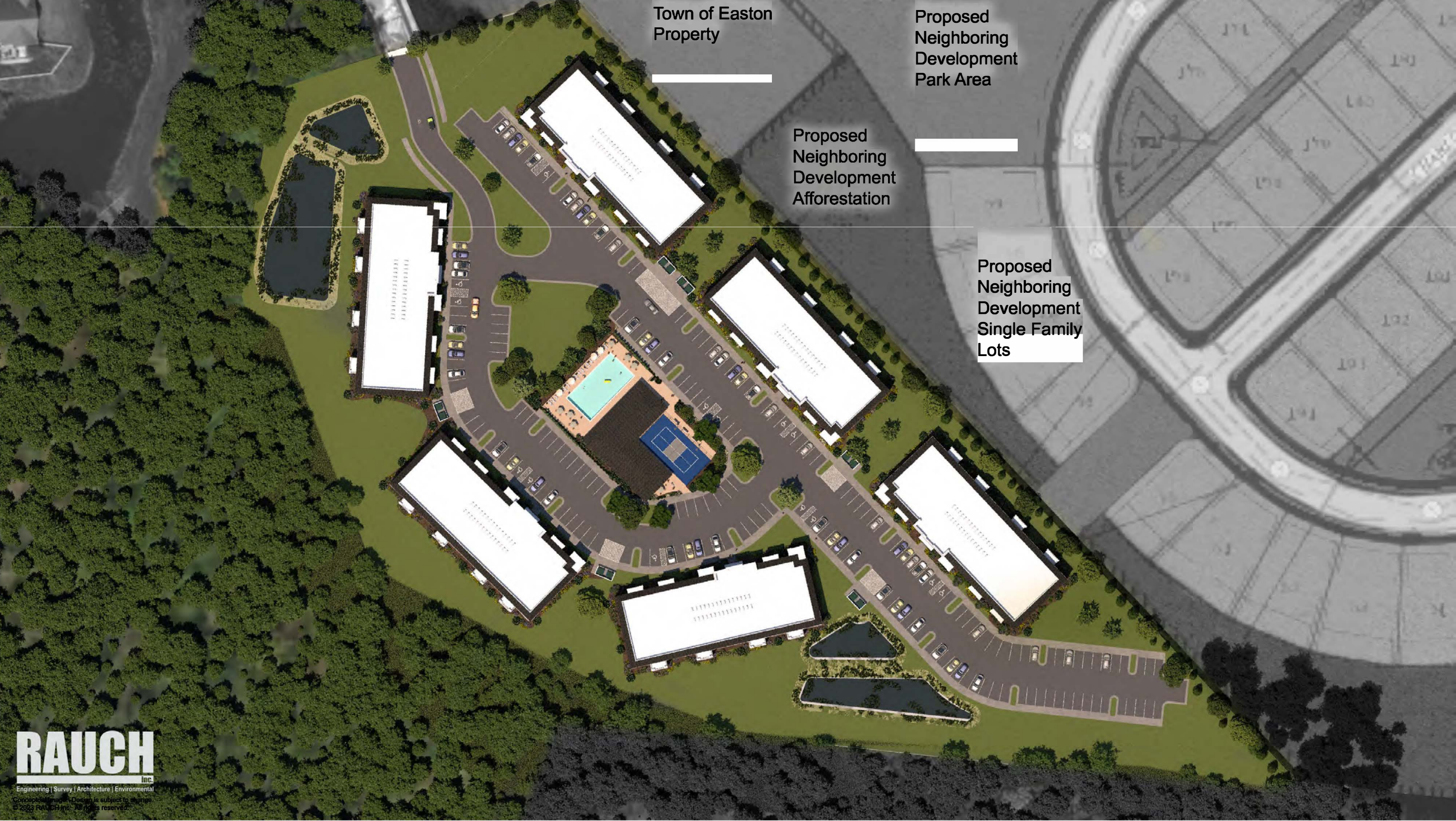
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	200.00'	114.26'	112.71'	S 38°19'29" E
C2	50.00'	87.34'	76.65'	S 86°29'40" E
C3	30.00'	38.42'	35.85'	N 88°14'43" E
C4	49.93'	143.59'	98.97'	S 82°53'41" E
C5	760.12'	63.48'	63.46'	S 40°31'23" E
C6	30.00'	47.12'	42.43'	N 06°01'12" W
C7	100.00'	146.41'	133.68'	S 80°55'17" W

Main Office: 106 N Harrison St - Easton, MD 21601
Web: www.rauch-inc.com | Email: design@raucheng.com
Phone: 410 770 9081 | Fax: 410 770 3667

ASPIRE OUTDOORS, LLC

Page 99 of 471





RAUCH
inc.

Engineering | Survey | Architecture | Environmental
Conceptual Design - Design is subject to change.
© 2023 RAUCH inc. All rights reserved.

Proposed
Neighboring
Development
Single Family Lots

Proposed
Neighboring Development
Afforestation

Proposed
Neighboring Development
Park Area

Town of Easton
Property

Conceptual image. Design is subject to change.
© 2023 RAUCH inc. All rights reserved.



Town of Easton
Property

Proposed Neighboring
Development Afforestation

Proposed
Neighboring Development
Park Area

Proposed
Neighboring
Development
Single Family Lots

Conceptual Image. Design is subject to change.
© 2023 RAUCH Inc. All rights reserved.



Conceptual image. Design is subject to change.
© 2023 RAUCH Inc. All rights reserved.

RAUCH
Inc.
Engineering | Survey | Architecture | Environmental



Conceptual image. Design is subject to change.
© 2023 RAUCH Inc. All rights reserved.

RAUCH
Engineering | Survey | Architecture | Environmental



RAUCH
Inc.
Engineering | Survey | Architecture | Environmental

Conceptual image. Design is subject to change.
© 2023 RAUCH Inc. All rights reserved.

Aspire

Talbot County, Maryland
Revised January 6, 2023

Traffic Impact Study

Prepared for:

Rauch, Inc.

Virginia Richardson, AIA
106 N. Harrison Street
Easton, MD 21601
(410) 770-9081
virginia@raucheng.com



TABLE OF CONTENTS

➤ INTRODUCTION AND SUMMARY OF FINDINGS	1
➤ EXISTING TRAFFIC CONDITIONS	3
Figure 1 Site Location Map	6
Figure 2 Existing Lane Use and Intersection Traffic Control	11
Figure 3 2022 Existing Peak Hour Traffic Volumes	12
Table 1 Results of CLV Analysis – 2022 Existing Traffic.....	13
Table 2 Results of HCM Analysis – 2022 Existing Traffic.....	13
➤ BACKGROUND TRAFFIC CONDITIONS.....	14
Table 3 Historical AADT Data	14
Figure 4 Regional Traffic Growth.....	15
Figure 5 2025 Base Peak Hour Traffic Volumes	16
Table 4 Trip Generation for The Estates at Gannon Farm	17
Figure 6 Location Map for Background Developments	18
Figure 7 Trip Assignment for The Estates at Gannon Farm	19
Figure 8 2025 Background Peak Hour Traffic Volumes.....	20
Table 5 Results of CLV Analysis – 2025 Background Traffic.....	21
Table 6 Results of HCM Analysis – 2025 Background Traffic.....	21
➤ TOTAL TRAFFIC CONDITIONS	22
Table 7 Trip Generation for Subject Site	22
Table 8 Results of CLV Analysis – 2025 Total Traffic.....	23
Table 9 Results of HCM Analysis – 2025 Total Traffic.....	23
Figure 9A Trip Assignment for Subject Site – North Parcel	24
Figure 9B Trip Assignment for Subject Site – South Parcel	25
Figure 10 2025 Total Peak Hour Traffic Volumes	26
Table 10 Results of CLV Analysis – All Scenarios	27
Table 11 Results of HCM Analysis – All Scenarios	27
Table 12 Results of Queuing Analysis.....	29
➤ RESULTS, RECOMMENDATIONS, AND CONCLUSIONS.....	31

APPENDICES

APPENDIX A – Intersection Aerial Photographs and Turning Movement Counts

APPENDIX B – Capacity Analysis Worksheets

APPENDIX C – Signal Timing

APPENDIX D – Correspondence

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. 18506, Expiration Date: 11/22/2023.



Prepared by: Betty H. Tustin, P.E., PTOE
Ming Yu-Chien, P.E., PTOE

BHT:amr
(F:\2021\2021-1217_Aspire\DOCS\REPORTS\REV1\TISRev.docx)

The Traffic Group, Inc. ®
Traffic Engineers & Transportation Planners

Merging Innovation and Excellence®

CORPORATE OFFICE
9900 Franklin Square Drive, Suite H
Baltimore, Maryland 21236
410-931-6600 Fax: 410-931-6601
1-800-583-8411
www.trafficgroup.com

INTRODUCTION AND SUMMARY OF FINDINGS

Study Purpose

The Traffic Group, Inc. has *revised a Traffic Impact Study (TIS), previously submitted on August 30, 2022, to address the comments received from the Maryland Department of Transportation State Highway Administration (MDOT SHA) on September 26, 2022.* The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be constructed in 2025.

Revisions are in italics for the convenience of the reader.

Study Criteria/Methodology

The study was conducted in accordance with the requirements established by MDOT SHA, specifically as outlined in the MDOT SHA Access Manual which was updated in part in August 2016. Chapter 1 of the Access Manual, “Traffic Impact Study Guidelines,” is currently under review.

Scope of Services

The scope of the TIS was conversations with MDOT SHA District 2, the Town of Easton, and Talbot County. Correspondence is contained in Appendix D.

- Conduct turning movement counts during the morning and evening peak hours from 7 to 9 AM and 4 to 6 PM on a weekday and from 10 AM to 2 PM on a summer Saturday at the following study intersections:
 - a. US 50 @ MD 328
 - b. MD 328 @ Elliot Road
 - c. MD 328 @ Gannon Circle
 - d. MD 328 @ Dyott Ct/Fisher Ranger Road
 - e. MD 328 @ Mile Post Drive
 - f. MD 328 at Hunters Mill
 - g. MD 328 @ Swann Haven Road
 - h. MD 328 @ Black Dog Alley

- Apply a regional growth rate to the turning movement counts for 3 years.
- Conduct trip generation and trip distribution analyses for the proposed Lands of Gannon Family residential development using the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) for inclusion in the analysis of background peak hour traffic conditions.
- Conduct trip generation and trip distribution analyses for the proposed residential development using ITE's Trip Generation Manual (11th Edition) for inclusion in the analysis of total peak hour traffic conditions.
- Prepare Level of Service evaluations for each of the study intersection and site accesses.
- Prepare queuing analyses for the study intersection and site accesses.
- Provide an overall assessment of the impact that the proposed development will have on surrounding roadways and identify any road improvements necessary to provide acceptable levels of operation.

Summary of Findings and Recommendations

Utilizing the Highway Capacity Manual (HCM) methodology, the study intersections are projected to operate at overall acceptable Levels of Service, LOS "D" or better, under total peak hour traffic conditions. Using the Critical Lane Volume (CLV) methodology, the study intersections are projected to have sufficient capacity for total peak hour traffic conditions.

The projected queues at the signalized intersections were analyzed using SimTraffic. The projected queues at the following intersections can be accommodated within the existing storage lengths:

- MD 328, Matthewstown Road and Elliot Road
- MD 328, Matthewstown Road and Dyott/Fisher Ranger Road
- MD 328, Matthewstown Road and Black Dog Alley

Signal timing adjustments are recommended to improve the queues and operations at the intersection of US 50 with MD 328, Matthewstown Road/Goldsborough Street.

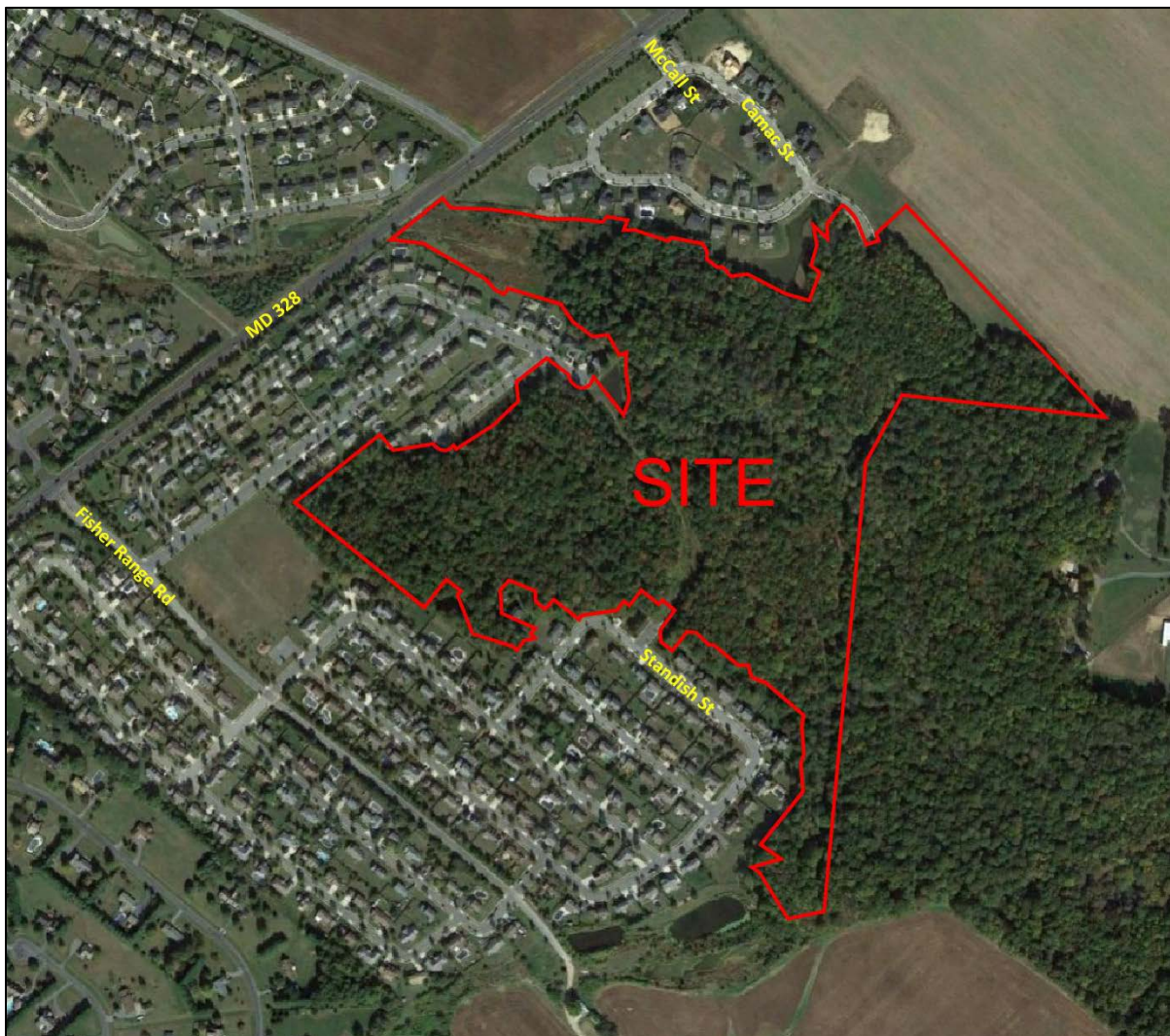
The data and methodology used to undertake this study are detailed in the sections that follow.

EXISTING TRAFFIC CONDITIONS

Site Information

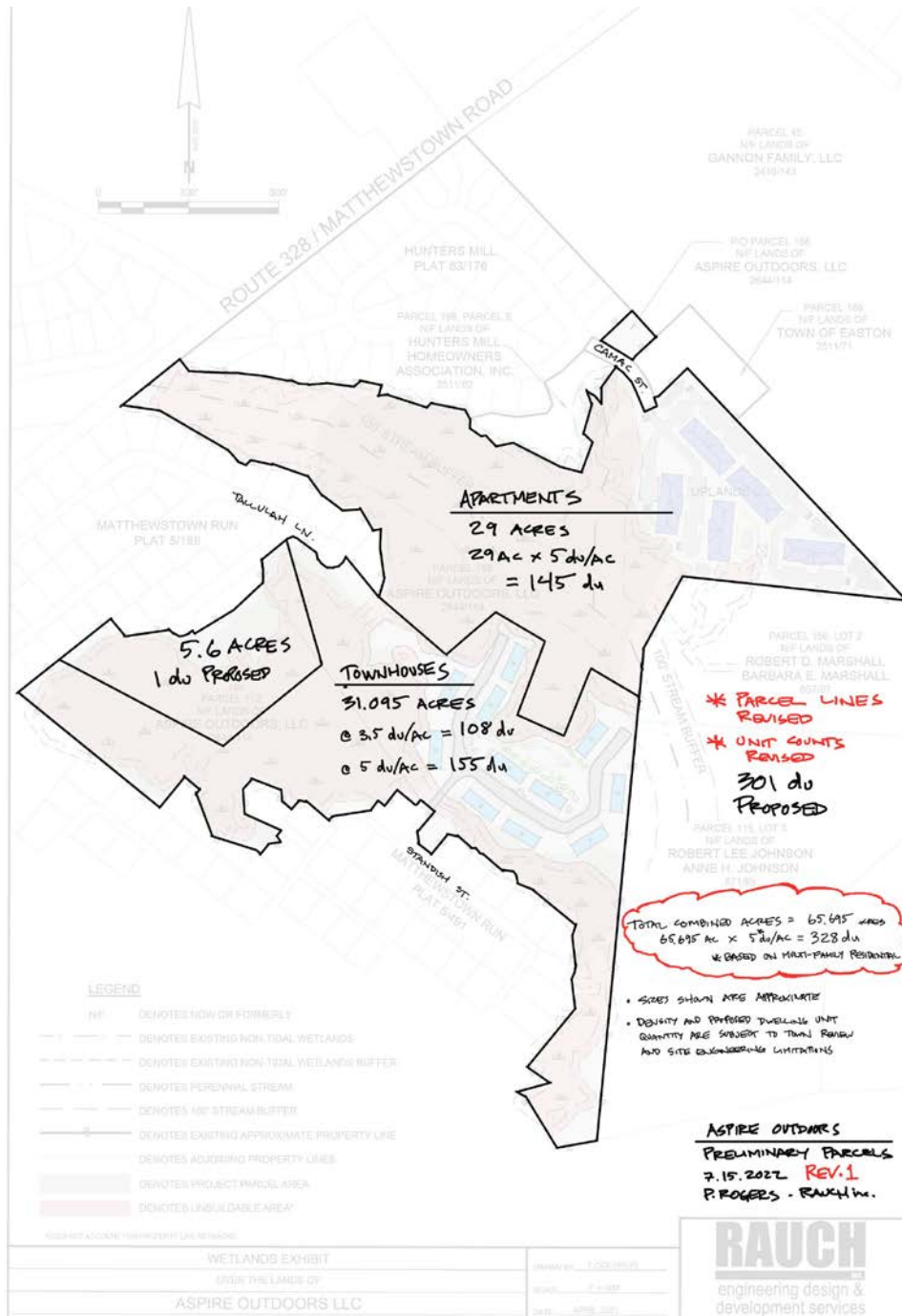
The Traffic Group, Inc. has revised a *Traffic Impact to Study*, previously submitted on August 30, 2022, to address the comments received from the MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be completed in 2025.



The northern parcel, to be accessed via McCall Street and Camac Street, consists of 29 acres and the southern parcel, to be access via Fisher Range Road to Standish Street, consists of 31.095 for a total of 65.095 acres. The maximum density for multi-family residential is 5 dwelling units/acre or, 328 dwelling units. It is likely that the number of dwelling units that will be proposed to be constructed is 301; however, the maximum number of dwelling units, 328, is used in this analysis.

A preliminary concept is provided below.



Study Area

The scope of the TIS was conversations with MDOT SHA District 2, the Town of Easton, and Talbot County. Correspondence is contained in Appendix D. The following intersections were selected for study. A site location map is provided in Figure 1.

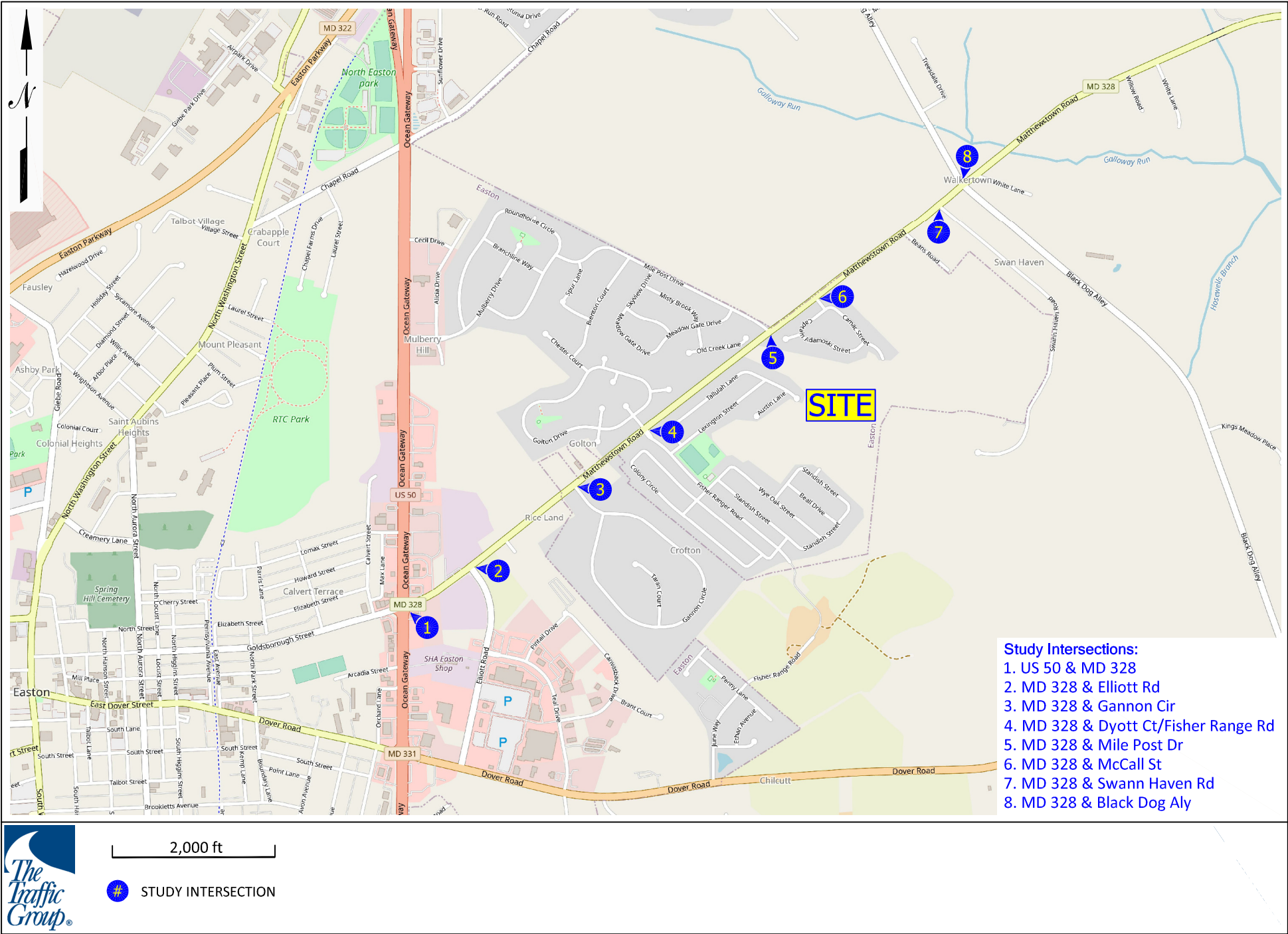
- US 50 @ MD 328
- MD 328 @ Elliot Road
- MD 328 @ Gannon Circle
- MD 328 @ Dyott Ct/Fisher Ranger Road
- MD 328 @ Mile Post Drive
- MD 328 at Hunters Mill
- MD 328 @ Swann Haven Road
- MD 328 @ Black Dog Alley

Matthewstown Road, MD 328, is classified as a Major Collector with an AADT of 9,690 for the year 2021. The speed limit is posted as 50 mph north of the site, 40 mph adjacent to the site, and 30 mph south of the site.

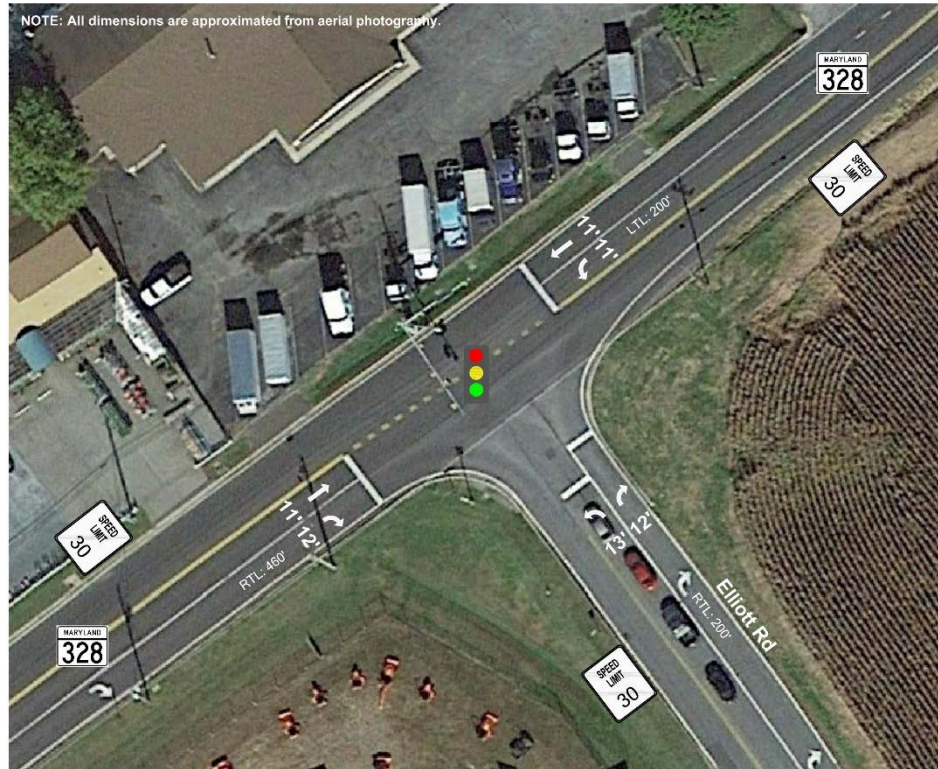
The intersection of US 50 and Matthewstown Road, MD 328, is a signalized intersection. US 50 is classified as a Principal Arterial Other with an AADT of 33,990 for the year 2021. The speed limit on US 50 is posted as 35 mph.



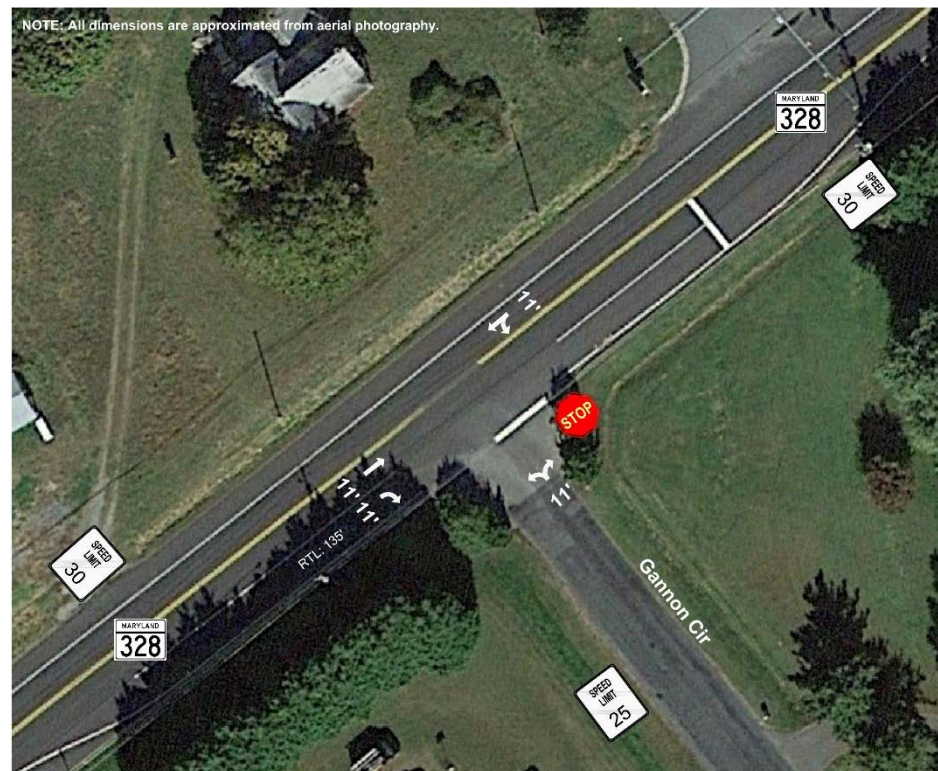
Figure 1. Site Location Map



The intersection of Elliot Road and Matthewstown Road, MD 328, is a signalized intersection. Elliot Road is classified as a Local Road with unknown AADT. The speed limit on Elliot Road is posted as 30 mph.



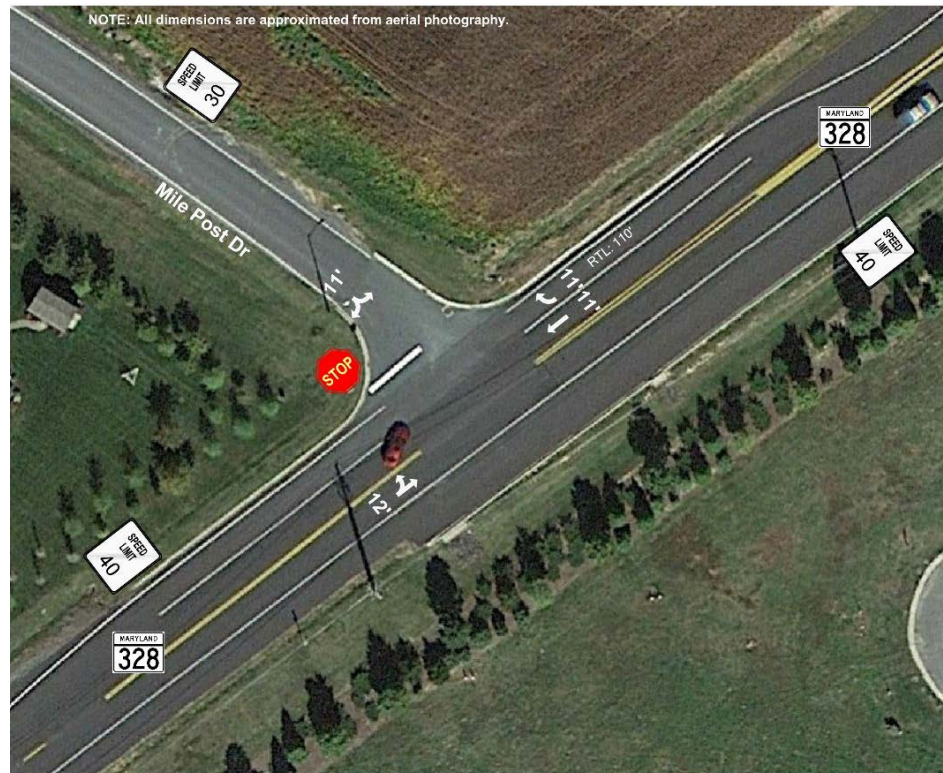
The intersection of Gannon Court and Matthewstown Road, MD 328, is STOP controlled. Gannon Court is classed as a Local Road with unknown AADT. The speed limit on Gannon Court is posted as 25 mph.



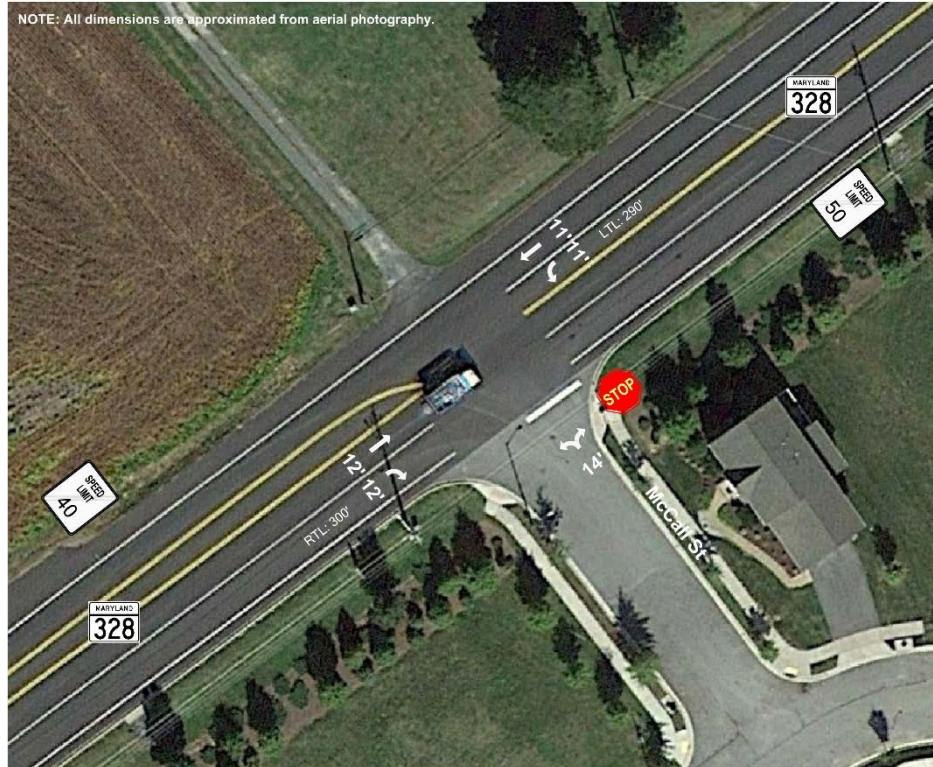
The intersection of Fisher Range Road/Dyott Ct is a signalized intersection. Fisher Range Road is classified as a Local Road with unknown AADT. The speed limit on Fisher Range Road is posted as 30 mph. Dyott Court is classified as a Local Road with unknown AADT. The speed limit on Dyott Court is posted as 25 mph. *While the Fisher Range Road approach is not marked, it is wide enough to function as two lanes.*



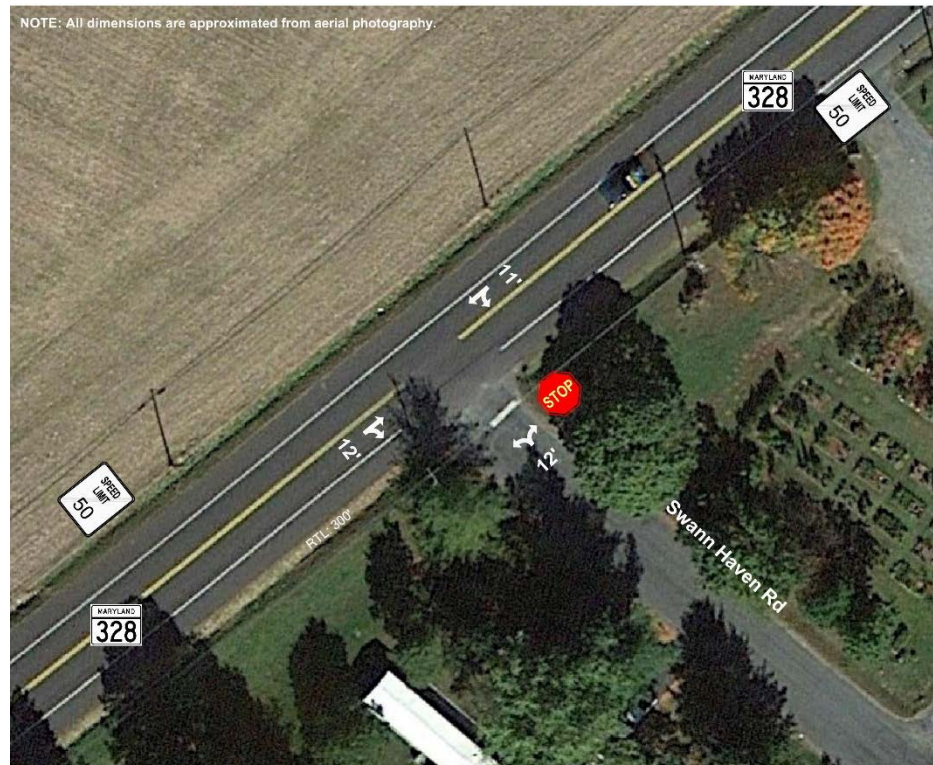
The intersection of Mile Post Drive and Matthewstown Road, MD 328, is STOP controlled. Mile Post Drive is classed as a Local Road with unknown AADT. The speed limit on Mile Post Drive is posted as 30 mph.



The intersection of McCall Street and Matthewstown Road, MD 328, is STOP controlled. McCall Street is classed as a Local Road with unknown AADT. The speed limit on McCall Street is not posted.



The intersection of Swann Haven Road and Matthewstown Road, MD 328, is STOP controlled. Swann Haven Road is classed as a Local Road with unknown AADT. The speed limit on Swann Haven Road is not posted.



The intersection of Black Dog Alley and Matthewstown Road, MD 328, is a signalized intersection. Black Dog Alley is classed as a Minor Collector with an AADT of 1,884, south of MD 328 and an AADT of 3,334, north of MD 328 for the year 2021. The speed limit on Black Dog Alley is posted as 30 mph, south of MD 328 and 35 mph, north of MD 328.



The lane use and intersection traffic control are illustrated on Figure 2.

Traffic Volumes

Intersection turning movement counts were collected in June 2022 during the weekday peak hour traffic periods from 7 to 9 AM and from 4 to 6 PM and on a summer Saturday from 10 AM to 2 PM. These turning movement counts are summarized on Figure 3. The turning movement count summaries and machine count summaries are provided in Appendix A.

Analysis of Existing Traffic Conditions

Using the CLV methodology, the study intersections were evaluated for capacity for the existing weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 1, the study intersections have sufficient capacity.

Figure 2. Existing Lane Use and Intersection Traffic Control

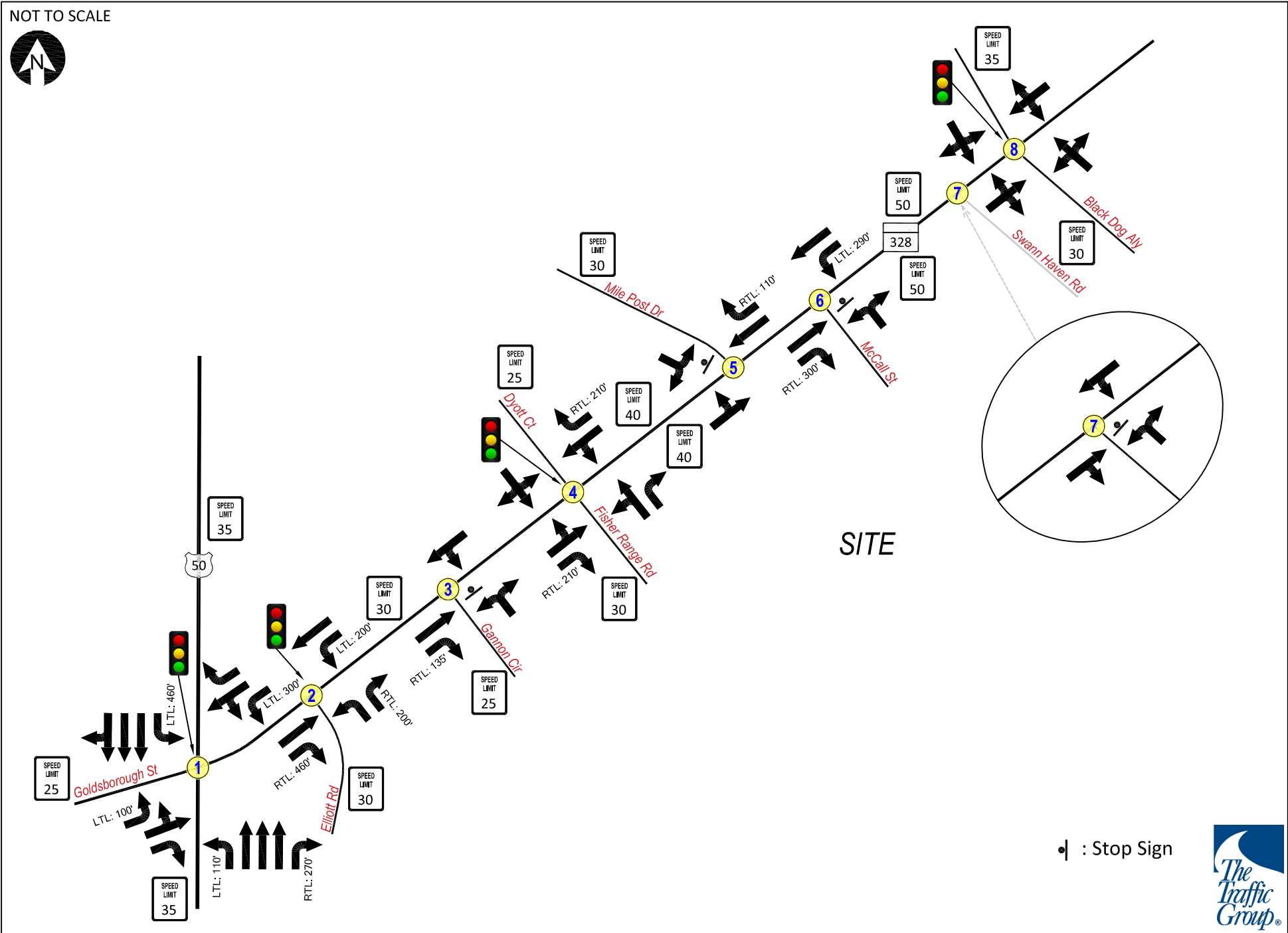


Figure 3. 2022 Existing Peak Hour Traffic Volumes

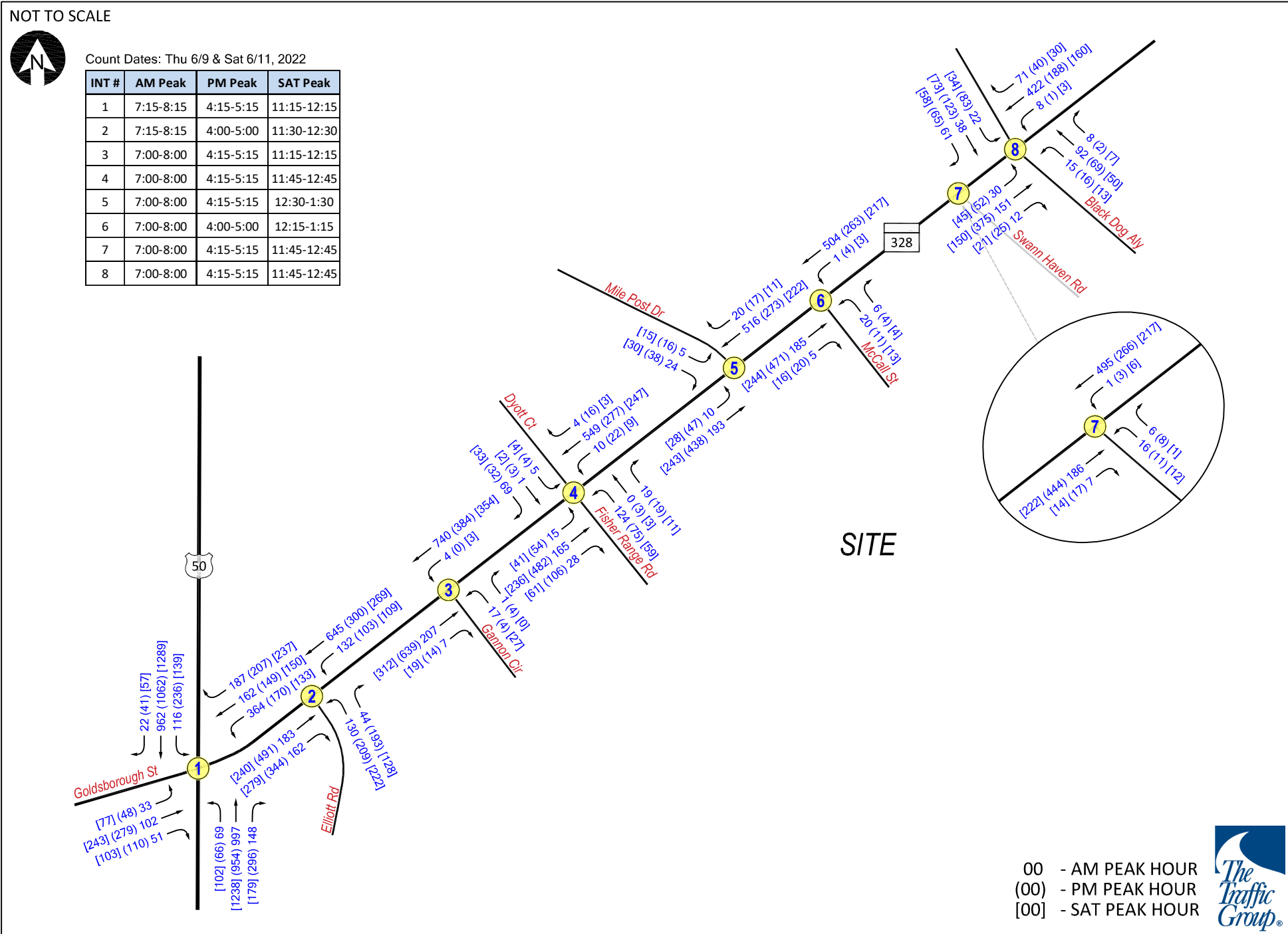


Table 1. Results of CLV Analysis – 2022 Existing Traffic

2022 Existing Traffic	AM Peak	PM Peak	SAT Peak
Intersection	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	A / 933	B / 1088	B / 1053
2. MD 328 & Elliott Rd	A / 775	A / 803	A / 571
3. MD 328 & Gannon Cir	A / 766	A / 647	A / 387
4. MD 328 & Fisher Range Rd	A / 775	A / 726	A / 425
5. MD 328 & Mile Post Dr	A / 555	A / 586	A / 344
6. MD 328 & McCall St	A / 530	A / 490	A / 264
7. MD 328 & Swann Haven Rd	A / 518	A / 483	A / 255
8. MD 328 & Black Dog Aly	A / 671	A / 800	A / 419

Using the HCM methodology, the study intersections were evaluated for operational Levels of Service for the existing weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 2, the study intersections are operating at overall acceptable Levels of Service (LOS “D” or better). The intersection capacity analysis worksheets are contained in Appendix B. Signal timing for the signalized intersections was obtained from MDOT SHA and is provided in Appendix C.

Table 2. Results of HCM Analysis – 2022 Existing Traffic

2022 Existing Traffic			AM	PM	SAT
Intersection	Type of Control	Movement	LOS / Delay (sec)		
1. US 50 & MD 328	Traffic Signal	Overall	C / 29.3	D / 35.3	C / 26.9
2. MD 328 & Elliott Rd	Traffic Signal	Overall	A / 10.0	B / 14.1	B / 12.6
3. MD 328 (E/W) & Gannon Cir (N/S)	Two Way Stop	NB LR WB L	C / 20.6 A / 8.0	C / 16.7 A / 0.0	C / 15.5 A / 8.0
4. MD 328 & Dyott Ct / Fisher Range Rd	Traffic Signal	Overall	A / 9.5	A / 7.8	A / 7.1
5. MD 328 (E/W) & Mile Post Dr (N/S)	Two Way Stop	EB L NB LR	A / 8.8 B / 13.4	A / 7.9 B / 12.5	A / 7.8 B / 11.0
6. MD 328 (E/W) & McCall St (N/S)	Two Way Stop	NB LR WB L	B / 14.0 A / 7.6	B / 14.5 A / 8.4	B / 11.5 A / 8.2
7. MD 328 (E/W) & Swann Haven Rd (N/S)	Two Way Stop	NB LR WB L	B / 14.3 A / 7.7	B / 13.9 A / 8.3	B / 11.9 A / 7.9
8. MD 328 & Black Dog Aly	Traffic Signal	Overall	A / 9.8	B / 11.1	A / 9.3

Notes: Results were based on Synchro 11 - HCM 6th reports.

BACKGROUND TRAFFIC CONDITIONS

Design Year

For the purpose of this TIS, the proposed residential development is anticipated to *be completed* in 2025. Historical AADT data was obtained from the MDOT SHA website for US 50 and MD 328/Goldsborough Street. As shown in Table 3, the AADT on US 50 has not significantly changes for the past 10 years. However, to be conservative, an annual growth rate of 1% for 3 years was applied to the peak hour turning movement volumes on US 50. The AADT on MD 328 has remained consistent, therefore, no growth was applied to the peak hour turning movement volumes on MD 328 *in the initial report. However, at the request of MDOT SHA, a 0.5% increase was applied to the volumes along MD 328.* Figure 4 illustrates the regional traffic growth, and Figure 5 provides the 2025 base peak hour traffic volumes.

Table 3. Historical AADT Data

LOCATION: US 50; North of MD 328					LOCATION: US 50; South of MD 328				
AVERAGE GROWTH:			-0.18%		AVERAGE GROWTH:			0.30%	
MATHEMATICAL GROWTH:			-0.27%		MATHEMATICAL GROWTH:			0.25%	
Year	ADT Volume	Vol. Increase	% Increase	Average %	Year	ADT Volume	Vol. Increase	% Increase	Average %
2010	35,872				2010	34,442			
2011	32,430	-3,442	-9.60%	-9.60%	2011	34,080	-362	-1.05%	-1.05%
2012	32,531	101	0.31%	-4.64%	2012	34,181	101	0.30%	-0.38%
2013	32,402	-129	-0.40%	-3.23%	2013	34,042	-139	-0.41%	-0.39%
2014	34,040	1,638	5.06%	-1.16%	2014	35,420	1,378	4.05%	0.72%
2015	35,471	1,431	4.20%	-0.08%	2015	36,911	1,491	4.21%	1.42%
2016	36,222	751	2.12%	0.28%	2016	37,692	781	2.12%	1.54%
2017	34,800	-1,422	-3.93%	-0.32%	2017	35,000	-2,692	-7.14%	0.30%
2018	34,591	-209	-0.60%	-0.35%	2018	34,791	-209	-0.60%	0.18%
2019	35,012	421	1.22%	-0.18%	2019	35,212	421	1.21%	0.30%
LOCATION: MD 328; East of US 50					LOCATION: Goldsborough St; West of US 50				
AVERAGE GROWTH:			-0.04%		AVERAGE GROWTH:			-0.23%	
			-0.05%		MATHEMATICAL GROWTH:			-0.33%	
Year	ADT Volume	Vol. Increase	% Increase	Average %	Year	ADT Volume	Vol. Increase	% Increase	Average %
2010	10,291				2010	9,230			
2011	10,332	41	0.40%	0.40%	2011	9,271	41	0.44%	0.44%
2012	10,140	-192	-1.86%	-0.73%	2012	9,202	-69	-0.74%	-0.15%
2013	10,161	21	0.21%	-0.42%	2013	8,480	-722	-7.85%	-2.72%
2014	10,132	-29	-0.29%	-0.38%	2014	8,461	-19	-0.22%	-2.09%
2015	10,010	-122	-1.20%	-0.55%	2015	8,682	221	2.61%	-1.15%
2016	10,201	191	1.91%	-0.14%	2016	8,180	-502	-5.78%	-1.92%
2017	10,452	251	2.46%	0.23%	2017	8,381	201	2.46%	-1.30%
2018	10,240	-212	-2.03%	-0.05%	2018	8,312	-69	-0.82%	-1.24%
2019	10,241	1	0.01%	-0.04%	2019	8,960	648	7.80%	-0.23%

Source: MDOT SHA.

Figure 4. Regional Traffic Growth

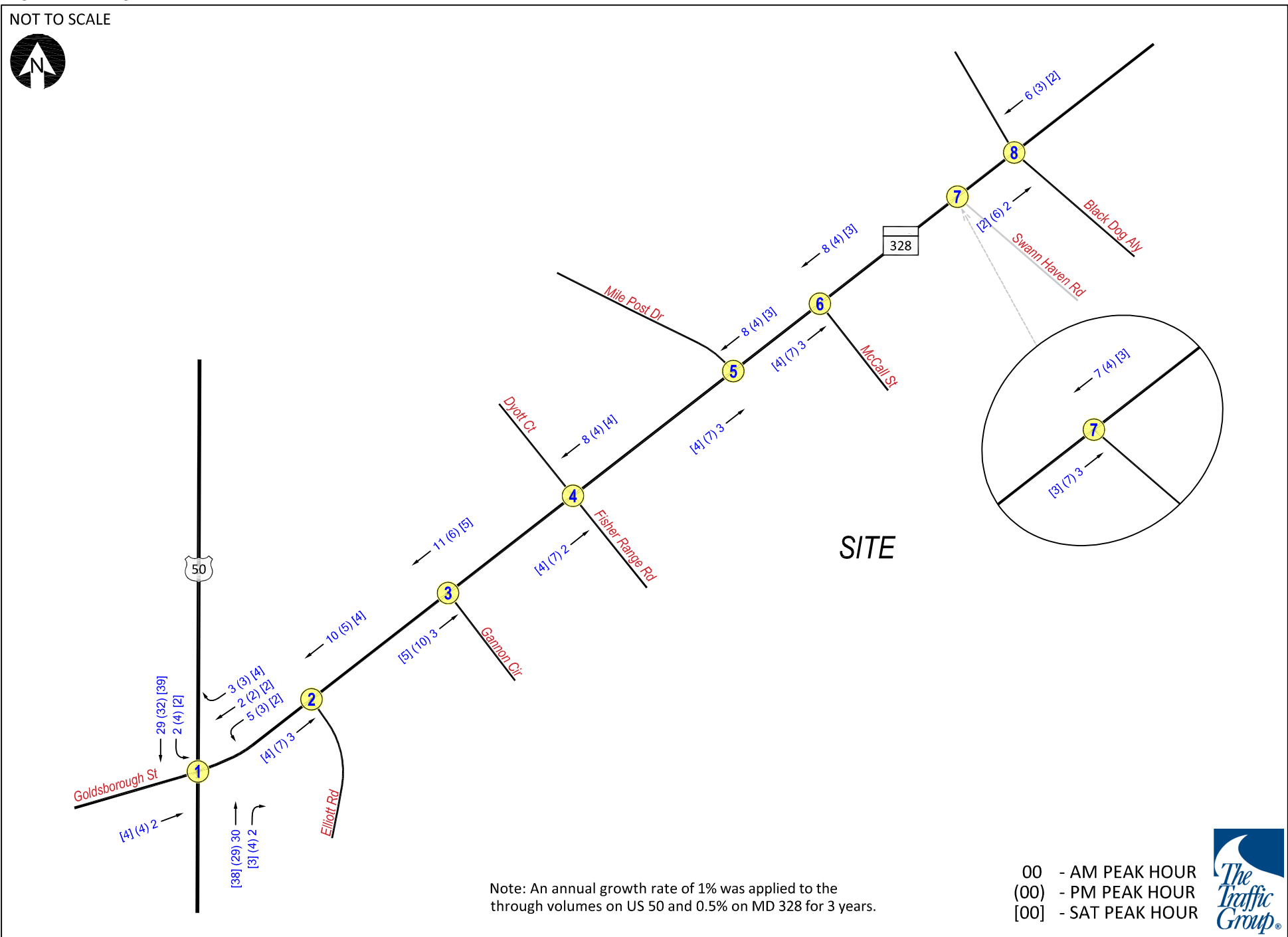
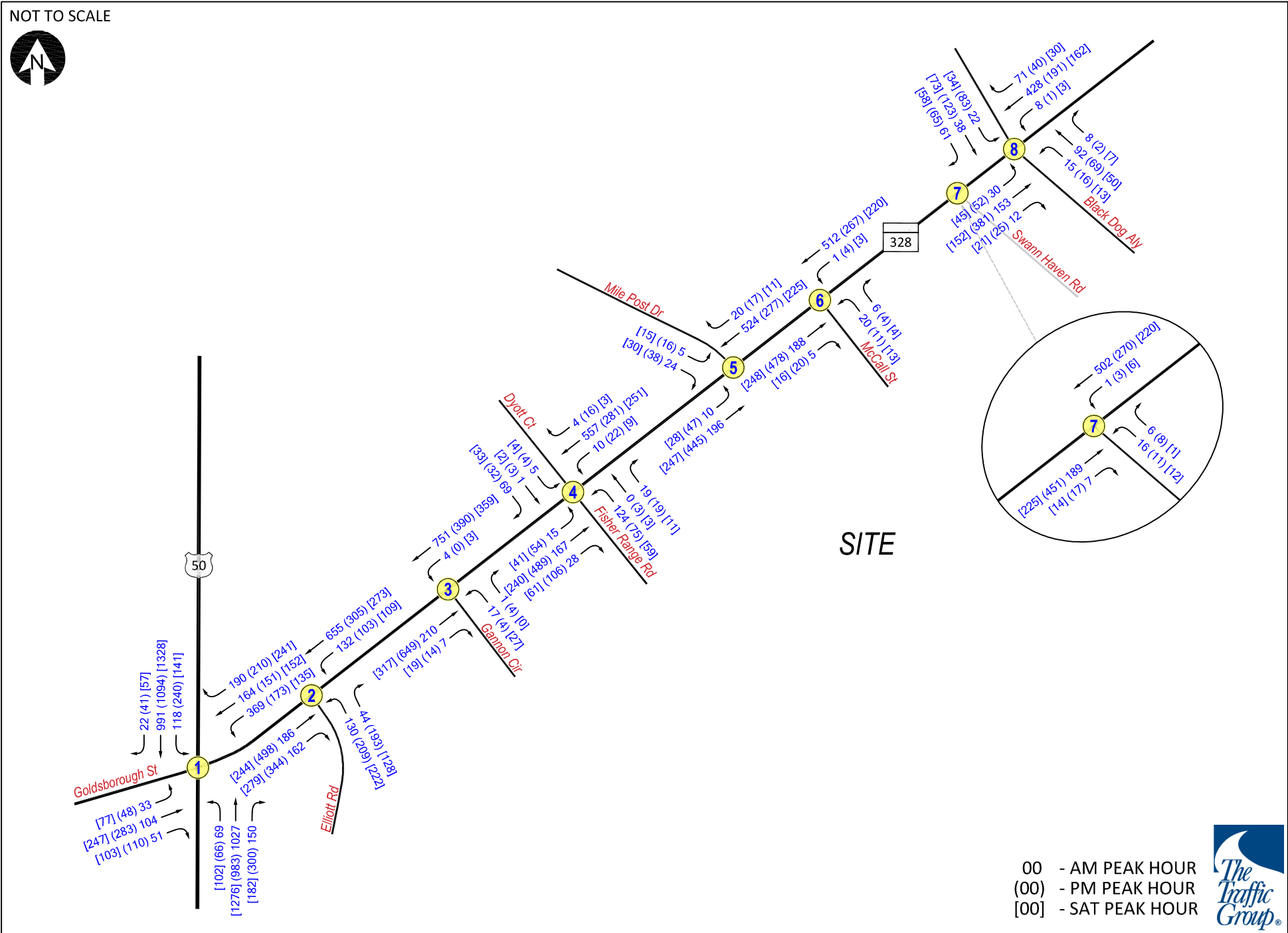


Figure 5. 2025 Base Peak Hour Traffic Volumes



Background Traffic

The Estates of Gannon Farm was identified as a committed development to be included in the analysis of the peak hour background traffic volumes. This residential development, to consist of 202 single-family homes, is located northeast of the subject site with access onto Matthewstown Road, MD 328 as shown in Figure 6.

ITE's Trip Generation Manual (11th Edition) was consulted to determine the peak hour volumes anticipated to be generated by the Estates at Gannon Farm as shown in Table 4.

Table 4. Trip Generation for The Estates at Gannon Farm

Trip Generation Rates - ITE 11th Edition										
Land Use (Source)	Formula/Rate	Directional Distribution								
		AM Peak Hour		PM Peak Hour		SAT Peak Hour				
		In	Out	In	Out	In	Out			
Single-Family	Ln(AM Peak Hour Trips) = 0.91 x Ln(Units) + 0.12									
Detached	Ln(PM Peak Hour Trips) = 0.94 x Ln(Units) + 0.27	26%	74%	63%	37%	54%	46%			
(ITE-210)	Sat. Midday Peak Hour Trips = 0.86 x Units + 9.72									
Trip Generation for The Estates at Gannon Farm										
Land Use	Size	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Detached	202 Units	37	104	141	121	71	192	99	84	183

These peak hour trips were distributed to the study intersections as shown on Figure 7 and added to the base peak hour traffic volumes to obtain the background peak hour traffic volumes for the year 2025 as shown on Figure 8.

Analysis of Background Traffic Conditions

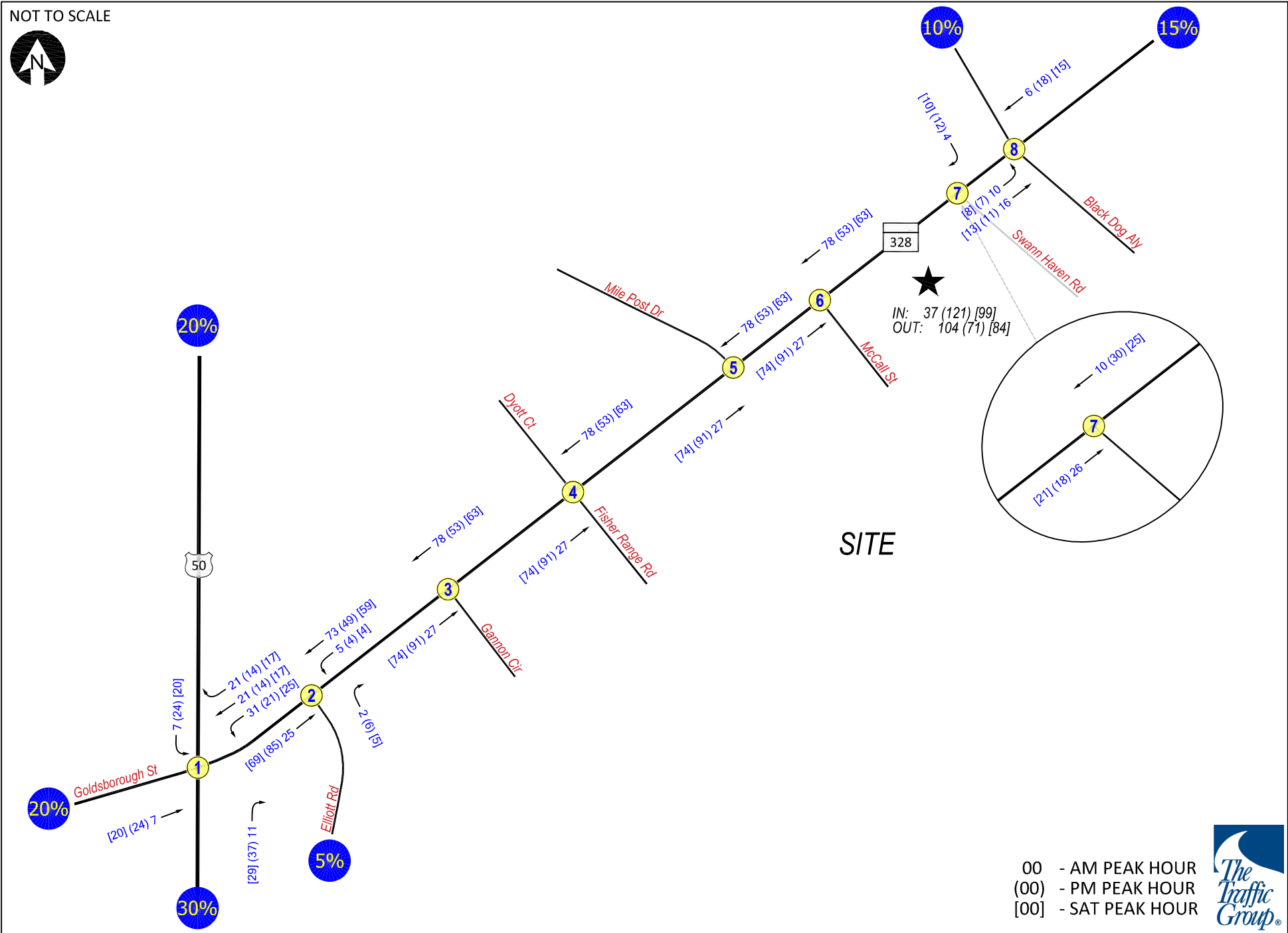
Using the CLV methodology, the study intersections were evaluated for capacity for the background weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 5, the study intersections are projected to have sufficient capacity.

Figure 6. Location Map for Background Developments



2,000 ft

Figure 7. Trip Assignment for The Estates at Gannon Farm



NOT TO SCALE

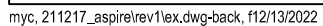


Table 5. Results of CLV Analysis – 2025 Background Traffic

2025 Background Traffic	AM Peak	PM Peak	SAT Peak
Intersection	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	A / 998	C / 1179	B / 1135
2. MD 328 & Elliott Rd	A / 858	A / 899	A / 648
3. MD 328 & Gannon Cir	A / 855	A / 748	A / 455
4. MD 328 & Fisher Range Rd	A / 870	A / 824	A / 503
5. MD 328 & Mile Post Dr	A / 641	A / 684	A / 422
6. MD 328 & McCall St	A / 616	A / 588	A / 342
7. MD 328 & Swann Haven Rd	A / 536	A / 508	A / 279
8. MD 328 & Black Dog Aly	A / 696	A / 843	A / 486

Using the HCM methodology, the study intersections were evaluated for operational Levels of Service for the background weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 6, the study intersections are projected to operate at overall acceptable Levels of Service (LOS “D” or better). The intersection capacity analysis worksheets are contained in Appendix B.

Table 6. Results of HCM Analysis – 2025 Background Traffic

2025 Background Traffic			AM	PM	SAT
Intersection	Type of Control	Movement	LOS / Delay (sec)		
1. US 50 (N/S) & MD 328 / Goldsborough St (E/W)	Traffic Signal	Overall	C / 31.8	D / 39.6	C / 31.4
2. MD 328 (E/W) & Elliott Rd (N/S)	Traffic Signal	Overall	A / 10.0	B / 14.7	B / 12.6
3. MD 328 (E/W) & Gannon Cir (N/S)	Two Way Stop	NB LR WB L	C / 24.0 A / 8.1	C / 19.3 A / 0.0	C / 18.5 A / 8.3
4. MD 328 (E/W) & Dyott Ct / Fisher Range Rd (N/S)	Traffic Signal	Overall	A / 9.7	A / 7.9	A / 7.3
5. MD 328 (E/W) & Mile Post Dr (N/S)	Two Way Stop	EB L NB LR	A / 9.1 B / 14.8	A / 8.1 B / 14.0	A / 8.0 B / 12.1
6. MD 328 (E/W) & McCall St (N/S)	Two Way Stop	NB LR WB L	C / 15.7 A / 7.7	C / 16.8 A / 8.8	B / 12.9 A / 8.4
7. MD 328 (E/W) & Swann Haven Rd (N/S)	Two Way Stop	NB LR WB L	B / 15.0 A / 7.7	B / 14.6 A / 8.4	B / 12.4 A / 8.0
8. MD 328 (E/W) & Black Dog Aly (N/S)	Traffic Signal	Overall	A / 9.9	B / 11.3	A / 9.4

Notes: Results were based on Synchro 11 - HCM 6th reports.

TOTAL TRAFFIC CONDITIONS

Site Information

The Traffic Group, Inc. has revised a TIS, previously submitted on August 30, 2022, to address the comments received from MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be constructed in 2025.

Trip Generation/Distribution

Peak hour traffic volumes anticipated to be generated by the proposed development were determined utilizing information from ITE's Trip Generation Manual (11th Edition) as shown in Table 7.

Table 7. Trip Generation for Subject Site

Trip Generation Rates - ITE 11th Edition												
Land Use (Source)		Formula/Rate					Directional Distribution					
							AM Peak Hour		PM Peak Hour		SAT Peak Hour	
							In	Out	In	Out	In	Out
Multifamily Housing, Low-Rise (ITE-220)	AM Peak Hour Trips = 0.31 x Units + 22.85											
	PM Peak Hour Trips = 0.43 x Units + 20.55					24%	76%	63%	37%	51%	49%	
	Sat. Midday Peak Hour Trips = 0.41 x Units											
	Daily Trips = 6.41 x Units + 75.31											
Single-Family Attached (ITE-215)	AM Peak Hour Trips = 0.52 x Units - 5.70											
	PM Peak Hour Trips = 0.60 x Units - 3.93					31%	69%	57%	43%	48%	52%	
	Ln(Sat. Midday Peak Hour Trips) = 0.82 x Ln(Units) + 0.43											
	Daily Trips = 7.62 x Units - 50.48											
Trip Generation for Subject Site												
Land Use	Size		AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily
			In	Out	Total	In	Out	Total	In	Out	Total	
Apartments	158	units	17	55	72	55	33	88	33	32	65	1088
Townhouses	170	units	26	57	83	56	42	98	50	54	104	1245
Total	328	units	43	112	155	111	75	186	83	86	169	2333

These trips were assigned to the study intersections as shown in Figure 9A for the north parcel and Figure 9B for the south parcel. *The trip distributions vary between the north and south parcels because the north parcel is close to Black Dog Alley.* The peak hour volumes anticipated to be generated by the proposed development were added to the background peak hour volumes to obtain the total peak hour traffic volumes for the year 2025 as shown in Figure 10.

Analysis of Total Traffic Conditions

Using the CLV methodology, the study intersections were evaluated for capacity for the total weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 8, the study intersections are projected to have sufficient capacity.

Table 8. Results of CLV Analysis – 2025 Total Traffic

2025 Total Traffic	AM Peak	PM Peak	SAT Peak
Intersection	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	B / 1051	C / 1252	C / 1199
2. MD 328 & Elliott Rd	A / 942	A / 987	A / 716
3. MD 328 & Gannon Cir	A / 945	A / 838	A / 525
4. MD 328 & Fisher Range Rd	A / 968	A / 910	A / 582
5. MD 328 & Mile Post Dr	A / 687	A / 732	A / 455
6. MD 328 & McCall St	A / 675	A / 640	A / 390
7. MD 328 & Swann Haven Rd	A / 543	A / 519	A / 292
8. MD 328 & Black Dog Aly	A / 710	A / 865	A / 508

Using the HCM methodology, the study intersections were evaluated for operational Levels of Service for the total weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 9, the study intersections are projected to operate at overall acceptable Levels of Service (LOS “D” or better). The intersection capacity analysis worksheets are contained in Appendix B.

Table 9. Results of HCM Analysis – 2025 Total Traffic

2025 Total Traffic			AM	PM	SAT
Intersection	Type of Control	Movement	LOS / Delay (sec)		
1. US 50 (N/S) & MD 328 / Goldsborough St (E/W)	Traffic Signal	Overall	C / 34.5	D / 43.8	D / 35.5
2. MD 328 (E/W) & Elliott Rd (N/S)	Traffic Signal	Overall	B / 10.3	B / 15.7	B / 12.7
3. MD 328 (E/W) & Gannon Cir (N/S)	Two Way Stop	NB LR WB L	D / 28.5 A / 8.2	C / 22.3 A / 0.0	C / 22.1 A / 8.5
4. MD 328 (E/W) & Dyott Ct / Fisher Range Rd (N/S)	Traffic Signal	Overall	B / 10.9	A / 8.4	A / 8.1
5. MD 328 (E/W) & Mile Post Dr (N/S)	Two Way Stop	EB L NB LR	A / 9.3 C / 15.7	A / 8.2 B / 14.9	A / 8.1 B / 12.7
6. MD 328 (E/W) & McCall St (N/S)	Two Way Stop	NB LR WB L	C / 18.8 A / 7.8	C / 19.5 A / 9.0	B / 13.9 A / 8.6
7. MD 328 (E/W) & Swann Haven Rd (N/S)	Two Way Stop	NB LR WB L	C / 15.4 A / 7.8	C / 19.1 B / 10.3	B / 12.7 A / 8.0
8. MD 328 (E/W) & Black Dog Aly (N/S)	Traffic Signal	Overall	A / 9.9	B / 11.5	A / 9.3

Notes: Results were based on Synchro 11 - HCM 6th reports.

Figure 9A. Trip Assignment for Subject Site - North Parcel

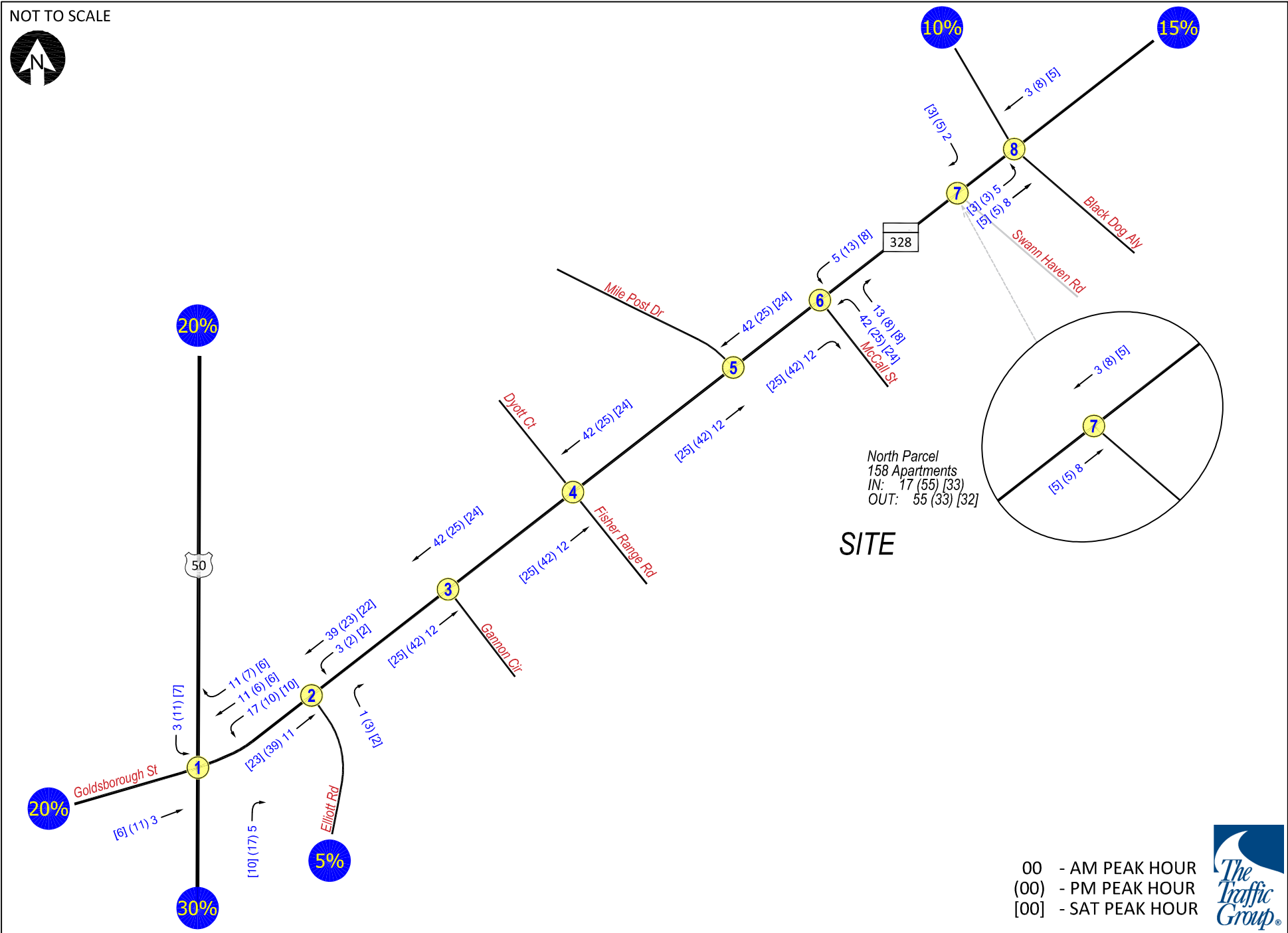


Figure 9B. Trip Assignment for Subject Site - South Parcel

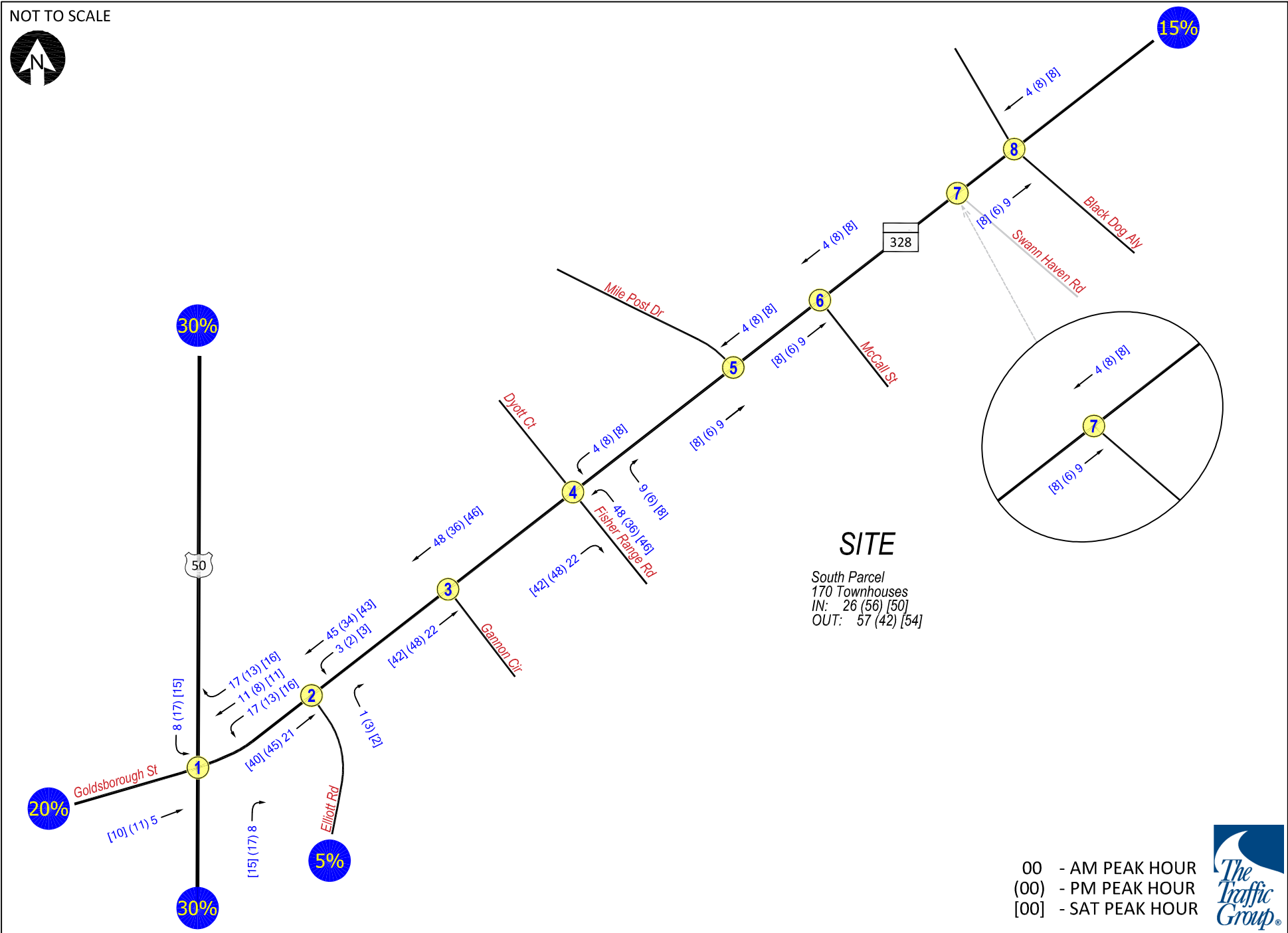
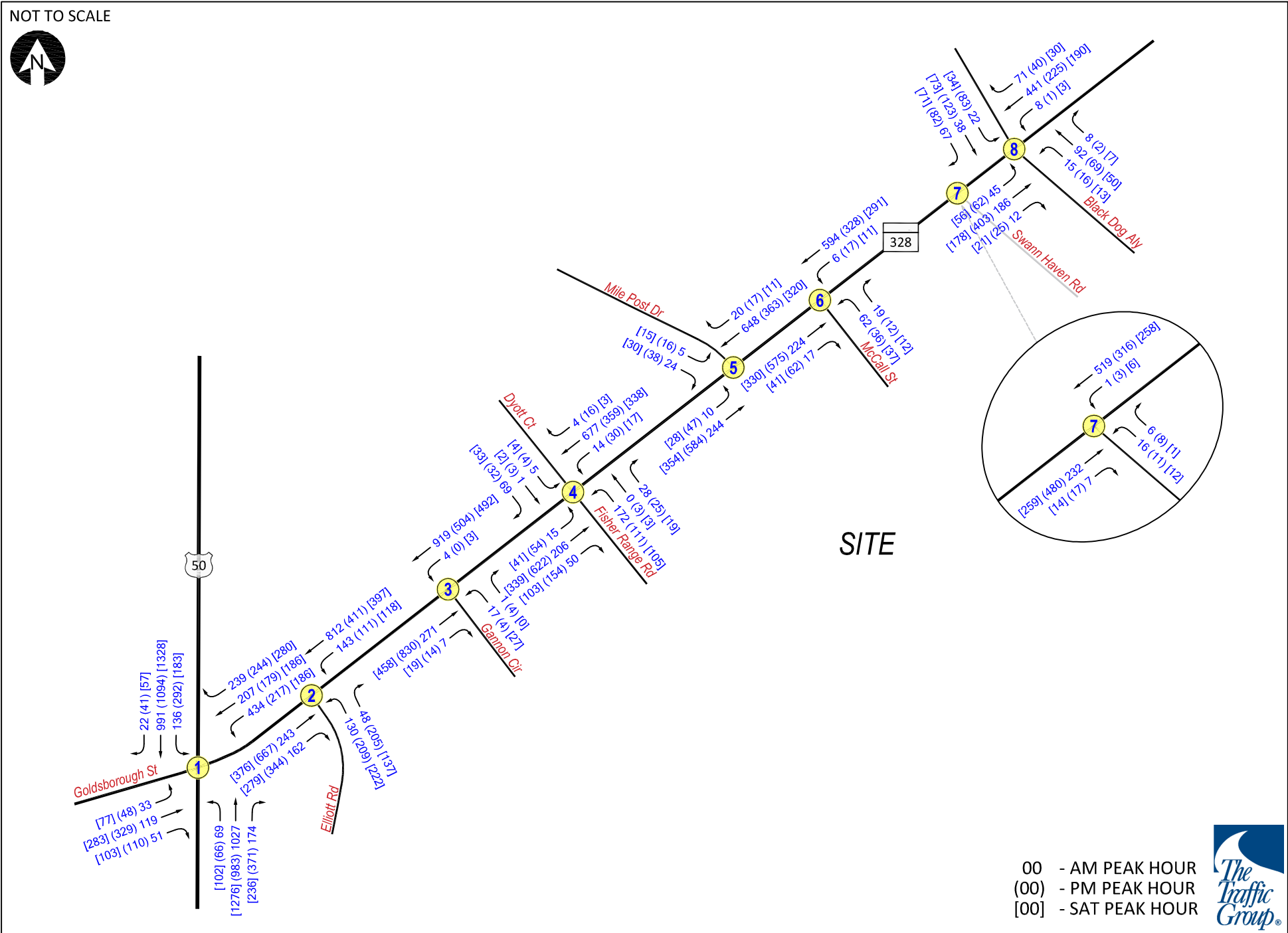


Figure 10. 2025 Total Peak Hour Traffic Volumes



For the convenience of the reader, the results of the intersection capacity analysis, CLV methodology, for the existing, background, and total peak hour traffic conditions are provided in Table 10, and the results using the HCM methodology are provided in Table 11.

Table 10. Results of CLV Analysis – All Scenarios

Intersection	2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
	AM Peak	PM Peak	SAT Peak	AM Peak	PM Peak	SAT Peak	AM Peak	PM Peak	SAT Peak
	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	A / 933	B / 1088	B / 1053	A / 998	C / 1179	B / 1135	B / 1051	C / 1252	C / 1199
2. MD 328 & Elliott Rd	A / 775	A / 803	A / 571	A / 858	A / 899	A / 648	A / 942	A / 987	A / 716
3. MD 328 & Gannon Cir	A / 766	A / 647	A / 387	A / 855	A / 748	A / 455	A / 945	A / 838	A / 525
4. MD 328 & Fisher Range Rd	A / 775	A / 726	A / 425	A / 870	A / 824	A / 503	A / 968	A / 910	A / 582
5. MD 328 & Mile Post Dr	A / 555	A / 586	A / 344	A / 641	A / 684	A / 422	A / 687	A / 732	A / 455
6. MD 328 & McCall St	A / 530	A / 490	A / 264	A / 616	A / 588	A / 342	A / 675	A / 640	A / 390
7. MD 328 & Swann Haven Rd	A / 518	A / 483	A / 255	A / 536	A / 508	A / 279	A / 543	A / 519	A / 292
8. MD 328 & Black Dog Aly	A / 671	A / 800	A / 419	A / 696	A / 843	A / 486	A / 710	A / 865	A / 508

Table 11. Results of HCM Analysis – All Scenarios

Intersection		2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
Type of Control	Movement	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
		LOS / Delay (sec)			LOS / Delay (sec)			LOS / Delay (sec)		
1. US 50 (N/S) & MD 328/Goldsborough St (E/W)										
Traffic Signal	Overall	C / 29.3	D / 35.3	C / 26.9	C / 31.8	D / 39.6	C / 31.4	C / 34.5	D / 43.8	D / 35.5
	EB Approach	E / 69.2	F / 87.3	E / 58.5	E / 69.0	F / 88.6	E / 67.7	E / 69.7	F / 89.9	E / 74.1
	WB Approach	E / 63.7	F / 94.9	E / 63.5	E / 64.7	F / 97.7	E / 69.0	E / 66.1	F / 101	E / 71.2
	NB Approach	B / 14.7	B / 17.0	B / 15.9	B / 17.3	C / 21.6	B / 19.1	B / 19.8	C / 26.2	C / 22.6
	SB Approach	C / 20.8	C / 22.2	C / 23.1	C / 22.9	C / 25.4	C / 26.4	C / 24.8	C / 28.5	C / 29.5
2. MD 328 (E/W) & Elliott Rd (N/S)										
Traffic Signal	Overall	A / 10.0	B / 14.1	B / 12.6	A / 10.0	B / 14.7	B / 12.6	B / 10.3	B / 15.7	B / 12.7
	EB Approach	A / 10.0	B / 13.0	B / 11.7	A / 9.0	B / 13.5	B / 12.2	A / 8.2	B / 14.5	B / 12.7
	WB Approach	A / 7.6	A / 6.2	A / 6.0	A / 7.5	A / 6.6	A / 6.3	A / 7.4	A / 7.1	A / 6.6
	NB Approach	C / 20.8	C / 24.1	C / 21.0	C / 25.1	C / 26.9	C / 21.1	C / 30.6	C / 29.5	C / 21.1
3. MD 328 (E/W) & Gannon Cir (N/S)										
Two Way Stop	NB LR	C / 20.6	C / 16.7	C / 15.5	C / 24.0	C / 19.3	C / 18.5	D / 28.5	C / 22.3	C / 22.1
	WB L	A / 8.0	A / 0.0	A / 8.0	A / 8.1	A / 0.0	A / 8.3	A / 8.2	A / 0.0	A / 8.5
4. MD 328 (E/W) & Dyott Ct/Fisher Range Rd (N/S)										
Traffic Signal	Overall	A / 9.5	A / 7.8	A / 7.1	A / 9.7	A / 7.9	A / 7.3	B / 10.9	A / 8.4	A / 8.1
	EB Approach	A / 5.6	A / 7.3	A / 5.7	A / 5.2	A / 7.3	A / 6.2	A / 5.4	A / 7.4	A / 6.8
	WB Approach	A / 8.4	A / 5.9	A / 5.8	A / 8.4	A / 5.6	A / 6.2	A / 9.2	A / 5.7	A / 6.9
	NB Approach	B / 16.1	B / 15.1	B / 14.6	B / 18.8	B / 17.7	B / 14.6	C / 21.2	B / 19.9	B / 14.8
	SB Approach	B / 15.7	B / 14.8	B / 14.5	B / 18.2	B / 17.4	B / 14.5	B / 19.6	B / 18.8	B / 14.1

Table 11. Results of HCM Analysis – All Scenarios, Continued

Intersection		2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
Type of Control	Movement	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
		LOS / Delay (sec)			LOS / Delay (sec)			LOS / Delay (sec)		
5. MD 328 (E/W) & Mile Post Dr (N/S)										
Two Way Stop	EB L	A / 8.8	A / 7.9	A / 7.8	A / 9.1	A / 8.1	A / 8.0	A / 9.3	A / 8.2	A / 8.1
	NB LR	B / 13.4	B / 12.5	B / 11.0	B / 14.8	B / 14.0	B / 12.1	C / 15.7	B / 14.9	B / 12.7
6. MD 328 (E/W) & McCall St (N/S)										
Two Way Stop	NB LR	B / 14.0	B / 14.5	B / 11.5	C / 15.7	C / 16.8	B / 12.9	C / 18.8	C / 19.5	B / 13.9
	WB L	A / 7.6	A / 8.4	A / 8.2	A / 7.7	A / 8.8	A / 8.4	A / 7.8	A / 9.0	A / 8.6
7. MD 328 (E/W) & Swann Haven Rd (N/S)										
Two Way Stop	NB LR	B / 14.3	B / 13.9	B / 11.9	B / 15.0	B / 14.6	B / 12.4	C / 15.4	C / 19.1	B / 12.7
	WB L	A / 7.7	A / 8.3	A / 7.9	A / 7.7	A / 8.4	A / 8.0	A / 7.8	B / 10.3	A / 8.0
8. MD 328 (E/W) & Black Dog Aly (N/S)										
Traffic Signal	Overall	A / 9.8	B / 11.1	A / 9.3	A / 9.9	B / 11.3	A / 9.4	A / 9.9	B / 11.5	A / 9.3
	EB Approach	A / 6.2	A / 9.4	A / 6.2	A / 6.4	A / 9.9	A / 6.3	A / 6.5	B / 10.2	A / 6.4
	WB Approach	A / 8.8	A / 7.5	A / 6.0	A / 8.9	A / 7.9	A / 6.1	A / 8.9	A / 8.1	A / 6.2
	NB Approach	B / 14.8	B / 13.4	B / 14.1	B / 14.8	B / 13.2	B / 14.1	B / 15.0	B / 13.1	B / 14.1
	SB Approach	B / 15.3	B / 16.1	B / 15.4	B / 15.4	B / 16.1	B / 15.6	B / 15.6	B / 16.1	B / 15.7

Notes: Results were based on Synchro 11 - HCM 6th reports.

Queuing Analysis

A queuing analysis was completed using SimTraffic for the signalized study intersections. As shown in Table 12, all of the queues at the following two signalized intersections can be accommodated in the existing storage lengths.

- MD 328 and Elliott Road
- MD 328 and Dyott Court/Fisher Range Road
- MD 328 and Black Dog Alley

Table 12. Results of Queuing Analysis

Intersection / Movement	Storage length (ft)	2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
		AM	PM	Saturday	AM	PM	Saturday	AM	PM	Saturday
		95th Queue (ft)			95th Queue (ft)			95th Queue (ft)		
1. US 50 (N/S) & MD 328/Goldsborough St (E/W)										
EB L	100	71	107	122	69	114	129	68	99	135
EB LT	1500+	182	449	781	193	472	1295	202	601	1342
WB L	300	260	212	222	282	258	253	305	291	314
WB LT	830	319	275	341	349	349	372	407	428	554
WB R	300	89	67	145	119	176	227	224	240	320
NB L	110	143	146	157	145	141	144	150	142	146
NB T	1700	305	356	433	304	381	446	320	389	462
NB R	270	38	172	165	35	194	209	70	232	250
SB L	460	115	224	135	119	269	170	135	321	201
SB TR	2000+	249	312	380	254	332	395	265	331	398
2. MD 328 (E/W) & Elliott Rd (N/S)										
EB T	870	164	307	142	182	371	183	193	485	222
EB R	460	69	119	97	71	89	94	72	152	92
WB L	200	95	88	79	131	97	80	124	109	90
WB T	2000+	214	135	125	246	157	143	291	181	163
NB L	2000+	115	174	160	122	181	157	144	175	173
NB R	200	40	117	55	40	126	60	73	128	93
4. MD 328 (E/W) & Dyott Ct/Fisher Range Rd (N/S)										
EB LT	2000+	109	203	114	115	229	134	137	266	159
EB R	210	32	79	34	29	87	42	47	126	53
WB LT	2000+	200	115	93	255	145	121	265	175	135
WB R	210	13	19	7	9	29	10	36	20	7
NB LT	2000+	94	81	64	112	83	65	136	112	91
NB R	120	34	36	26	35	35	27	53	51	33
SB LTR	170	48	39	40	52	40	39	56	41	42
8. MD 328 (E/W) & Black Dog Aly (N/S)										
EB LTR	2000+	111	189	100	127	209	110	131	220	107
WB LTR	2000+	138	99	76	149	100	75	151	105	80
NB LTR	2000+	115	77	74	107	87	69	110	85	71
SB LTR	2000+	100	178	103	111	195	105	105	188	109

Notes:

1. All results are based on 10 simulation runs in SimTraffic 11.
2. Storage lengths are existing turn lane lengths or measured to the upstream signalized intersections.
3. For movements with two or more lanes, the longer storage length and longer queue are reported.

For the intersection of US 50 and MD 328, the eastbound approach on Goldsborough Street is experiencing some queuing beyond the existing storage lengths particularly for the summer Saturday midday peak hour period. This signal is split-phase, which means that vehicles on the eastbound approach on Goldsborough Street are permitted to move separately from vehicles on the westbound approach on Matthewstown Road. The lane use on Goldsborough Street and on Matthewstown Road consists of a separate left turn lane, a shared left through lane, and a right turn lane. The separate left turn lane on Goldsborough Street is 100 ft, which accommodates approximately four vehicles. Additional left turning vehicles will utilize the shared left through lane. For the summer Saturday midday peak hour, MDOT SHA provides 135 seconds of maximum green time on the mainline US 50 through movements, which results in longer queues on the side streets than for the weekday peak hour periods. For example, the maximum green time on the mainline US 50 through movements for the evening peak hour is 56.5 seconds, and the queues on eastbound Goldsborough Street are significantly shorter. Signal timing adjustments would improve the queues as well as provide for improved operations for the minor streets.

Arterial Analysis

At the request of the MDOT SHA, an arterial analysis was completed on MD 328 from US 50 to Black Dog Alley. SimTraffic was utilized for the analysis.

As noted in the User's Guide, "the arterial report uses origin destination data to only count vehicles that came from the arterial on the next upstream link. This is almost, but not exactly the same as taking the travel time of only those vehicles that travel the entire corridor. This allows the arterial report to be compared with car travel time studies."

The speed limit on MD 328 is 30 mph south of Fisher Range Road, 40 mph north of Fisher Range Road to McCall Street and 50 mph north of McCall Street.

MD 328 Arterial	2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
	Travel Time (Sec) / Arterial Speed (mph)			Travel Time (Sec) / Arterial Speed (mph)			Travel Time (Sec) / Arterial Speed (mph)		
Eastbound From US 50 to Black Dog Aly	190.1 / 31	207.0 / 28	186.4 / 32	192.8 / 31	207.7 / 28	189.9 / 31	197.2 / 30	226.0 / 26	195.4 / 30
Westbound from Black Dog Aly to US 50	263.4 / 25	291.5 / 23	291.1 / 23	264.7 / 25	304.3 / 22	302.5 / 22	273.6 / 24	314.8 / 21	316.3 / 21

Notes: All results are based on 10 simulation runs in SimTraffic 11.

RESULTS, RECOMMENDATIONS, AND CONCLUSIONS

Study Purpose

The Traffic Group, Inc. has revised a TIS, previously submitted on August 30, 2022, to address the comments received from MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be constructed in 2025.

Study Criteria/Methodology

The study was conducted in accordance with the requirements established by MDOT SHA, specifically as outlined in the MDOT SHA Access Manual which was updated in part in August 2016. Chapter 1 of the Access Manual, "Traffic Impact Study Guidelines," is currently under review.

Summary of Findings and Recommendations

Utilizing the HCM methodology, the study intersections are projected to operate at overall acceptable Levels of Service, LOS "D" or better, under total peak hour traffic conditions. Using the CLV methodology, the study intersections are projected to have sufficient capacity for total peak hour traffic conditions.

The projected queues at the signalized intersections were analyzed using SimTraffic. The projected queues at the following intersections can be accommodated within the existing storage lengths:

- MD 328, Matthewstown Road and Elliot Road
- MD 328, Matthewstown Road and Dyott/Fisher Ranger Road
- MD 328, Matthewstown Road and Black Dog Alley

Signal timing adjustments are recommended to improve the queues and operations at the intersection of US 50 with MD 328, Matthewstown Road/Goldsborough Street.

APPENDIX A

Intersection Aerial Photographs and Turning Movement Counts



1. US 50 (N/S) & MD 328 (E/W)



Google Earth

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 50
and: MD 328
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 50					TRAFFIC FROM SOUTH on: US 50					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	6	188	21	7	222	22	180	15	0	217	54	21	83	0	158	14	13	8	0	35	632
7:15 - 7:30	8	237	21	3	269	34	234	15	1	284	52	30	78	0	160	10	20	7	0	37	750
7:30 - 7:45	2	189	26	4	221	42	231	20	0	293	52	48	106	0	206	10	26	9	0	45	765
7:45 - 8:00	7	263	25	1	296	43	251	17	2	313	49	52	95	0	196	19	27	13	0	59	864
8:00 - 8:15	5	273	29	7	314	29	281	12	2	324	34	32	85	0	151	12	29	4	0	45	834
8:15 - 8:30	9	173	27	7	216	38	187	14	1	240	48	43	69	0	160	8	37	11	0	56	672
8:30 - 8:45	9	216	32	5	262	41	225	14	2	282	36	37	63	0	136	16	23	14	0	53	733
8:45 - 9:00	10	223	43	5	281	31	240	15	4	290	56	28	54	0	138	17	21	5	0	43	752
2 Hr Totals	56	1762	224	39	2081	280	1829	122	12	2243	381	291	633	0	1305	106	196	71	0	373	6002
1 Hr Totals																					
7:00 - 8:00	23	877	93	15	1008	141	896	67	3	1107	207	151	362	0	720	53	86	37	0	176	3011
7:15 - 8:15	22	962	101	15	1100	148	997	64	5	1214	187	162	364	0	713	51	102	33	0	186	3213
7:30 - 8:30	23	898	107	19	1047	152	950	63	5	1170	183	175	355	0	713	49	119	37	0	205	3135
7:45 - 8:45	30	925	113	20	1088	151	944	57	7	1159	167	164	312	0	643	55	116	42	0	213	3103
8:00 - 9:00	33	885	131	24	1073	139	933	55	9	1136	174	140	271	0	585	53	110	34	0	197	2991
PEAK HOUR																					
7:15 - 8:15	22	962	101	15	1100	148	997	64	5	1214	187	162	364	0	713	51	102	33	0	186	3213
PM																					
4:00 - 4:15	6	260	55	6	327	86	197	7	5	295	49	31	41	0	121	33	71	18	0	122	865
4:15 - 4:30	6	277	54	5	342	82	241	13	2	338	59	30	41	0	130	21	59	8	0	88	898
4:30 - 4:45	11	254	54	3	322	83	239	23	1	346	52	33	43	0	128	33	81	17	0	131	927
4:45 - 5:00	12	251	63	7	333	69	223	14	1	307	39	41	40	0	120	26	83	13	0	122	882
5:00 - 5:15	12	280	41	9	342	62	251	9	3	325	57	45	46	0	148	30	56	10	0	96	911
5:15 - 5:30	8	227	48	4	287	72	209	17	3	301	42	33	39	0	114	22	59	11	0	92	794
5:30 - 5:45	9	227	46	3	285	69	224	23	2	318	39	39	43	0	121	19	48	17	0	84	808
5:45 - 6:00	11	270	48	7	336	41	188	16	1	246	46	27	34	0	107	12	40	7	0	59	748
2 Hr Totals	75	2046	409	44	2574	564	1772	122	18	2476	383	279	327	0	989	196	497	101	0	794	6833
1 Hr Totals																					
4:00 - 5:00	35	1042	226	21	1324	320	900	57	9	1286	199	135	165	0	499	113	294	56	0	463	3572
4:15 - 5:15	41	1062	212	24	1339	296	954	59	7	1316	207	149	170	0	526	110	279	48	0	437	3618
4:30 - 5:30	43	1012	206	23	1284	286	922	63	8	1279	190	152	168	0	510	111	279	51	0	441	3514
4:45 - 5:45	41	985	198	23	1247	272	907	63	9	1251	177	158	168	0	503	97	246	51	0	394	3395
5:00 - 6:00	40	1004	183	23	1250	244	872	65	9	1190	184	144	162	0	490	83	203	45	0	331	3261
PEAK HOUR																					
4:15 - 5:15	41	1062	212	24	1339	296	954	59	7	1316	207	149	170	0	526	110	279	48	0	437	3618

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 50
and: MD 328
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 50					TRAFFIC FROM SOUTH on: US 50					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	21	339	22	4	386	44	261	17	4	326	34	27	23	0	84	32	35	13	0	80	876
10:15 - 10:30	10	298	42	9	359	24	235	17	4	280	36	42	37	0	115	22	46	10	0	78	832
10:30 - 10:45	12	317	24	7	360	26	245	19	4	294	42	45	34	0	121	21	40	17	0	78	853
10:45 - 11:00	9	374	33	1	417	33	273	23	2	331	35	25	28	0	88	25	38	11	0	74	910
11:00 - 11:15	7	300	49	3	359	34	294	25	3	356	59	37	30	0	126	34	59	10	0	103	944
11:15 - 11:30	16	371	28	3	418	44	273	19	0	336	64	38	41	0	143	31	41	26	0	98	995
11:30 - 11:45	13	263	36	2	314	53	296	17	0	366	49	46	37	0	132	22	95	18	0	135	947
11:45 - 12:00	18	390	33	2	443	38	332	27	7	404	62	34	30	0	126	22	41	20	0	83	1056
12:00 - 12:15	10	265	29	6	310	44	337	28	4	413	62	32	25	0	119	28	66	13	0	107	949
12:15 - 12:30	9	312	39	4	364	51	328	27	4	410	57	32	33	0	122	31	37	14	0	82	978
12:30 - 12:45	11	265	45	9	330	51	282	16	2	351	36	37	24	0	97	23	48	14	0	85	863
12:45 - 1:00	13	327	34	10	384	42	357	16	2	417	39	30	35	0	104	22	45	10	0	77	982
1:00 - 1:15	12	261	36	5	314	36	263	17	0	316	47	37	23	1	108	24	39	12	0	75	813
1:15 - 1:30	9	302	39	3	353	39	344	25	7	415	40	37	32	0	109	28	52	14	0	94	971
1:30 - 1:45	13	303	33	3	352	55	269	15	2	341	48	33	25	0	106	21	27	26	0	74	873
1:45 - 2:00	10	267	23	3	303	32	274	19	1	326	50	29	37	0	116	25	36	17	0	78	823
4 Hr Totals	193	4954	545	74	5766	646	4663	327	46	5682	760	561	494	1	1816	411	745	245	0	1401	14665
1 Hr Totals																					
10:00 - 11:00	52	1328	121	21	1522	127	1014	76	14	1231	147	139	122	0	408	100	159	51	0	310	3471
10:15 - 11:15	38	1289	148	20	1495	117	1047	84	13	1261	172	149	129	0	450	102	183	48	0	333	3539
10:30 - 11:30	44	1362	134	14	1554	137	1085	86	9	1317	200	145	133	0	478	111	178	64	0	353	3702
10:45 - 11:45	45	1308	146	9	1508	164	1136	84	5	1389	207	146	136	0	489	112	233	65	0	410	3796
11:00 - 12:00	54	1324	146	10	1534	169	1195	88	10	1462	234	155	138	0	527	109	236	74	0	419	3942
11:15 - 12:15	57	1289	126	13	1485	179	1238	91	11	1519	237	150	133	0	520	103	243	77	0	423	3947
11:30 - 12:30	50	1230	137	14	1431	186	1293	99	15	1593	230	144	125	0	499	103	239	65	0	407	3930
11:45 - 12:45	48	1232	146	21	1447	184	1279	98	17	1578	217	135	112	0	464	104	192	61	0	357	3846
12:00 - 1:00	43	1169	147	29	1388	188	1304	87	12	1591	194	131	117	0	442	104	196	51	0	351	3772
12:15 - 1:15	45	1165	154	28	1392	180	1230	76	8	1494	179	136	115	1	431	100	169	50	0	319	3636
12:30 - 1:30	45	1155	154	27	1381	168	1246	74	11	1499	162	141	114	1	418	97	184	50	0	331	3629
12:45 - 1:45	47	1193	142	21	1403	172	1233	73	11	1489	174	137	115	1	427	95	163	62	0	320	3639
1:00 - 2:00	44	1133	131	14	1322	162	1150	76	10	1398	185	136	117	1	439	98	154	69	0	321	3480
PEAK HOUR																					
11:15 - 12:15	57	1289	126	13	1485	179	1238	91	11	1519	237	150	133	0	520	103	243	77	0	423	3947

2. MD 328 (E/W) & Elliott Rd (S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Elliott Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH Elliott Road					TRAFFIC FROM EAST MD 328					TRAFFIC FROM WEST MD 328					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	9	0	18	0	27	0	138	24	0	162	23	41	0	0	64	253
7:15 - 7:30	0	0	0	0	0	11	0	26	0	37	0	153	27	0	180	21	47	0	0	68	285
7:30 - 7:45	0	0	0	0	0	10	0	36	0	46	0	181	28	0	209	41	49	0	0	90	345
7:45 - 8:00	0	0	0	0	0	12	0	36	0	48	0	174	57	0	231	50	49	0	0	99	378
8:00 - 8:15	0	0	0	0	0	11	0	32	0	43	0	137	20	0	157	50	38	0	0	88	288
8:15 - 8:30	0	0	0	0	0	14	0	35	0	49	0	124	20	0	144	39	42	0	0	81	274
8:30 - 8:45	0	0	0	0	0	20	0	21	0	41	0	111	24	0	135	49	64	0	0	113	289
8:45 - 9:00	0	0	0	0	0	15	0	37	0	52	0	109	30	0	139	46	38	0	0	84	275
2 Hr Totals	0	0	0	0	0	102	0	241	0	343	0	1127	230	0	1357	319	368	0	0	687	2387
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	42	0	116	0	158	0	646	136	0	782	135	186	0	0	321	1261
7:15 - 8:15	0	0	0	0	0	44	0	130	0	174	0	645	132	0	777	162	183	0	0	345	1296
7:30 - 8:30	0	0	0	0	0	47	0	139	0	186	0	616	125	0	741	180	178	0	0	358	1285
7:45 - 8:45	0	0	0	0	0	57	0	124	0	181	0	546	121	0	667	188	193	0	0	381	1229
8:00 - 9:00	0	0	0	0	0	60	0	125	0	185	0	481	94	0	575	184	182	0	0	366	1126
PEAK HOUR																					
7:15 - 8:15	0	0	0	0	0	44	0	130	0	174	0	645	132	0	777	162	183	0	0	345	1296
PM																					
4:00 - 4:15	0	0	0	0	0	53	0	57	0	110	0	64	27	0	91	75	115	0	0	190	391
4:15 - 4:30	0	0	0	0	0	38	0	49	0	87	0	73	33	0	106	92	126	0	0	218	411
4:30 - 4:45	0	0	0	0	0	59	0	59	0	118	0	80	27	0	107	76	126	0	0	202	427
4:45 - 5:00	0	0	0	0	0	43	0	44	0	87	0	83	16	0	99	101	124	0	0	225	411
5:00 - 5:15	0	0	0	0	0	49	0	61	0	110	0	73	33	0	106	61	109	0	0	170	386
5:15 - 5:30	0	0	0	0	0	37	0	55	0	92	0	64	24	0	88	68	96	0	0	164	344
5:30 - 5:45	0	0	0	0	0	29	0	51	0	80	0	70	29	0	99	58	106	0	0	164	343
5:45 - 6:00	0	0	0	0	0	21	0	45	0	66	0	65	27	0	92	41	89	0	0	130	288
2 Hr Totals	0	0	0	0	0	329	0	421	0	750	0	572	216	0	788	572	891	0	0	1463	3001
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	193	0	209	0	402	0	300	103	0	403	344	491	0	0	835	1640
4:15 - 5:15	0	0	0	0	0	189	0	213	0	402	0	309	109	0	418	330	485	0	0	815	1635
4:30 - 5:30	0	0	0	0	0	188	0	219	0	407	0	300	100	0	400	306	455	0	0	761	1568
4:45 - 5:45	0	0	0	0	0	158	0	211	0	369	0	290	102	0	392	288	435	0	0	723	1484
5:00 - 6:00	0	0	0	0	0	136	0	212	0	348	0	272	113	0	385	228	400	0	0	628	1361
PEAK HOUR																					
4:00 - 5:00	0	0	0	0	0	193	0	209	0	402	0	300	103	0	403	344	491	0	0	835	1640

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Elliott Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH Elliott Road					TRAFFIC FROM EAST MD 328					TRAFFIC FROM WEST MD 328					TOTAL N + S + E + W
	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	0	0	0	0	0	21	0	46	0	67	0	60	20	0	80	55	54	0	0	109	256
10:15 - 10:30	0	0	0	0	0	21	0	49	0	70	0	70	21	0	91	67	43	0	0	110	271
10:30 - 10:45	0	0	0	0	0	29	0	54	0	83	0	74	34	0	108	51	43	0	0	94	285
10:45 - 11:00	0	0	0	0	0	28	0	48	0	76	0	63	37	0	100	72	42	0	0	114	290
11:00 - 11:15	0	0	0	0	0	27	0	55	0	82	0	54	27	0	81	76	49	0	0	125	288
11:15 - 11:30	0	0	0	0	0	29	0	69	0	98	0	77	37	0	114	54	64	0	0	118	330
11:30 - 11:45	0	0	0	0	0	23	0	52	0	75	0	63	30	0	93	85	54	0	0	139	307
11:45 - 12:00	0	0	0	0	0	29	0	54	0	83	0	78	27	0	105	68	52	0	0	120	308
12:00 - 12:15	0	0	0	0	0	34	0	60	0	94	0	53	29	0	82	67	55	0	0	122	298
12:15 - 12:30	0	0	0	0	0	42	0	56	0	98	0	75	23	0	98	59	79	0	0	138	334
12:30 - 12:45	0	0	0	0	0	24	0	44	0	68	0	65	19	0	84	87	57	0	0	144	296
12:45 - 1:00	0	0	0	0	0	32	0	47	0	79	0	60	32	0	92	71	58	0	0	129	300
1:00 - 1:15	0	0	0	0	0	43	0	48	0	91	0	42	21	0	63	55	56	0	0	111	265
1:15 - 1:30	0	0	0	0	0	31	0	56	0	87	0	63	33	0	96	60	70	0	0	130	313
1:30 - 1:45	0	0	0	0	0	33	0	46	0	79	0	60	20	0	80	57	51	0	0	108	267
1:45 - 2:00	0	0	0	0	0	20	0	47	0	67	0	66	18	0	84	43	49	0	0	92	243
4 Hr Totals	0	0	0	0	0	466	0	831	0	1297	0	1023	428	0	1451	1027	876	0	0	1903	4651
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	99	0	197	0	296	0	267	112	0	379	245	182	0	0	427	1102
10:15 - 11:15	0	0	0	0	0	105	0	206	0	311	0	261	119	0	380	266	177	0	0	443	1134
10:30 - 11:30	0	0	0	0	0	113	0	226	0	339	0	268	135	0	403	253	198	0	0	451	1193
10:45 - 11:45	0	0	0	0	0	107	0	224	0	331	0	257	131	0	388	287	209	0	0	496	1215
11:00 - 12:00	0	0	0	0	0	108	0	230	0	338	0	272	121	0	393	283	219	0	0	502	1233
11:15 - 12:15	0	0	0	0	0	115	0	235	0	350	0	271	123	0	394	274	225	0	0	499	1243
11:30 - 12:30	0	0	0	0	0	128	0	222	0	350	0	269	109	0	378	279	240	0	0	519	1247
11:45 - 12:45	0	0	0	0	0	129	0	214	0	343	0	271	98	0	369	281	243	0	0	524	1236
12:00 - 1:00	0	0	0	0	0	132	0	207	0	339	0	253	103	0	356	284	249	0	0	533	1228
12:15 - 1:15	0	0	0	0	0	141	0	195	0	336	0	242	95	0	337	272	250	0	0	522	1195
12:30 - 1:30	0	0	0	0	0	130	0	195	0	325	0	230	105	0	335	273	241	0	0	514	1174
12:45 - 1:45	0	0	0	0	0	139	0	197	0	336	0	225	106	0	331	243	235	0	0	478	1145
1:00 - 2:00	0	0	0	0	0	127	0	197	0	324	0	231	92	0	323	215	226	0	0	441	1088
PEAK HOUR																					
11:30 - 12:30	0	0	0	0	0	128	0	222	0	350	0	269	109	0	378	279	240	0	0	519	1247

3. MD 328 (E/W) & Gannon Cir (S)



Google Earth

100 ft

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Gannon Circle
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W				
	on:	RIGHT	THRU	LEFT	U-TN	TOTAL	on:	RIGHT	THRU	LEFT	U-TN	TOTAL	on:	RIGHT	THRU	LEFT	U-TN	TOTAL	on:	RIGHT		THRU	LEFT	U-TN	TOTAL
AM																									
7:00 - 7:15		0	0	0	0	0		0	0	3	0	3		0	160	1	0	161		1	48	0	0	49	213
7:15 - 7:30		0	0	0	0	0		0	0	4	0	4		0	184	0	0	184		2	55	0	0	57	245
7:30 - 7:45		0	0	0	0	0		0	0	6	0	6		0	183	0	0	183		2	52	0	0	54	243
7:45 - 8:00		0	0	0	0	0		1	0	4	0	5		0	213	3	0	216		2	52	0	0	54	275
8:00 - 8:15		0	0	0	0	0		1	0	3	0	4		0	140	0	0	140		3	43	0	0	46	190
8:15 - 8:30		0	0	0	0	0		0	0	8	0	8		0	133	0	0	133		1	56	0	0	57	198
8:30 - 8:45		0	0	0	0	0		0	0	7	0	7		0	136	0	0	136		1	74	0	0	75	218
8:45 - 9:00		0	0	0	0	0		1	0	2	0	3		0	128	1	0	129		1	54	0	0	55	187
2 Hr Totals		0	0	0	0	0		3	0	37	0	40		0	1277	5	0	1282		13	434	0	0	447	1769
1 Hr Totals																									
7:00 - 8:00		0	0	0	0	0		1	0	17	0	18		0	740	4	0	744		7	207	0	0	214	976
7:15 - 8:15		0	0	0	0	0		2	0	17	0	19		0	720	3	0	723		9	202	0	0	211	953
7:30 - 8:30		0	0	0	0	0		2	0	21	0	23		0	669	3	0	672		8	203	0	0	211	906
7:45 - 8:45		0	0	0	0	0		2	0	22	0	24		0	622	3	0	625		7	225	0	0	232	881
8:00 - 9:00		0	0	0	0	0		2	0	20	0	22		0	537	1	0	538		6	227	0	0	233	793
PEAK HOUR																									
7:00 - 8:00		0	0	0	0	0		1	0	17	0	18		0	740	4	0	744		7	207	0	0	214	976
PM																									
4:00 - 4:15		0	0	0	0	0		2	0	1	0	3		0	79	0	0	79		4	153	0	0	157	239
4:15 - 4:30		0	0	0	0	0		3	0	0	0	3		0	114	0	0	114		2	151	0	0	153	270
4:30 - 4:45		0	0	0	0	0		1	0	2	0	3		0	86	0	0	86		4	176	0	0	180	269
4:45 - 5:00		0	0	0	0	0		0	0	1	0	1		0	85	0	0	85		4	158	0	0	162	248
5:00 - 5:15		0	0	0	0	0		0	0	1	0	1		0	99	0	0	99		4	154	0	0	158	258
5:15 - 5:30		0	0	0	0	0		1	0	3	0	4		0	88	1	0	89		7	118	0	0	125	218
5:30 - 5:45		0	0	0	0	0		2	0	2	0	4		0	91	0	0	91		2	138	0	0	140	235
5:45 - 6:00		0	0	0	0	0		1	0	4	0	5		0	88	1	0	89		6	109	0	0	115	209
2 Hr Totals		0	0	0	0	0		10	0	14	0	24		0	730	2	0	732		33	1157	0	0	1190	1946
1 Hr Totals																									
4:00 - 5:00		0	0	0	0	0		6	0	4	0	10		0	364	0	0	364		14	638	0	0	652	1026
4:15 - 5:15		0	0	0	0	0		4	0	4	0	8		0	384	0	0	384		14	639	0	0	653	1045
4:30 - 5:30		0	0	0	0	0		2	0	7	0	9		0	358	1	0	359		19	606	0	0	625	993
4:45 - 5:45		0	0	0	0	0		3	0	7	0	10		0	363	1	0	364		17	568	0	0	585	959
5:00 - 6:00		0	0	0	0	0		4	0	10	0	14		0	366	2	0	368		19	519	0	0	538	920
PEAK HOUR																									
4:15 - 5:15		0	0	0	0	0		4	0	4	0	8		0	384	0	0	384		14	639	0	0	653	1045

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Gannon Circle
Location: Talbot County, Maryland

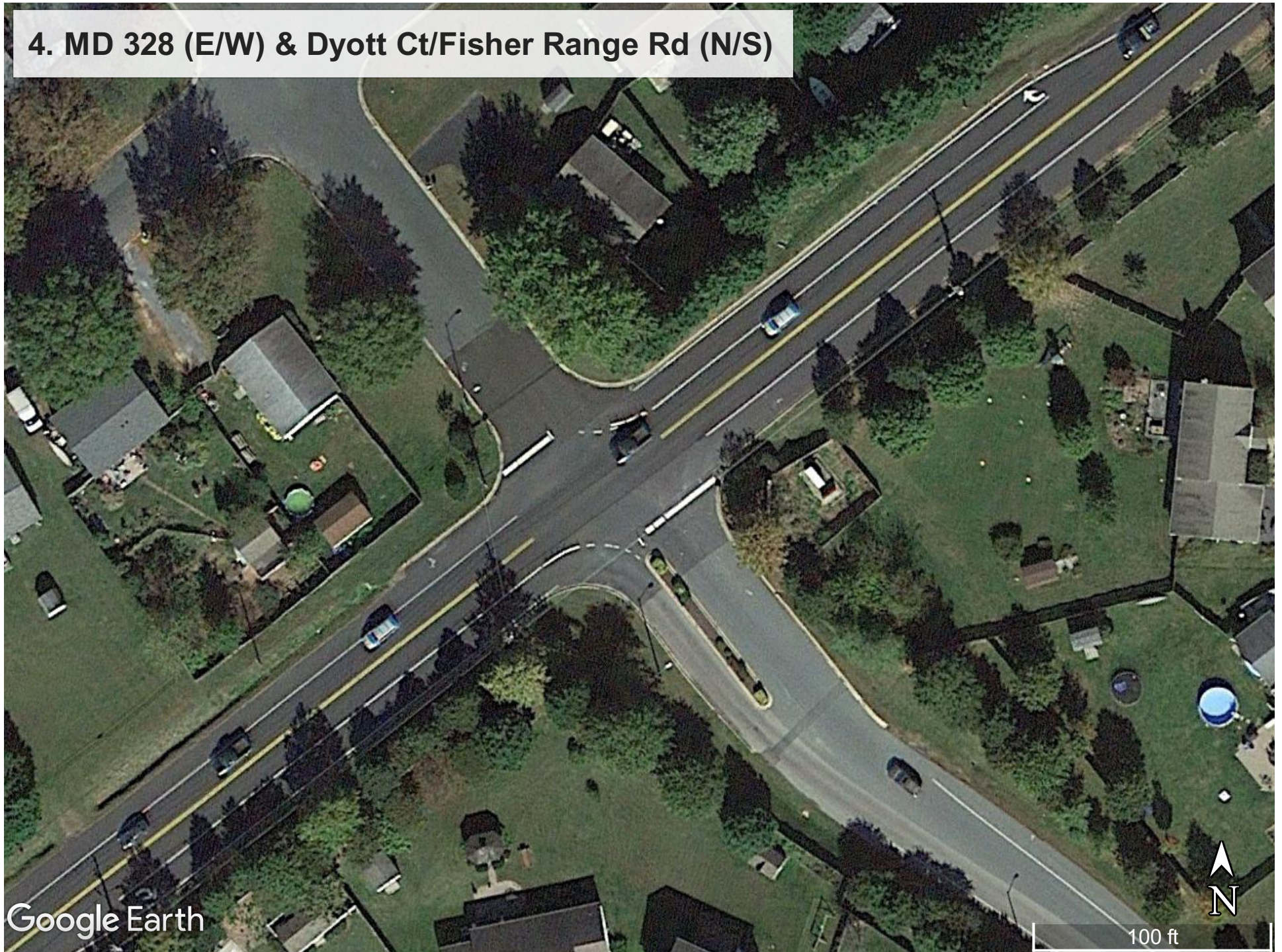
Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W
	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	0	0	0	0	0	1	0	1	0	2	0	80	1	0	81	1	76	0	0	77	160
10:15 - 10:30	0	0	0	0	0	0	0	4	0	4	0	88	0	0	88	4	58	0	0	62	154
10:30 - 10:45	0	0	0	0	0	0	0	5	0	5	0	99	0	0	99	4	69	0	0	73	177
10:45 - 11:00	0	0	0	0	0	0	0	3	0	3	0	80	0	0	80	2	60	0	0	62	145
11:00 - 11:15	0	0	0	0	0	0	0	5	0	5	0	78	1	0	79	2	71	0	0	73	157
11:15 - 11:30	0	0	0	0	0	0	0	4	0	4	0	107	1	0	108	5	86	0	0	91	203
11:30 - 11:45	0	0	0	0	0	0	0	12	0	12	0	79	0	0	79	4	74	0	0	78	169
11:45 - 12:00	0	0	0	0	0	0	0	6	0	6	0	86	0	0	86	1	76	0	0	77	169
12:00 - 12:15	0	0	0	0	0	0	0	5	0	5	0	82	2	0	84	9	76	0	0	85	174
12:15 - 12:30	0	0	0	0	0	0	0	4	0	4	0	83	0	0	83	4	111	0	0	115	202
12:30 - 12:45	0	0	0	0	0	1	0	1	0	2	0	84	0	0	84	6	75	0	0	81	167
12:45 - 1:00	0	0	0	0	0	0	0	3	0	3	0	81	0	0	81	4	84	0	0	88	172
1:00 - 1:15	0	0	0	0	0	0	0	4	0	4	0	62	0	0	62	4	91	0	0	95	161
1:15 - 1:30	0	0	0	0	0	0	0	5	0	5	0	85	1	0	86	3	95	0	0	98	189
1:30 - 1:45	0	0	0	0	0	0	0	1	0	1	0	77	0	0	77	4	78	0	0	82	160
1:45 - 2:00	0	0	0	0	0	0	0	6	0	6	0	84	1	0	85	1	66	0	0	67	158
4 Hr Totals	0	0	0	0	0	2	0	69	0	71	0	1335	7	0	1342	58	1246	0	0	1304	2717
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	1	0	13	0	14	0	347	1	0	348	11	263	0	0	274	636
10:15 - 11:15	0	0	0	0	0	0	0	17	0	17	0	345	1	0	346	12	258	0	0	270	633
10:30 - 11:30	0	0	0	0	0	0	0	17	0	17	0	364	2	0	366	13	286	0	0	299	682
10:45 - 11:45	0	0	0	0	0	0	0	24	0	24	0	344	2	0	346	13	291	0	0	304	674
11:00 - 12:00	0	0	0	0	0	0	0	27	0	27	0	350	2	0	352	12	307	0	0	319	698
11:15 - 12:15	0	0	0	0	0	0	0	27	0	27	0	354	3	0	357	19	312	0	0	331	715
11:30 - 12:30	0	0	0	0	0	0	0	27	0	27	0	330	2	0	332	18	337	0	0	355	714
11:45 - 12:45	0	0	0	0	0	1	0	16	0	17	0	335	2	0	337	20	338	0	0	358	712
12:00 - 1:00	0	0	0	0	0	1	0	13	0	14	0	330	2	0	332	23	346	0	0	369	715
12:15 - 1:15	0	0	0	0	0	1	0	12	0	13	0	310	0	0	310	18	361	0	0	379	702
12:30 - 1:30	0	0	0	0	0	1	0	13	0	14	0	312	1	0	313	17	345	0	0	362	689
12:45 - 1:45	0	0	0	0	0	0	0	13	0	13	0	305	1	0	306	15	348	0	0	363	682
1:00 - 2:00	0	0	0	0	0	0	0	16	0	16	0	308	2	0	310	12	330	0	0	342	668
PEAK HOUR																					
11:15 - 12:15	0	0	0	0	0	0	0	27	0	27	0	354	3	0	357	19	312	0	0	331	715

4. MD 328 (E/W) & Dyott Ct/Fisher Range Rd (N/S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Fisher Range Road - Dyott Court
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Dyott Court					TRAFFIC FROM SOUTH on: Fisher Range Road					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	18	1	1	0	20	7	0	39	0	46	1	105	3	0	109	9	36	2	0	47	222
7:15 - 7:30	23	0	1	0	24	4	0	28	0	32	0	135	4	0	139	8	42	4	0	54	249
7:30 - 7:45	15	0	2	0	17	5	0	29	0	34	2	140	0	0	142	2	48	4	0	54	247
7:45 - 8:00	13	0	1	0	14	3	0	28	0	31	1	169	3	0	173	9	39	5	0	53	271
8:00 - 8:15	18	0	2	0	20	9	0	20	0	29	0	101	3	0	104	9	34	3	0	46	199
8:15 - 8:30	12	0	1	0	13	3	0	16	0	19	0	105	3	0	108	8	42	4	0	54	194
8:30 - 8:45	8	0	0	0	8	1	0	15	0	16	0	109	1	0	110	9	60	4	0	73	207
8:45 - 9:00	10	0	0	0	10	1	0	22	0	23	0	94	5	0	99	9	41	3	0	53	185
2 Hr Totals	117	1	8	0	126	33	0	197	0	230	4	958	22	0	984	63	342	29	0	434	1774
1 Hr Totals																					
7:00 - 8:00	69	1	5	0	75	19	0	124	0	143	4	549	10	0	563	28	165	15	0	208	989
7:15 - 8:15	69	0	6	0	75	21	0	105	0	126	3	545	10	0	558	28	163	16	0	207	966
7:30 - 8:30	58	0	6	0	64	20	0	93	0	113	3	515	9	0	527	28	163	16	0	207	911
7:45 - 8:45	51	0	4	0	55	16	0	79	0	95	1	484	10	0	495	35	175	16	0	226	871
8:00 - 9:00	48	0	3	0	51	14	0	73	0	87	0	409	12	0	421	35	177	14	0	226	785
PEAK HOUR																					
7:00 - 8:00	69	1	5	0	75	19	0	124	0	143	4	549	10	0	563	28	165	15	0	208	989
PM																					
4:00 - 4:15	11	1	3	0	15	5	1	16	0	22	2	56	4	0	62	31	106	14	0	151	250
4:15 - 4:30	6	1	1	0	8	6	2	23	0	31	1	83	9	0	93	26	119	11	0	156	288
4:30 - 4:45	11	2	1	0	14	3	1	16	0	20	3	65	4	0	72	27	140	10	0	177	283
4:45 - 5:00	6	0	2	0	8	7	0	21	0	28	7	58	4	0	69	30	106	18	0	154	259
5:00 - 5:15	9	0	0	0	9	3	0	15	0	18	5	71	5	0	81	23	117	15	0	155	263
5:15 - 5:30	8	0	2	0	10	1	0	18	0	19	3	61	4	0	68	16	89	15	0	120	217
5:30 - 5:45	6	0	2	0	8	3	0	17	0	20	1	73	6	0	80	26	100	13	0	139	247
5:45 - 6:00	10	1	3	0	14	5	0	19	0	24	1	55	5	0	61	31	68	10	0	109	208
2 Hr Totals	67	5	14	0	86	33	4	145	0	182	23	522	41	0	586	210	845	106	0	1161	2015
1 Hr Totals																					
4:00 - 5:00	34	4	7	0	45	21	4	76	0	101	13	262	21	0	296	114	471	53	0	638	1080
4:15 - 5:15	32	3	4	0	39	19	3	75	0	97	16	277	22	0	315	106	482	54	0	642	1093
4:30 - 5:30	34	2	5	0	41	14	1	70	0	85	18	255	17	0	290	96	452	58	0	606	1022
4:45 - 5:45	29	0	6	0	35	14	0	71	0	85	16	263	19	0	298	95	412	61	0	568	986
5:00 - 6:00	33	1	7	0	41	12	0	69	0	81	10	260	20	0	290	96	374	53	0	523	935
PEAK HOUR																					
4:15 - 5:15	32	3	4	0	39	19	3	75	0	97	16	277	22	0	315	106	482	54	0	642	1093

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Fisher Range Road - Dyott Court
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Dyott Court					TRAFFIC FROM SOUTH on: Fisher Range Road					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	6	0	1	0	7	2	0	19	0	21	0	59	0	0	59	21	48	8	0	77	164
10:15 - 10:30	7	0	0	0	7	3	0	11	0	14	1	65	1	0	67	13	42	3	0	58	146
10:30 - 10:45	9	1	0	0	10	4	0	19	0	23	1	75	4	0	80	12	50	5	0	67	180
10:45 - 11:00	10	0	1	0	11	5	0	13	0	18	0	57	0	0	57	14	39	9	0	62	148
11:00 - 11:15	6	0	1	0	7	2	0	13	0	15	1	63	1	0	65	5	51	14	0	70	157
11:15 - 11:30	19	0	1	0	20	5	0	15	0	20	0	69	4	0	73	16	60	10	0	86	199
11:30 - 11:45	10	0	3	0	13	2	0	21	0	23	0	48	4	0	52	8	62	4	0	74	162
11:45 - 12:00	6	1	1	0	8	4	2	19	0	25	0	64	4	0	68	14	53	8	0	75	176
12:00 - 12:15	10	0	1	0	11	2	0	11	0	13	0	64	2	0	66	14	55	7	0	76	166
12:15 - 12:30	9	1	1	0	11	3	1	19	0	23	1	55	0	0	56	19	77	16	0	112	202
12:30 - 12:45	8	0	1	0	9	2	0	10	0	12	2	64	3	0	69	14	51	10	0	75	165
12:45 - 1:00	13	0	0	0	13	1	0	11	0	12	2	58	3	0	63	21	55	9	0	85	173
1:00 - 1:15	8	0	0	0	8	1	0	10	0	11	3	42	3	0	48	8	79	4	0	91	158
1:15 - 1:30	10	0	0	0	10	4	1	14	0	19	1	63	3	0	67	17	70	7	0	94	190
1:30 - 1:45	8	0	1	0	9	3	1	8	0	12	1	60	3	0	64	14	58	6	0	78	163
1:45 - 2:00	3	1	2	0	6	2	0	23	0	25	1	57	3	0	61	11	47	8	0	66	158
4 Hr Totals	142	4	14	0	160	45	5	236	0	286	14	963	38	0	1015	221	897	128	0	1246	2707
1 Hr Totals																					
10:00 - 11:00	32	1	2	0	35	14	0	62	0	76	2	256	5	0	263	60	179	25	0	264	638
10:15 - 11:15	32	1	2	0	35	14	0	56	0	70	3	260	6	0	269	44	182	31	0	257	631
10:30 - 11:30	44	1	3	0	48	16	0	60	0	76	2	264	9	0	275	47	200	38	0	285	684
10:45 - 11:45	45	0	6	0	51	14	0	62	0	76	1	237	9	0	247	43	212	37	0	292	666
11:00 - 12:00	41	1	6	0	48	13	2	68	0	83	1	244	13	0	258	43	226	36	0	305	694
11:15 - 12:15	45	1	6	0	52	13	2	66	0	81	0	245	14	0	259	52	230	29	0	311	703
11:30 - 12:30	35	2	6	0	43	11	3	70	0	84	1	231	10	0	242	55	247	35	0	337	706
11:45 - 12:45	33	2	4	0	39	11	3	59	0	73	3	247	9	0	259	61	236	41	0	338	709
12:00 - 1:00	40	1	3	0	44	8	1	51	0	60	5	241	8	0	254	68	238	42	0	348	706
12:15 - 1:15	38	1	2	0	41	7	1	50	0	58	8	219	9	0	236	62	262	39	0	363	698
12:30 - 1:30	39	0	1	0	40	8	1	45	0	54	8	227	12	0	247	60	255	30	0	345	686
12:45 - 1:45	39	0	1	0	40	9	2	43	0	54	7	223	12	0	242	60	262	26	0	348	684
1:00 - 2:00	29	1	3	0	33	10	2	55	0	67	6	222	12	0	240	50	254	25	0	329	669
PEAK HOUR																					
11:45 - 12:45	33	2	4	0	39	11	3	59	0	73	3	247	9	0	259	61	236	41	0	338	709

5. MD 328 (E/W) & Mile Post Dr (N)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Mile Post Drive
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Mile Post Drive					TRAFFIC FROM SOUTH on:					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	4	0	1	0	5	0	0	0	0	0	3	106	0	0	109	0	55	3	0	58	172
7:15 - 7:30	8	0	0	0	8	0	0	0	0	0	5	123	0	0	128	0	45	2	0	47	183
7:30 - 7:45	5	0	2	0	7	0	0	0	0	0	5	126	0	0	131	0	48	4	0	52	190
7:45 - 8:00	7	0	2	0	9	0	0	0	0	0	7	161	0	0	168	0	45	1	0	46	223
8:00 - 8:15	9	0	4	0	13	0	0	0	0	0	6	88	0	0	94	0	47	2	0	49	156
8:15 - 8:30	5	0	2	0	7	0	0	0	0	0	4	104	0	0	108	0	47	5	0	52	167
8:30 - 8:45	4	0	3	0	7	0	0	0	0	0	6	101	0	0	107	0	52	3	0	55	169
8:45 - 9:00	5	0	1	0	6	0	0	0	0	0	4	95	0	0	99	0	41	4	0	45	150
2 Hr Totals	47	0	15	0	62	0	0	0	0	0	40	904	0	0	944	0	380	24	0	404	1410
1 Hr Totals																					
7:00 - 8:00	24	0	5	0	29	0	0	0	0	0	20	516	0	0	536	0	193	10	0	203	768
7:15 - 8:15	29	0	8	0	37	0	0	0	0	0	23	498	0	0	521	0	185	9	0	194	752
7:30 - 8:30	26	0	10	0	36	0	0	0	0	0	22	479	0	0	501	0	187	12	0	199	736
7:45 - 8:45	25	0	11	0	36	0	0	0	0	0	23	454	0	0	477	0	191	11	0	202	715
8:00 - 9:00	23	0	10	0	33	0	0	0	0	0	20	388	0	0	408	0	187	14	0	201	642
PEAK HOUR																					
7:00 - 8:00	24	0	5	0	29	0	0	0	0	0	20	516	0	0	536	0	193	10	0	203	768
PM																					
4:00 - 4:15	6	0	0	0	6	0	0	0	0	0	8	50	0	0	58	0	111	11	0	122	186
4:15 - 4:30	10	0	4	0	14	0	0	0	0	0	6	68	0	0	74	0	115	16	0	131	219
4:30 - 4:45	6	0	1	0	7	0	0	0	0	0	3	68	0	0	71	0	111	7	0	118	196
4:45 - 5:00	16	0	5	0	21	0	0	0	0	0	2	78	0	0	80	0	97	14	0	111	212
5:00 - 5:15	6	0	6	0	12	0	0	0	0	0	6	59	0	0	65	0	115	10	0	125	202
5:15 - 5:30	7	0	4	0	11	0	0	0	0	0	9	58	0	0	67	0	110	6	0	116	194
5:30 - 5:45	10	0	4	0	14	0	0	0	0	0	4	64	0	0	68	0	94	9	1	104	186
5:45 - 6:00	3	0	2	0	5	0	0	0	0	0	4	56	0	0	60	0	85	15	0	100	165
2 Hr Totals	64	0	26	0	90	0	0	0	0	0	42	501	0	0	543	0	838	88	1	927	1560
1 Hr Totals																					
4:00 - 5:00	38	0	10	0	48	0	0	0	0	0	19	264	0	0	283	0	434	48	0	482	813
4:15 - 5:15	38	0	16	0	54	0	0	0	0	0	17	273	0	0	290	0	438	47	0	485	829
4:30 - 5:30	35	0	16	0	51	0	0	0	0	0	20	263	0	0	283	0	433	37	0	470	804
4:45 - 5:45	39	0	19	0	58	0	0	0	0	0	21	259	0	0	280	0	416	39	1	456	794
5:00 - 6:00	26	0	16	0	42	0	0	0	0	0	23	237	0	0	260	0	404	40	1	445	747
PEAK HOUR																					
4:15 - 5:15	38	0	16	0	54	0	0	0	0	0	17	273	0	0	290	0	438	47	0	485	829

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Mile Post Drive
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W
	on: Mile Post Drive					on: MD 328					on: MD 328					on: MD 328					
	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	11	0	1	0	12	0	0	0	0	0	3	47	0	0	50	0	40	6	0	46	108
10:15 - 10:30	9	0	5	0	14	0	0	0	0	0	0	57	0	0	57	0	43	2	0	45	116
10:30 - 10:45	12	0	5	0	17	0	0	0	0	0	2	67	0	0	69	0	49	7	0	56	142
10:45 - 11:00	7	0	2	0	9	0	0	0	0	0	4	51	0	0	55	0	41	2	0	43	107
11:00 - 11:15	12	0	6	0	18	0	0	0	0	0	4	51	0	0	55	0	48	7	0	55	128
11:15 - 11:30	15	0	2	0	17	0	0	0	0	0	1	63	0	0	64	0	60	6	0	66	147
11:30 - 11:45	2	0	2	0	4	0	0	0	0	0	4	48	0	0	52	0	56	6	0	62	118
11:45 - 12:00	9	0	4	0	13	0	0	0	0	0	1	61	0	0	62	0	51	9	0	60	135
12:00 - 12:15	8	0	4	0	12	0	0	0	0	0	2	54	0	0	56	0	53	4	0	57	125
12:15 - 12:30	4	0	2	0	6	0	0	0	0	0	4	56	0	0	60	0	69	8	0	77	143
12:30 - 12:45	13	0	5	0	18	0	0	0	0	0	2	57	0	0	59	0	56	6	0	62	139
12:45 - 1:00	6	0	3	0	9	0	0	0	0	0	6	57	0	0	63	0	52	4	0	56	128
1:00 - 1:15	2	0	4	0	6	0	0	0	0	0	2	46	0	0	48	0	71	6	0	77	131
1:15 - 1:30	9	0	3	0	12	0	0	0	0	0	1	62	0	0	63	0	64	12	0	76	151
1:30 - 1:45	11	0	1	0	12	0	0	0	0	0	1	47	0	0	48	0	49	8	0	57	117
1:45 - 2:00	13	0	1	0	14	0	0	0	0	0	2	51	0	0	53	0	47	8	0	55	122
4 Hr Totals	143	0	50	0	193	0	0	0	0	0	39	875	0	0	914	0	849	101	0	950	2057
1 Hr Totals																					
10:00 - 11:00	39	0	13	0	52	0	0	0	0	0	9	222	0	0	231	0	173	17	0	190	473
10:15 - 11:15	40	0	18	0	58	0	0	0	0	0	10	226	0	0	236	0	181	18	0	199	493
10:30 - 11:30	46	0	15	0	61	0	0	0	0	0	11	232	0	0	243	0	198	22	0	220	524
10:45 - 11:45	36	0	12	0	48	0	0	0	0	0	13	213	0	0	226	0	205	21	0	226	500
11:00 - 12:00	38	0	14	0	52	0	0	0	0	0	10	223	0	0	233	0	215	28	0	243	528
11:15 - 12:15	34	0	12	0	46	0	0	0	0	0	8	226	0	0	234	0	220	25	0	245	525
11:30 - 12:30	23	0	12	0	35	0	0	0	0	0	11	219	0	0	230	0	229	27	0	256	521
11:45 - 12:45	34	0	15	0	49	0	0	0	0	0	9	228	0	0	237	0	229	27	0	256	542
12:00 - 1:00	31	0	14	0	45	0	0	0	0	0	14	224	0	0	238	0	230	22	0	252	535
12:15 - 1:15	25	0	14	0	39	0	0	0	0	0	14	216	0	0	230	0	248	24	0	272	541
12:30 - 1:30	30	0	15	0	45	0	0	0	0	0	11	222	0	0	233	0	243	28	0	271	549
12:45 - 1:45	28	0	11	0	39	0	0	0	0	0	10	212	0	0	222	0	236	30	0	266	527
1:00 - 2:00	35	0	9	0	44	0	0	0	0	0	6	206	0	0	212	0	231	34	0	265	521
PEAK HOUR																					
12:30 - 1:30	30	0	15	0	45	0	0	0	0	0	11	222	0	0	233	0	243	28	0	271	549

6. MD 328 (E/W) & McCall St (S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: McCall Street
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Private Driveway					TRAFFIC FROM SOUTH on: McCall Street					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	1	0	5	0	6	0	102	1	0	103	1	47	0	0	48	157
7:15 - 7:30	0	0	0	0	0	2	0	6	0	8	0	130	0	0	130	0	49	0	0	49	187
7:30 - 7:45	0	0	0	0	0	2	0	4	0	6	0	120	0	0	120	3	47	0	0	50	176
7:45 - 8:00	0	0	0	0	0	1	0	5	0	6	0	152	0	0	152	1	42	0	0	43	201
8:00 - 8:15	0	0	0	0	0	2	0	4	0	6	0	86	0	0	86	4	47	0	0	51	143
8:15 - 8:30	0	0	0	0	0	0	0	6	0	6	0	95	0	0	95	1	52	0	0	53	154
8:30 - 8:45	0	0	0	0	0	0	0	5	0	5	0	95	0	0	95	2	44	0	0	46	146
8:45 - 9:00	0	0	0	0	0	0	0	1	0	1	0	89	2	0	91	0	39	0	0	39	131
2 Hr Totals	0	0	0	0	0	8	0	36	0	44	0	869	3	0	872	12	367	0	0	379	1295
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	6	0	20	0	26	0	504	1	0	505	5	185	0	0	190	721
7:15 - 8:15	0	0	0	0	0	7	0	19	0	26	0	488	0	0	488	8	185	0	0	193	707
7:30 - 8:30	0	0	0	0	0	5	0	19	0	24	0	453	0	0	453	9	188	0	0	197	674
7:45 - 8:45	0	0	0	0	0	3	0	20	0	23	0	428	0	0	428	8	185	0	0	193	644
8:00 - 9:00	0	0	0	0	0	2	0	16	0	18	0	365	2	0	367	7	182	0	0	189	574
PEAK HOUR																					
7:00 - 8:00	0	0	0	0	0	6	0	20	0	26	0	504	1	0	505	5	185	0	0	190	721
PM																					
4:00 - 4:15	0	0	0	0	0	1	0	2	0	3	0	65	2	0	67	2	114	0	0	116	186
4:15 - 4:30	0	0	0	0	0	0	0	4	0	4	0	74	0	0	74	5	120	0	0	125	203
4:30 - 4:45	0	0	0	0	0	3	0	4	0	7	0	65	0	0	65	6	130	0	0	136	208
4:45 - 5:00	0	0	0	0	0	0	0	1	0	1	0	59	2	0	61	7	107	0	0	114	176
5:00 - 5:15	0	0	0	0	0	2	0	2	0	4	0	65	1	0	66	4	111	0	0	115	185
5:15 - 5:30	0	0	0	0	0	0	0	2	0	2	0	70	2	0	72	1	90	0	0	91	165
5:30 - 5:45	0	0	0	0	0	2	0	4	1	7	0	73	1	0	74	9	90	0	0	99	180
5:45 - 6:00	0	0	0	0	0	0	0	3	1	4	0	52	1	0	53	5	62	0	0	67	124
2 Hr Totals	0	0	0	0	0	8	0	22	2	32	0	523	9	0	532	39	824	0	0	863	1427
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	4	0	11	0	15	0	263	4	0	267	20	471	0	0	491	773
4:15 - 5:15	0	0	0	0	0	5	0	11	0	16	0	263	3	0	266	22	468	0	0	490	772
4:30 - 5:30	0	0	0	0	0	5	0	9	0	14	0	259	5	0	264	18	438	0	0	456	734
4:45 - 5:45	0	0	0	0	0	4	0	9	1	14	0	267	6	0	273	21	398	0	0	419	706
5:00 - 6:00	0	0	0	0	0	4	0	11	2	17	0	260	5	0	265	19	353	0	0	372	654
PEAK HOUR																					
4:00 - 5:00	0	0	0	0	0	4	0	11	0	15	0	263	4	0	267	20	471	0	0	491	773

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: McCall Street
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Private Driveway					TRAFFIC FROM SOUTH on: McCall Street					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	2	0	4	1	7	0	44	0	0	44	0	49	0	0	49	100
10:15 - 10:30	0	0	0	0	0	0	0	3	0	3	0	60	1	0	61	3	48	0	0	51	115
10:30 - 10:45	0	0	0	0	0	0	0	3	0	3	0	65	0	0	65	3	51	0	0	54	122
10:45 - 11:00	0	0	0	0	0	0	0	1	0	1	0	48	1	0	49	0	43	0	1	44	94
11:00 - 11:15	0	0	0	0	0	2	0	2	0	4	0	55	0	0	55	3	53	0	0	56	115
11:15 - 11:30	0	0	0	0	0	0	0	3	0	3	0	60	1	0	61	1	56	0	0	57	121
11:30 - 11:45	0	0	0	0	0	1	0	1	0	2	0	47	0	0	47	4	57	0	0	61	110
11:45 - 12:00	0	0	0	0	0	0	0	3	0	3	0	63	2	0	65	2	53	0	0	55	123
12:00 - 12:15	0	0	0	0	0	0	0	2	0	2	0	57	0	0	57	4	54	0	0	58	117
12:15 - 12:30	0	0	0	0	0	1	0	2	0	3	0	51	0	0	51	5	70	0	0	75	129
12:30 - 12:45	0	0	0	0	0	1	0	4	0	5	0	62	0	0	62	2	53	0	0	55	122
12:45 - 1:00	0	0	0	0	0	1	0	3	0	4	0	57	2	0	59	5	50	0	0	55	118
1:00 - 1:15	0	0	0	0	0	1	0	4	0	5	0	47	1	0	48	4	71	0	0	75	128
1:15 - 1:30	0	0	0	0	0	1	0	1	0	2	0	57	0	0	57	8	60	0	0	68	127
1:30 - 1:45	0	0	0	0	0	2	0	3	0	5	0	50	1	0	51	3	47	0	0	50	106
1:45 - 2:00	0	0	0	0	0	0	0	3	0	3	0	46	0	0	46	1	47	0	0	48	97
4 Hr Totals	0	0	0	0	0	12	0	42	1	55	0	869	9	0	878	48	862	0	1	911	1844
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	2	0	11	1	14	0	217	2	0	219	6	191	0	1	198	431
10:15 - 11:15	0	0	0	0	0	2	0	9	0	11	0	228	2	0	230	9	195	0	1	205	446
10:30 - 11:30	0	0	0	0	0	2	0	9	0	11	0	228	2	0	230	7	203	0	1	211	452
10:45 - 11:45	0	0	0	0	0	3	0	7	0	10	0	210	2	0	212	8	209	0	1	218	440
11:00 - 12:00	0	0	0	0	0	3	0	9	0	12	0	225	3	0	228	10	219	0	0	229	469
11:15 - 12:15	0	0	0	0	0	1	0	9	0	10	0	227	3	0	230	11	220	0	0	231	471
11:30 - 12:30	0	0	0	0	0	2	0	8	0	10	0	218	2	0	220	15	234	0	0	249	479
11:45 - 12:45	0	0	0	0	0	2	0	11	0	13	0	233	2	0	235	13	230	0	0	243	491
12:00 - 1:00	0	0	0	0	0	3	0	11	0	14	0	227	2	0	229	16	227	0	0	243	486
12:15 - 1:15	0	0	0	0	0	4	0	13	0	17	0	217	3	0	220	16	244	0	0	260	497
12:30 - 1:30	0	0	0	0	0	4	0	12	0	16	0	223	3	0	226	19	234	0	0	253	495
12:45 - 1:45	0	0	0	0	0	5	0	11	0	16	0	211	4	0	215	20	228	0	0	248	479
1:00 - 2:00	0	0	0	0	0	4	0	11	0	15	0	200	2	0	202	16	225	0	0	241	458
PEAK HOUR																					
12:15 - 1:15	0	0	0	0	0	4	0	13	0	17	0	217	3	0	220	16	244	0	0	260	497

7. MD 328 (E/W) & Swann Haven Rd (S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Swann Haven Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W
	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
7:00 - 7:15	0	0	0	0	0	3	0	12	0	15	0	91	1	0	92	2	51	0	0	53	160
7:15 - 7:30	0	0	0	0	0	1	0	2	0	3	0	120	0	0	120	2	46	0	0	48	171
7:30 - 7:45	0	0	0	0	0	2	0	1	0	3	0	126	0	0	126	1	43	0	0	44	173
7:45 - 8:00	0	0	0	0	0	0	0	1	0	1	0	158	0	0	158	2	46	0	0	48	207
8:00 - 8:15	0	0	0	0	0	3	0	1	0	4	0	88	1	0	89	1	43	0	0	44	137
8:15 - 8:30	0	0	0	0	0	1	0	3	0	4	0	90	0	0	90	1	46	0	0	47	141
8:30 - 8:45	0	0	0	0	0	0	0	5	0	5	0	86	0	0	86	1	45	0	0	46	137
8:45 - 9:00	0	0	0	0	0	1	0	4	0	5	0	91	1	0	92	3	44	0	0	47	144
2 Hr Totals	0	0	0	0	0	11	0	29	0	40	0	850	3	0	853	13	364	0	0	377	1270
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	6	0	16	0	22	0	495	1	0	496	7	186	0	0	193	711
7:15 - 8:15	0	0	0	0	0	6	0	5	0	11	0	492	1	0	493	6	178	0	0	184	688
7:30 - 8:30	0	0	0	0	0	6	0	6	0	12	0	462	1	0	463	5	178	0	0	183	658
7:45 - 8:45	0	0	0	0	0	4	0	10	0	14	0	422	1	0	423	5	180	0	0	185	622
8:00 - 9:00	0	0	0	0	0	5	0	13	0	18	0	355	2	0	357	6	178	0	0	184	559
PEAK HOUR																					
7:00 - 8:00	0	0	0	0	0	6	0	16	0	22	0	495	1	0	496	7	186	0	0	193	711
PM																					
4:00 - 4:15	0	0	0	0	0	0	0	2	0	2	0	56	1	0	57	4	102	0	0	106	165
4:15 - 4:30	0	0	0	0	0	5	0	4	0	9	0	76	1	0	77	5	110	0	0	115	201
4:30 - 4:45	0	0	0	0	0	1	0	2	0	3	0	58	2	0	60	4	116	0	0	120	183
4:45 - 5:00	0	0	0	0	0	1	0	3	0	4	0	61	0	0	61	3	106	0	0	109	174
5:00 - 5:15	0	0	0	0	0	1	0	2	0	3	0	71	0	0	71	5	112	0	0	117	191
5:15 - 5:30	0	0	0	0	0	0	0	1	0	1	0	68	0	0	68	3	89	0	0	92	161
5:30 - 5:45	0	0	0	0	0	3	0	5	0	8	0	59	2	0	61	1	92	0	0	93	162
5:45 - 6:00	0	0	0	0	0	2	0	5	0	7	0	52	2	0	54	1	74	0	0	75	136
2 Hr Totals	0	0	0	0	0	13	0	24	0	37	0	501	8	0	509	26	801	0	0	827	1373
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	7	0	11	0	18	0	251	4	0	255	16	434	0	0	450	723
4:15 - 5:15	0	0	0	0	0	8	0	11	0	19	0	266	3	0	269	17	444	0	0	461	749
4:30 - 5:30	0	0	0	0	0	3	0	8	0	11	0	258	2	0	260	15	423	0	0	438	709
4:45 - 5:45	0	0	0	0	0	5	0	11	0	16	0	259	2	0	261	12	399	0	0	411	688
5:00 - 6:00	0	0	0	0	0	6	0	13	0	19	0	250	4	0	254	10	367	0	0	377	650
PEAK HOUR																					
4:15 - 5:15	0	0	0	0	0	8	0	11	0	19	0	266	3	0	269	17	444	0	0	461	749

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Swann Haven Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W
	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	on: RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
10:00 - 10:15	0	0	0	0	0	1	0	3	0	4	0	40	0	0	40	2	39	0	0	41	85
10:15 - 10:30	0	0	0	0	0	2	0	1	0	3	0	56	0	0	56	2	42	0	0	44	103
10:30 - 10:45	0	0	0	0	0	3	0	3	0	6	0	62	2	0	64	2	51	0	0	53	123
10:45 - 11:00	0	0	0	0	0	0	0	2	0	2	0	49	1	0	50	1	35	0	0	36	88
11:00 - 11:15	0	0	0	0	0	2	0	1	0	3	0	53	1	0	54	0	57	0	0	57	114
11:15 - 11:30	0	0	0	0	0	1	0	5	0	6	0	57	3	0	60	3	56	0	0	59	125
11:30 - 11:45	0	0	0	0	0	1	0	1	0	2	0	51	2	0	53	2	52	0	0	54	109
11:45 - 12:00	0	0	0	0	0	0	0	5	0	5	0	56	2	0	58	5	52	0	0	57	120
12:00 - 12:15	0	0	0	0	0	1	0	4	0	5	0	53	2	0	55	1	53	0	0	54	114
12:15 - 12:30	0	0	0	0	0	0	0	1	0	1	0	54	0	0	54	5	64	0	0	69	124
12:30 - 12:45	0	0	0	0	0	0	0	2	0	2	0	54	2	0	56	3	53	0	0	56	114
12:45 - 1:00	0	0	0	0	0	0	0	4	0	4	0	59	1	0	60	5	45	0	0	50	114
1:00 - 1:15	0	0	0	0	0	0	0	0	0	0	0	51	1	0	52	4	58	0	0	62	114
1:15 - 1:30	0	0	0	0	0	1	0	3	0	4	0	56	0	1	57	0	57	0	0	57	118
1:30 - 1:45	0	0	0	0	0	0	0	2	0	2	0	52	1	0	53	0	47	0	0	47	102
1:45 - 2:00	0	0	0	0	0	3	0	0	0	3	0	45	0	0	45	2	41	0	0	43	91
4 Hr Totals	0	0	0	0	0	15	0	37	0	52	0	848	18	1	867	37	802	0	0	839	1758
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	6	0	9	0	15	0	207	3	0	210	7	167	0	0	174	399
10:15 - 11:15	0	0	0	0	0	7	0	7	0	14	0	220	4	0	224	5	185	0	0	190	428
10:30 - 11:30	0	0	0	0	0	6	0	11	0	17	0	221	7	0	228	6	199	0	0	205	450
10:45 - 11:45	0	0	0	0	0	4	0	9	0	13	0	210	7	0	217	6	200	0	0	206	436
11:00 - 12:00	0	0	0	0	0	4	0	12	0	16	0	217	8	0	225	10	217	0	0	227	468
11:15 - 12:15	0	0	0	0	0	3	0	15	0	18	0	217	9	0	226	11	213	0	0	224	468
11:30 - 12:30	0	0	0	0	0	2	0	11	0	13	0	214	6	0	220	13	221	0	0	234	467
11:45 - 12:45	0	0	0	0	0	1	0	12	0	13	0	217	6	0	223	14	222	0	0	236	472
12:00 - 1:00	0	0	0	0	0	1	0	11	0	12	0	220	5	0	225	14	215	0	0	229	466
12:15 - 1:15	0	0	0	0	0	0	0	7	0	7	0	218	4	0	222	17	220	0	0	237	466
12:30 - 1:30	0	0	0	0	0	1	0	9	0	10	0	220	4	1	225	12	213	0	0	225	460
12:45 - 1:45	0	0	0	0	0	1	0	9	0	10	0	218	3	1	222	9	207	0	0	216	448
1:00 - 2:00	0	0	0	0	0	4	0	5	0	9	0	204	2	1	207	6	203	0	0	209	425
PEAK HOUR																					
11:45 - 12:45	0	0	0	0	0	1	0	12	0	13	0	217	6	0	223	14	222	0	0	236	472

8. MD 328 (E/W) & Black Dog Rd (N/S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Black Dog Alley
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Black Dog Alley					TRAFFIC FROM SOUTH on: Black Dog Alley					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	16	7	6	0	29	1	21	6	0	28	17	71	2	0	90	5	42	4	0	51	198
7:15 - 7:30	11	5	5	0	21	1	32	2	0	35	14	107	4	0	125	3	37	7	0	47	228
7:30 - 7:45	6	8	10	0	24	3	23	3	0	29	18	120	0	0	138	2	38	12	0	52	243
7:45 - 8:00	28	18	1	0	47	3	16	4	0	23	22	124	2	0	148	2	34	7	0	43	261
8:00 - 8:15	12	14	9	0	35	0	19	3	0	22	14	73	2	0	89	11	30	11	0	52	198
8:15 - 8:30	11	19	4	0	34	0	20	2	0	22	16	77	0	0	93	2	32	8	0	42	191
8:30 - 8:45	9	10	5	0	24	1	25	6	0	32	14	78	3	0	95	1	37	12	0	50	201
8:45 - 9:00	23	7	4	0	34	2	14	2	0	18	9	60	0	0	69	0	35	5	0	40	161
2 Hr Totals	116	88	44	0	248	11	170	28	0	209	124	710	13	0	847	26	285	66	0	377	1681
1 Hr Totals																					
7:00 - 8:00	61	38	22	0	121	8	92	15	0	115	71	422	8	0	501	12	151	30	0	193	930
7:15 - 8:15	57	45	25	0	127	7	90	12	0	109	68	424	8	0	500	18	139	37	0	194	930
7:30 - 8:30	57	59	24	0	140	6	78	12	0	96	70	394	4	0	468	17	134	38	0	189	893
7:45 - 8:45	60	61	19	0	140	4	80	15	0	99	66	352	7	0	425	16	133	38	0	187	851
8:00 - 9:00	55	50	22	0	127	3	78	13	0	94	53	288	5	0	346	14	134	36	0	184	751
PEAK HOUR																					
7:00 - 8:00	61	38	22	0	121	8	92	15	0	115	71	422	8	0	501	12	151	30	0	193	930
PM																					
4:00 - 4:15	17	31	14	0	62	1	14	6	0	21	5	39	1	0	45	4	81	22	0	107	235
4:15 - 4:30	20	28	28	0	76	0	16	2	0	18	11	53	0	0	64	8	90	12	0	110	268
4:30 - 4:45	12	24	15	0	51	1	18	5	0	24	12	47	0	0	59	4	103	15	0	122	256
4:45 - 5:00	11	35	17	0	63	1	17	5	0	23	10	39	1	0	50	9	89	10	0	108	244
5:00 - 5:15	22	36	23	0	81	0	18	4	0	22	7	49	0	0	56	4	93	15	0	112	271
5:15 - 5:30	12	22	23	0	57	2	18	8	0	28	19	47	0	0	66	10	66	11	0	87	238
5:30 - 5:45	19	18	19	0	56	1	22	2	0	25	10	46	0	0	56	8	67	18	0	93	230
5:45 - 6:00	16	29	12	0	57	4	13	3	0	20	10	35	0	0	45	5	51	18	0	74	196
2 Hr Totals	129	223	151	0	503	10	136	35	0	181	84	355	2	0	441	52	640	121	0	813	1938
1 Hr Totals																					
4:00 - 5:00	60	118	74	0	252	3	65	18	0	86	38	178	2	0	218	25	363	59	0	447	1003
4:15 - 5:15	65	123	83	0	271	2	69	16	0	87	40	188	1	0	229	25	375	52	0	452	1039
4:30 - 5:30	57	117	78	0	252	4	71	22	0	97	48	182	1	0	231	27	351	51	0	429	1009
4:45 - 5:45	64	111	82	0	257	4	75	19	0	98	46	181	1	0	228	31	315	54	0	400	983
5:00 - 6:00	69	105	77	0	251	7	71	17	0	95	46	177	0	0	223	27	277	62	0	366	935
PEAK HOUR																					
4:15 - 5:15	65	123	83	0	271	2	69	16	0	87	40	188	1	0	229	25	375	52	0	452	1039

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Black Dog Alley
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Black Dog Alley					TRAFFIC FROM SOUTH on: Black Dog Alley					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					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	8	13	4	0	25	0	9	0	0	9	5	34	2	0	41	4	30	8	0	42	117
10:15 - 10:30	7	11	4	0	22	1	16	2	0	19	10	49	1	0	60	8	30	10	0	48	149
10:30 - 10:45	26	20	7	0	53	1	6	1	0	8	3	39	1	0	43	3	36	10	0	49	153
10:45 - 11:00	13	19	7	0	39	1	20	0	0	21	9	36	1	0	46	2	32	9	0	43	149
11:00 - 11:15	14	19	9	0	42	1	7	4	0	12	6	35	1	0	42	4	40	11	0	55	151
11:15 - 11:30	18	12	2	0	32	0	15	4	0	19	11	38	3	0	52	5	41	11	0	57	160
11:30 - 11:45	14	15	6	0	35	1	6	1	0	8	6	33	0	0	39	2	45	8	0	55	137
11:45 - 12:00	11	15	5	0	31	3	14	1	0	18	10	51	0	0	61	7	32	9	0	48	158
12:00 - 12:15	15	16	13	0	44	1	11	2	0	14	8	37	2	0	47	4	38	13	0	55	160
12:15 - 12:30	14	21	9	0	44	1	13	5	0	19	7	36	0	0	43	5	40	11	0	56	162
12:30 - 12:45	18	21	7	0	46	2	12	5	0	19	5	36	1	0	42	5	40	12	0	57	164
12:45 - 1:00	19	18	7	0	44	2	9	3	0	14	6	35	1	0	42	2	31	7	0	40	140
1:00 - 1:15	11	30	5	0	46	2	12	7	0	21	5	34	2	0	41	3	49	11	0	63	171
1:15 - 1:30	15	23	8	0	46	1	17	0	0	18	5	38	0	0	43	3	45	12	0	60	167
1:30 - 1:45	8	20	8	0	36	1	9	1	0	11	7	43	0	0	50	3	34	10	0	47	144
1:45 - 2:00	11	13	1	0	25	2	12	3	0	17	6	33	2	0	41	8	29	8	0	45	128
4 Hr Totals	222	286	102	0	610	20	188	39	0	247	109	607	17	0	733	68	592	160	0	820	2410
1 Hr Totals																					
10:00 - 11:00	54	63	22	0	139	3	51	3	0	57	27	158	5	0	190	17	128	37	0	182	568
10:15 - 11:15	60	69	27	0	156	4	49	7	0	60	28	159	4	0	191	17	138	40	0	195	602
10:30 - 11:30	71	70	25	0	166	3	48	9	0	60	29	148	6	0	183	14	149	41	0	204	613
10:45 - 11:45	59	65	24	0	148	3	48	9	0	60	32	142	5	0	179	13	158	39	0	210	597
11:00 - 12:00	57	61	22	0	140	5	42	10	0	57	33	157	4	0	194	18	158	39	0	215	606
11:15 - 12:15	58	58	26	0	142	5	46	8	0	59	35	159	5	0	199	18	156	41	0	215	615
11:30 - 12:30	54	67	33	0	154	6	44	9	0	59	31	157	2	0	190	18	155	41	0	214	617
11:45 - 12:45	58	73	34	0	165	7	50	13	0	70	30	160	3	0	193	21	150	45	0	216	644
12:00 - 1:00	66	76	36	0	178	6	45	15	0	66	26	144	4	0	174	16	149	43	0	208	626
12:15 - 1:15	62	90	28	0	180	7	46	20	0	73	23	141	4	0	168	15	160	41	0	216	637
12:30 - 1:30	63	92	27	0	182	7	50	15	0	72	21	143	4	0	168	13	165	42	0	220	642
12:45 - 1:45	53	91	28	0	172	6	47	11	0	64	23	150	3	0	176	11	159	40	0	210	622
1:00 - 2:00	45	86	22	0	153	6	50	11	0	67	23	148	4	0	175	17	157	41	0	215	610
PEAK HOUR																					
11:45 - 12:45	58	73	34	0	165	7	50	13	0	70	30	160	3	0	193	21	150	45	0	216	644

APPENDIX B

Capacity Analysis Worksheets



CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

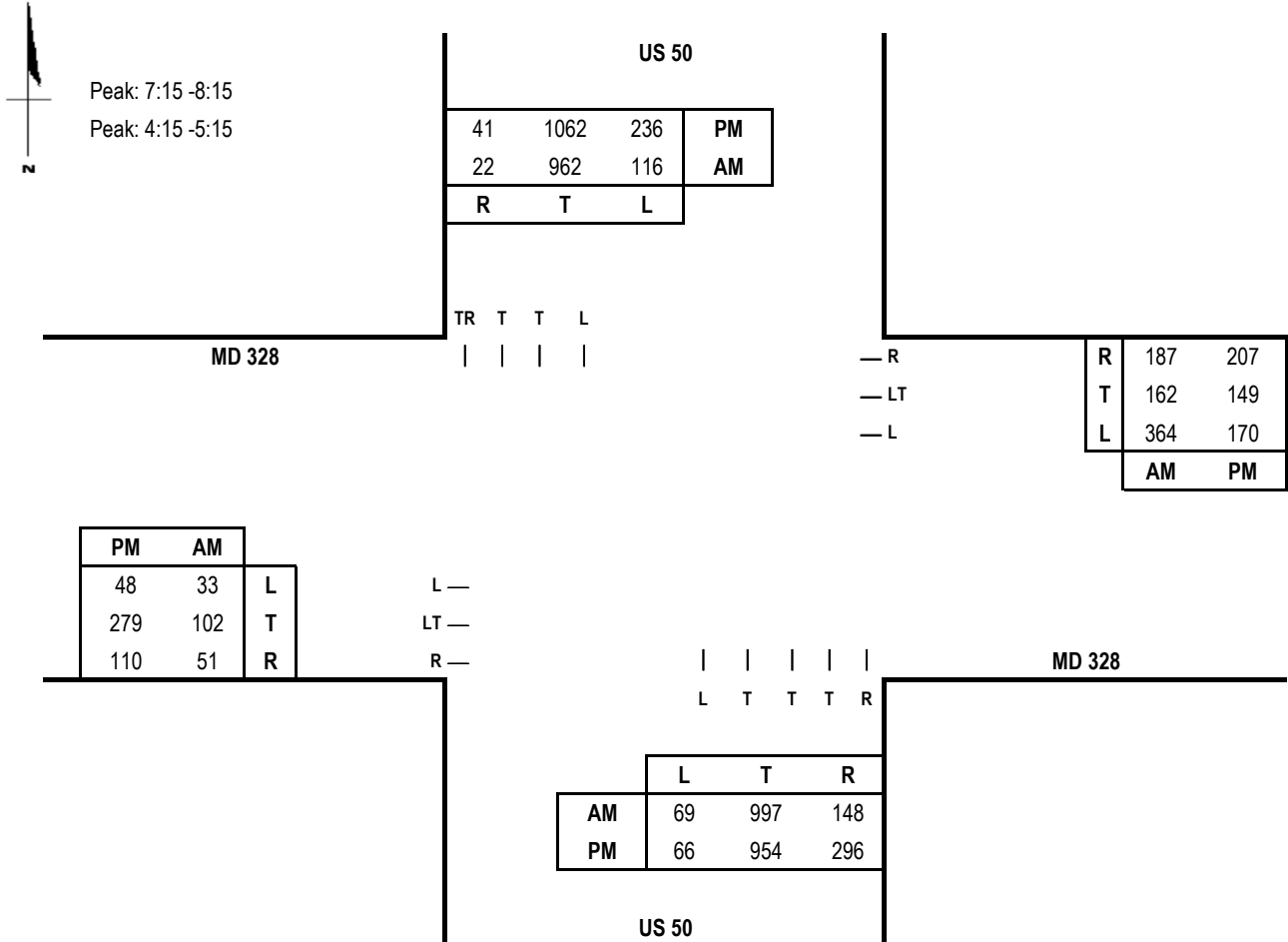
N/S Road: US 50

Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022

Day of Week: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	102	1.00	102				102
WB	526	0.60	316				316
NB	997	0.40	399	116	1.00	116	515
SB	984	0.40	394	69	1.00	69	
CLV TOTAL=							933
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	279	1.00	279				279
WB	319	0.60	191				191
NB	954	0.40	382	236	1.00	236	618
SB	1103	0.40	441	66	1.00	66	
CLV TOTAL=							1,088
Level of Service (LOS)=							B

Scenario ID - EXIST1

AM V/C =0.58

PM V/C =0.68

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

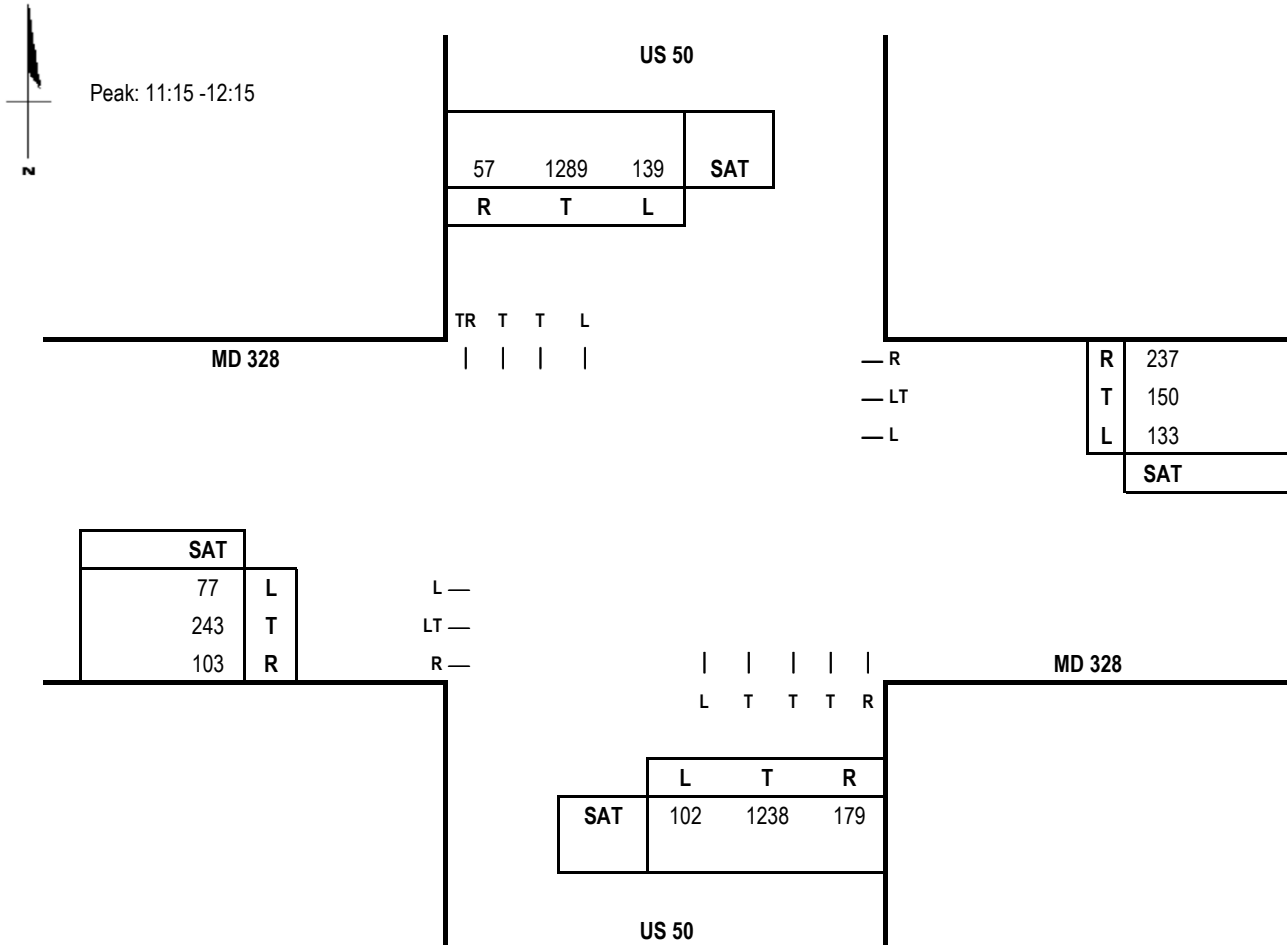
N/S Road: US 50

Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022

Day of Week: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	243	1.00	243				243
WB	283	0.60	170				170
NB	1238	0.40	495	139	1.00	139	640
SB	1346	0.40	538	102	1.00	102	
CLV TOTAL=							1,053
Level of Service (LOS)=							B

Scenario ID - EXIST1

SAT V/C =0.66

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

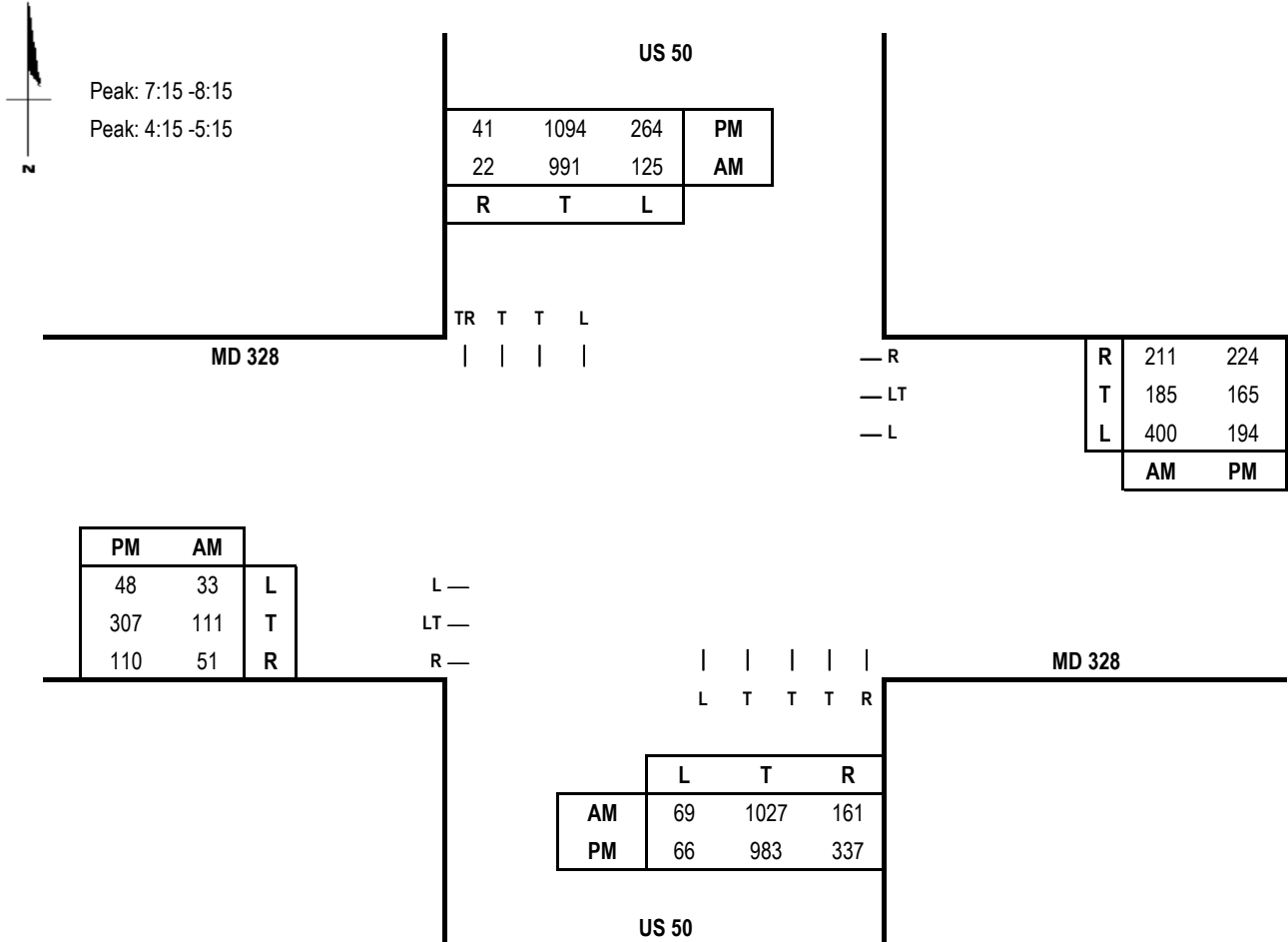
N/S Road: US 50

Conditions: 2025 Background Traffic

Date of Count: 6/9/2022

Day of Week: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	111	1.00	111				111
WB	585	0.60	351				351
NB	1027	0.40	411	125	1.00	125	536
SB	1013	0.40	405	69	1.00	69	
CLV TOTAL=							998
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	307	1.00	307				307
WB	359	0.60	215				215
NB	983	0.40	393	264	1.00	264	657
SB	1135	0.40	454	66	1.00	66	
CLV TOTAL=							1,179
Level of Service (LOS)=							C

Scenario ID - BACK1

AM V/C =0.62

PM V/C =0.74

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

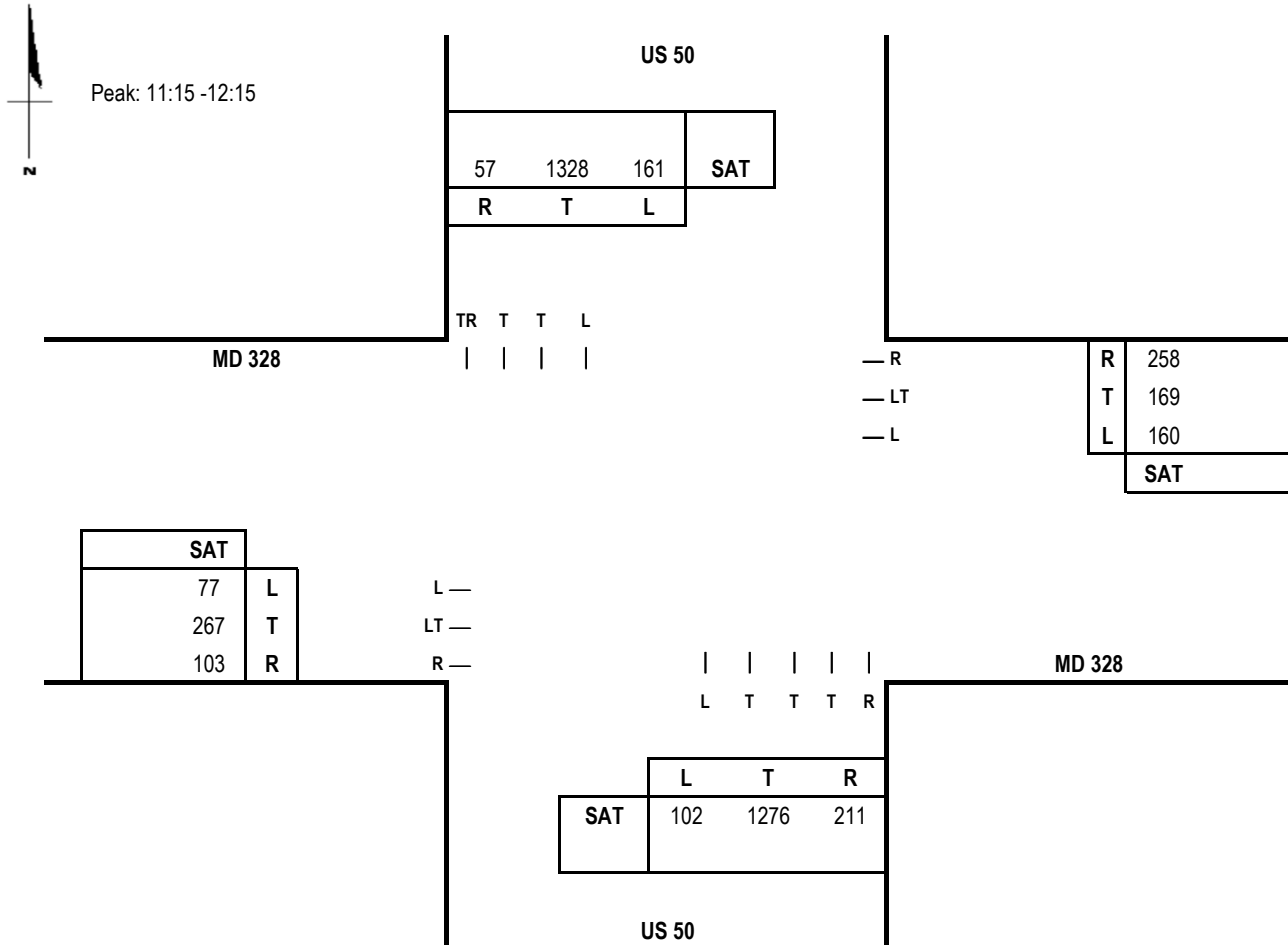
N/S Road: US 50

Conditions: 2025 Background Traffic

Date of Count: 6/11/2022

Day of Week: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	267	1.00	267				267
WB	329	0.60	197				197
NB	1276	0.40	510	161	1.00	161	671
SB	1385	0.40	554	102	1.00	102	
CLV TOTAL=							1,135
Level of Service (LOS)=							B

Scenario ID - BACK1

SAT V/C =0.71

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

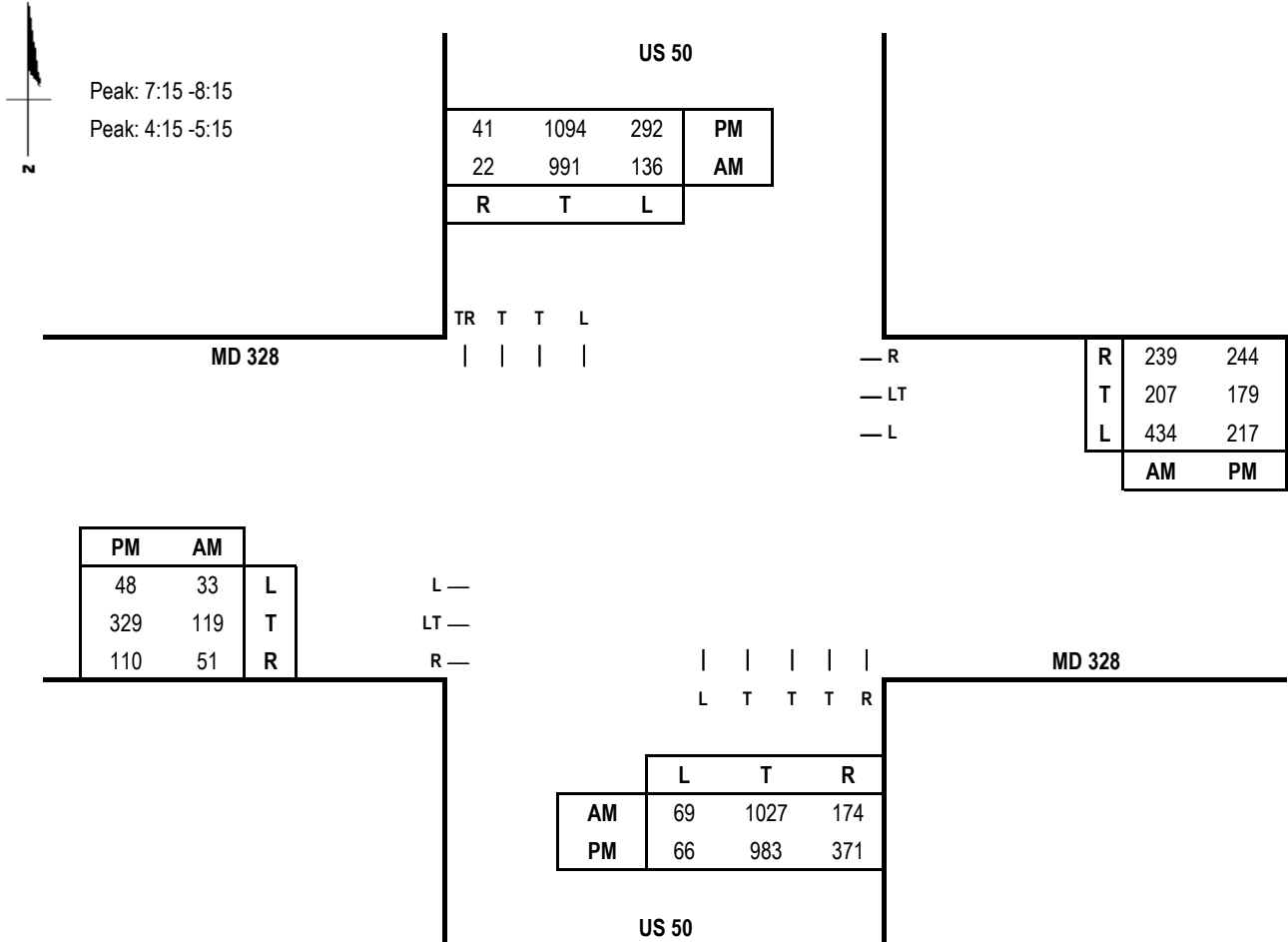
N/S Road: US 50

Conditions: 2025 Total Traffic

Date of Count: 6/9/2022

Day of Week: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	119	1.00	119				119
WB	641	0.60	385				385
NB	1027	0.40	411	136	1.00	136	547
SB	1013	0.40	405	69	1.00	69	
CLV TOTAL=							1,051
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	329	1.00	329				329
WB	396	0.60	238				238
NB	983	0.40	393	292	1.00	292	685
SB	1135	0.40	454	66	1.00	66	
CLV TOTAL=							1,252
Level of Service (LOS)=							C

Scenario ID - TOT1

AM V/C =0.66

PM V/C =0.78

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

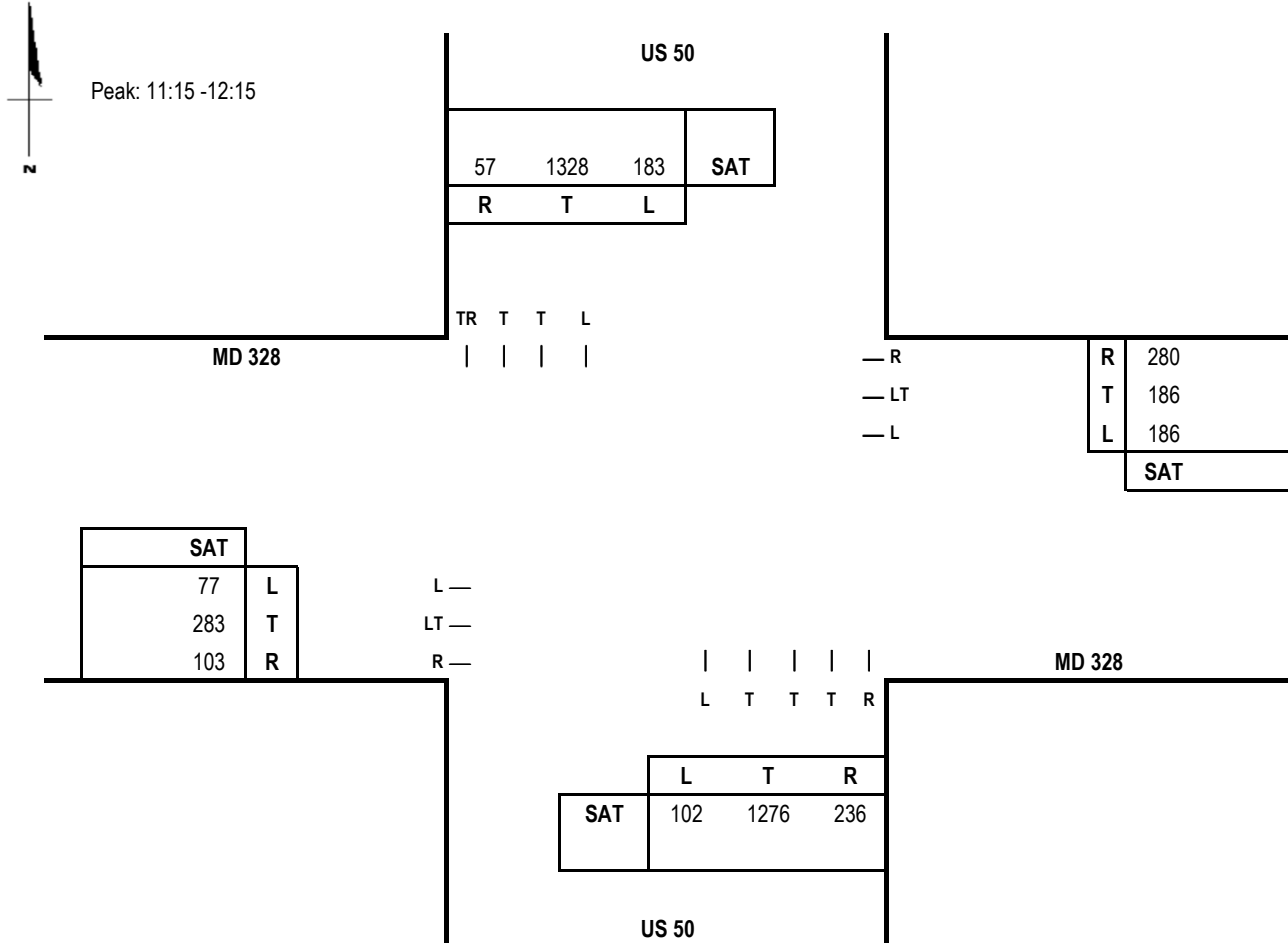
N/S Road: US 50

Conditions: 2025 Total Traffic

Date of Count: 6/11/2022

Day of Week: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	283	1.00	283				283
WB	372	0.60	223				223
NB	1276	0.40	510	183	1.00	183	693
SB	1385	0.40	554	102	1.00	102	
CLV TOTAL=							1,199
Level of Service (LOS)=							C

Scenario ID - TOT1

SAT V/C =0.75

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

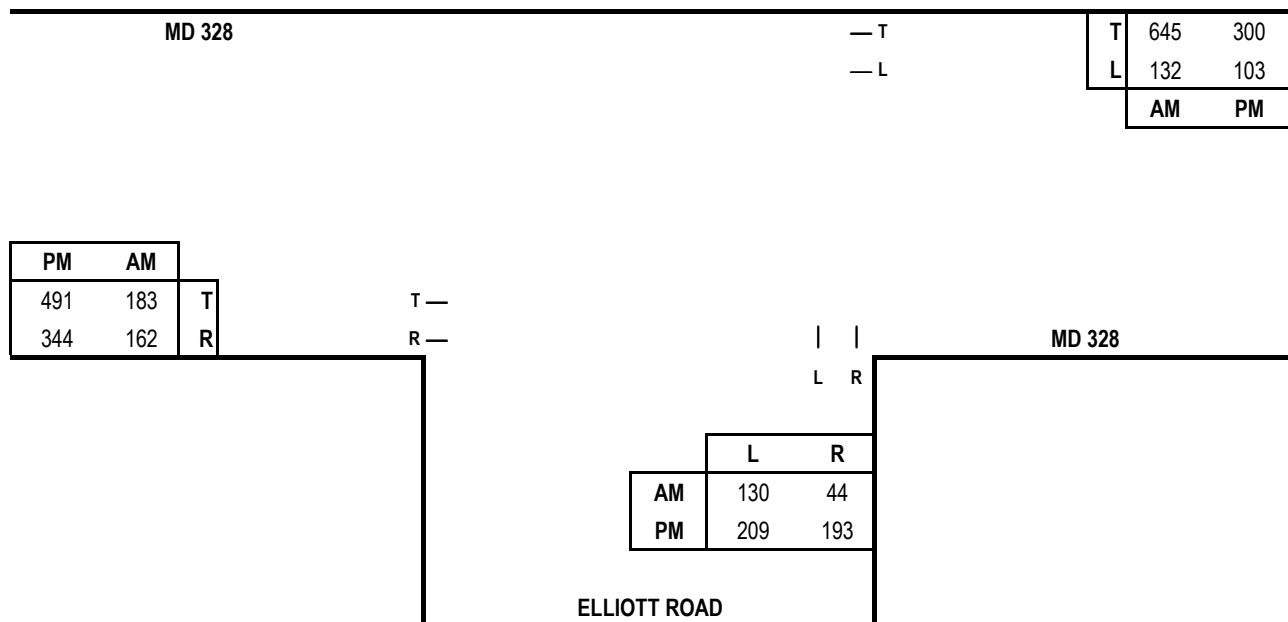
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:15 -8:15

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	130	1.00	130				130
EB	183	1.00	183	132	1.00	132	645
WB	645	1.00	645				
CLV TOTAL=							775
Level of Service (LOS)=							A

CLV V/C =0.48

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	209	1.00	209				209
EB	491	1.00	491	103	1.00	103	594
WB	300	1.00	300				
CLV TOTAL=							803
Level of Service (LOS)=							A

CLV V/C =0.5

Scenario ID - EXIST2

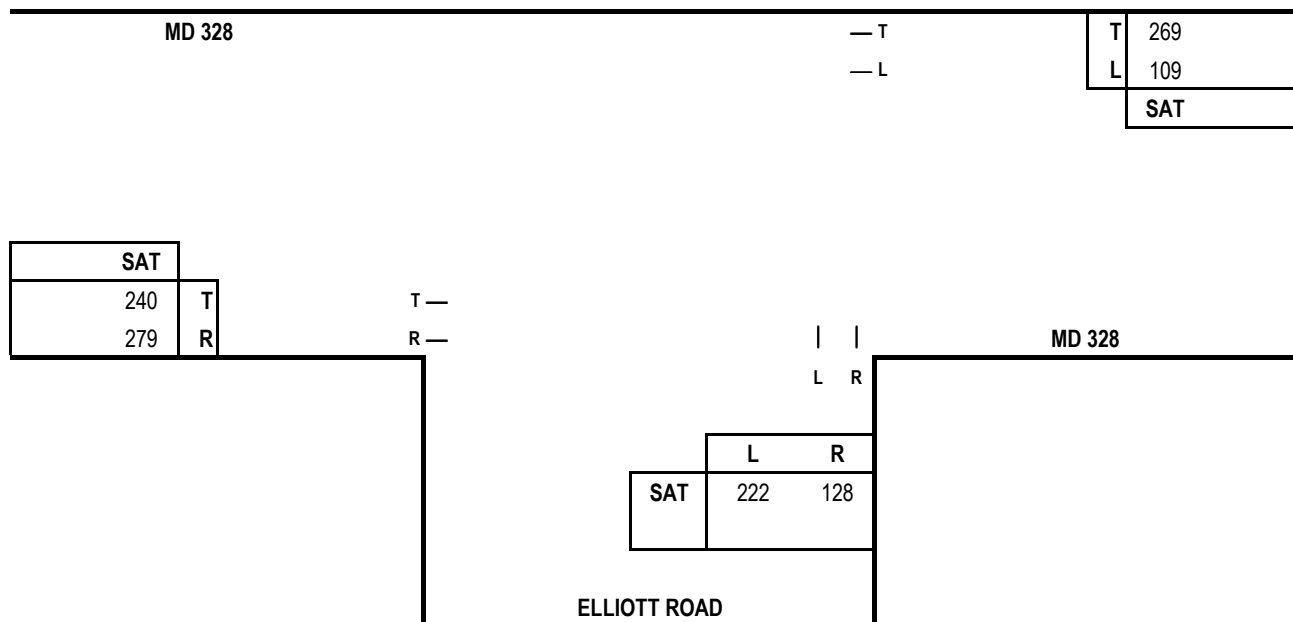
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:30 -12:30



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	222	1.00	222				222
EB	240	1.00	240	109	1.00	109	349
WB	269	1.00	269				
CLV TOTAL=							571
Level of Service (LOS)=							A

Scenario ID - EXIST2

CLV V/C =0.36

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

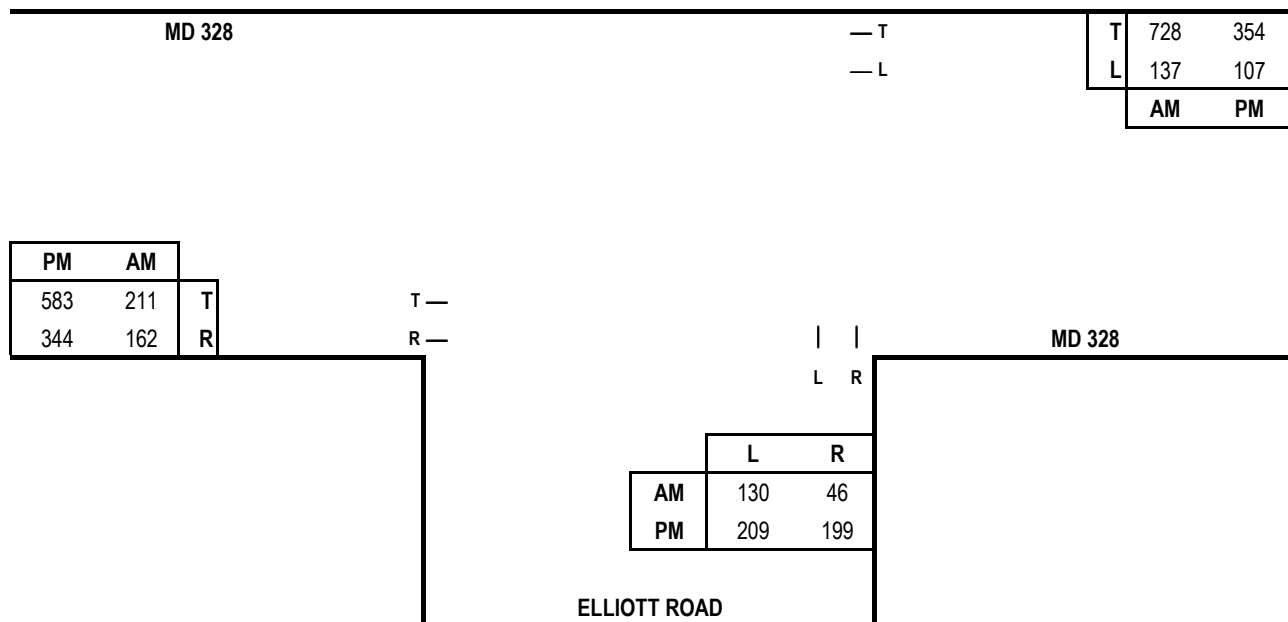
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:15 -8:15

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	130	1.00	130				130
EB	211	1.00	211	137	1.00	137	728
WB	728	1.00	728				
CLV TOTAL=							858
Level of Service (LOS)=							A

CLV V/C =0.54

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	209	1.00	209				209
EB	583	1.00	583	107	1.00	107	690
WB	354	1.00	354				
CLV TOTAL=							899
Level of Service (LOS)=							A

CLV V/C =0.56

Scenario ID - BACK2

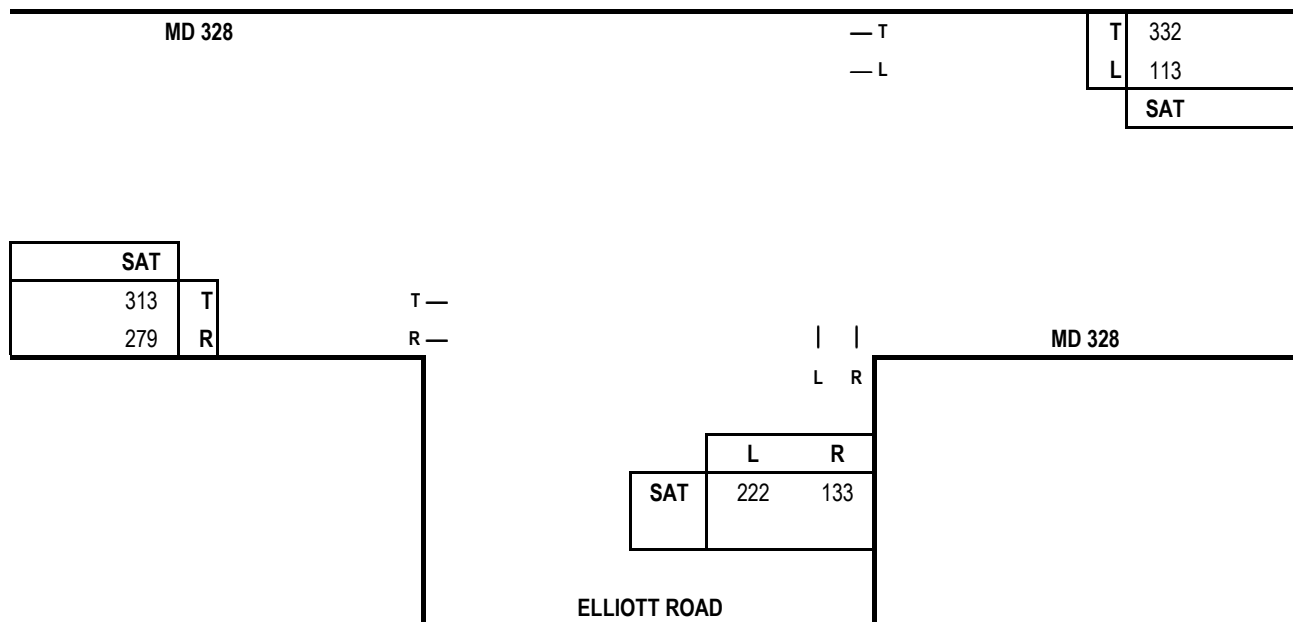
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Background Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:30 -12:30



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	222	1.00	222				222
EB	313	1.00	313	113	1.00	113	426
WB	332	1.00	332				
CLV TOTAL=							648
Level of Service (LOS)=							A

Scenario ID - BACK2

CLV V/C =0.41

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

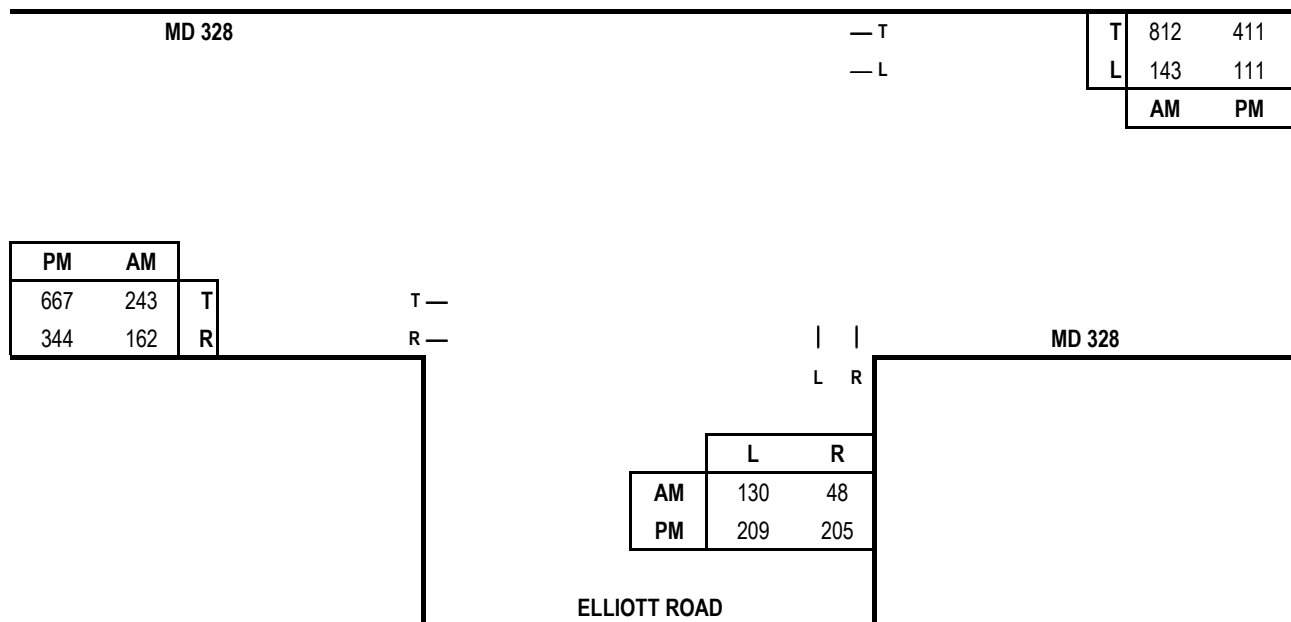
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:15 -8:15

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	130	1.00	130				130
EB	243	1.00	243	143	1.00	143	812
WB	812	1.00	812				
CLV TOTAL=							942
Level of Service (LOS)=							A

CLV V/C =0.59

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	209	1.00	209				209
EB	667	1.00	667	111	1.00	111	778
WB	411	1.00	411				
CLV TOTAL=							987
Level of Service (LOS)=							A

CLV V/C =0.62

Scenario ID - TOT2

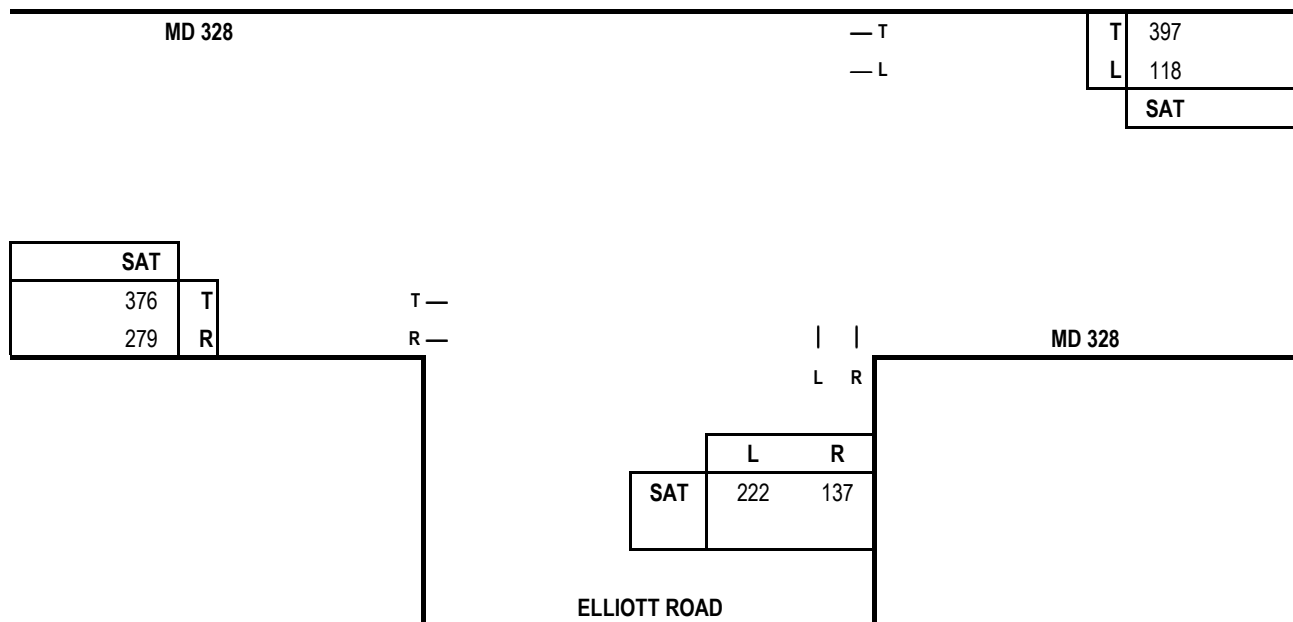
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:30 -12:30



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	222	1.00	222				222
EB	376	1.00	376	118	1.00	118	494
WB	397	1.00	397				
CLV TOTAL=							716
Level of Service (LOS)=							A

Scenario ID - TOT2

CLV V/C =0.45

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

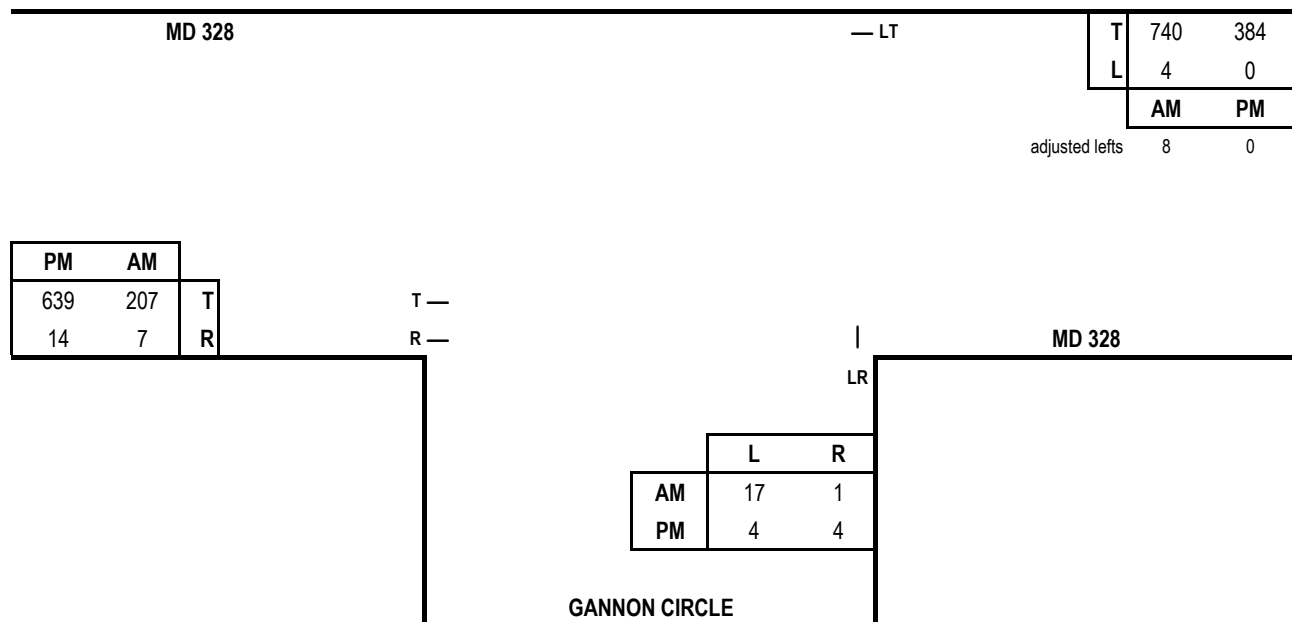
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:15 -5:15



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	18	1.00	18				18
EB	207	1.00	207	4	1.00	4	748
WB	748	1.00	748				
CLV TOTAL=							766
Level of Service (LOS)=							A

CLV V/C =0.48

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	639	1.00	639	0	1.00	0	639
WB	384	1.00	384				
CLV TOTAL=							647
Level of Service (LOS)=							A

CLV V/C =0.4

Scenario ID - EXIST3

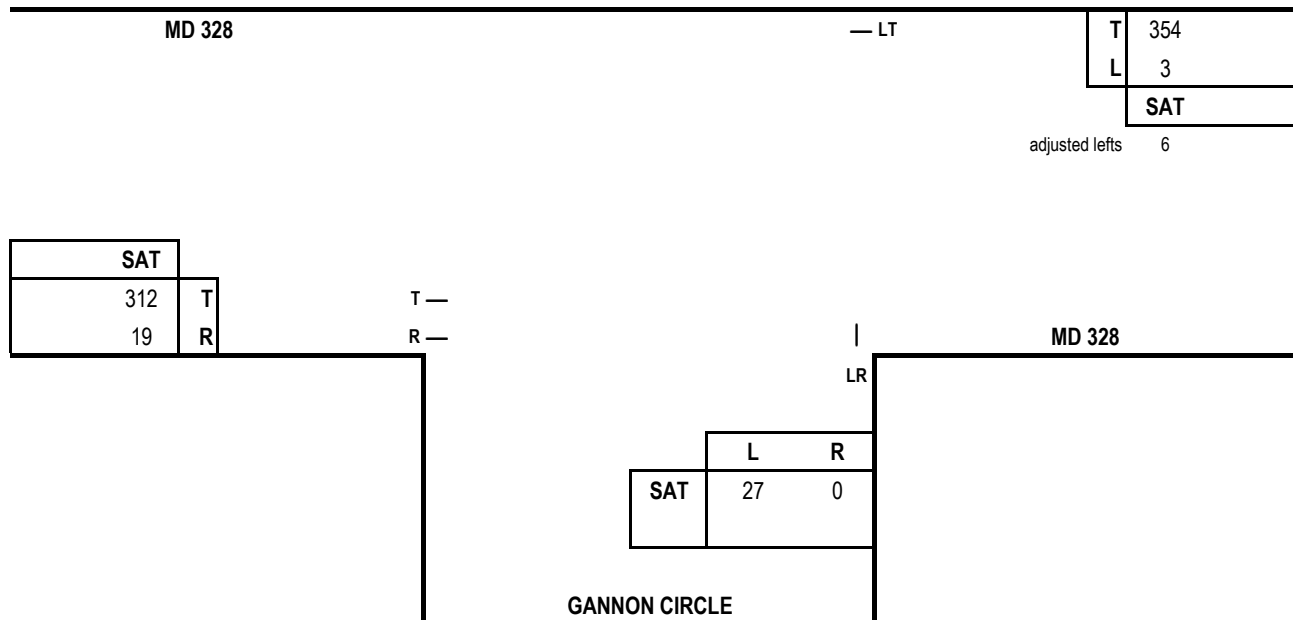
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	27	1.00	27				27
EB	312	1.00	312	3	1.00	3	360
WB	360	1.00	360				
CLV TOTAL=							387
Level of Service (LOS)=							A

Scenario ID - EXIST3

CLV V/C = 0.24

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

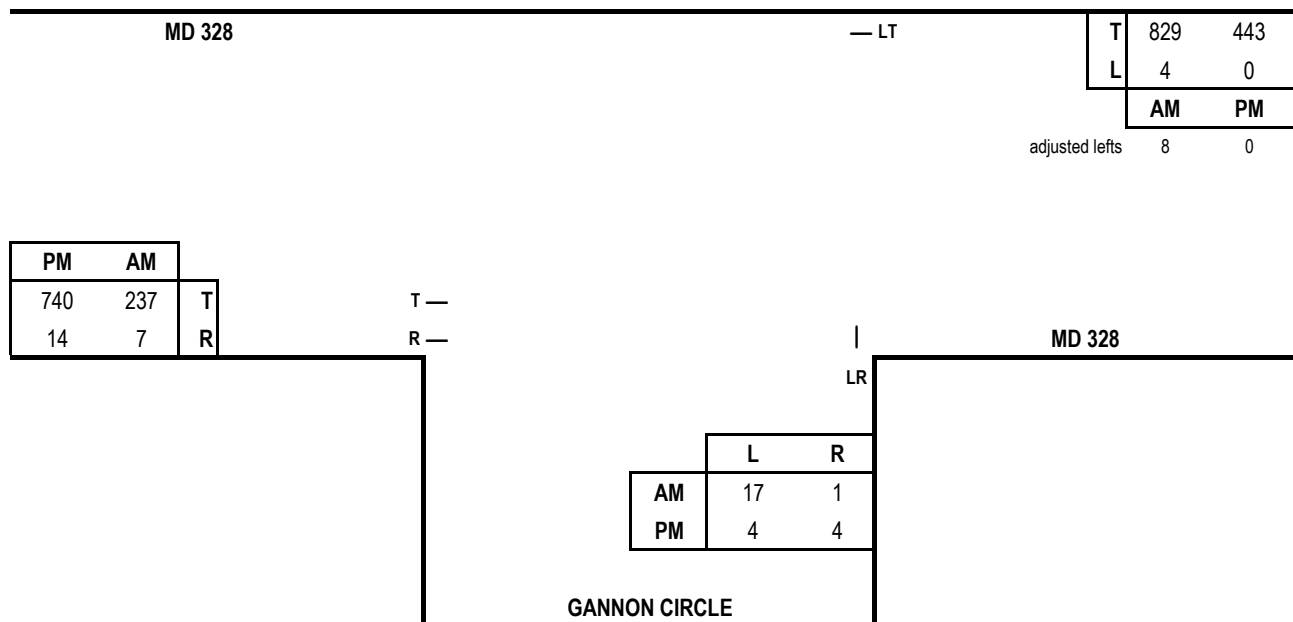
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:15 -5:15



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	18	1.00	18				18
EB	237	1.00	237	4	1.00	4	837
WB	837	1.00	837				
CLV TOTAL=							855
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	740	1.00	740	0	1.00	0	740
WB	443	1.00	443				
CLV TOTAL=							748
Level of Service (LOS)=							A

Scenario ID - BACK3

CLV V/C =0.53

CLV V/C =0.47

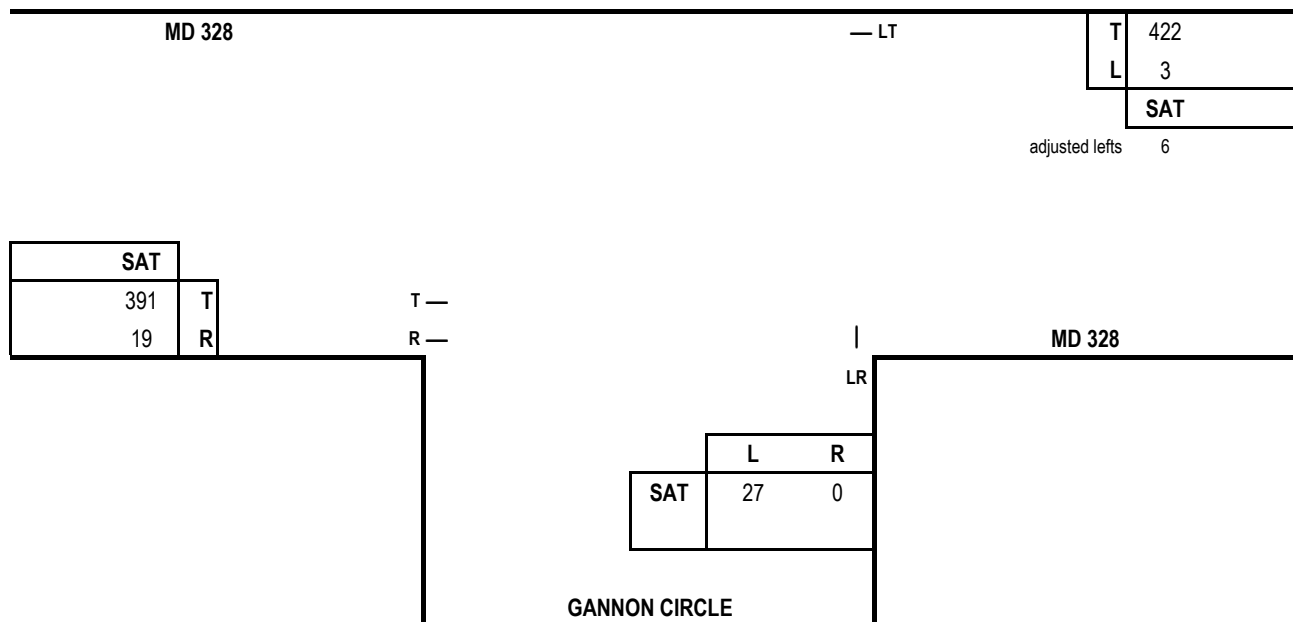
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Background Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	27	1.00	27				27
EB	391	1.00	391	3	1.00	3	428
WB	428	1.00	428				
CLV TOTAL=							455
Level of Service (LOS)=							A

Scenario ID - BACK3

CLV V/C =0.28

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

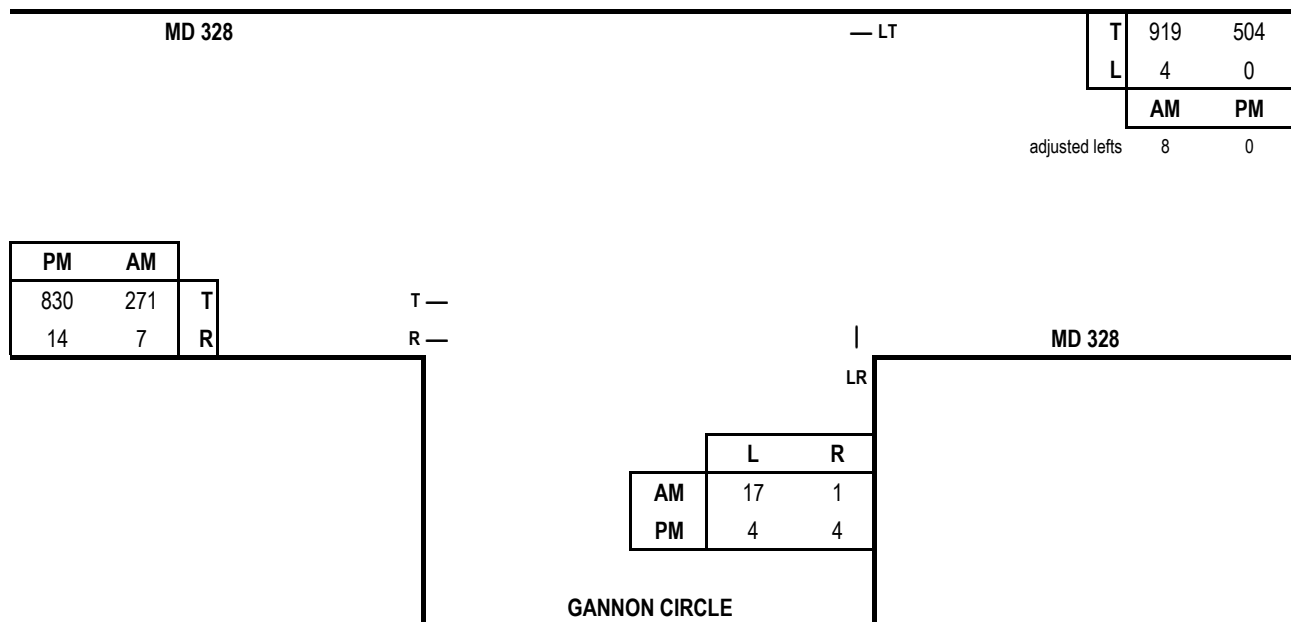
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:15 -5:15



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	18	1.00	18				18
EB	271	1.00	271	4	1.00	4	927
WB	927	1.00	927				
CLV TOTAL=							945
Level of Service (LOS)=							A

CLV V/C =0.59

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	830	1.00	830	0	1.00	0	830
WB	504	1.00	504				
CLV TOTAL=							838
Level of Service (LOS)=							A

CLV V/C =0.52

Scenario ID - TOT3

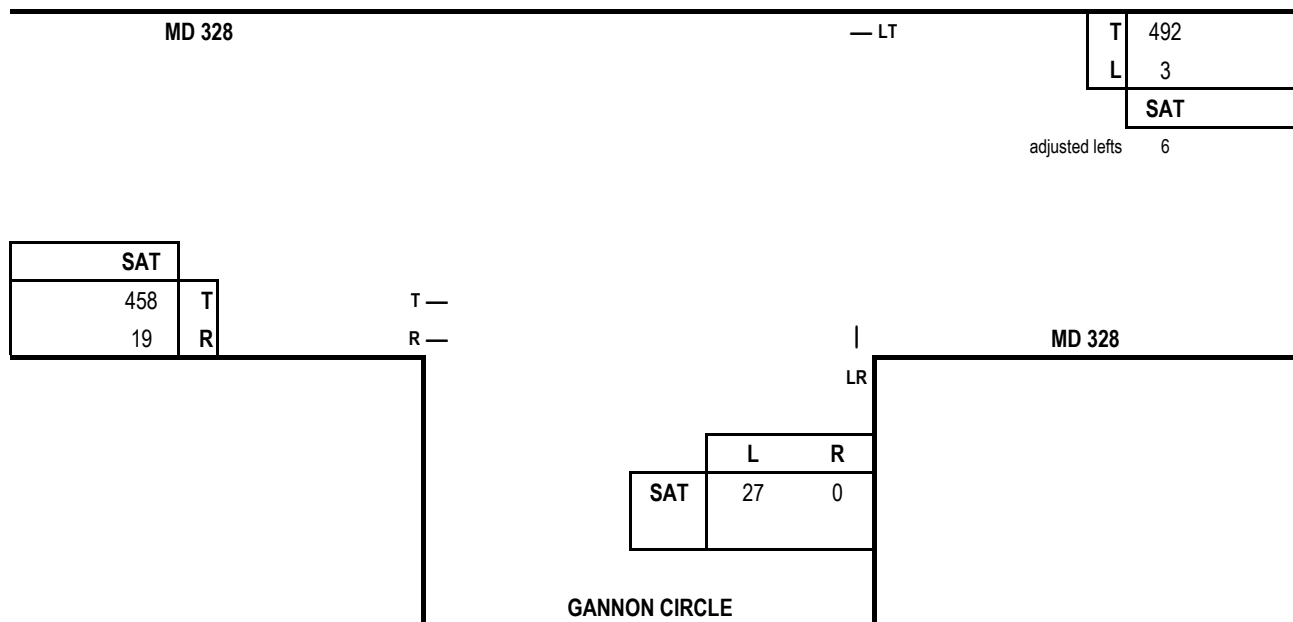
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	27	1.00	27				27
EB	458	1.00	458	3	1.00	3	498
WB	498	1.00	498				
CLV TOTAL=							525
Level of Service (LOS)=							A

Scenario ID - TOT3

CLV V/C =0.33

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

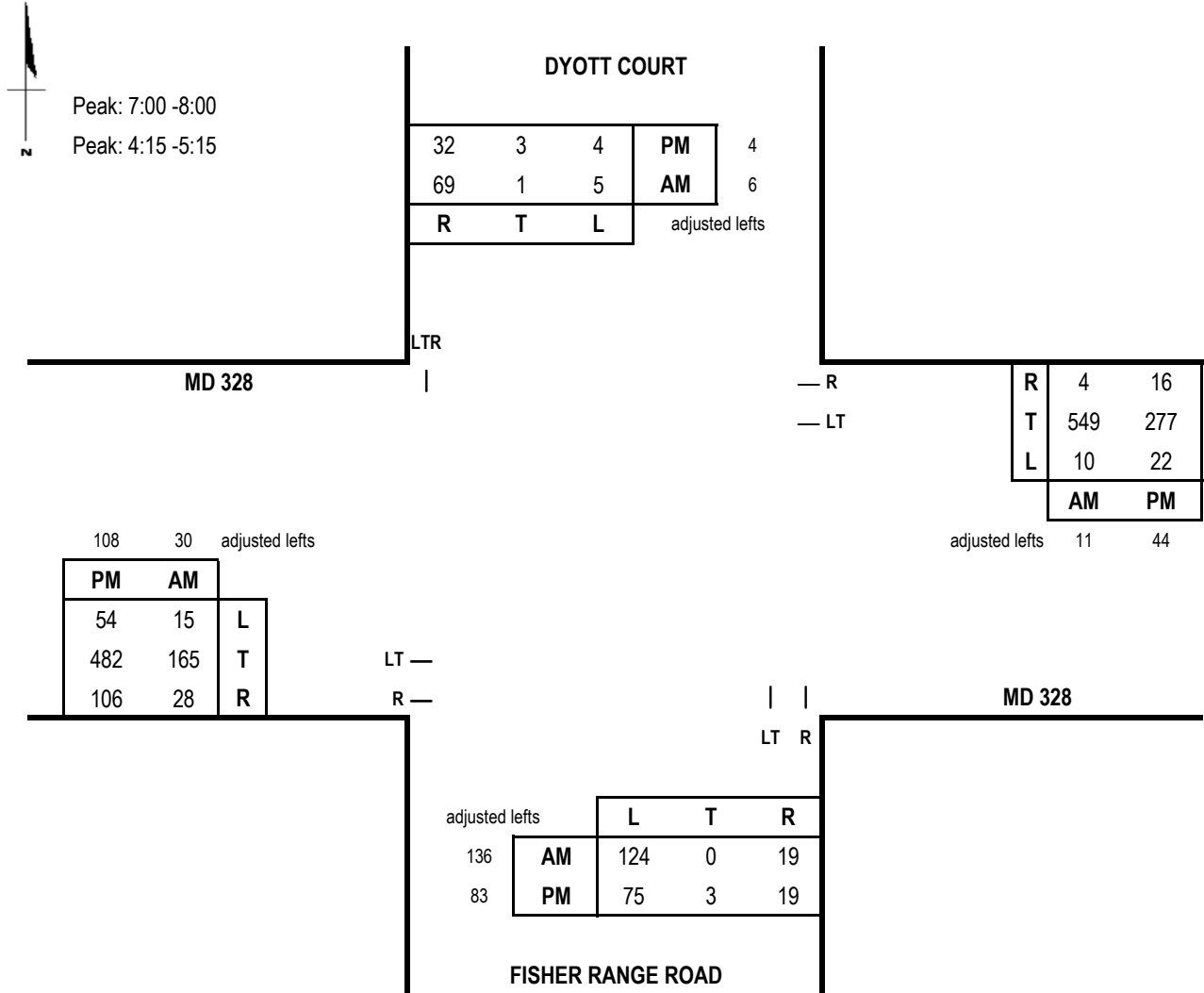
Date of Count: 6/9/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Thursday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	136	1.00	136	5	1.00	5
SB	76	1.00	76	124	1.00	124
EB	195	1.00	195	10	1.00	10
WB	560	1.00	560	15	1.00	15
CLV TOTAL=						775
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	86	1.00	86	4	1.00	4
SB	39	1.00	39	75	1.00	75
EB	590	1.00	590	22	1.00	22
WB	321	1.00	321	54	1.00	54
CLV TOTAL=						726
Level of Service (LOS)=						A

Scenario ID - EXIST4

AM V/C =0.48

PM V/C =0.45

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

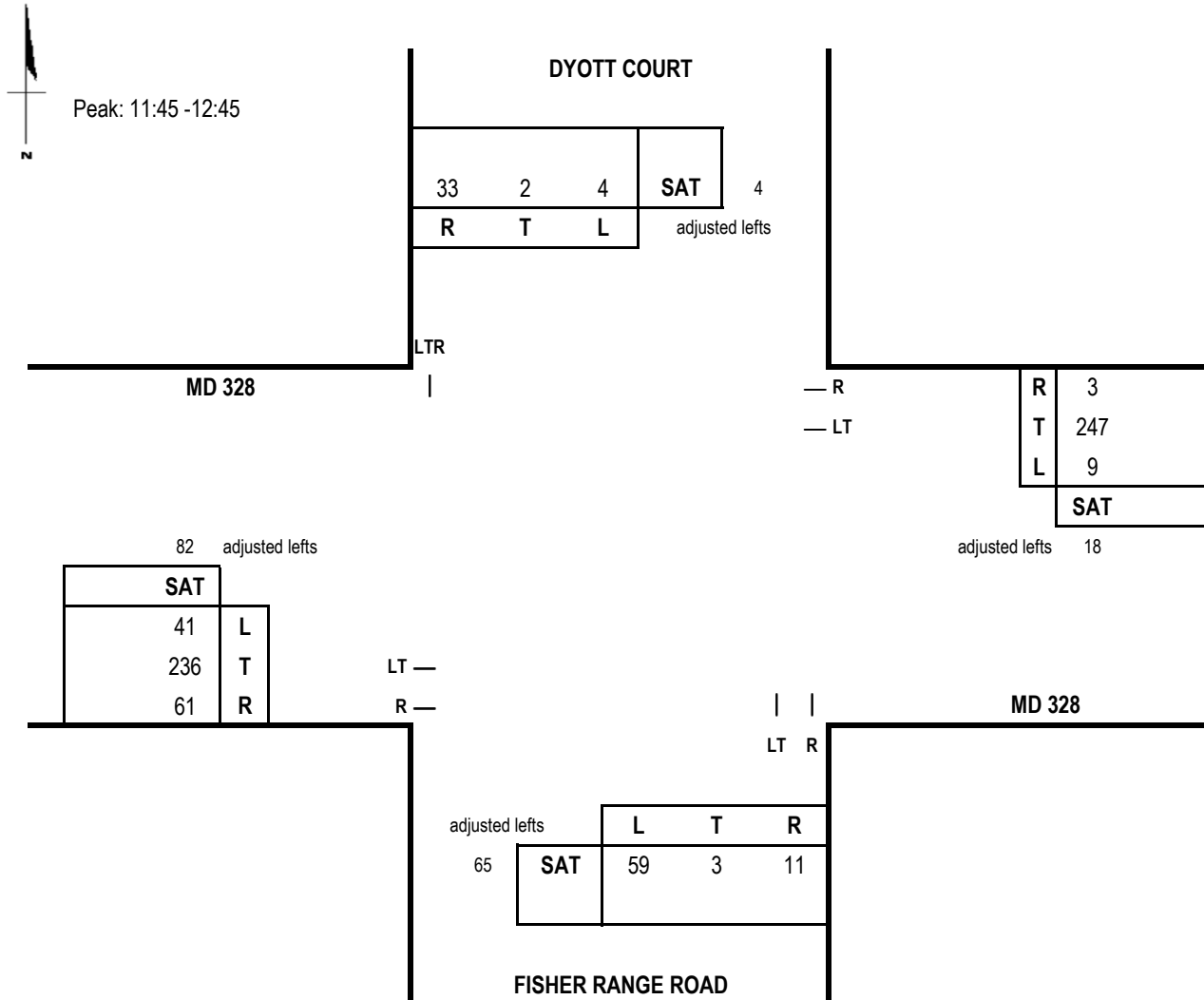
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	68	1.00	68	4	1.00	4	98
SB	39	1.00	39	59	1.00	59	
EB	318	1.00	318	9	1.00	9	327
WB	265	1.00	265	41	1.00	41	
CLV TOTAL=							425
Level of Service (LOS)=							A

Scenario ID - EXIST4

SAT V/C = 0.27

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

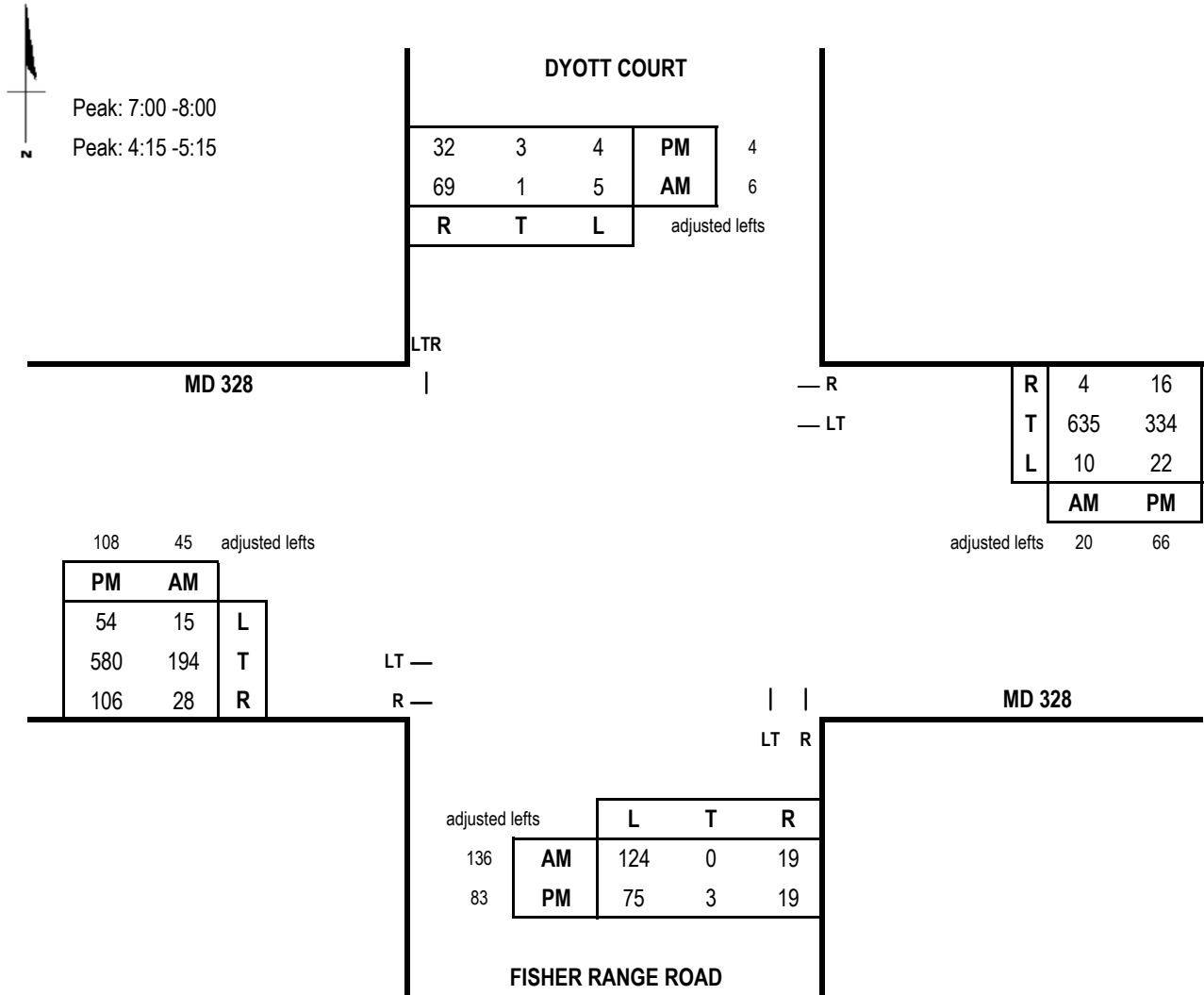
Date of Count: 6/9/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Thursday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	136	1.00	136	5	1.00	5
SB	76	1.00	76	124	1.00	124
EB	239	1.00	239	10	1.00	10
WB	655	1.00	655	15	1.00	15
CLV TOTAL=						870
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	86	1.00	86	4	1.00	4
SB	39	1.00	39	75	1.00	75
EB	688	1.00	688	22	1.00	22
WB	400	1.00	400	54	1.00	54
CLV TOTAL=						824
Level of Service (LOS)=						A

Scenario ID - BACK4

AM V/C =0.54

PM V/C =0.52

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

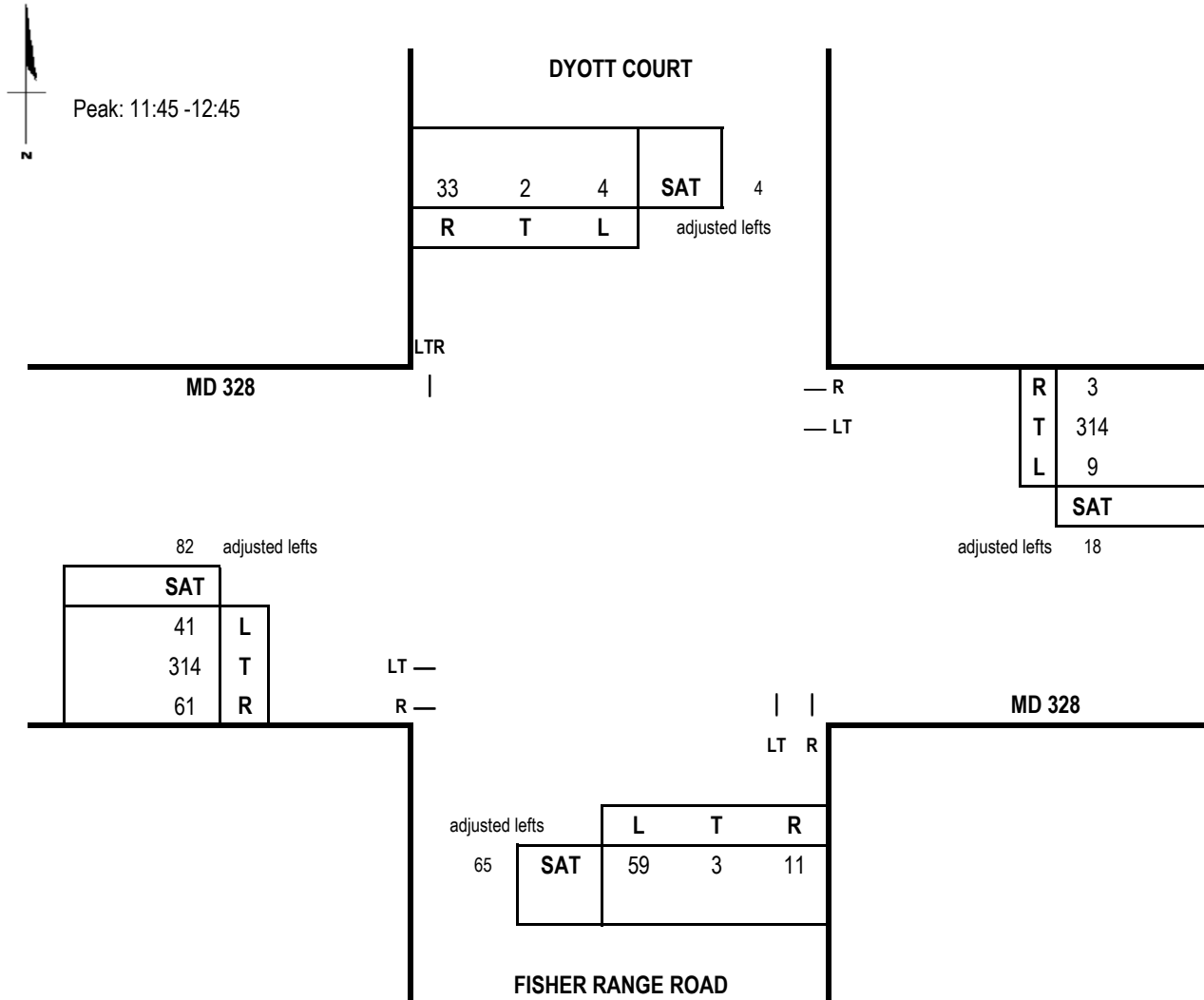
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	68	1.00	68	4	1.00	4	98
SB	39	1.00	39	59	1.00	59	
EB	396	1.00	396	9	1.00	9	405
WB	332	1.00	332	41	1.00	41	
CLV TOTAL=							503
Level of Service (LOS)=							A

Scenario ID - BACK4

SAT V/C = 0.31

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

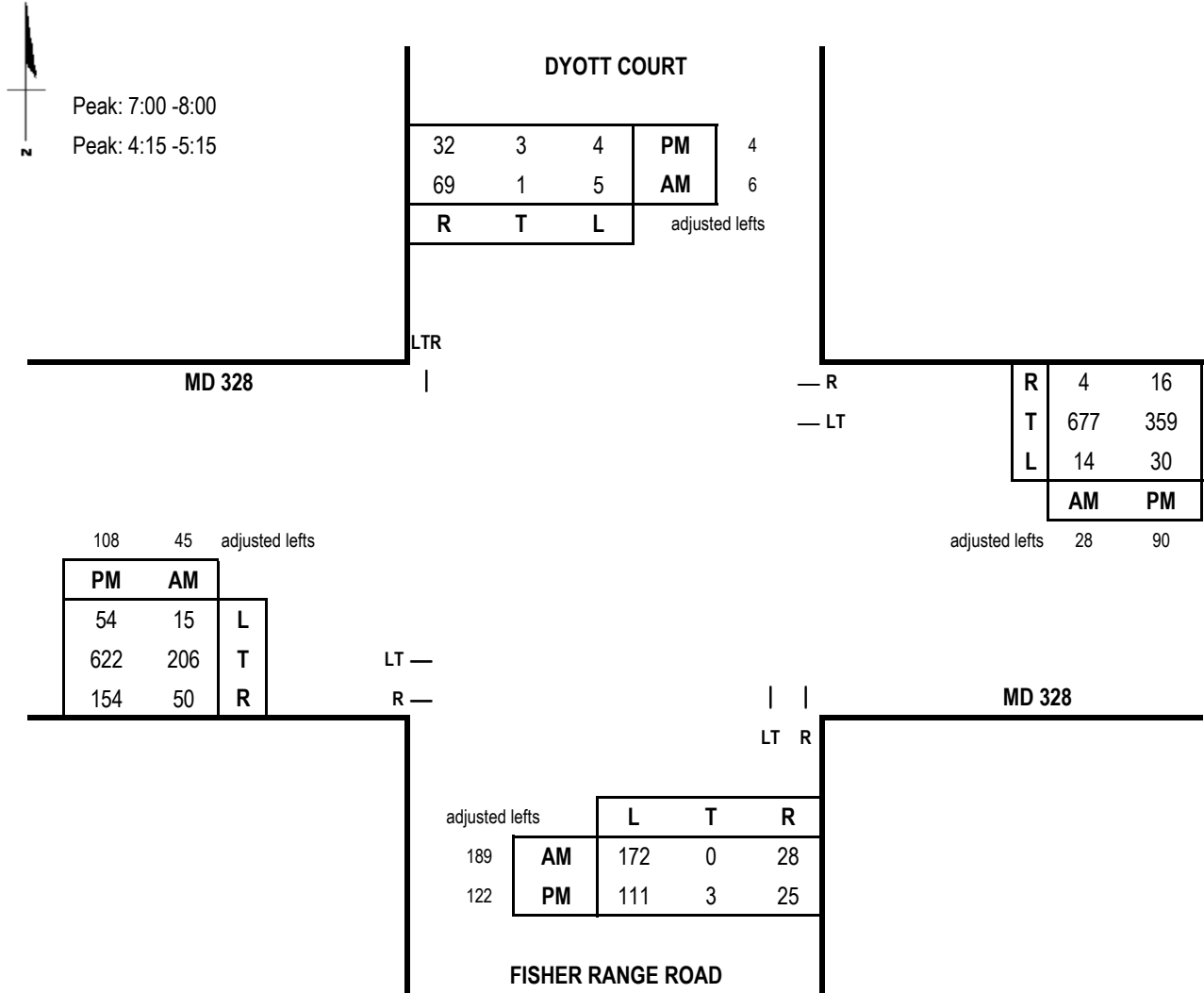
Date of Count: 6/9/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Thursday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	189	1.00	189	5	1.00	5	248
SB	76	1.00	76	172	1.00	172	
EB	251	1.00	251	14	1.00	14	720
WB	705	1.00	705	15	1.00	15	
CLV TOTAL=							968
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	125	1.00	125	4	1.00	4	150
SB	39	1.00	39	111	1.00	111	
EB	730	1.00	730	30	1.00	30	760
WB	449	1.00	449	54	1.00	54	
CLV TOTAL=							910
Level of Service (LOS)=							A

Scenario ID - TOT4

AM V/C =0.61

PM V/C =0.57

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

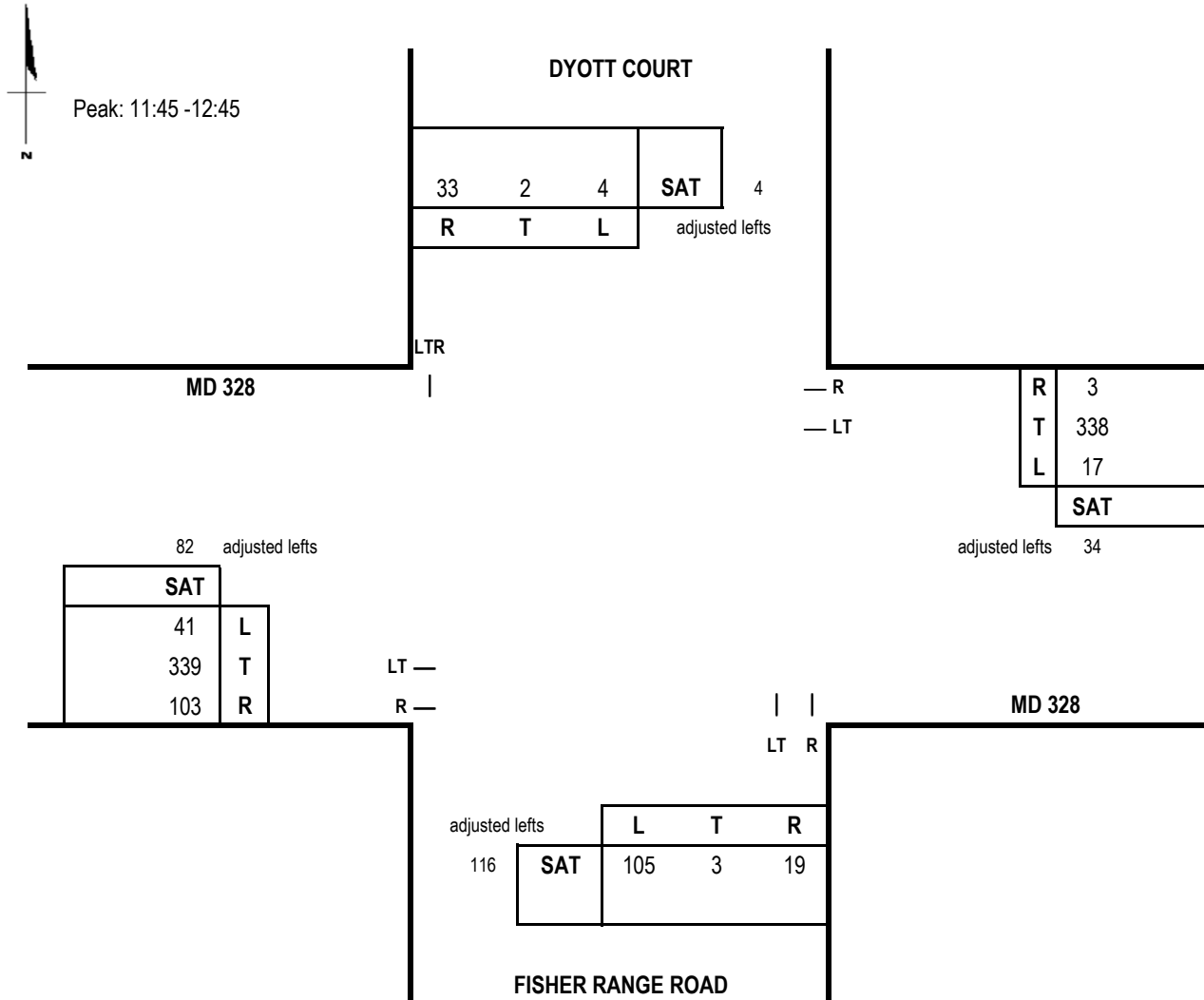
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	119	1.00	119	4	1.00	4	144
SB	39	1.00	39	105	1.00	105	
EB	421	1.00	421	17	1.00	17	438
WB	372	1.00	372	41	1.00	41	
CLV TOTAL=							582
Level of Service (LOS)=							A

Scenario ID - TOT4

SAT V/C = 0.36

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

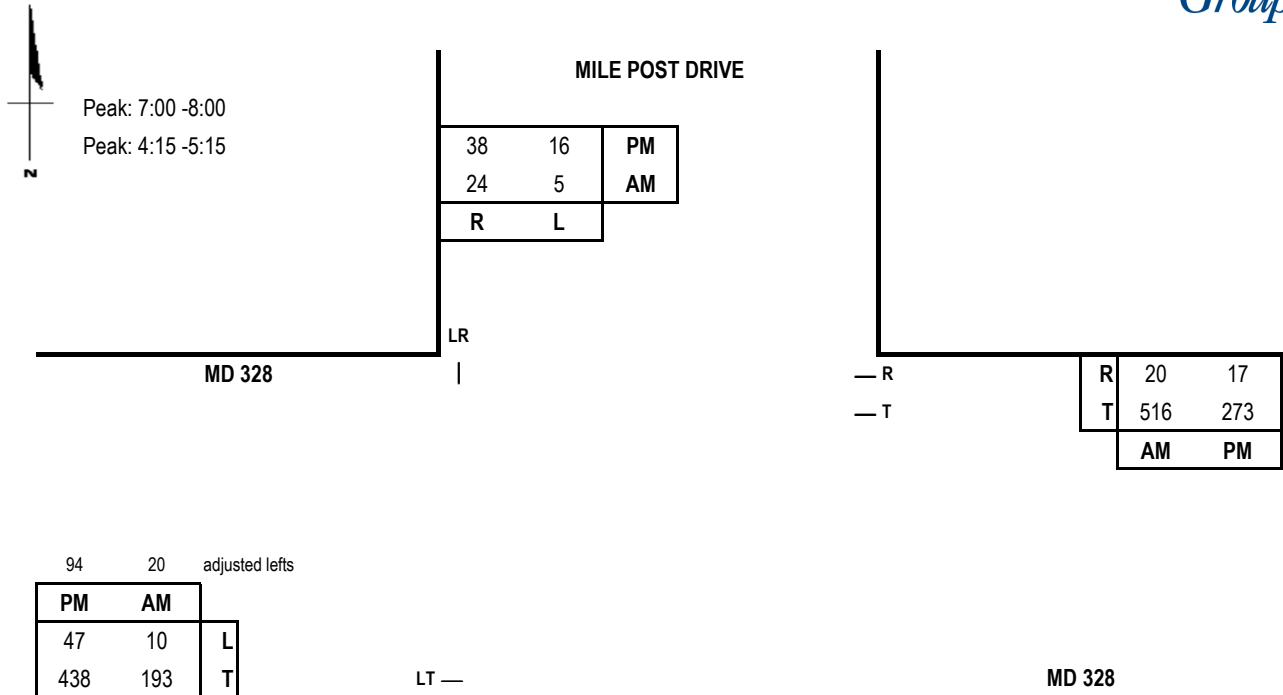
N/S Road: Mile Post Drive

Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022

Day of Count: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	29	1.00	29			
EB	213	1.00	213			
WB	516	1.00	516	10	1.00	10
CLV TOTAL=						555
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	54	1.00	54			
EB	532	1.00	532			
WB	273	1.00	273	47	1.00	47
CLV TOTAL=						586
Level of Service (LOS)=						A

Scenario ID - EXIST5

CLV V/C =0.35

CLV V/C =0.37

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

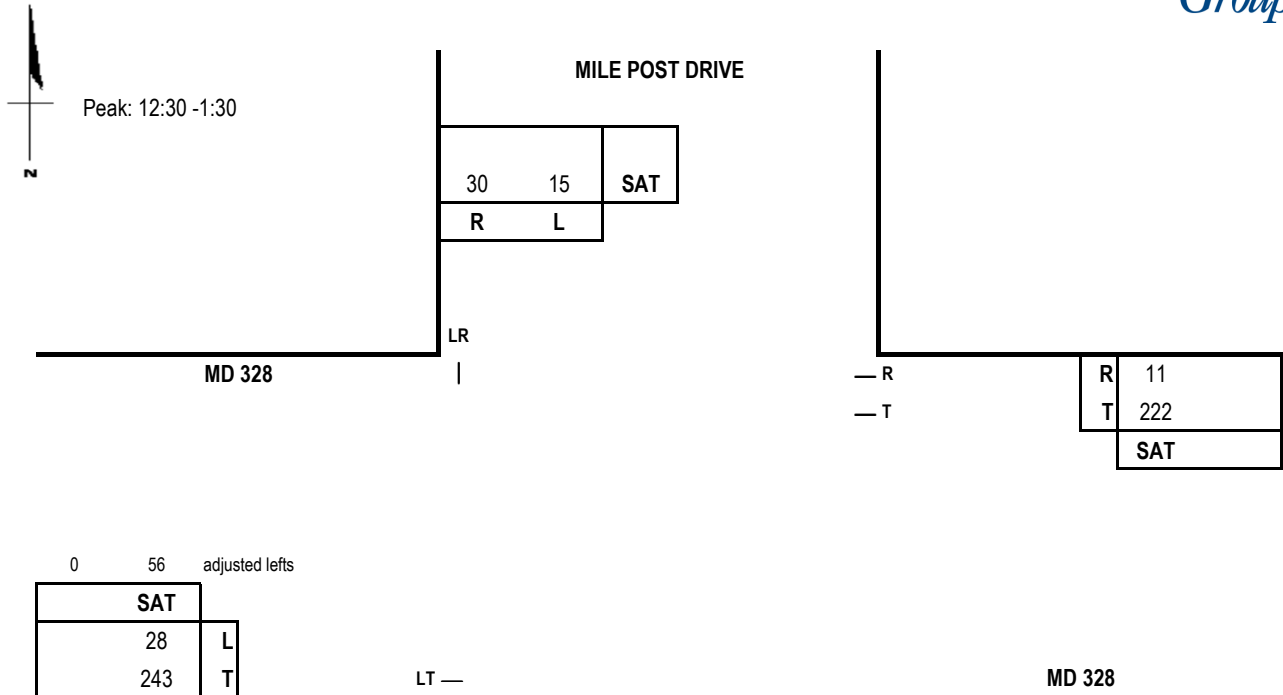
N/S Road: Mile Post Drive

Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	45	1.00	45			
EB	299	1.00	299			
WB	222	1.00	222	28	1.00	28
CLV TOTAL=						344
Level of Service (LOS)=						A

Scenario ID - EXIST5

CLV V/C =0.22

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

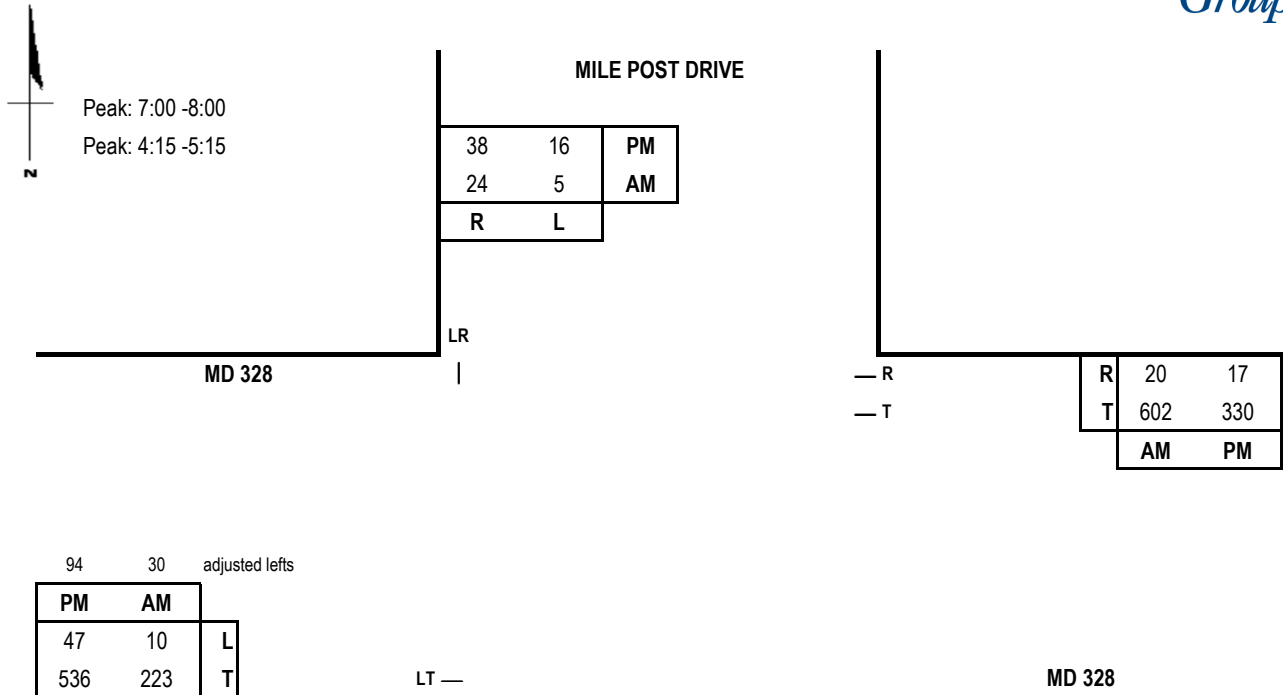
N/S Road: Mile Post Drive

Conditions: 2025 Background Traffic

Date of Count: 6/9/2022

Day of Count: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	29	1.00	29			
EB	253	1.00	253			
WB	602	1.00	602	10	1.00	10
CLV TOTAL=						641
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	54	1.00	54			
EB	630	1.00	630			
WB	330	1.00	330	47	1.00	47
CLV TOTAL=						684
Level of Service (LOS)=						A

Scenario ID - BACK5

CLV V/C =0.4

CLV V/C =0.43

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

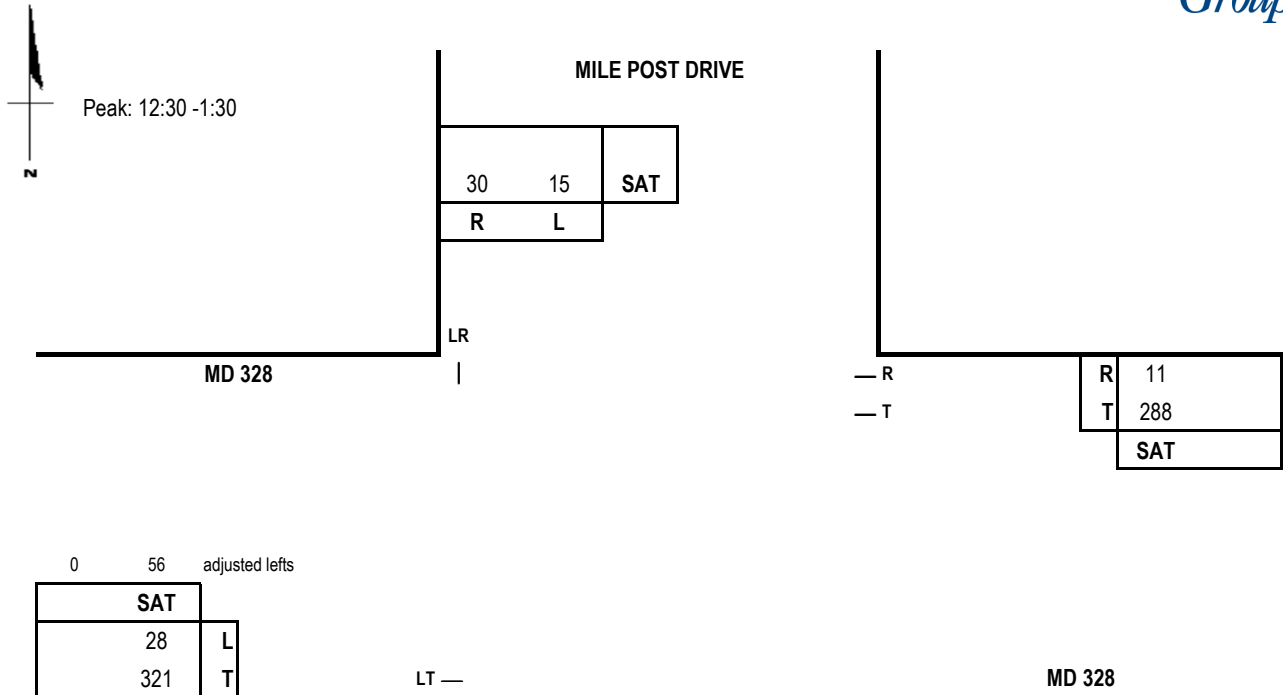
N/S Road: Mile Post Drive

Conditions: 2025 Background Traffic

Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
SB	45	1.00	45				45
EB	377	1.00	377				377
WB	288	1.00	288	28	1.00	28	
CLV TOTAL=							422
Level of Service (LOS) =							A

Scenario ID - BACK5

CLV V/C =0.26

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

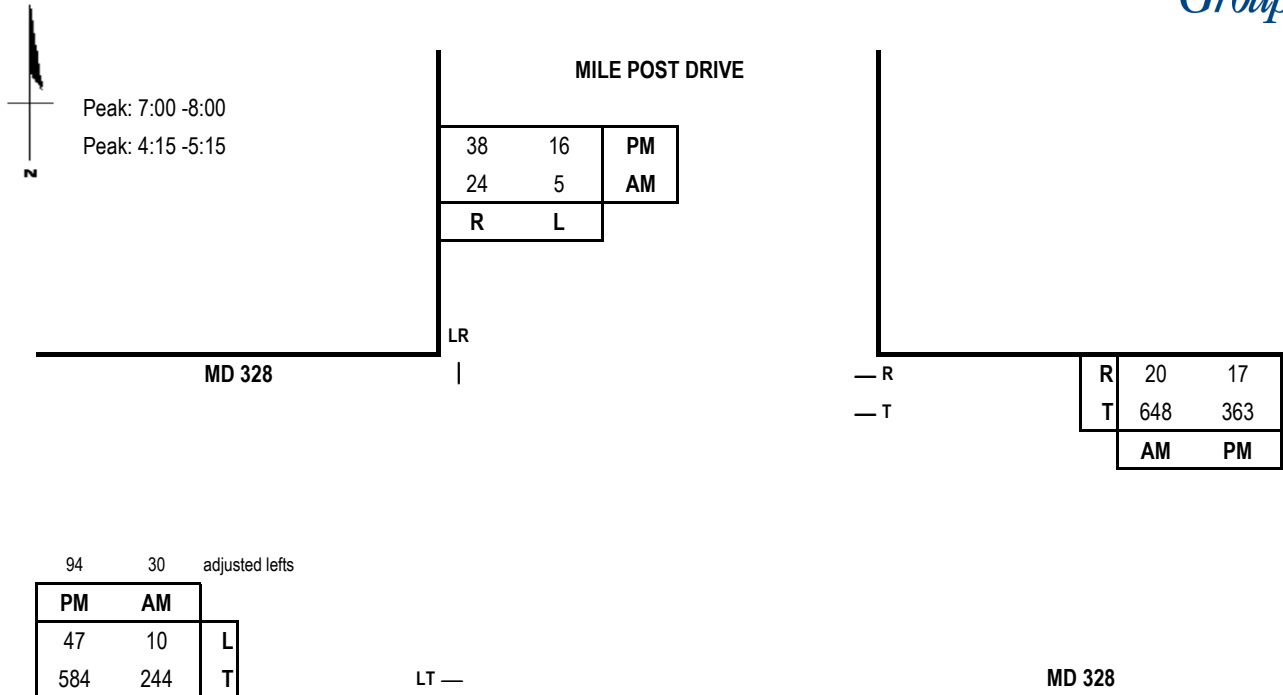
N/S Road: Mile Post Drive

Conditions: 2025 Total Traffic

Date of Count: 6/9/2022

Day of Count: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	29	1.00	29			
EB	274	1.00	274			
WB	648	1.00	648	10	1.00	10
CLV TOTAL=						687
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	54	1.00	54			
EB	678	1.00	678			
WB	363	1.00	363	47	1.00	47
CLV TOTAL=						732
Level of Service (LOS)=						A

Scenario ID - TOT5

CLV V/C =0.43

CLV V/C =0.46

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

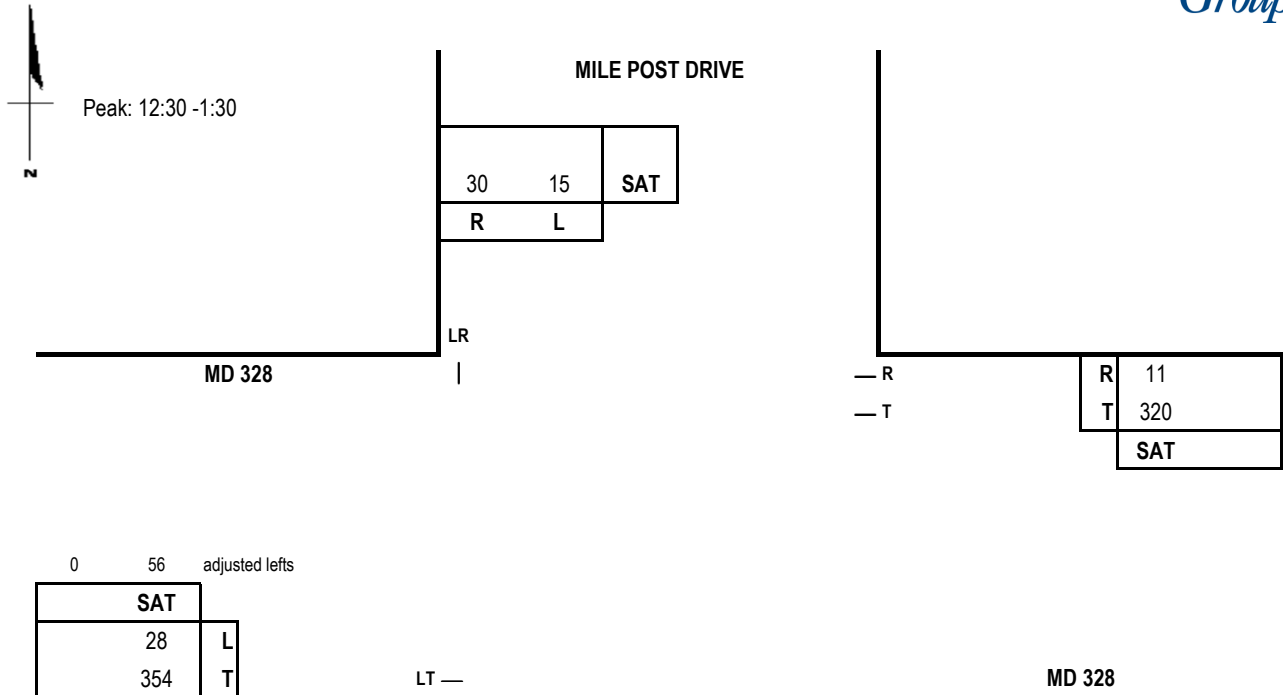
N/S Road: Mile Post Drive

Conditions: 2025 Total Traffic

Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	45	1.00	45			
EB	410	1.00	410			
WB	320	1.00	320	28	1.00	28
CLV TOTAL=						455
Level of Service (LOS)=						A

Scenario ID - TOT5

CLV V/C =0.28

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

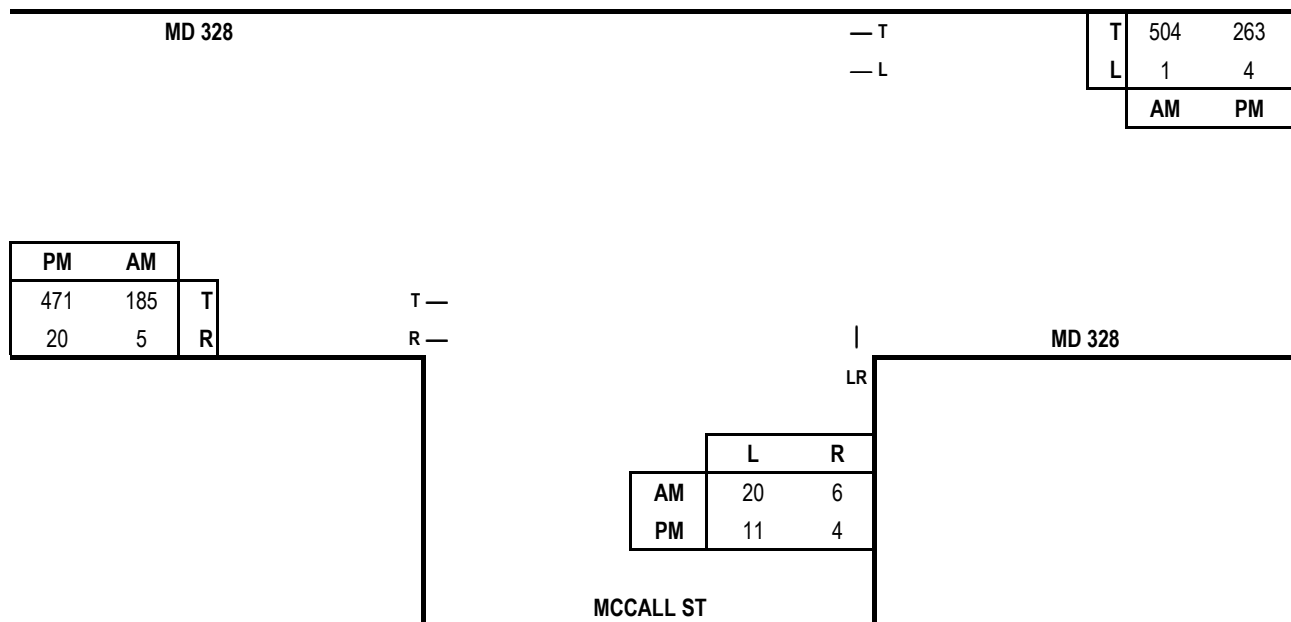
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	26	1.00	26				26
EB	185	1.00	185	1	1.00	1	504
WB	504	1.00	504				
CLV TOTAL=							530
Level of Service (LOS)=							A

CLV V/C =0.33

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	15	1.00	15				15
EB	471	1.00	471	4	1.00	4	475
WB	263	1.00	263				
CLV TOTAL=							490
Level of Service (LOS)=							A

CLV V/C =0.31

Scenario ID - EXIST6

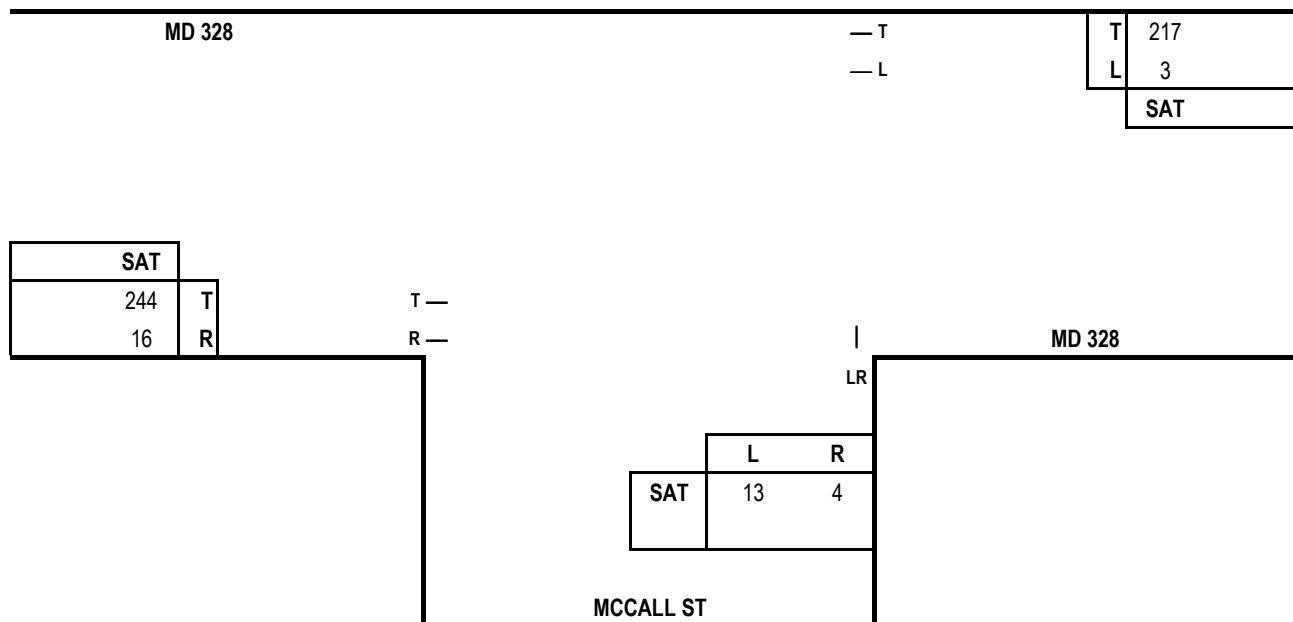
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: McCall St
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	17	1.00	17				17
EB	244	1.00	244	3	1.00	3	247
WB	217	1.00	217				
CLV TOTAL=							264
Level of Service (LOS)=							A

Scenario ID - EXIST6

CLV V/C =0.17

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

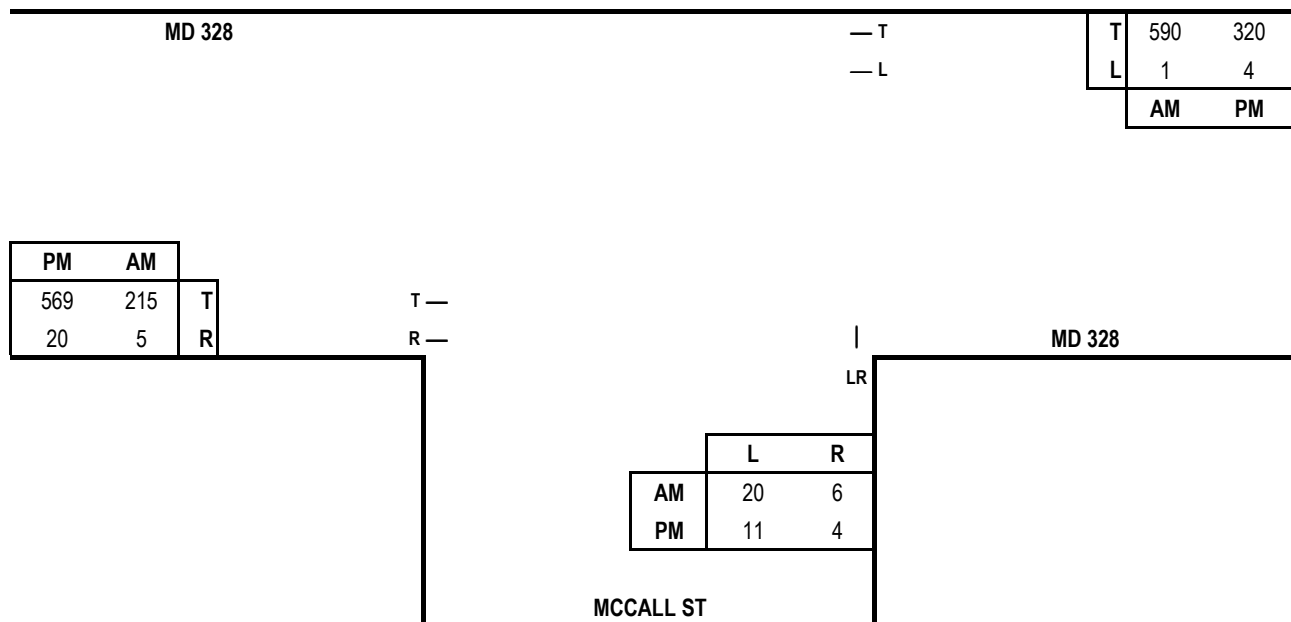
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	26	1.00	26				26
EB	215	1.00	215	1	1.00	1	590
WB	590	1.00	590				
CLV TOTAL=							616
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	15	1.00	15				15
EB	569	1.00	569	4	1.00	4	573
WB	320	1.00	320				
CLV TOTAL=							588
Level of Service (LOS)=							A

Scenario ID - BACK6

CLV V/C =0.39

CLV V/C =0.37

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

N/S Road: McCall St

Conditions: 2025 Background Traffic

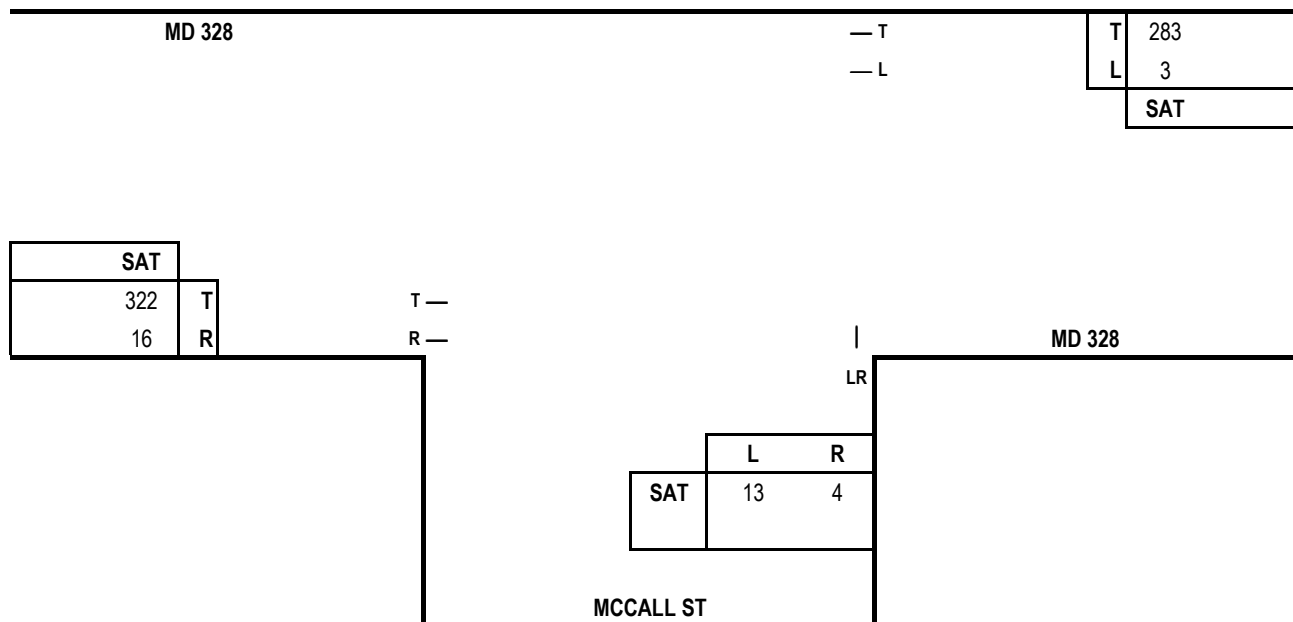
Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	17	1.00	17				17
EB	322	1.00	322	3	1.00	3	325
WB	283	1.00	283				
CLV TOTAL=							342
Level of Service (LOS)=							A

Scenario ID - BACK6

CLV V/C =0.21

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

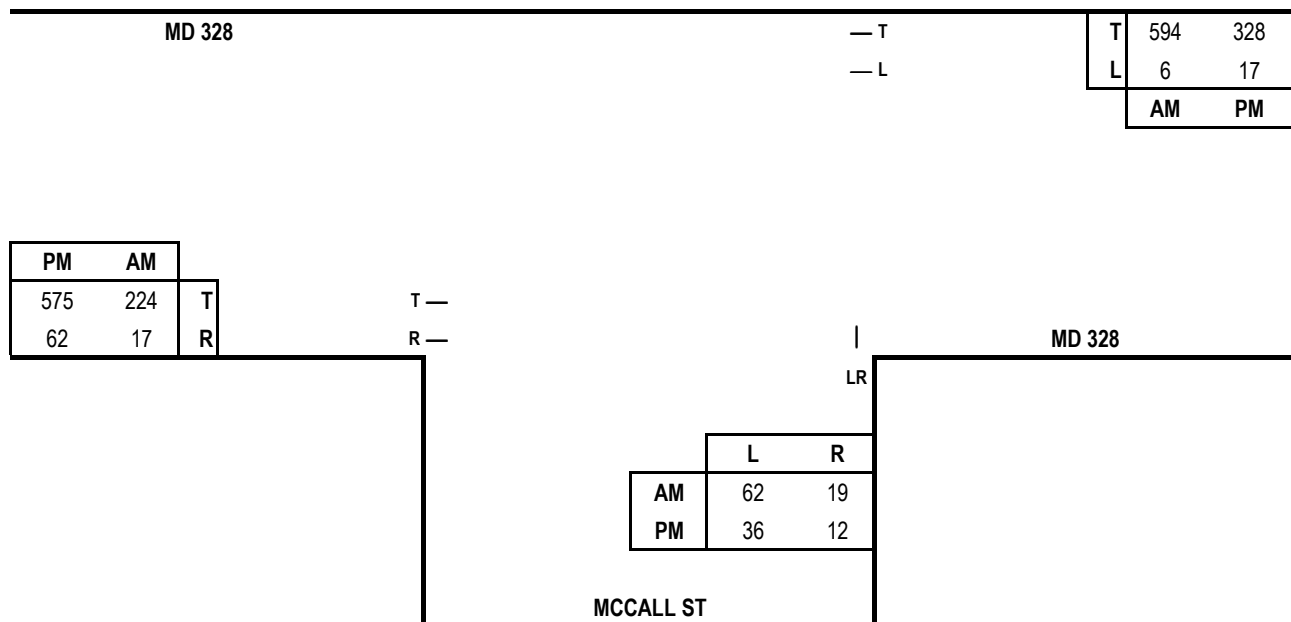
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	81	1.00	81				81
EB	224	1.00	224	6	1.00	6	594
WB	594	1.00	594				
CLV TOTAL=							675
Level of Service (LOS)=							A

CLV V/C =0.42

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	48	1.00	48				48
EB	575	1.00	575	17	1.00	17	592
WB	328	1.00	328				
CLV TOTAL=							640
Level of Service (LOS)=							A

CLV V/C =0.4

Scenario ID - TOT6

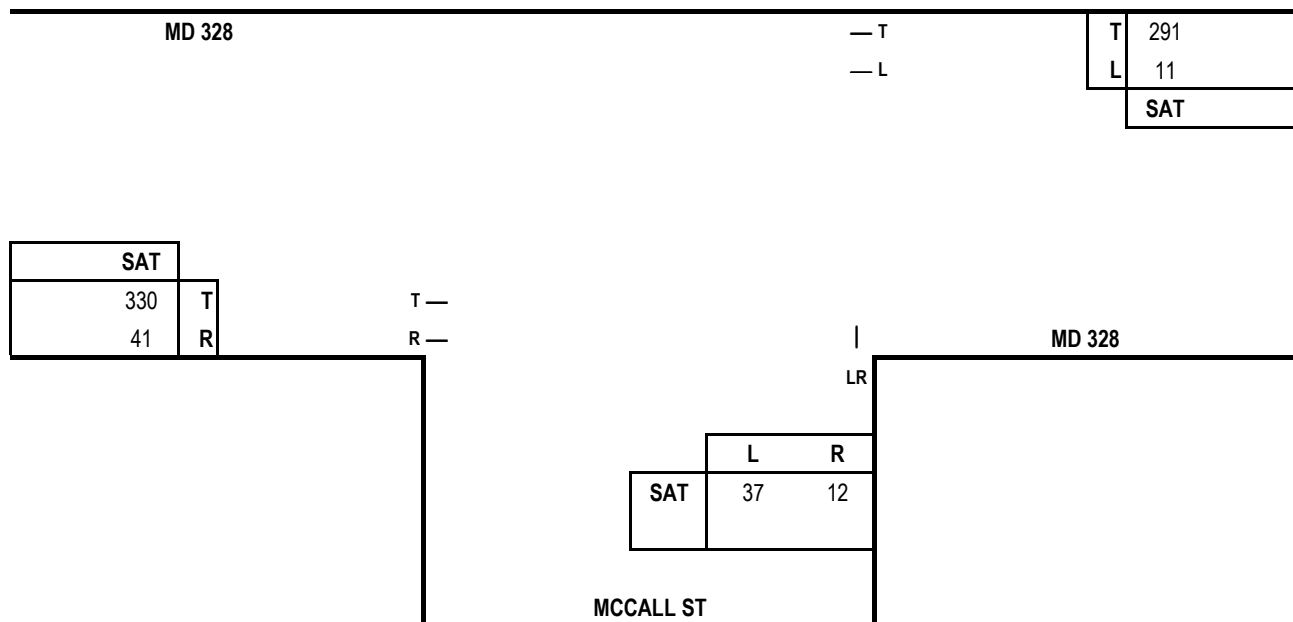
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	49	1.00	49				49
EB	330	1.00	330	11	1.00	11	341
WB	291	1.00	291				
CLV TOTAL=							390
Level of Service (LOS)=							A

Scenario ID - TOT6

CLV V/C =0.24

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

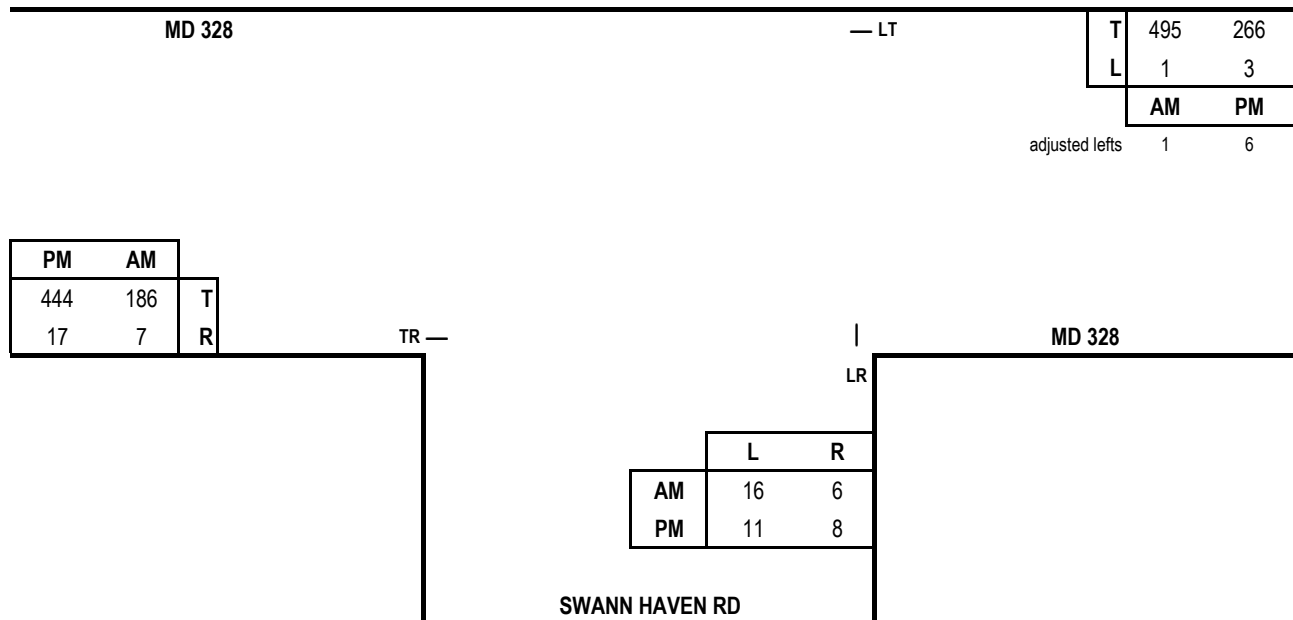
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:15 -5:15



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	22	1.00	22				22
EB	193	1.00	193	1	1.00	1	496
WB	496	1.00	496				
CLV TOTAL=							518
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	19	1.00	19				19
EB	461	1.00	461	3	1.00	3	464
WB	272	1.00	272				
CLV TOTAL=							483
Level of Service (LOS)=							A

Scenario ID - EXIST7

CLV V/C =0.32

CLV V/C =0.3

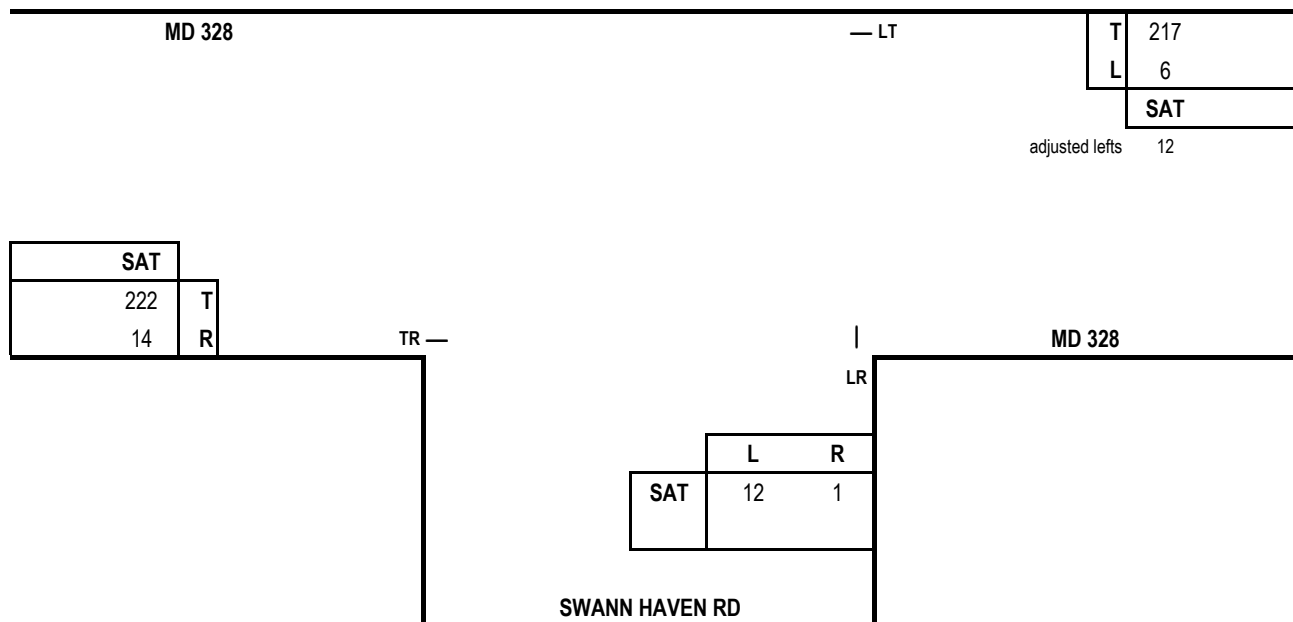
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:45 -12:45



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	13	1.00	13				13
EB	236	1.00	236	6	1.00	6	242
WB	229	1.00	229				
CLV TOTAL=							255
Level of Service (LOS)=							A

Scenario ID - EXIST7

CLV V/C =0.16

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

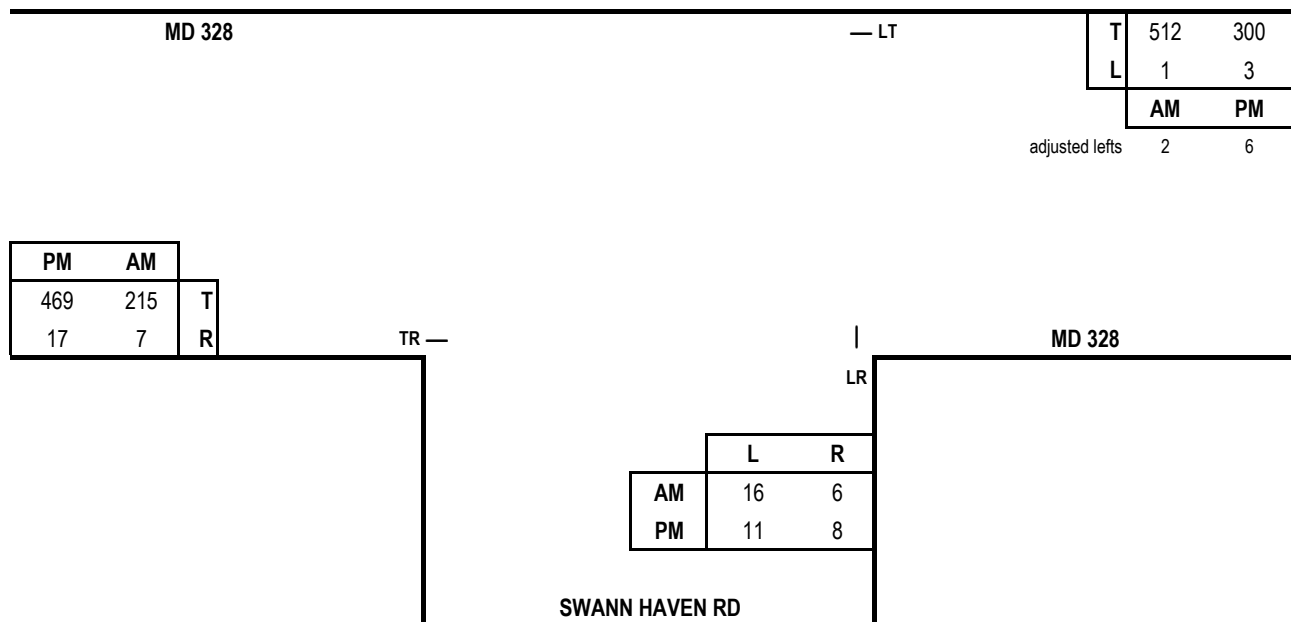
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:15 -5:15



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	22	1.00	22				22
EB	222	1.00	222	1	1.00	1	514
WB	514	1.00	514				
CLV TOTAL=							536
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	19	1.00	19				19
EB	486	1.00	486	3	1.00	3	489
WB	306	1.00	306				
CLV TOTAL=							508
Level of Service (LOS)=							A

Scenario ID - BACK7

CLV V/C =0.34

CLV V/C =0.32

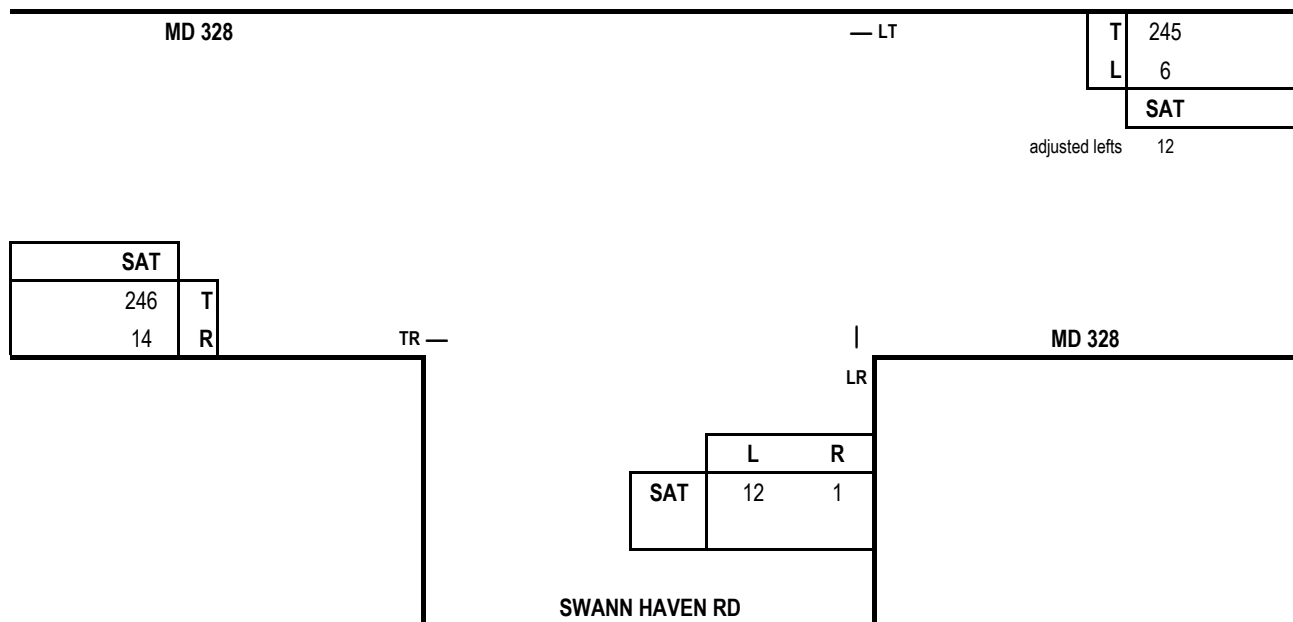
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Background Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:45 -12:45



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	13	1.00	13				13
EB	260	1.00	260	6	1.00	6	266
WB	257	1.00	257				
CLV TOTAL=							279
Level of Service (LOS)=							A

Scenario ID - BACK7

CLV V/C =0.17

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

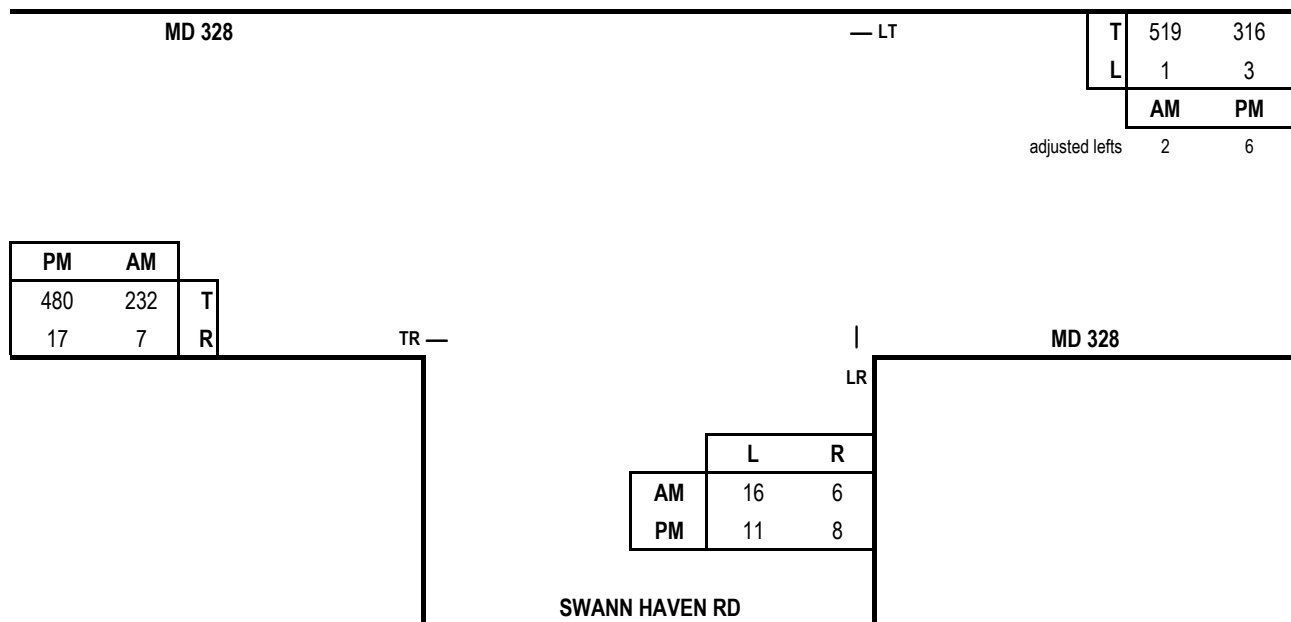
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:15 -5:15



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	22	1.00	22				22
EB	239	1.00	239	1	1.00	1	521
WB	521	1.00	521				
CLV TOTAL=							543
Level of Service (LOS)=							A

CLV V/C =0.34

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	19	1.00	19				19
EB	497	1.00	497	3	1.00	3	500
WB	322	1.00	322				
CLV TOTAL=							519
Level of Service (LOS)=							A

CLV V/C =0.32

Scenario ID - TOT7

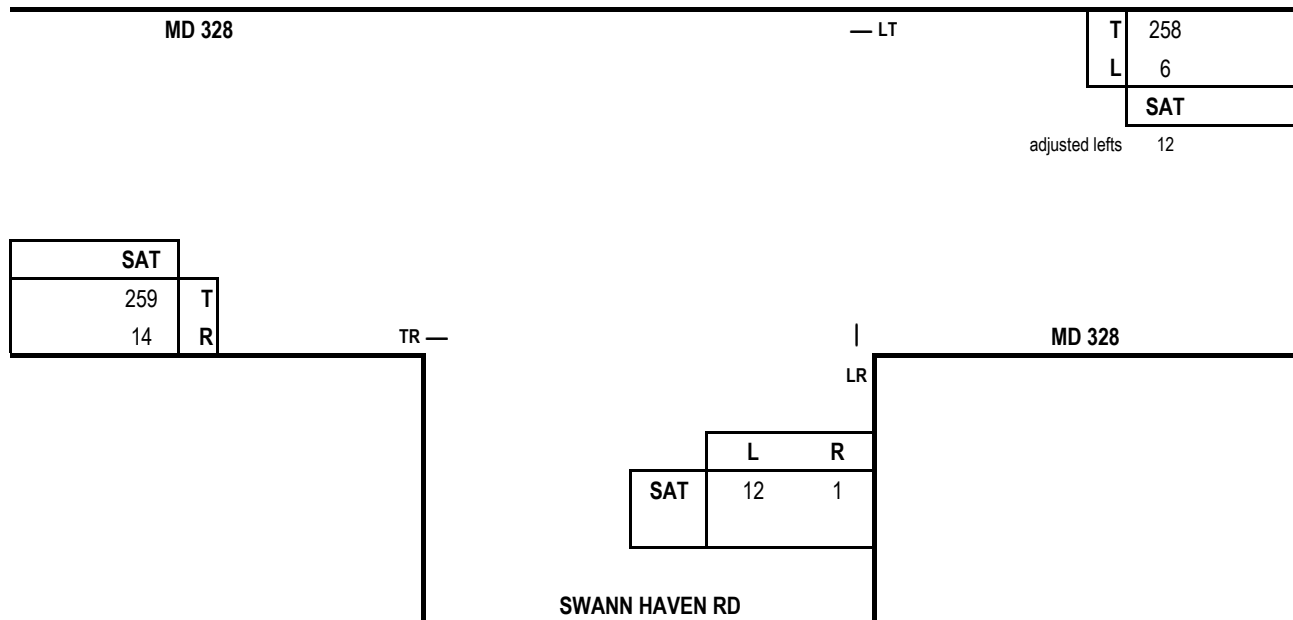
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:45 -12:45



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	13	1.00	13				13
EB	273	1.00	273	6	1.00	6	279
WB	270	1.00	270				
CLV TOTAL=							292
Level of Service (LOS)=							A

Scenario ID - TOT7

CLV V/C =0.18

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

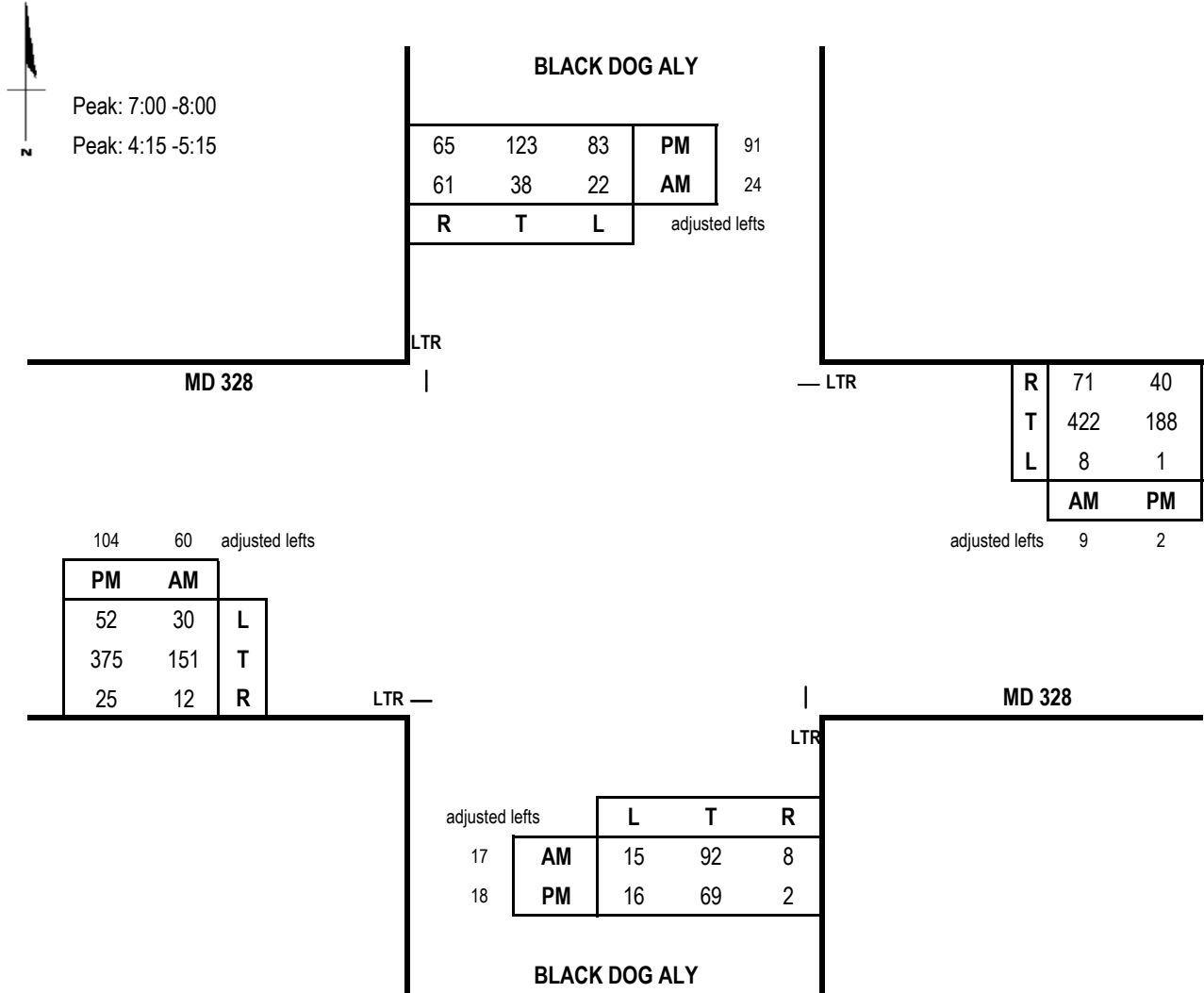
Date of Count: 6/9/2022

N/S Road: Black Dog Aly

Day of Count: Thursday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	117	1.00	117	22	1.00	22	139
SB	123	1.00	123	15	1.00	15	
EB	223	1.00	223	8	1.00	8	532
WB	502	1.00	502	30	1.00	30	
CLV TOTAL=							671
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	89	1.00	89	83	1.00	83	295
SB	279	1.00	279	16	1.00	16	
EB	504	1.00	504	1	1.00	1	505
WB	230	1.00	230	52	1.00	52	
CLV TOTAL=							800
Level of Service (LOS)=							A

Scenario ID - EXIST8

AM V/C =0.42

PM V/C =0.5

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

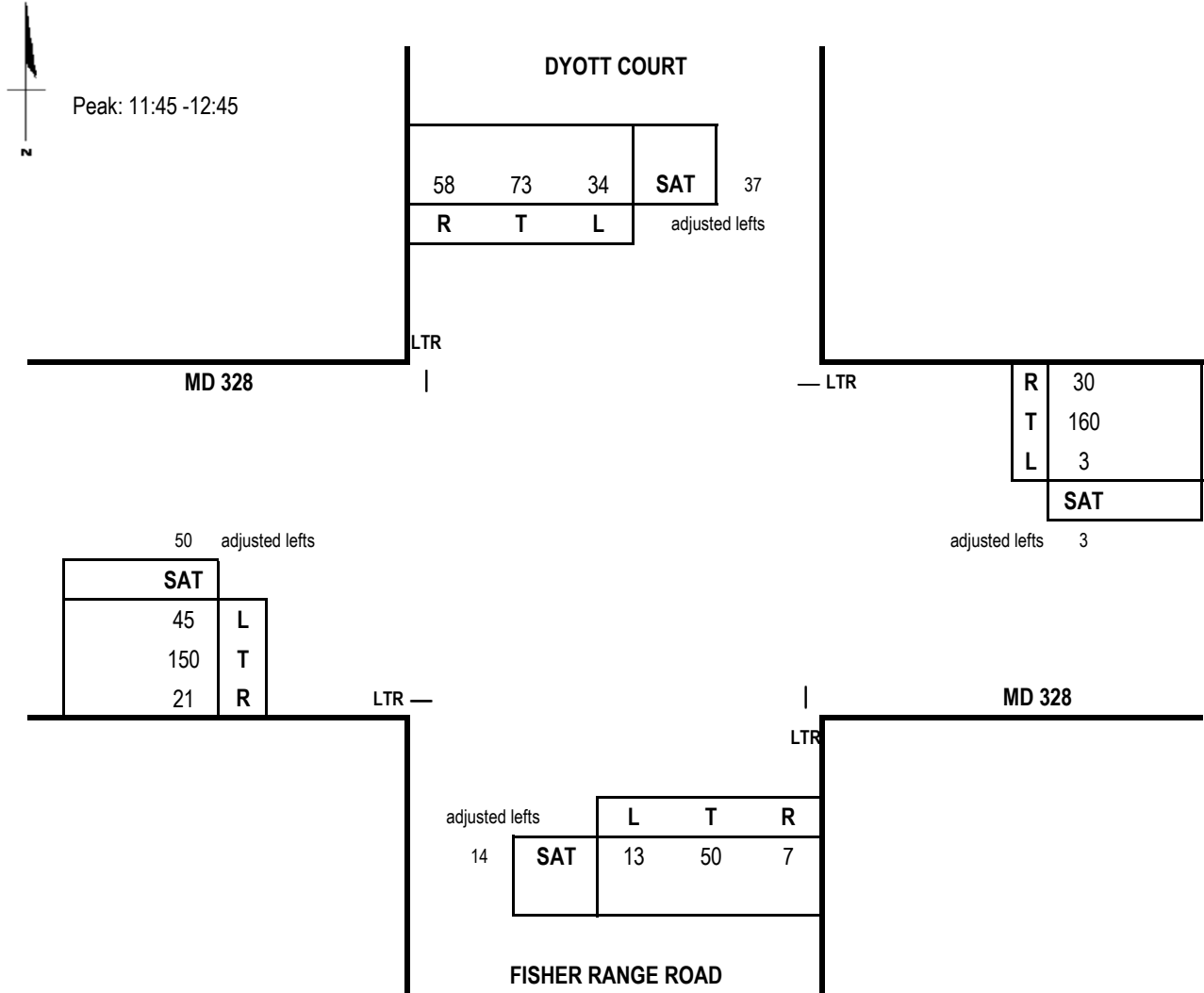
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	71	1.00	71	34	1.00	34	181
SB	168	1.00	168	13	1.00	13	
EB	221	1.00	221	3	1.00	3	238
WB	193	1.00	193	45	1.00	45	
CLV TOTAL=							419
Level of Service (LOS)=							A

Scenario ID - EXIST8

SAT V/C = 0.26

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

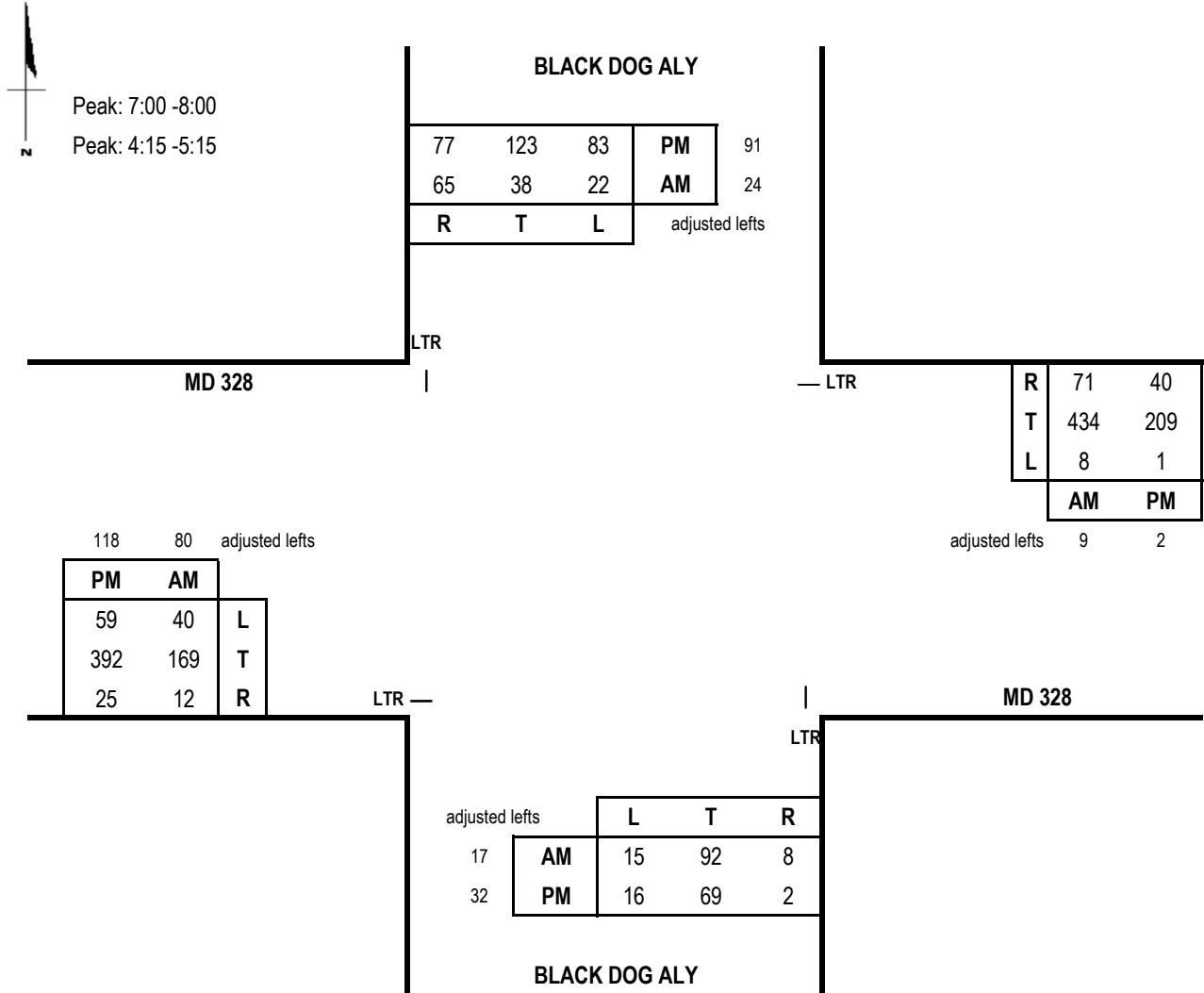
Date of Count: 6/9/2022

N/S Road: Black Dog Aly

Day of Count: Thursday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	117	1.00	117	22	1.00	22	142
SB	127	1.00	127	15	1.00	15	
EB	261	1.00	261	8	1.00	8	554
WB	514	1.00	514	40	1.00	40	
CLV TOTAL=							696
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	103	1.00	103	83	1.00	83	307
SB	291	1.00	291	16	1.00	16	
EB	535	1.00	535	1	1.00	1	536
WB	251	1.00	251	59	1.00	59	
CLV TOTAL=							843
Level of Service (LOS)=							A

Scenario ID - BACK8

AM V/C =0.44

PM V/C =0.53

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

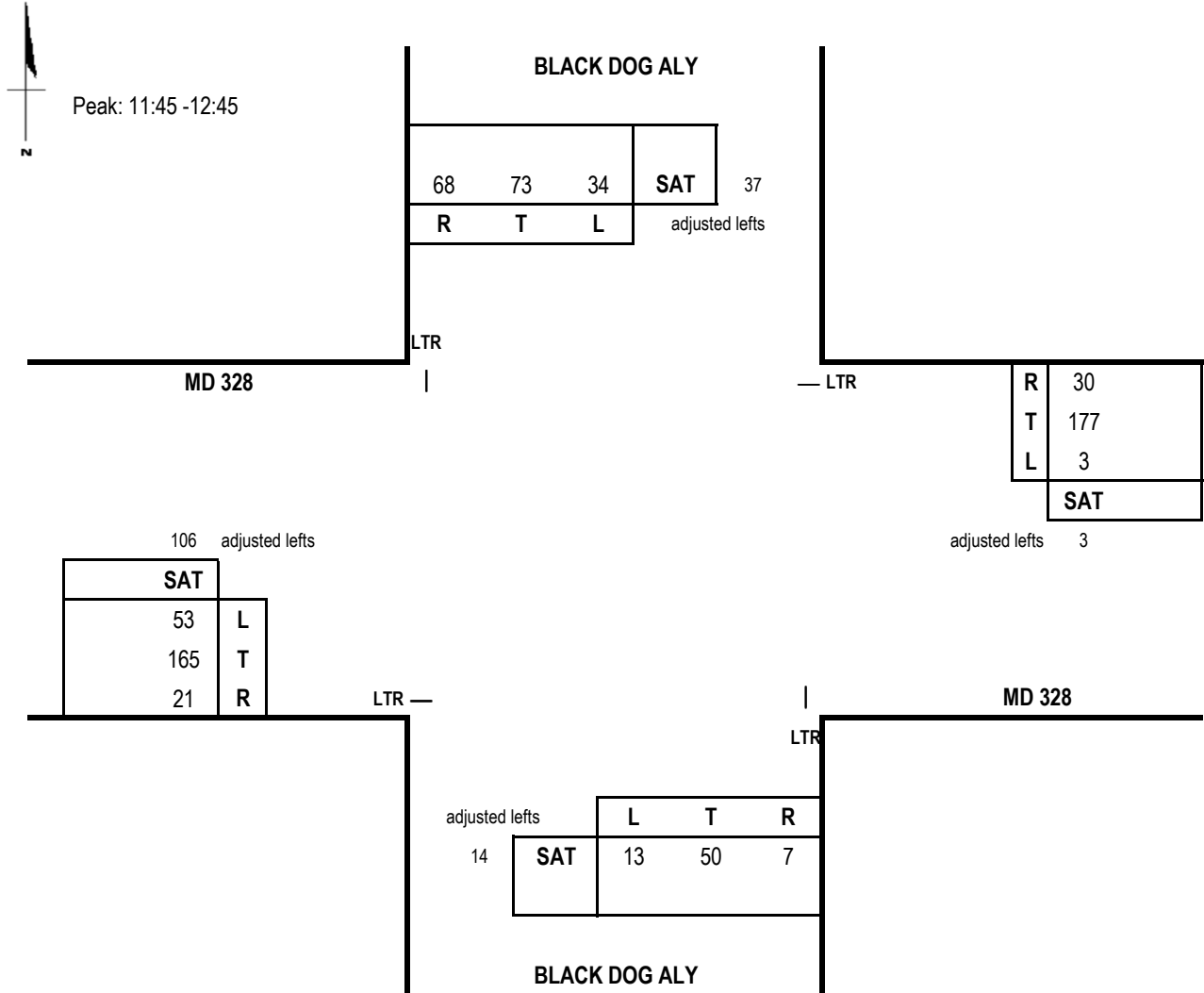
Date of Count: 6/11/2022

N/S Road: Black Dog Aly

Day of Count: Saturday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	71	1.00	71	34	1.00	34	191
SB	178	1.00	178	13	1.00	13	
EB	292	1.00	292	3	1.00	3	295
WB	210	1.00	210	53	1.00	53	
CLV TOTAL=							486
Level of Service (LOS)=							A

Scenario ID - BACK8

SAT V/C = 0.3

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

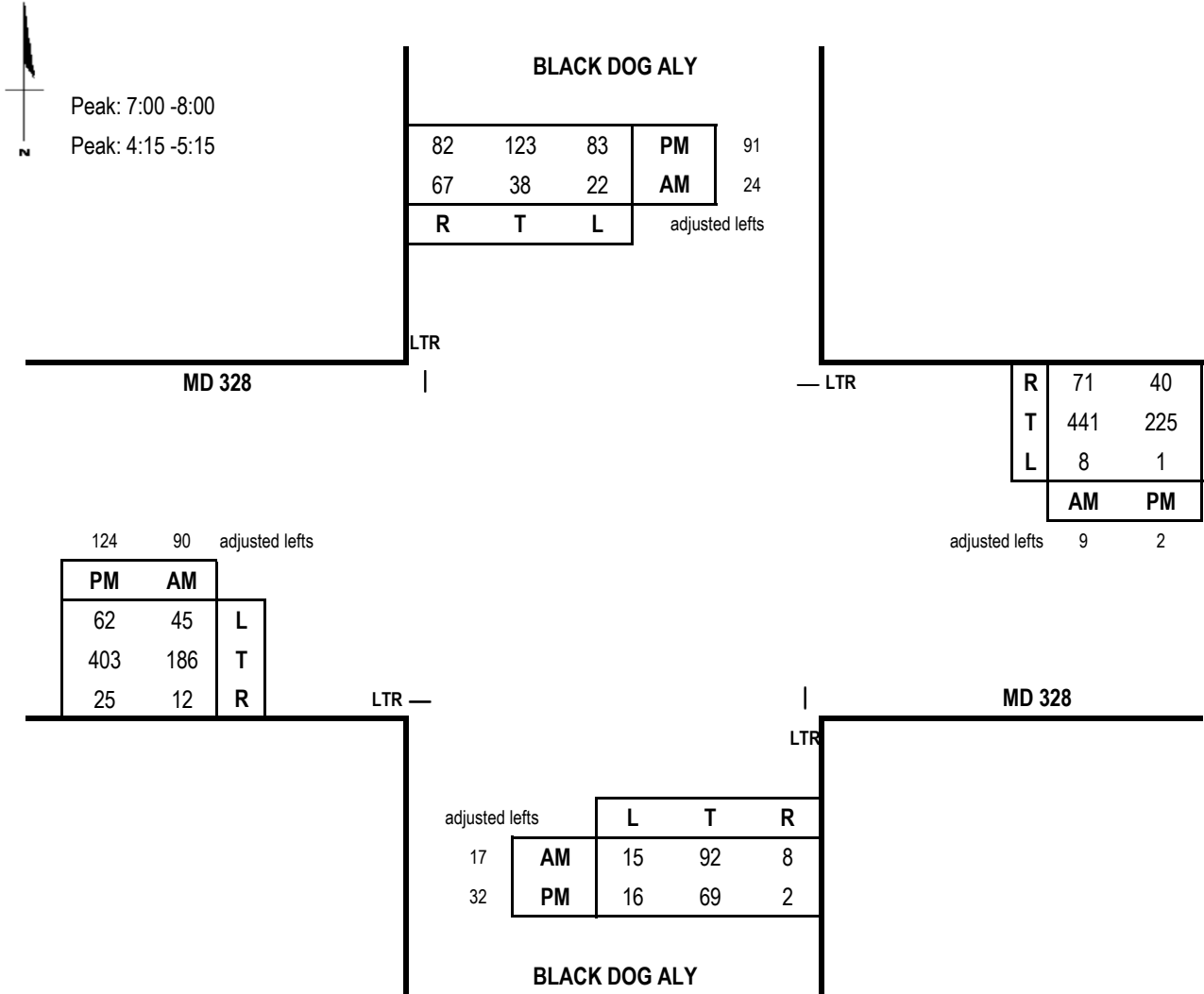
Date of Count: 6/9/2022

N/S Road: Black Dog Aly

Day of Count: Thursday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	117	1.00	117	22	1.00	22	144
SB	129	1.00	129	15	1.00	15	
EB	288	1.00	288	8	1.00	8	566
WB	521	1.00	521	45	1.00	45	
CLV TOTAL=							710
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	103	1.00	103	83	1.00	83	312
SB	296	1.00	296	16	1.00	16	
EB	552	1.00	552	1	1.00	1	553
WB	267	1.00	267	62	1.00	62	
CLV TOTAL=							865
Level of Service (LOS)=							A

Scenario ID - TOT8

AM V/C =0.44

PM V/C =0.54

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

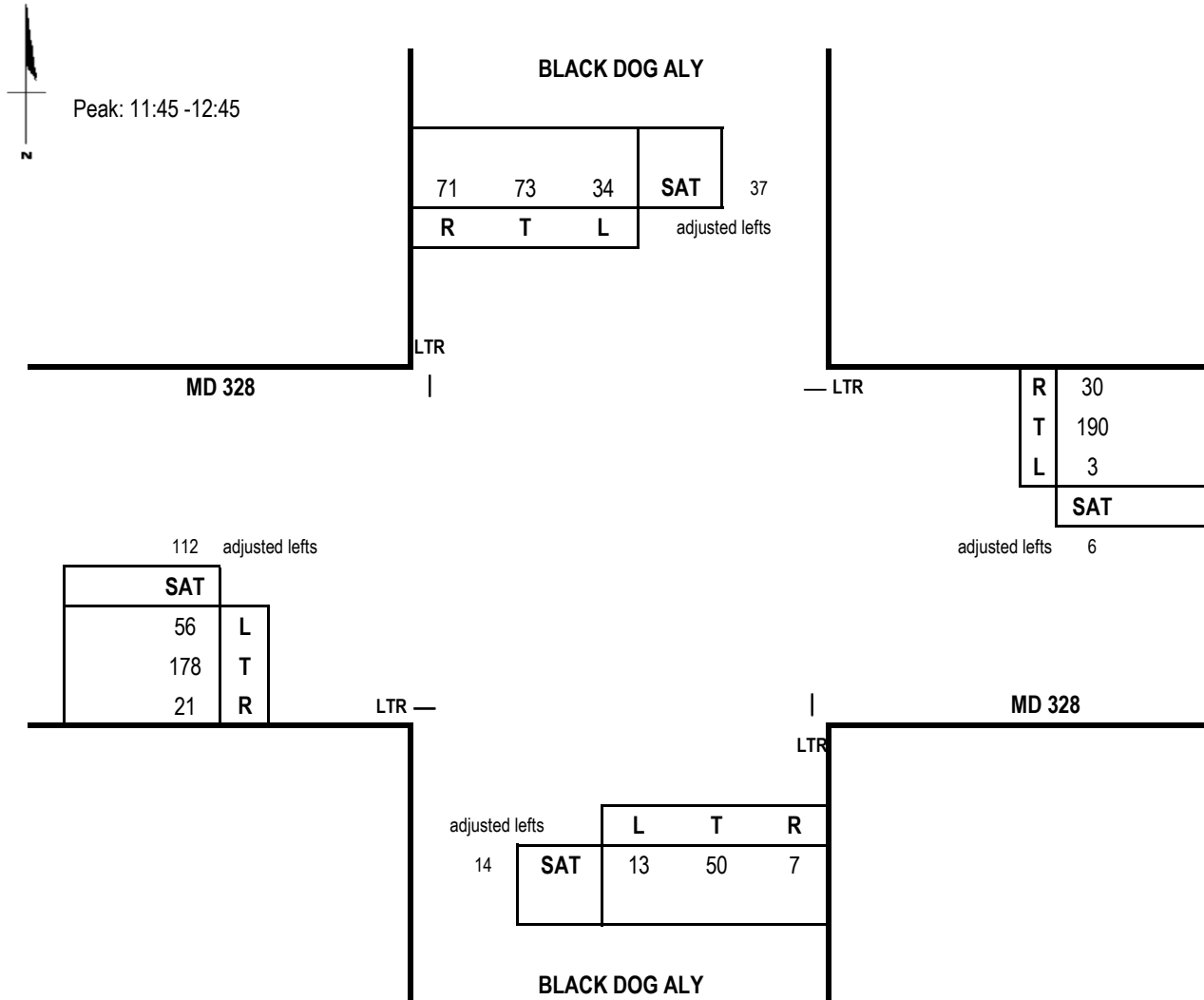
Date of Count: 6/11/2022

N/S Road: Black Dog Aly

Day of Count: Saturday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	71	1.00	71	34	1.00	34	194
SB	181	1.00	181	13	1.00	13	
EB	311	1.00	311	3	1.00	3	314
WB	226	1.00	226	56	1.00	56	
CLV TOTAL=							508
Level of Service (LOS)=							A

Scenario ID - TOT8

SAT V/C =0.32

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Existing AM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	102	51	364	162	187	69	997	148	116	962	22
Future Volume (veh/h)	33	102	51	364	162	187	69	997	148	116	962	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1781	1781	1856	1826	1856	1781	1781	1767	1781	1781
Adj Flow Rate, veh/h	35	110	0	282	326	0	74	1072	0	125	1034	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	8	3	3	5	3	8	8	9	8	8
Cap, veh/h	134	140		336	368		317	2412		334	2509	58
Arrive On Green	0.08	0.08	0.00	0.20	0.20	0.00	0.05	0.66	0.00	0.05	0.51	0.51
Sat Flow, veh/h	1753	1841	1510	1696	1856	1547	1767	4863	1510	1682	4890	113
Grp Volume(v), veh/h	35	110	0	282	326	0	74	1072	0	125	685	373
Grp Sat Flow(s),veh/h/ln	1753	1841	1510	1696	1856	1547	1767	1621	1510	1682	1621	1761
Q Serve(g_s), s	2.5	7.9	0.0	21.6	23.1	0.0	2.8	14.3	0.0	4.9	17.6	17.6
Cycle Q Clear(g_c), s	2.5	7.9	0.0	21.6	23.1	0.0	2.8	14.3	0.0	4.9	17.6	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	134	140		336	368		317	2412		334	1663	904
V/C Ratio(X)	0.26	0.78		0.84	0.89		0.23	0.44		0.37	0.41	0.41
Avail Cap(c_a), veh/h	234	245		402	440		498	2412		478	1663	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.72	0.72	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	61.3	0.0	52.0	52.6	0.0	16.3	14.0	0.0	15.9	20.3	20.3
Incr Delay (d2), s/veh	1.2	10.9	0.0	9.4	13.0	0.0	0.4	0.6	0.0	0.5	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	7.5	0.0	14.5	16.9	0.0	2.0	8.1	0.0	3.4	11.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	72.2	0.0	61.5	65.7	0.0	16.7	14.6	0.0	16.4	21.1	21.7
LnGrp LOS	E	E		E	E		B	B		B	C	C
Approach Vol, veh/h	145			608			1146			1183		
Approach Delay, s/veh	69.2			63.7			14.7			20.8		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	73.5		16.3	10.2	75.8		32.8				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	18.5	42.5		18.0	18.5	42.5		32.0				
Max Q Clear Time (g_c+I1), s	6.9	16.3		9.9	4.8	19.6		25.1				
Green Ext Time (p_c), s	0.2	14.2		0.4	0.1	12.5		1.7				

Intersection Summary

HCM 6th Ctrl Delay 29.3
HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Existing AM Peak
08/09/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	183	162	132	645	130	44
Future Volume (veh/h)	183	162	132	645	130	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1841	1870	1856	1899	1870
Adj Flow Rate, veh/h	213	188	153	750	151	51
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	9	4	2	3	5	2
Cap, veh/h	744	657	637	1130	272	239
Arrive On Green	0.42	0.42	0.09	0.61	0.15	0.15
Sat Flow, veh/h	1767	1560	1781	1856	1809	1585
Grp Volume(v), veh/h	213	188	153	750	151	51
Grp Sat Flow(s),veh/h/ln	1767	1560	1781	1856	1809	1585
Q Serve(g_s), s	4.0	4.0	2.1	13.2	3.9	1.4
Cycle Q Clear(g_c), s	4.0	4.0	2.1	13.2	3.9	1.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	744	657	637	1130	272	239
V/C Ratio(X)	0.29	0.29	0.24	0.66	0.55	0.21
Avail Cap(c_a), veh/h	1592	1406	1729	3158	1086	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	9.5	6.0	6.4	19.7	18.6
Incr Delay (d2), s/veh	0.4	0.5	0.3	1.4	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	2.2	1.1	6.6	2.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.0	10.0	6.2	7.8	21.4	19.1
LnGrp LOS	A	B	A	A	C	B
Approach Vol, veh/h	401			903	202	
Approach Delay, s/veh	10.0			7.6	20.8	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		36.4		13.5	9.4	27.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+I1), s		15.2		5.9	4.1	6.0
Green Ext Time (p_c), s		15.2		0.6	0.7	4.4
Intersection Summary						
HCM 6th Ctrl Delay			10.0			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	207	7	4	740	17	1
Future Vol, veh/h	207	7	4	740	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	17	25	3	2	100
Mvmt Flow	233	8	4	831	19	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	241	0	1072
Stage 1	-	-	-	-	233
Stage 2	-	-	-	-	839
Critical Hdwy	-	-	4.35	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.425	-	3.518
Pot Cap-1 Maneuver	-	-	1202	-	244
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	424
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1202	-	243
Mov Cap-2 Maneuver	-	-	-	-	243
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	421

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	-	-	1202	-
HCM Lane V/C Ratio	0.081	-	-	0.004	-
HCM Control Delay (s)	20.6	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Existing AM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	165	28	10	549	4	124	0	19	5	1	69
Future Volume (veh/h)	15	165	28	10	549	4	124	0	19	5	1	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1796	1856	1856	1900	1945	1945	1976	1976	1976	1976
Adj Flow Rate, veh/h	16	181	31	11	603	4	136	0	21	5	1	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	7	3	3	0	2	2	0	0	0	0
Cap, veh/h	117	886	796	90	962	842	428	0	293	96	14	273
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.18	0.00	0.18	0.18	0.18	0.18
Sat Flow, veh/h	51	1694	1522	9	1841	1610	1489	0	1675	41	82	1558
Grp Volume(v), veh/h	197	0	31	614	0	4	136	0	21	82	0	0
Grp Sat Flow(s),veh/h/ln	1745	0	1522	1850	0	1610	1489	0	1675	1681	0	0
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	0.1	1.4	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.4	10.2	0.0	0.1	3.2	0.0	0.5	1.8	0.0	0.0
Prop In Lane	0.08		1.00	0.02		1.00	1.00		1.00	0.06		0.93
Lane Grp Cap(c), veh/h	1003	0	796	1052	0	842	428	0	293	383	0	0
V/C Ratio(X)	0.20	0.00	0.04	0.58	0.00	0.00	0.32	0.00	0.07	0.21	0.00	0.00
Avail Cap(c_a), veh/h	2430	0	2123	2652	0	2245	1146	0	1167	1252	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.5	0.0	5.0	7.3	0.0	4.9	15.9	0.0	14.8	15.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.1	0.0	0.0	0.4	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.2	5.2	0.0	0.0	1.9	0.0	0.3	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	0.0	5.0	8.4	0.0	4.9	16.3	0.0	14.9	15.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	228		618				157		82			
Approach Delay, s/veh	5.6		8.4				16.1		15.7			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	29.5		13.5		29.5		13.5					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	12.2		3.8		4.5		5.2					
Green Ext Time (p_c), s	10.3		0.4		2.9		0.8					
Intersection Summary												
HCM 6th Ctrl Delay			9.5									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔	↔	↔	
Traffic Vol, veh/h	10	193	516	20	5	24
Future Vol, veh/h	10	193	516	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	5	8	5	0	0
Mvmt Flow	12	224	600	23	6	28

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	623	0	-	0	848
Stage 1	-	-	-	-	600
Stage 2	-	-	-	-	248
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	968	-	-	-	334
Stage 1	-	-	-	-	552
Stage 2	-	-	-	-	798
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	968	-	-	-	329
Mov Cap-2 Maneuver	-	-	-	-	329
Stage 1	-	-	-	-	544
Stage 2	-	-	-	-	798

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	968	-	-	-	462
HCM Lane V/C Ratio	0.012	-	-	-	0.073
HCM Control Delay (s)	8.8	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	185	5	1	504	20	6
Future Vol, veh/h	185	5	1	504	20	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	0	4	0	0
Mvmt Flow	206	6	1	560	22	7

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	212
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1370
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1370
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	428	-	-	1370	-
HCM Lane V/C Ratio	0.067	-	-	0.001	-
HCM Control Delay (s)	14	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	186	7	1	495	16	6
Future Vol, veh/h	186	7	1	495	16	6
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, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	29	0	4	6	17
Mvmt Flow	216	8	1	576	19	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	224	0	798
Stage 1	-	-	-	-	220
Stage 2	-	-	-	-	578
Critical Hdwy	-	-	4.1	-	6.46
Critical Hdwy Stg 1	-	-	-	-	5.46
Critical Hdwy Stg 2	-	-	-	-	5.46
Follow-up Hdwy	-	-	2.2	-	3.554
Pot Cap-1 Maneuver	-	-	1357	-	350
Stage 1	-	-	-	-	807
Stage 2	-	-	-	-	553
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1357	-	350
Mov Cap-2 Maneuver	-	-	-	-	350
Stage 1	-	-	-	-	807
Stage 2	-	-	-	-	552

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	412	-	-	1357	-
HCM Lane V/C Ratio	0.062	-	-	0.001	-
HCM Control Delay (s)	14.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Existing AM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	151	12	8	422	71	15	92	8	22	38	61
Future Volume (veh/h)	30	151	12	8	422	71	15	92	8	22	38	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1841	1841	1841	1884	1884	1884	1693	1693	1693
Adj Flow Rate, veh/h	34	170	13	9	474	80	17	103	9	25	43	69
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	4	4	4	6	6	6	14	14	14
Cap, veh/h	168	690	48	94	753	125	123	292	24	134	109	140
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	133	1400	98	8	1528	254	122	1557	126	154	584	749
Grp Volume(v), veh/h	217	0	0	563	0	0	129	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1631	0	0	1790	0	0	1805	0	0	1487	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0	9.4	0.0	0.0	2.5	0.0	0.0	3.2	0.0	0.0
Prop In Lane	0.16		0.06	0.02		0.14	0.13		0.07	0.18		0.50
Lane Grp Cap(c), veh/h	906	0	0	972	0	0	438	0	0	383	0	0
V/C Ratio(X)	0.24	0.00	0.00	0.58	0.00	0.00	0.29	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	2384	0	0	2725	0	0	1407	0	0	1178	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	0.0	7.6	0.0	0.0	14.4	0.0	0.0	14.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	0.0	3.5	0.0	0.0	1.6	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.0	0.0	8.8	0.0	0.0	14.8	0.0	0.0	15.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		217			563			129			137	
Approach Delay, s/veh		6.2			8.8			14.8			15.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		13.6		27.0		13.6				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s		11.4		5.2		4.9		4.5				
Green Ext Time (p_c), s		8.1		0.7		2.7		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				9.8								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Existing PM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	279	110	170	149	207	66	954	296	236	1062	41
Future Volume (veh/h)	48	279	110	170	149	207	66	954	296	236	1062	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1856	1810	1885	1856	1900	1811	1870	1856	1856	1856
Adj Flow Rate, veh/h	49	285	0	162	167	0	67	973	0	241	1084	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	3	1	1	3	0	6	2	3	3	3
Cap, veh/h	303	318		186	204		315	2538		421	2809	109
Arrive On Green	0.17	0.17	0.00	0.11	0.11	0.00	0.04	0.68	0.00	0.08	0.56	0.56
Sat Flow, veh/h	1795	1885	1572	1724	1885	1572	1810	4944	1585	1767	5004	194
Grp Volume(v), veh/h	49	285	0	162	167	0	67	973	0	241	731	395
Grp Sat Flow(s), veh/h/ln	1795	1885	1572	1724	1885	1572	1810	1648	1585	1767	1689	1821
Q Serve(g_s), s	4.2	26.7	0.0	16.7	15.6	0.0	3.2	15.2	0.0	11.3	21.8	21.8
Cycle Q Clear(g_c), s	4.2	26.7	0.0	16.7	15.6	0.0	3.2	15.2	0.0	11.3	21.8	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	303	318		186	204		315	2538		421	1896	1022
V/C Ratio(X)	0.16	0.90		0.87	0.82		0.21	0.38		0.57	0.39	0.39
Avail Cap(c_a), veh/h	409	429		249	272		590	2538		605	1896	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.92	0.92	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	73.3	0.0	79.0	78.5	0.0	20.0	16.3	0.0	18.0	22.1	22.1
Incr Delay (d2), s/veh	0.3	17.9	0.0	19.9	12.5	0.0	0.3	0.4	0.0	0.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	20.8	0.0	13.1	12.9	0.0	2.5	9.0	0.0	8.4	13.8	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	91.2	0.0	98.9	91.1	0.0	20.3	16.7	0.0	18.9	22.7	23.2
LnGrp LOS	E	F		F	F		C	B		B	C	C
Approach Vol, veh/h	334			329			1040			1367		
Approach Delay, s/veh	87.3			94.9			17.0			22.2		
Approach LOS	F			F			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.3	98.9		36.3	10.6	107.6		25.5				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	32.5	56.5		41.0	32.5	56.5		26.0				
Max Q Clear Time (g_c+I1), s	13.3	17.2		28.7	5.2	23.8		18.7				
Green Ext Time (p_c), s	0.5	15.6		1.7	0.1	16.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay 35.3
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Existing PM Peak
08/09/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	491	344	103	300	209	193
Future Volume (veh/h)	491	344	103	300	209	193
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1885	1841	1856	1945	1870
Adj Flow Rate, veh/h	511	358	107	312	218	201
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	4	3	2	2
Cap, veh/h	822	708	402	1124	330	283
Arrive On Green	0.44	0.44	0.07	0.61	0.18	0.18
Sat Flow, veh/h	1856	1598	1753	1856	1853	1585
Grp Volume(v), veh/h	511	358	107	312	218	201
Grp Sat Flow(s),veh/h/ln	1856	1598	1753	1856	1853	1585
Q Serve(g_s), s	11.8	8.9	1.6	4.4	6.1	6.6
Cycle Q Clear(g_c), s	11.8	8.9	1.6	4.4	6.1	6.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	822	708	402	1124	330	283
V/C Ratio(X)	0.62	0.51	0.27	0.28	0.66	0.71
Avail Cap(c_a), veh/h	1502	1294	1379	2838	1000	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.1	8.0	5.2	21.3	21.5
Incr Delay (d2), s/veh	1.6	1.2	0.5	0.3	2.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	5.2	0.9	2.3	4.7	9.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	12.3	8.5	5.5	23.5	24.8
LnGrp LOS	B	B	A	A	C	C
Approach Vol, veh/h	869			419	419	
Approach Delay, s/veh	13.0			6.2	24.1	
Approach LOS	B			A	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	39.7			15.9	9.0	30.6
Change Period (Y+Rc), s	6.0			6.0	5.0	6.0
Max Green Setting (Gmax), s	85.0			30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s	6.4			8.6	3.6	13.8
Green Ext Time (p_c), s	4.4			1.3	0.5	10.9
Intersection Summary						
HCM 6th Ctrl Delay			14.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	639	14	0	384	4	4
Future Vol, veh/h	639	14	0	384	4	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	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	25
Mvmt Flow	659	14	0	396	4	4

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	673	0	1055	659
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	396	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	927	-	252	426
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	684	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	927	-	252	426
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	684	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	317	-	-	927	-
HCM Lane V/C Ratio	0.026	-	-	-	-
HCM Control Delay (s)	16.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Existing PM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	482	106	22	277	16	75	3	19	4	3	32
Future Volume (veh/h)	54	482	106	22	277	16	75	3	19	4	3	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1870	1900	1976	1976	1899	1976	1976	1976
Adj Flow Rate, veh/h	57	507	112	23	292	17	79	3	20	4	3	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	0	2	2	0	0	0	5	0	0	0
Cap, veh/h	150	875	838	120	916	838	403	12	254	109	35	223
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	99	1682	1610	47	1761	1610	1441	78	1609	70	220	1408
Grp Volume(v), veh/h	564	0	112	315	0	17	82	0	20	41	0	0
Grp Sat Flow(s),veh/h/ln	1782	0	1610	1808	0	1610	1519	0	1609	1698	0	0
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	0.2	0.9	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.5	0.0	1.4	3.9	0.0	0.2	1.8	0.0	0.4	0.8	0.0	0.0
Prop In Lane	0.10		1.00	0.07		1.00	0.96		1.00	0.10		0.83
Lane Grp Cap(c), veh/h	1025	0	838	1036	0	838	415	0	254	366	0	0
V/C Ratio(X)	0.55	0.00	0.13	0.30	0.00	0.02	0.20	0.00	0.08	0.11	0.00	0.00
Avail Cap(c_a), veh/h	2687	0	2389	2679	0	2389	1269	0	1194	1341	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	0.0	5.0	5.6	0.0	4.7	15.0	0.0	14.5	14.7	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.2	0.4	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	0.0	0.6	1.9	0.0	0.1	1.1	0.0	0.3	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.0	5.2	5.9	0.0	4.7	15.3	0.0	14.6	14.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	676				332		102				41	
Approach Delay, s/veh	7.3				5.9		15.1				14.8	
Approach LOS	A				A		B				B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	28.0		12.4		28.0		12.4					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	5.9		2.8		10.5		3.8					
Green Ext Time (p_c), s	4.7		0.2		10.6		0.5					
Intersection Summary												
HCM 6th Ctrl Delay			7.8									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	438	273	17	16	38
Future Vol, veh/h	47	438	273	17	16	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	6	6	0
Mvmt Flow	49	456	284	18	17	40

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	302	0	-	0	838
Stage 1	-	-	-	-	284
Stage 2	-	-	-	-	554
Critical Hdwy	4.1	-	-	-	6.46
Critical Hdwy Stg 1	-	-	-	-	5.46
Critical Hdwy Stg 2	-	-	-	-	5.46
Follow-up Hdwy	2.2	-	-	-	3.554
Pot Cap-1 Maneuver	1270	-	-	-	331
Stage 1	-	-	-	-	755
Stage 2	-	-	-	-	568
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1270	-	-	-	314
Mov Cap-2 Maneuver	-	-	-	-	314
Stage 1	-	-	-	-	716
Stage 2	-	-	-	-	568

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1270	-	-	-	535
HCM Lane V/C Ratio	0.039	-	-	-	0.105
HCM Control Delay (s)	7.9	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	
Traffic Vol, veh/h	471	20	4	263	11	4
Future Vol, veh/h	471	20	4	263	11	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	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	5	0	3	0	0
Mvmt Flow	506	22	4	283	12	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	528
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1049
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1049
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	397	-	-	1049	-
HCM Lane V/C Ratio	0.041	-	-	0.004	-
HCM Control Delay (s)	14.5	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	444	17	3	266	11	8
Future Vol, veh/h	444	17	3	266	11	8
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, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	18	0	2	0	25
Mvmt Flow	477	18	3	286	12	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	495
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1079
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1079
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	423	-	-	1079	-
HCM Lane V/C Ratio	0.048	-	-	0.003	-
HCM Control Delay (s)	13.9	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary
8: Black Dog Aly & MD 328

Existing PM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	375	25	1	188	40	16	69	2	83	123	65
Future Volume (veh/h)	52	375	25	1	188	40	16	69	2	83	123	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1930	1930	1930	1856	1856	1856
Adj Flow Rate, veh/h	54	391	26	1	196	42	17	72	2	86	128	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	724	45	84	684	146	136	395	10	198	204	93
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	115	1566	98	1	1481	316	155	1662	41	377	860	393
Grp Volume(v), veh/h	471	0	0	239	0	0	91	0	0	282	0	0
Grp Sat Flow(s),veh/h/ln	1779	0	0	1798	0	0	1858	0	0	1630	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	0.0	3.6	0.0	0.0	1.6	0.0	0.0	6.8	0.0	0.0
Prop In Lane	0.11		0.06	0.00		0.18	0.19		0.02	0.30		0.24
Lane Grp Cap(c), veh/h	915	0	0	914	0	0	540	0	0	496	0	0
V/C Ratio(X)	0.51	0.00	0.00	0.26	0.00	0.00	0.17	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	2512	0	0	2571	0	0	1331	0	0	1219	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.4	0.0	0.0	7.2	0.0	0.0	13.2	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	0.0	0.0	1.5	0.0	0.0	1.1	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	0.0	7.5	0.0	0.0	13.4	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	471			239			91			282		
Approach Delay, s/veh	9.4			7.5			13.4			16.1		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	27.0			16.3			27.0			16.3		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+l1), s	5.6			8.8			9.9			3.6		
Green Ext Time (p_c), s	2.8			1.6			6.4			0.4		
Intersection Summary												
HCM 6th Ctrl Delay	11.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Existing Saturday Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	243	103	133	150	237	102	1238	179	139	1289	57
Future Volume (veh/h)	77	243	103	133	150	237	102	1238	179	139	1289	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1900	1810	1885	1885	1900	1870	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	261	0	143	161	0	110	1331	0	149	1386	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	1	1	1	0	2	1	1	1	1
Cap, veh/h	293	308		186	204		255	2480		303	2513	111
Arrive On Green	0.16	0.16	0.00	0.11	0.11	0.00	0.06	0.65	0.00	0.06	0.50	0.50
Sat Flow, veh/h	1781	1870	1610	1724	1885	1598	1810	5106	1598	1795	5054	222
Grp Volume(v), veh/h	83	261	0	143	161	0	110	1331	0	149	941	506
Grp Sat Flow(s),veh/h/ln	1781	1870	1610	1724	1885	1598	1810	1702	1598	1795	1716	1845
Q Serve(g_s), s	5.4	17.8	0.0	10.6	10.9	0.0	4.0	18.5	0.0	5.4	24.9	24.9
Cycle Q Clear(g_c), s	5.4	17.8	0.0	10.6	10.9	0.0	4.0	18.5	0.0	5.4	24.9	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	293	308		186	204		255	2480		303	1706	918
V/C Ratio(X)	0.28	0.85		0.77	0.79		0.43	0.54		0.49	0.55	0.55
Avail Cap(c_a), veh/h	476	500		460	504		584	5260		609	3535	1901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	53.1	0.0	56.8	57.0	0.0	17.9	15.2	0.0	16.9	22.8	22.8
Incr Delay (d2), s/veh	0.6	8.5	0.0	6.5	6.7	0.0	1.2	0.4	0.0	0.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	14.0	0.0	8.6	9.5	0.0	3.0	10.0	0.0	4.1	15.2	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	61.6	0.0	63.3	63.7	0.0	19.0	15.6	0.0	17.8	23.4	23.9
LnGrp LOS	D	E		E	E		B	B		B	C	C
Approach Vol, veh/h	344			304			1441			1596		
Approach Delay, s/veh	58.5			63.5			15.9			23.1		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	70.2		27.6	11.6	71.7		20.2				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	30.0	135.0		35.0	30.0	135.0		35.0				
Max Q Clear Time (g_c+I1), s	7.4	20.5		19.8	6.0	26.9		12.9				
Green Ext Time (p_c), s	0.3	34.3		1.8	0.3	38.3		1.3				

Intersection Summary

HCM 6th Ctrl Delay 26.9
HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Existing Saturday Peak
08/09/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	240	279	109	269	222	128
Future Volume (veh/h)	240	279	109	269	222	128
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1961	1900
Adj Flow Rate, veh/h	258	300	117	289	239	138
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	1	1	1	0
Cap, veh/h	746	637	547	1091	339	293
Arrive On Green	0.40	0.40	0.08	0.58	0.18	0.18
Sat Flow, veh/h	1870	1598	1795	1885	1867	1610
Grp Volume(v), veh/h	258	300	117	289	239	138
Grp Sat Flow(s),veh/h/ln	1870	1598	1795	1885	1867	1610
Q Serve(g_s), s	4.8	7.0	1.7	3.8	6.0	3.8
Cycle Q Clear(g_c), s	4.8	7.0	1.7	3.8	6.0	3.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	746	637	547	1091	339	293
V/C Ratio(X)	0.35	0.47	0.21	0.26	0.70	0.47
Avail Cap(c_a), veh/h	1679	1434	1657	3197	1117	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	11.1	6.7	5.2	19.2	18.4
Incr Delay (d2), s/veh	0.6	1.2	0.3	0.3	2.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	4.0	0.9	2.0	4.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	12.3	7.0	5.5	21.9	19.5
LnGrp LOS	B	B	A	A	C	B
Approach Vol, veh/h	558			406	377	
Approach Delay, s/veh	11.7			6.0	21.0	
Approach LOS	B			A	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	35.0			15.1	9.0	26.0
Change Period (Y+Rc), s	6.0			6.0	5.0	6.0
Max Green Setting (Gmax), s	85.0			30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s	5.8			8.0	3.7	9.0
Green Ext Time (p_c), s	4.0			1.1	0.5	6.1
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	312	19	3	354	27	0
Future Vol, veh/h	312	19	3	354	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	355	22	3	402	31	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	377
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1193
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1193
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	374	-	-	1193	-
HCM Lane V/C Ratio	0.082	-	-	0.003	-
HCM Control Delay (s)	15.5	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Existing Saturday Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	236	61	9	247	3	59	3	11	4	2	33
Future Volume (veh/h)	41	236	61	9	247	3	59	3	11	4	2	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1900	1870	1870	1900	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	47	268	69	10	281	3	67	3	12	5	2	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	0	2	2	0	0	0	0	0	0	0
Cap, veh/h	176	839	826	104	944	826	400	14	257	116	27	219
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	137	1636	1610	17	1841	1610	1432	94	1675	85	177	1427
Grp Volume(v), veh/h	315	0	69	291	0	3	70	0	12	45	0	0
Grp Sat Flow(s),veh/h/ln	1773	0	1610	1857	0	1610	1526	0	1675	1690	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.8	3.5	0.0	0.0	1.4	0.0	0.2	0.9	0.0	0.0
Prop In Lane	0.15		1.00	0.03		1.00	0.96		1.00	0.11		0.84
Lane Grp Cap(c), veh/h	1016	0	826	1048	0	826	415	0	257	362	0	0
V/C Ratio(X)	0.31	0.00	0.08	0.28	0.00	0.00	0.17	0.00	0.05	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2753	0	2480	2918	0	2480	1316	0	1289	1386	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.6	0.0	4.8	5.5	0.0	4.6	14.5	0.0	14.1	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.3	0.0	0.0	0.2	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.3	1.6	0.0	0.0	0.9	0.0	0.1	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.9	0.0	4.9	5.8	0.0	4.6	14.7	0.0	14.1	14.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	384				294		82				45	
Approach Delay, s/veh	5.7				5.8		14.6				14.5	
Approach LOS	A				A		B				B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.0		12.0		27.0		12.0					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+l1), s	5.5		2.9		5.8		3.4					
Green Ext Time (p_c), s	4.0		0.2		5.1		0.4					
Intersection Summary												
HCM 6th Ctrl Delay			7.1									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	243	222	11	15	30
Future Vol, veh/h	28	243	222	11	15	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	9	0	0
Mvmt Flow	31	267	244	12	16	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	256	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1321	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1321	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1321	-	-	-	648
HCM Lane V/C Ratio	0.023	-	-	-	0.076
HCM Control Delay (s)	7.8	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	
Traffic Vol, veh/h	244	16	3	217	13	4
Future Vol, veh/h	244	16	3	217	13	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	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	33	1	8	0
Mvmt Flow	254	17	3	226	14	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	271	0	486
Stage 1	-	-	-	-	254
Stage 2	-	-	-	-	232
Critical Hdwy	-	-	4.43	-	6.48
Critical Hdwy Stg 1	-	-	-	-	5.48
Critical Hdwy Stg 2	-	-	-	-	5.48
Follow-up Hdwy	-	-	2.497	-	3.572
Pot Cap-1 Maneuver	-	-	1133	-	530
Stage 1	-	-	-	-	775
Stage 2	-	-	-	-	793
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1133	-	528
Mov Cap-2 Maneuver	-	-	-	-	528
Stage 1	-	-	-	-	775
Stage 2	-	-	-	-	791

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	573	-	-	1133	-
HCM Lane V/C Ratio	0.031	-	-	0.003	-
HCM Control Delay (s)	11.5	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	14	6	217	12	1
Future Vol, veh/h	222	14	6	217	12	1
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, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	17	2	8	100
Mvmt Flow	234	15	6	228	13	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	249	0	482	242
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	-	-	4.27	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.353	-	3.572	4.2
Pot Cap-1 Maneuver	-	-	1234	-	532	606
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1234	-	529	606
Mov Cap-2 Maneuver	-	-	-	-	529	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	781	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.2		11.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	534	-	-	1234	-	
HCM Lane V/C Ratio	0.026	-	-	0.005	-	
HCM Control Delay (s)	11.9	-	-	7.9	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary
8: Black Dog Aly & MD 328

Existing Saturday Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	150	21	3	160	30	13	50	7	34	73	58
Future Volume (veh/h)	45	150	21	3	160	30	13	50	7	34	73	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1914	1914	1914	1870	1870	1870
Adj Flow Rate, veh/h	46	153	21	3	163	31	13	51	7	35	74	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	219	651	80	93	756	142	135	272	33	149	161	109
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	225	1323	163	5	1537	288	156	1471	178	221	868	589
Grp Volume(v), veh/h	220	0	0	197	0	0	71	0	0	168	0	0
Grp Sat Flow(s),veh/h/ln	1712	0	0	1830	0	0	1806	0	0	1678	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.5	0.0	0.0	1.3	0.0	0.0	3.5	0.0	0.0
Prop In Lane	0.21		0.10	0.02		0.16	0.18		0.10	0.21		0.35
Lane Grp Cap(c), veh/h	950	0	0	991	0	0	440	0	0	418	0	0
V/C Ratio(X)	0.23	0.00	0.00	0.20	0.00	0.00	0.16	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	2593	0	0	2807	0	0	1408	0	0	1334	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	0.0	5.8	0.0	0.0	13.9	0.0	0.0	14.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.0	0.0	6.0	0.0	0.0	14.1	0.0	0.0	15.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	220			197			71			168		
Approach Delay, s/veh	6.2			6.0			14.1			15.4		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	26.8			13.4			26.8			13.4		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+l1), s	4.5			5.5			4.8			3.3		
Green Ext Time (p_c), s	2.3			0.9			2.6			0.3		
Intersection Summary												
HCM 6th Ctrl Delay	9.3											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Background AM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	111	51	400	185	211	69	1027	161	125	991	22
Future Volume (veh/h)	33	111	51	400	185	211	69	1027	161	125	991	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1781	1781	1856	1826	1856	1781	1781	1767	1781	1781
Adj Flow Rate, veh/h	35	119	0	314	361	0	74	1104	0	134	1066	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	8	3	3	5	3	8	8	9	8	8
Cap, veh/h	142	149		364	398		295	2284		316	2405	54
Arrive On Green	0.08	0.08	0.00	0.21	0.21	0.00	0.05	0.62	0.00	0.06	0.49	0.49
Sat Flow, veh/h	1753	1841	1510	1696	1856	1547	1767	4863	1510	1682	4894	110
Grp Volume(v), veh/h	35	119	0	314	361	0	74	1104	0	134	706	384
Grp Sat Flow(s),veh/h/ln	1753	1841	1510	1696	1856	1547	1767	1621	1510	1682	1621	1762
Q Serve(g_s), s	2.5	8.6	0.0	24.1	25.6	0.0	2.9	16.5	0.0	5.5	19.1	19.1
Cycle Q Clear(g_c), s	2.5	8.6	0.0	24.1	25.6	0.0	2.9	16.5	0.0	5.5	19.1	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	142	149		364	398		295	2284		316	1593	866
V/C Ratio(X)	0.25	0.80		0.86	0.91		0.25	0.48		0.42	0.44	0.44
Avail Cap(c_a), veh/h	234	245		402	440		475	2284		452	1593	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.65	0.65	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.1	60.9	0.0	51.1	51.7	0.0	18.2	16.5	0.0	17.8	22.3	22.3
Incr Delay (d2), s/veh	1.1	11.0	0.0	11.2	15.1	0.0	0.4	0.7	0.0	0.7	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	7.9	0.0	15.8	18.5	0.0	2.2	9.2	0.0	3.9	11.9	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	71.9	0.0	62.3	66.8	0.0	18.6	17.3	0.0	18.5	23.2	24.0
LnGrp LOS	E	E		E	E		B	B		B	C	C
Approach Vol, veh/h	154			675			1178			1224		
Approach Delay, s/veh	69.0			64.7			17.3			22.9		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	69.9		17.0	10.2	72.8		35.0				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	18.5	42.5		18.0	18.5	42.5		32.0				
Max Q Clear Time (g_c+I1), s	7.5	18.5		10.6	4.9	21.1		27.6				
Green Ext Time (p_c), s	0.2	13.9		0.4	0.1	12.3		1.4				

Intersection Summary

HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Background AM Peak

12/13/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	211	162	137	728	130	46
Future Volume (veh/h)	211	162	137	728	130	46
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1841	1870	1856	1899	1870
Adj Flow Rate, veh/h	245	188	159	847	151	53
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	9	4	2	3	5	2
Cap, veh/h	862	761	656	1217	243	213
Arrive On Green	0.49	0.49	0.08	0.66	0.13	0.13
Sat Flow, veh/h	1767	1560	1781	1856	1809	1585
Grp Volume(v), veh/h	245	188	159	847	151	53
Grp Sat Flow(s),veh/h/ln	1767	1560	1781	1856	1809	1585
Q Serve(g_s), s	4.7	4.0	2.2	16.5	4.5	1.7
Cycle Q Clear(g_c), s	4.7	4.0	2.2	16.5	4.5	1.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	862	761	656	1217	243	213
V/C Ratio(X)	0.28	0.25	0.24	0.70	0.62	0.25
Avail Cap(c_a), veh/h	1390	1228	1604	2758	949	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	8.5	5.4	6.2	23.4	22.2
Incr Delay (d2), s/veh	0.4	0.4	0.3	1.6	2.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	2.1	1.1	8.0	3.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1	8.9	5.7	7.8	26.0	22.8
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	433			1006	204	
Approach Delay, s/veh	9.0			7.5	25.1	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		43.5		13.7	9.6	33.9
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		18.5		6.5	4.2	6.7
Green Ext Time (p_c), s		19.0		0.6	0.7	4.8
Intersection Summary						
HCM 6th Ctrl Delay			10.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	237	7	4	829	17	1
Future Vol, veh/h	237	7	4	829	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	17	25	3	2	100
Mvmt Flow	266	8	4	931	19	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	274	0	1205	266
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	939	-
Critical Hdwy	-	-	4.35	-	6.42	7.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.425	-	3.518	4.2
Pot Cap-1 Maneuver	-	-	1168	-	203	586
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	380	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1168	-	202	586
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	377	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		24	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	210	-	-	1168	-	
HCM Lane V/C Ratio	0.096	-	-	0.004	-	
HCM Control Delay (s)	24	-	-	8.1	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Background AM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	194	28	10	635	4	124	0	19	5	1	69
Future Volume (veh/h)	15	194	28	10	635	4	124	0	19	5	1	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1796	1856	1856	1900	1945	1945	1976	1976	1976	1976
Adj Flow Rate, veh/h	16	213	31	11	698	4	136	0	21	5	1	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	7	3	3	0	2	2	0	0	0	0
Cap, veh/h	105	970	869	80	1052	919	389	0	267	86	13	248
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.16	0.00	0.16	0.16	0.16	0.16
Sat Flow, veh/h	45	1699	1522	8	1843	1610	1503	0	1675	41	82	1558
Grp Volume(v), veh/h	229	0	31	709	0	4	136	0	21	82	0	0
Grp Sat Flow(s),veh/h/ln	1744	0	1522	1851	0	1610	1503	0	1675	1681	0	0
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	0.1	1.6	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.4	12.8	0.0	0.1	3.7	0.0	0.5	2.1	0.0	0.0
Prop In Lane	0.07		1.00	0.02		1.00	1.00		1.00	0.06		0.93
Lane Grp Cap(c), veh/h	1075	0	869	1132	0	919	389	0	267	347	0	0
V/C Ratio(X)	0.21	0.00	0.04	0.63	0.00	0.00	0.35	0.00	0.08	0.24	0.00	0.00
Avail Cap(c_a), veh/h	2181	0	1896	2372	0	2006	1026	0	1043	1118	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.1	0.0	4.5	7.2	0.0	4.4	18.4	0.0	17.2	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.2	0.0	0.0	0.5	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.2	6.6	0.0	0.0	2.3	0.0	0.3	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	0.0	4.6	8.4	0.0	4.5	19.0	0.0	17.4	18.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	260				713				157			
Approach Delay, s/veh	5.2				8.4				18.8			
Approach LOS	A				A				B			
Timer - Assigned Phs	2				4				6			
Phs Duration (G+Y+Rc), s	34.5				13.7				34.5			
Change Period (Y+Rc), s	7.0				6.0				7.0			
Max Green Setting (Gmax), s	60.0				30.0				60.0			
Max Q Clear Time (g_c+I1), s	14.8				4.1				5.0			
Green Ext Time (p_c), s	12.7				0.4				3.4			
Intersection Summary												
HCM 6th Ctrl Delay	9.7											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↑	↗	↘	
Traffic Vol, veh/h	10	223	602	20	5	24
Future Vol, veh/h	10	223	602	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	5	8	5	0	0
Mvmt Flow	12	259	700	23	6	28

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	723	0	0	983	700
Stage 1	-	-	-	700	-
Stage 2	-	-	-	283	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	889	-	-	278	443
Stage 1	-	-	-	496	-
Stage 2	-	-	-	770	-
Platoon blocked, %	-	-	-		
Mov Cap-1 Maneuver	889	-	-	274	443
Mov Cap-2 Maneuver	-	-	-	274	-
Stage 1	-	-	-	488	-
Stage 2	-	-	-	770	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	889	-	-	-	400
HCM Lane V/C Ratio	0.013	-	-	-	0.084
HCM Control Delay (s)	9.1	0	-	-	14.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	215	5	1	590	20	6
Future Vol, veh/h	215	5	1	590	20	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	0	4	0	0
Mvmt Flow	239	6	1	656	22	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	245	0	897	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	658	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1333	-	313	805
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1333	-	313	805
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	518	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15.7	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	364	-	-	1333	-	
HCM Lane V/C Ratio	0.079	-	-	0.001	-	
HCM Control Delay (s)	15.7	-	-	7.7	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	215	7	1	512	16	6
Future Vol, veh/h	215	7	1	512	16	6
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, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	29	0	4	6	17
Mvmt Flow	250	8	1	595	19	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	258	0	851	254
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	597	-
Critical Hdwy	-	-	4.1	-	6.46	6.37
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.2	-	3.554	3.453
Pot Cap-1 Maneuver	-	-	1318	-	325	749
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1318	-	325	749
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	541	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	384	-	-	1318	-	
HCM Lane V/C Ratio	0.067	-	-	0.001	-	
HCM Control Delay (s)	15	-	-	7.7	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Background AM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	169	12	8	434	71	15	92	8	22	38	65
Future Volume (veh/h)	40	169	12	8	434	71	15	92	8	22	38	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1841	1841	1841	1884	1884	1884	1693	1693	1693
Adj Flow Rate, veh/h	45	190	13	9	488	80	17	103	9	25	43	73
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	4	4	4	6	6	6	14	14	14
Cap, veh/h	187	673	42	94	758	123	123	291	24	132	106	144
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	168	1363	85	8	1535	248	121	1557	126	149	567	769
Grp Volume(v), veh/h	248	0	0	577	0	0	129	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1615	0	0	1791	0	0	1804	0	0	1485	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.8	0.0	0.0	2.5	0.0	0.0	3.3	0.0	0.0
Prop In Lane	0.18		0.05	0.02		0.14	0.13		0.07	0.18		0.52
Lane Grp Cap(c), veh/h	902	0	0	974	0	0	438	0	0	382	0	0
V/C Ratio(X)	0.27	0.00	0.00	0.59	0.00	0.00	0.29	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	2331	0	0	2717	0	0	1401	0	0	1173	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	7.7	0.0	0.0	14.5	0.0	0.0	14.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.0	3.6	0.0	0.0	1.7	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	0.0	8.9	0.0	0.0	14.8	0.0	0.0	15.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	248		577				129		141			
Approach Delay, s/veh	6.4		8.9				14.8		15.4			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.1		13.6		27.1		13.6					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	11.8		5.3		5.3		4.5					
Green Ext Time (p_c), s	8.4		0.8		3.2		0.7					
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Background PM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	307	110	194	165	224	66	983	337	264	1094	41
Future Volume (veh/h)	48	307	110	194	165	224	66	983	337	264	1094	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1856	1810	1885	1856	1900	1811	1870	1856	1856	1856
Adj Flow Rate, veh/h	49	313	0	183	189	0	67	1003	0	269	1116	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	3	1	1	3	0	6	2	3	3	3
Cap, veh/h	328	345		207	226		292	2343		406	2676	101
Arrive On Green	0.18	0.18	0.00	0.12	0.12	0.00	0.04	0.63	0.00	0.09	0.53	0.53
Sat Flow, veh/h	1795	1885	1572	1724	1885	1572	1810	4944	1585	1767	5010	188
Grp Volume(v), veh/h	49	313	0	183	189	0	67	1003	0	269	752	406
Grp Sat Flow(s),veh/h/ln	1795	1885	1572	1724	1885	1572	1810	1648	1585	1767	1689	1822
Q Serve(g_s), s	4.1	29.3	0.0	18.8	17.7	0.0	3.4	18.5	0.0	13.7	24.0	24.0
Cycle Q Clear(g_c), s	4.1	29.3	0.0	18.8	17.7	0.0	3.4	18.5	0.0	13.7	24.0	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	328	345		207	226		292	2343		406	1804	973
V/C Ratio(X)	0.15	0.91		0.89	0.84		0.23	0.43		0.66	0.42	0.42
Avail Cap(c_a), veh/h	409	429		249	272		564	2343		566	1804	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.90	0.90	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	72.1	0.0	78.0	77.5	0.0	23.3	20.9	0.0	21.4	25.1	25.1
Incr Delay (d2), s/veh	0.3	20.7	0.0	24.2	15.7	0.0	0.4	0.6	0.0	1.4	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	22.8	0.0	14.7	14.5	0.0	2.7	10.9	0.0	9.9	15.1	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.0	92.7	0.0	102.2	93.2	0.0	23.7	21.5	0.0	22.8	25.8	26.5
LnGrp LOS	E	F		F	F		C	C		C	C	C
Approach Vol, veh/h	362			372			1070			1427		
Approach Delay, s/veh	88.6			97.7			21.6			25.4		
Approach LOS	F			F			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.7	91.8		38.9	10.9	102.6		27.6				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	32.5	56.5		41.0	32.5	56.5		26.0				
Max Q Clear Time (g_c+I1), s	15.7	20.5		31.3	5.4	26.0		20.8				
Green Ext Time (p_c), s	0.5	15.6		1.6	0.1	16.3		0.7				
Intersection Summary												
HCM 6th Ctrl Delay	39.6											
HCM 6th LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Background PM Peak
12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Traffic Volume (veh/h)	583	344	107	354	209	199
Future Volume (veh/h)	583	344	107	354	209	199
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1885	1841	1856	1945	1870
Adj Flow Rate, veh/h	607	358	111	369	218	207
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	4	3	2	2
Cap, veh/h	889	765	367	1167	328	281
Arrive On Green	0.48	0.48	0.07	0.63	0.18	0.18
Sat Flow, veh/h	1856	1598	1753	1856	1853	1585
Grp Volume(v), veh/h	607	358	111	369	218	207
Grp Sat Flow(s),veh/h/ln	1856	1598	1753	1856	1853	1585
Q Serve(g_s), s	15.7	9.3	1.8	5.7	6.8	7.6
Cycle Q Clear(g_c), s	15.7	9.3	1.8	5.7	6.8	7.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	889	765	367	1167	328	281
V/C Ratio(X)	0.68	0.47	0.30	0.32	0.66	0.74
Avail Cap(c_a), veh/h	1351	1163	1239	2552	899	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	10.8	8.9	5.3	23.7	24.1
Incr Delay (d2), s/veh	2.0	1.0	0.7	0.3	2.3	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	5.4	1.0	3.1	5.4	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	11.8	9.6	5.6	26.0	27.9
LnGrp LOS	B	B	A	A	C	C
Approach Vol, veh/h	965			480	425	
Approach Delay, s/veh	13.5			6.6	26.9	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.9		16.9	9.3	35.6
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		7.7		9.6	3.8	17.7
Green Ext Time (p_c), s		5.4		1.3	0.5	12.0
Intersection Summary						
HCM 6th Ctrl Delay			14.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	740	14	0	443	4	4
Future Vol, veh/h	740	14	0	443	4	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	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	25
Mvmt Flow	763	14	0	457	4	4

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	777	0	1220	763
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	848	-	201	370
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	642	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	848	-	201	370
Mov Cap-2 Maneuver	-	-	-	-	201	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	260	-	-	848	-
HCM Lane V/C Ratio	0.032	-	-	-	-
HCM Control Delay (s)	19.3	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Background PM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	580	106	22	334	16	75	3	19	4	3	32
Future Volume (veh/h)	54	580	106	22	334	16	75	3	19	4	3	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1870	1900	1976	1976	1899	1976	1976	1976
Adj Flow Rate, veh/h	57	611	112	23	352	17	79	3	20	4	3	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	0	2	2	0	0	0	5	0	0	0
Cap, veh/h	134	970	920	106	1010	920	365	11	235	96	32	206
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	86	1697	1610	40	1768	1610	1447	77	1609	69	221	1409
Grp Volume(v), veh/h	668	0	112	375	0	17	82	0	20	41	0	0
Grp Sat Flow(s),veh/h/ln	1783	0	1610	1808	0	1610	1524	0	1609	1699	0	0
Q Serve(g_s), s	0.1	0.0	1.5	0.0	0.0	0.2	1.1	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.1	0.0	1.5	4.9	0.0	0.2	2.0	0.0	0.5	1.0	0.0	0.0
Prop In Lane	0.09		1.00	0.06		1.00	0.96		1.00	0.10		0.83
Lane Grp Cap(c), veh/h	1104	0	920	1116	0	920	376	0	235	334	0	0
V/C Ratio(X)	0.61	0.00	0.12	0.34	0.00	0.02	0.22	0.00	0.09	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2371	0	2099	2366	0	2099	1116	0	1049	1179	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.6	0.0	4.5	5.3	0.0	4.3	17.6	0.0	17.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.1	0.4	0.0	0.0	0.3	0.0	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	0.6	2.4	0.0	0.1	1.3	0.0	0.3	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.0	4.7	5.7	0.0	4.3	17.9	0.0	17.2	17.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		780			392			102			41	
Approach Delay, s/veh		7.3			5.6			17.7			17.4	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.3		12.7		33.3		12.7				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s		6.9		3.0		13.1		4.0				
Green Ext Time (p_c), s		5.7		0.2		13.2		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	47	536	330	17	16	38
Future Vol, veh/h	47	536	330	17	16	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	6	6	0
Mvmt Flow	49	558	344	18	17	40
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	362	0	-	0	1000	344
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	656	-
Critical Hdwy	4.1	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.2	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1208	-	-	-	265	703
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	509	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1208	-	-	-	249	703
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	509	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		14		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1208	-	-	-	456	
HCM Lane V/C Ratio	0.041	-	-	-	0.123	
HCM Control Delay (s)	8.1	0	-	-	14	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	569	20	4	320	11	4
Future Vol, veh/h	569	20	4	320	11	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	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	5	0	3	0	0
Mvmt Flow	612	22	4	344	12	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	634	0	964	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	352	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	959	-	286	497
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	959	-	285	497
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	713	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		16.8	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	322	-	-	959	-	
HCM Lane V/C Ratio	0.05	-	-	0.004	-	
HCM Control Delay (s)	16.8	-	-	8.8	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	469	17	3	300	11	8
Future Vol, veh/h	469	17	3	300	11	8
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, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	18	0	2	0	25
Mvmt Flow	504	18	3	323	12	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	522	0	842	513
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	329	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	1055	-	337	518
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	336	518
Mov Cap-2 Maneuver	-	-	-	-	336	-
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	732	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		14.6	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	394	-	-	1055	-	
HCM Lane V/C Ratio	0.052	-	-	0.003	-	
HCM Control Delay (s)	14.6	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th Signalized Intersection Summary 8: Black Dog Aly & MD 328

Background PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	392	25	1	209	40	16	69	2	83	123	77
Future Volume (veh/h)	59	392	25	1	209	40	16	69	2	83	123	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1930	1930	1930	1856	1856	1856
Adj Flow Rate, veh/h	61	408	26	1	218	42	17	72	2	86	128	80
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	707	42	83	691	133	135	408	10	195	203	109
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	129	1546	93	1	1511	290	153	1664	41	359	826	443
Grp Volume(v), veh/h	495	0	0	261	0	0	91	0	0	294	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	0	1802	0	0	1857	0	0	1628	0	0
Q Serve(g_s), s	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0
Cycle Q Clear(g_c), s	8.7	0.0	0.0	4.0	0.0	0.0	1.6	0.0	0.0	7.2	0.0	0.0
Prop In Lane	0.12		0.05	0.00		0.16	0.19		0.02	0.29		0.27
Lane Grp Cap(c), veh/h	901	0	0	907	0	0	554	0	0	506	0	0
V/C Ratio(X)	0.55	0.00	0.00	0.29	0.00	0.00	0.16	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	2467	0	0	2550	0	0	1316	0	0	1205	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	7.5	0.0	0.0	13.1	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	0.0	1.7	0.0	0.0	1.1	0.0	0.0	4.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	0.0	0.0	7.9	0.0	0.0	13.2	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	495		261				91		294			
Approach Delay, s/veh	9.9		7.9				13.2		16.1			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4				6		8			
Phs Duration (G+Y+Rc), s	27.0		16.7				27.0		16.7			
Change Period (Y+Rc), s	7.0		6.0				7.0		6.0			
Max Green Setting (Gmax), s	60.0		30.0				60.0		30.0			
Max Q Clear Time (g_c+I1), s	6.0		9.2				10.7		3.6			
Green Ext Time (p_c), s	3.1		1.7				6.8		0.4			
Intersection Summary												
HCM 6th Ctrl Delay	11.3											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Background Saturday Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	267	103	160	169	258	102	1276	211	161	1328	57
Future Volume (veh/h)	77	267	103	160	169	258	102	1276	211	161	1328	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1900	1810	1885	1885	1900	1870	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	287	0	172	182	0	110	1372	0	173	1428	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	1	1	1	0	2	1	1	1	1
Cap, veh/h	312	328		209	228		238	2412		293	2486	106
Arrive On Green	0.18	0.18	0.00	0.12	0.12	0.00	0.06	0.63	0.00	0.07	0.49	0.49
Sat Flow, veh/h	1781	1870	1610	1724	1885	1598	1810	5106	1598	1795	5061	216
Grp Volume(v), veh/h	83	287	0	172	182	0	110	1372	0	173	968	521
Grp Sat Flow(s),veh/h/ln	1781	1870	1610	1724	1885	1598	1810	1702	1598	1795	1716	1846
Q Serve(g_s), s	5.8	21.6	0.0	14.1	13.6	0.0	4.5	22.5	0.0	7.1	28.9	28.9
Cycle Q Clear(g_c), s	5.8	21.6	0.0	14.1	13.6	0.0	4.5	22.5	0.0	7.1	28.9	28.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	312	328		209	228		238	2412		293	1685	907
V/C Ratio(X)	0.27	0.88		0.82	0.80		0.46	0.57		0.59	0.57	0.57
Avail Cap(c_a), veh/h	431	453		417	456		530	4768		549	3204	1724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	58.1	0.0	62.0	61.8	0.0	20.9	18.4	0.0	20.2	26.1	26.1
Incr Delay (d2), s/veh	0.5	14.1	0.0	7.9	6.3	0.0	1.4	0.5	0.0	1.4	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	17.1	0.0	10.9	11.2	0.0	3.5	12.3	0.0	5.5	17.5	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	72.2	0.0	70.0	68.1	0.0	22.3	18.8	0.0	21.6	26.7	27.3
LnGrp LOS	D	E		E	E		C	B		C	C	C
Approach Vol, veh/h	370			354			1482			1662		
Approach Delay, s/veh	67.7			69.0			19.1			26.4		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	74.8		31.3	12.2	77.5		23.5				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	30.0	135.0		35.0	30.0	135.0		35.0				
Max Q Clear Time (g_c+I1), s	9.1	24.5		23.6	6.5	30.9		16.1				
Green Ext Time (p_c), s	0.3	36.2		1.7	0.3	40.1		1.4				
Intersection Summary												
HCM 6th Ctrl Delay	31.4											
HCM 6th LOS	C											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Background Saturday Peak
12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	313	279	113	332	222	133
Future Volume (veh/h)	313	279	113	332	222	133
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1961	1900
Adj Flow Rate, veh/h	337	300	122	357	239	143
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	1	1	1	0
Cap, veh/h	745	636	502	1092	340	293
Arrive On Green	0.40	0.40	0.08	0.58	0.18	0.18
Sat Flow, veh/h	1870	1598	1795	1885	1867	1610
Grp Volume(v), veh/h	337	300	122	357	239	143
Grp Sat Flow(s),veh/h/ln	1870	1598	1795	1885	1867	1610
Q Serve(g_s), s	6.6	7.0	1.8	4.9	6.0	4.0
Cycle Q Clear(g_c), s	6.6	7.0	1.8	4.9	6.0	4.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	745	636	502	1092	340	293
V/C Ratio(X)	0.45	0.47	0.24	0.33	0.70	0.49
Avail Cap(c_a), veh/h	1676	1431	1606	3190	1115	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	11.2	7.1	5.5	19.3	18.4
Incr Delay (d2), s/veh	0.9	1.2	0.4	0.4	2.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	4.0	1.0	2.6	4.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	12.4	7.5	5.9	21.9	19.7
LnGrp LOS	B	B	A	A	C	B
Approach Vol, veh/h	637			479	382	
Approach Delay, s/veh	12.2			6.3	21.1	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.1		15.1	9.1	26.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		6.9		8.0	3.8	9.0
Green Ext Time (p_c), s		5.1		1.2	0.5	7.4
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↗	↘	
Traffic Vol, veh/h	391	19	3	422	27	0
Future Vol, veh/h	391	19	3	422	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	444	22	3	480	31	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	466	0	930	444
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	486	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1106	-	299	618
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1106	-	298	618
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	621	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	298	-	-	1106	-	
HCM Lane V/C Ratio	0.103	-	-	0.003	-	
HCM Control Delay (s)	18.5	-	-	8.3	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

HCM 6th Signalized Intersection Summary 4: Fisher Range Rd/Dyott Ct & MD 328

Background Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	314	61	9	314	3	59	3	11	4	2	33
Future Volume (veh/h)	41	314	61	9	314	3	59	3	11	4	2	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1870	1870	1900	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	47	357	69	10	357	3	67	3	12	5	2	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	0	2	2	0	0	0	0	0	0	0
Cap, veh/h	156	863	826	102	947	826	400	14	257	116	27	219
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	103	1682	1610	13	1845	1610	1432	94	1675	85	177	1427
Grp Volume(v), veh/h	404	0	69	367	0	3	70	0	12	45	0	0
Grp Sat Flow(s),veh/h/ln	1785	0	1610	1858	0	1610	1526	0	1675	1690	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.8	4.6	0.0	0.0	1.4	0.0	0.2	0.9	0.0	0.0
Prop In Lane	0.12		1.00	0.03		1.00	0.96		1.00	0.11		0.84
Lane Grp Cap(c), veh/h	1019	0	826	1048	0	826	415	0	257	362	0	0
V/C Ratio(X)	0.40	0.00	0.08	0.35	0.00	0.00	0.17	0.00	0.05	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2769	0	2479	2920	0	2479	1315	0	1289	1386	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	4.8	5.7	0.0	4.6	14.5	0.0	14.1	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.4	0.0	0.0	0.2	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	0.3	2.2	0.0	0.0	0.9	0.0	0.1	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	4.9	6.2	0.0	4.6	14.7	0.0	14.1	14.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		473			370			82			45	
Approach Delay, s/veh		6.2			6.2			14.6			14.5	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		12.0		27.0		12.0				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s		6.6		2.9		7.2		3.4				
Green Ext Time (p_c), s		5.3		0.2		6.7		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	28	321	288	11	15	30
Future Vol, veh/h	28	321	288	11	15	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	9	0	0
Mvmt Flow	31	353	316	12	16	33
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	328	0	-	0	731	316
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	415	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1243	-	-	-	392	729
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	671	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1243	-	-	-	380	729
Mov Cap-2 Maneuver	-	-	-	-	380	-
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	671	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1243	-	-	-	558	
HCM Lane V/C Ratio	0.025	-	-	-	0.089	
HCM Control Delay (s)	8	0	-	-	12.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	322	16	3	283	13	4
Future Vol, veh/h	322	16	3	283	13	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	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	33	1	8	0
Mvmt Flow	335	17	3	295	14	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	352
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.43
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.497
Pot Cap-1 Maneuver	-	-	1054
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1054
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	476	-	-	1054	-
HCM Lane V/C Ratio	0.037	-	-	0.003	-
HCM Control Delay (s)	12.9	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	246	14	6	245	12	1
Future Vol, veh/h	246	14	6	245	12	1
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, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	17	2	8	100
Mvmt Flow	259	15	6	258	13	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	274	0	537	267
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	270	-
Critical Hdwy	-	-	4.27	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.353	-	3.572	4.2
Pot Cap-1 Maneuver	-	-	1207	-	495	585
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1207	-	492	585
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	757	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	498	-	-	1207	-	
HCM Lane V/C Ratio	0.027	-	-	0.005	-	
HCM Control Delay (s)	12.4	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Background Saturday Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	165	21	3	177	30	13	50	7	34	73	68
Future Volume (veh/h)	53	165	21	3	177	30	13	50	7	34	73	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1914	1914	1914	1870	1870	1870
Adj Flow Rate, veh/h	54	168	21	3	181	31	13	51	7	35	74	69
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	229	643	72	93	770	130	134	273	33	145	152	121
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	245	1306	147	5	1565	265	156	1471	178	207	817	648
Grp Volume(v), veh/h	243	0	0	215	0	0	71	0	0	178	0	0
Grp Sat Flow(s),veh/h/ln	1697	0	0	1835	0	0	1804	0	0	1673	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	0.0	2.7	0.0	0.0	1.3	0.0	0.0	3.8	0.0	0.0
Prop In Lane	0.22		0.09	0.01		0.14	0.18		0.10	0.20		0.39
Lane Grp Cap(c), veh/h	944	0	0	993	0	0	441	0	0	418	0	0
V/C Ratio(X)	0.26	0.00	0.00	0.22	0.00	0.00	0.16	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	2561	0	0	2804	0	0	1401	0	0	1326	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	0.0	5.9	0.0	0.0	13.9	0.0	0.0	14.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	0.0	0.0	6.1	0.0	0.0	14.1	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	243			215			71			178		
Approach Delay, s/veh	6.3			6.1			14.1			15.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	26.9			13.5			26.9			13.5		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+l1), s	4.7			5.8			5.1			3.3		
Green Ext Time (p_c), s	2.5			1.0			2.9			0.3		
Intersection Summary												
HCM 6th Ctrl Delay	9.4											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Total AM Peak
12/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	119	51	434	207	239	69	1027	174	136	991	22
Future Volume (veh/h)	33	119	51	434	207	239	69	1027	174	136	991	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1781	1781	1856	1826	1856	1781	1781	1767	1781	1781
Adj Flow Rate, veh/h	35	128	0	345	394	0	74	1104	0	146	1066	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	8	3	3	5	3	8	8	9	8	8
Cap, veh/h	151	158		387	424		284	2165		309	2309	52
Arrive On Green	0.09	0.09	0.00	0.23	0.23	0.00	0.05	0.59	0.00	0.06	0.47	0.47
Sat Flow, veh/h	1753	1841	1510	1696	1856	1547	1767	4863	1510	1682	4894	110
Grp Volume(v), veh/h	35	128	0	345	394	0	74	1104	0	146	706	384
Grp Sat Flow(s),veh/h/ln	1753	1841	1510	1696	1856	1547	1767	1621	1510	1682	1621	1762
Q Serve(g_s), s	2.5	9.2	0.0	26.6	28.1	0.0	3.1	17.9	0.0	6.3	19.9	19.9
Cycle Q Clear(g_c), s	2.5	9.2	0.0	26.6	28.1	0.0	3.1	17.9	0.0	6.3	19.9	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	151	158		387	424		284	2165		309	1529	831
V/C Ratio(X)	0.23	0.81		0.89	0.93		0.26	0.51		0.47	0.46	0.46
Avail Cap(c_a), veh/h	234	245		402	440		462	2165		435	1529	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.57	0.57	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	60.6	0.0	50.4	51.0	0.0	19.9	18.9	0.0	19.6	24.1	24.1
Incr Delay (d2), s/veh	0.9	12.2	0.0	13.2	17.3	0.0	0.5	0.9	0.0	0.8	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	8.5	0.0	17.1	19.9	0.0	2.3	10.1	0.0	4.5	12.3	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	72.8	0.0	63.6	68.3	0.0	20.4	19.8	0.0	20.4	25.1	25.9
LnGrp LOS	E	E		E	E		C	B		C	C	C
Approach Vol, veh/h	163			739			1178			1236		
Approach Delay, s/veh	69.7			66.1			19.8			24.8		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	66.6		17.6	10.4	70.2		36.8				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	18.5	42.5		18.0	18.5	42.5		32.0				
Max Q Clear Time (g_c+I1), s	8.3	19.9		11.2	5.1	21.9		30.1				
Green Ext Time (p_c), s	0.2	13.3		0.4	0.1	12.1		0.8				
Intersection Summary												
HCM 6th Ctrl Delay	34.5											
HCM 6th LOS	C											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Total AM Peak
12/14/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	243	162	143	812	130	48
Future Volume (veh/h)	243	162	143	812	130	48
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1841	1870	1856	1899	1870
Adj Flow Rate, veh/h	283	188	166	944	151	56
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	9	4	2	3	5	2
Cap, veh/h	966	853	667	1294	216	189
Arrive On Green	0.55	0.55	0.07	0.70	0.12	0.12
Sat Flow, veh/h	1767	1560	1781	1856	1809	1585
Grp Volume(v), veh/h	283	188	166	944	151	56
Grp Sat Flow(s),veh/h/ln	1767	1560	1781	1856	1809	1585
Q Serve(g_s), s	5.7	4.1	2.3	20.5	5.3	2.1
Cycle Q Clear(g_c), s	5.7	4.1	2.3	20.5	5.3	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	966	853	667	1294	216	189
V/C Ratio(X)	0.29	0.22	0.25	0.73	0.70	0.30
Avail Cap(c_a), veh/h	1214	1072	1486	2408	828	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	7.7	4.9	6.1	27.7	26.3
Incr Delay (d2), s/veh	0.4	0.3	0.3	1.7	4.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.4	2.2	1.2	9.6	4.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	7.9	5.2	7.8	31.8	27.2
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	471			1110	207	
Approach Delay, s/veh	8.2			7.4	30.6	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.7		13.8	9.9	41.8
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		22.5		7.3	4.3	7.7
Green Ext Time (p_c), s		23.2		0.6	0.8	5.4
Intersection Summary						
HCM 6th Ctrl Delay			10.3			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	271	7	4	919	17	1
Future Vol, veh/h	271	7	4	919	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	17	25	3	2	100
Mvmt Flow	304	8	4	1033	19	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	312	0	1345	304
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	1041	-
Critical Hdwy	-	-	4.35	-	6.42	7.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.425	-	3.518	4.2
Pot Cap-1 Maneuver	-	-	1129	-	167	554
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	340	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1129	-	166	554
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	337	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		28.5	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	173		-	-	1129	-
HCM Lane V/C Ratio	0.117		-	-	0.004	-
HCM Control Delay (s)	28.5		-	-	8.2	0
HCM Lane LOS	D		-	-	A	A
HCM 95th %tile Q(veh)	0.4		-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Total AM Peak
12/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	206	50	14	677	4	172	0	28	5	1	69
Future Volume (veh/h)	15	206	50	14	677	4	172	0	28	5	1	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1796	1856	1856	1900	1945	1945	1976	1976	1976	1976
Adj Flow Rate, veh/h	16	226	55	15	744	4	189	0	31	5	1	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	7	3	3	0	2	2	0	0	0	0
Cap, veh/h	97	992	890	75	1074	942	391	0	288	78	15	271
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.17	0.00	0.17	0.17	0.17	0.17
Sat Flow, veh/h	44	1696	1522	12	1836	1610	1492	0	1675	38	86	1571
Grp Volume(v), veh/h	242	0	55	759	0	4	189	0	31	82	0	0
Grp Sat Flow(s),veh/h/ln	1740	0	1522	1847	0	1610	1492	0	1675	1695	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.1	3.9	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	0.8	15.4	0.0	0.1	6.2	0.0	0.8	2.3	0.0	0.0
Prop In Lane	0.07		1.00	0.02		1.00	1.00		1.00	0.06		0.93
Lane Grp Cap(c), veh/h	1089	0	890	1149	0	942	391	0	288	363	0	0
V/C Ratio(X)	0.22	0.00	0.06	0.66	0.00	0.00	0.48	0.00	0.11	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1967	0	1707	2131	0	1805	926	0	939	1010	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.3	0.0	4.8	7.8	0.0	4.6	20.7	0.0	18.7	19.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1	1.4	0.0	0.0	0.9	0.0	0.2	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.4	8.2	0.0	0.0	3.8	0.0	0.6	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	0.0	4.8	9.2	0.0	4.6	21.6	0.0	18.8	19.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	B	B	A	A
Approach Vol, veh/h	297		763				220		82			
Approach Delay, s/veh	5.4		9.2				21.2		19.6			
Approach LOS	A		A				C		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	38.3		15.2		38.3		15.2					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+l1), s	17.4		4.3		5.4		8.2					
Green Ext Time (p_c), s	13.9		0.4		3.8		1.2					
Intersection Summary												
HCM 6th Ctrl Delay	10.9											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↑	↗	↘	
Traffic Vol, veh/h	10	244	648	20	5	24
Future Vol, veh/h	10	244	648	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	5	8	5	0	0
Mvmt Flow	12	284	753	23	6	28

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	776	0	0 1061 753
Stage 1	-	-	- 753 -
Stage 2	-	-	- 308 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	849	-	- 250 413
Stage 1	-	-	- 469 -
Stage 2	-	-	- 750 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	849	-	- 246 413
Mov Cap-2 Maneuver	-	-	- 246 -
Stage 1	-	-	- 461 -
Stage 2	-	-	- 750 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	849	-	-	-	370
HCM Lane V/C Ratio	0.014	-	-	-	0.091
HCM Control Delay (s)	9.3	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	224	17	6	594	62	19
Future Vol, veh/h	224	17	6	594	62	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	0	4	0	0
Mvmt Flow	249	19	7	660	69	21
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	268	0	923	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	674	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1307	-	302	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	300	795
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	507	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.8	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	351	-	-	1307	-	
HCM Lane V/C Ratio	0.256	-	-	0.005	-	
HCM Control Delay (s)	18.8	-	-	7.8	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	1	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	232	7	1	519	16	6
Future Vol, veh/h	232	7	1	519	16	6
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, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	29	0	4	6	17
Mvmt Flow	270	8	1	603	19	7

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	278
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1296
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1296
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	1296	-
HCM Lane V/C Ratio	0.069	-	-	0.001	-
HCM Control Delay (s)	15.4	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Total AM Peak
12/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	186	12	8	441	71	15	92	8	22	38	67
Future Volume (veh/h)	45	186	12	8	441	71	15	92	8	22	38	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1841	1841	1841	1884	1884	1884	1693	1693	1693
Adj Flow Rate, veh/h	51	209	13	9	496	80	17	103	9	25	43	75
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	4	4	4	6	6	6	14	14	14
Cap, veh/h	192	676	38	93	767	122	122	289	23	130	104	145
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	177	1358	77	8	1539	245	122	1557	126	147	559	779
Grp Volume(v), veh/h	273	0	0	585	0	0	129	0	0	143	0	0
Grp Sat Flow(s),veh/h/ln	1611	0	0	1792	0	0	1804	0	0	1485	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	10.0	0.0	0.0	2.5	0.0	0.0	3.4	0.0	0.0
Prop In Lane	0.19		0.05	0.02		0.14	0.13		0.07	0.17		0.52
Lane Grp Cap(c), veh/h	906	0	0	981	0	0	434	0	0	379	0	0
V/C Ratio(X)	0.30	0.00	0.00	0.60	0.00	0.00	0.30	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	2299	0	0	2692	0	0	1387	0	0	1162	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	7.7	0.0	0.0	14.6	0.0	0.0	15.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	3.7	0.0	0.0	1.7	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	0.0	0.0	8.9	0.0	0.0	15.0	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	273		585				129		143			
Approach Delay, s/veh	6.5		8.9				15.0		15.6			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.5		13.6		27.5		13.6					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	12.0		5.4		5.7		4.5					
Green Ext Time (p_c), s	8.5		0.8		3.6		0.7					
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Total PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	329	110	217	179	244	66	983	371	292	1094	41
Future Volume (veh/h)	48	329	110	217	179	244	66	983	371	292	1094	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1856	1810	1885	1856	1900	1811	1870	1856	1856	1856
Adj Flow Rate, veh/h	49	336	0	202	210	0	67	1003	0	298	1116	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	3	1	1	3	0	6	2	3	3	3
Cap, veh/h	349	366		224	245		280	2166		404	2563	96
Arrive On Green	0.19	0.19	0.00	0.13	0.13	0.00	0.04	0.58	0.00	0.10	0.51	0.51
Sat Flow, veh/h	1795	1885	1572	1724	1885	1572	1810	4944	1585	1767	5010	188
Grp Volume(v), veh/h	49	336	0	202	210	0	67	1003	0	298	752	406
Grp Sat Flow(s),veh/h/ln	1795	1885	1572	1724	1885	1572	1810	1648	1585	1767	1689	1822
Q Serve(g_s), s	4.1	31.5	0.0	20.8	19.6	0.0	3.7	20.9	0.0	16.3	25.2	25.2
Cycle Q Clear(g_c), s	4.1	31.5	0.0	20.8	19.6	0.0	3.7	20.9	0.0	16.3	25.2	25.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	349	366		224	245		280	2166		404	1727	932
V/C Ratio(X)	0.14	0.92		0.90	0.86		0.24	0.46		0.74	0.44	0.44
Avail Cap(c_a), veh/h	409	429		249	272		550	2166		539	1727	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.89	0.89	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	71.1	0.0	77.2	76.7	0.0	26.5	25.5	0.0	24.7	27.6	27.6
Incr Delay (d2), s/veh	0.2	23.0	0.0	28.3	19.4	0.0	0.4	0.7	0.0	3.0	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	24.5	0.0	16.2	16.0	0.0	3.0	12.4	0.0	11.6	15.8	17.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	94.2	0.0	105.5	96.1	0.0	26.9	26.2	0.0	27.7	28.4	29.1
LnGrp LOS	E	F		F	F		C	C		C	C	C
Approach Vol, veh/h		385			412			1070			1456	
Approach Delay, s/veh		89.9			100.7			26.2			28.5	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.3	85.3		40.9	11.1	98.6		29.4				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	32.5	56.5		41.0	32.5	56.5		26.0				
Max Q Clear Time (g_c+I1), s	18.3	22.9		33.5	5.7	27.2		22.8				
Green Ext Time (p_c), s	0.5	15.1		1.5	0.1	15.9		0.6				

Intersection Summary

HCM 6th Ctrl Delay 43.8
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Total PM Peak
12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	667	344	111	411	209	205
Future Volume (veh/h)	667	344	111	411	209	205
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1885	1841	1856	1945	1870
Adj Flow Rate, veh/h	695	358	116	428	218	214
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	4	3	2	2
Cap, veh/h	939	809	332	1198	328	281
Arrive On Green	0.51	0.51	0.07	0.65	0.18	0.18
Sat Flow, veh/h	1856	1598	1753	1856	1853	1585
Grp Volume(v), veh/h	695	358	116	428	218	214
Grp Sat Flow(s),veh/h/ln	1856	1598	1753	1856	1853	1585
Q Serve(g_s), s	20.0	9.7	1.9	7.2	7.4	8.7
Cycle Q Clear(g_c), s	20.0	9.7	1.9	7.2	7.4	8.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	939	809	332	1198	328	281
V/C Ratio(X)	0.74	0.44	0.35	0.36	0.66	0.76
Avail Cap(c_a), veh/h	1233	1061	1123	2328	820	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	10.6	10.4	5.5	26.0	26.5
Incr Delay (d2), s/veh	2.8	0.8	0.9	0.4	2.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.5	5.6	1.2	4.0	6.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	11.5	11.3	5.9	28.3	30.8
LnGrp LOS	B	B	B	A	C	C
Approach Vol, veh/h	1053			544	432	
Approach Delay, s/veh	14.5			7.1	29.5	
Approach LOS	B			A	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	49.7			18.0	9.4	40.3
Change Period (Y+Rc), s	6.0			6.0	5.0	6.0
Max Green Setting (Gmax), s	85.0			30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s	9.2			10.7	3.9	22.0
Green Ext Time (p_c), s	6.5			1.3	0.5	12.3
Intersection Summary						
HCM 6th Ctrl Delay			15.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	830	14	0	504	4	4
Future Vol, veh/h	830	14	0	504	4	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	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	25
Mvmt Flow	856	14	0	520	4	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	870	0	1376	856
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	783	-	162	325
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	783	-	162	325
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	601	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		22.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	216		-	-	783	-
HCM Lane V/C Ratio	0.038		-	-	-	-
HCM Control Delay (s)	22.3		-	-	0	-
HCM Lane LOS	C		-	-	A	-
HCM 95th %tile Q(veh)	0.1		-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Total PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	622	154	30	359	16	111	3	25	4	3	32
Future Volume (veh/h)	54	622	154	30	359	16	111	3	25	4	3	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1870	1900	1976	1976	1899	1976	1976	1976
Adj Flow Rate, veh/h	57	655	162	32	378	17	117	3	26	4	3	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	0	2	2	0	0	0	5	0	0	0
Cap, veh/h	126	1009	955	112	1013	955	358	8	238	88	33	208
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	82	1700	1610	59	1707	1610	1468	51	1609	65	225	1409
Grp Volume(v), veh/h	712	0	162	410	0	17	120	0	26	41	0	0
Grp Sat Flow(s),veh/h/ln	1782	0	1610	1765	0	1610	1519	0	1609	1699	0	0
Q Serve(g_s), s	0.7	0.0	2.3	0.0	0.0	0.2	2.5	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.8	0.0	2.3	5.7	0.0	0.2	3.5	0.0	0.7	1.0	0.0	0.0
Prop In Lane	0.08		1.00	0.08		1.00	0.97		1.00	0.10		0.83
Lane Grp Cap(c), veh/h	1135	0	955	1125	0	955	366	0	238	330	0	0
V/C Ratio(X)	0.63	0.00	0.17	0.36	0.00	0.02	0.33	0.00	0.11	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2178	0	1925	2113	0	1925	1022	0	962	1081	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	0.0	4.6	5.3	0.0	4.2	19.6	0.0	18.5	18.7	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	0.0	0.5	0.0	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	0.0	1.0	2.9	0.0	0.1	2.2	0.0	0.5	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	0.0	4.8	5.7	0.0	4.2	20.1	0.0	18.7	18.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	B	B	A	A
Approach Vol, veh/h	874				427		146				41	
Approach Delay, s/veh	7.4				5.7		19.9				18.8	
Approach LOS	A				A		B				B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	36.8		13.4		36.8		13.4					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	7.7		3.0		14.8		5.5					
Green Ext Time (p_c), s	6.5		0.2		15.0		0.7					
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	584	363	17	16	38
Future Vol, veh/h	47	584	363	17	16	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	6	6	0
Mvmt Flow	49	608	378	18	17	40
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	396	0	-	0	1084	378
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	706	-
Critical Hdwy	4.1	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.2	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1174	-	-	-	236	673
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1174	-	-	-	221	673
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	482	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		14.9		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1174	-	-	-	419	
HCM Lane V/C Ratio	0.042	-	-	-	0.134	
HCM Control Delay (s)	8.2	0	-	-	14.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	575	62	17	328	36	12
Future Vol, veh/h	575	62	17	328	36	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	5	0	3	0	0
Mvmt Flow	618	67	18	353	39	13
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	685	0	1007	618
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	389	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	918	-	269	493
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	689	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	918	-	264	493
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	675	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		19.5		
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	299	-	-	918	-	
HCM Lane V/C Ratio	0.173	-	-	0.02	-	
HCM Control Delay (s)	19.5	-	-	9	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	473	480	3	316	11	8
Future Vol, veh/h	473	480	3	316	11	8
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, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	18	0	2	0	25
Mvmt Flow	509	516	3	340	12	9

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1025	0	1113	767
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	346	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	685	-	233	367
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	685	-	232	367
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	717	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	19.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	275	-	-	685	-
HCM Lane V/C Ratio	0.074	-	-	0.005	-
HCM Control Delay (s)	19.1	-	-	10.3	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Total PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	403	25	1	225	40	16	69	2	83	123	82
Future Volume (veh/h)	62	403	25	1	225	40	16	69	2	83	123	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1930	1930	1930	1856	1856	1856
Adj Flow Rate, veh/h	65	420	26	1	234	42	17	72	2	86	128	85
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	699	41	83	697	125	135	414	10	193	202	115
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	135	1535	90	1	1531	274	153	1663	41	352	813	463
Grp Volume(v), veh/h	511	0	0	277	0	0	91	0	0	299	0	0
Grp Sat Flow(s),veh/h/ln	1760	0	0	1805	0	0	1857	0	0	1628	0	0
Q Serve(g_s), s	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	0.0	4.3	0.0	0.0	1.6	0.0	0.0	7.3	0.0	0.0
Prop In Lane	0.13		0.05	0.00		0.15	0.19		0.02	0.29		0.28
Lane Grp Cap(c), veh/h	894	0	0	904	0	0	559	0	0	510	0	0
V/C Ratio(X)	0.57	0.00	0.00	0.31	0.00	0.00	0.16	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	2445	0	0	2543	0	0	1310	0	0	1199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.0	0.0	0.0	7.7	0.0	0.0	13.0	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	0.0	0.0	1.9	0.0	0.0	1.1	0.0	0.0	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	0.0	0.0	8.1	0.0	0.0	13.1	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	511		277				91		299			
Approach Delay, s/veh	10.2		8.1				13.1		16.1			
Approach LOS	B		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.0		16.9		27.0		16.9					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+l1), s	6.3		9.3		11.3		3.6					
Green Ext Time (p_c), s	3.3		1.7		7.2		0.4					
Intersection Summary												
HCM 6th Ctrl Delay	11.5											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Total Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	283	103	186	186	280	102	1276	236	183	1328	57
Future Volume (veh/h)	77	283	103	186	186	280	102	1276	236	183	1328	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1810	1885	1885	1900	1870	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	304	0	200	200	0	110	1372	0	197	1428	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	1	1	1	0	2	1	1	1	1
Cap, veh/h	324	340		235	257		230	2306		292	2420	103
Arrive On Green	0.18	0.18	0.00	0.14	0.14	0.00	0.06	0.60	0.00	0.07	0.48	0.48
Sat Flow, veh/h	1781	1870	1610	1724	1885	1598	1810	5106	1598	1795	5061	216
Grp Volume(v), veh/h	83	304	0	200	200	0	110	1372	0	197	968	521
Grp Sat Flow(s),veh/h/ln	1781	1870	1610	1724	1885	1598	1810	1702	1598	1795	1716	1846
Q Serve(g_s), s	6.1	24.3	0.0	17.4	15.7	0.0	5.0	25.6	0.0	8.9	31.4	31.4
Cycle Q Clear(g_c), s	6.1	24.3	0.0	17.4	15.7	0.0	5.0	25.6	0.0	8.9	31.4	31.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	324	340		235	257		230	2306		292	1640	883
V/C Ratio(X)	0.26	0.89		0.85	0.78		0.48	0.60		0.67	0.59	0.59
Avail Cap(c_a), veh/h	407	427		394	431		499	4499		512	3023	1627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	61.2	0.0	64.6	63.9	0.0	23.6	21.9	0.0	23.5	29.1	29.1
Incr Delay (d2), s/veh	0.5	18.3	0.0	8.8	5.0	0.0	1.5	0.5	0.0	2.0	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	19.3	0.0	13.0	12.6	0.0	3.9	14.3	0.0	7.0	19.0	20.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	79.6	0.0	73.5	69.0	0.0	25.2	22.4	0.0	25.5	29.8	30.4
LnGrp LOS	D	E		E	E		C	C		C	C	C
Approach Vol, veh/h		387			400			1482			1686	
Approach Delay, s/veh		74.1			71.2			22.6			29.5	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	75.7		33.9	12.7	79.7		26.9				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	30.0	135.0		35.0	30.0	135.0		35.0				
Max Q Clear Time (g_c+I1), s	10.9	27.6		26.3	7.0	33.4		19.4				
Green Ext Time (p_c), s	0.4	36.0		1.6	0.3	39.8		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Total Saturday Peak
12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Traffic Volume (veh/h)	376	279	118	397	222	137
Future Volume (veh/h)	376	279	118	397	222	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1961	1900
Adj Flow Rate, veh/h	404	300	127	427	239	147
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	1	1	1	0
Cap, veh/h	743	635	465	1092	340	293
Arrive On Green	0.40	0.40	0.08	0.58	0.18	0.18
Sat Flow, veh/h	1870	1598	1795	1885	1867	1610
Grp Volume(v), veh/h	404	300	127	427	239	147
Grp Sat Flow(s),veh/h/ln	1870	1598	1795	1885	1867	1610
Q Serve(g_s), s	8.4	7.0	1.8	6.2	6.0	4.1
Cycle Q Clear(g_c), s	8.4	7.0	1.8	6.2	6.0	4.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	743	635	465	1092	340	293
V/C Ratio(X)	0.54	0.47	0.27	0.39	0.70	0.50
Avail Cap(c_a), veh/h	1673	1429	1565	3184	1113	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	11.2	7.5	5.8	19.3	18.5
Incr Delay (d2), s/veh	1.3	1.2	0.4	0.5	2.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	4.1	1.0	3.2	4.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.0	12.4	8.0	6.2	21.9	19.8
LnGrp LOS	B	B	A	A	C	B
Approach Vol, veh/h	704			554	386	
Approach Delay, s/veh	12.7			6.6	21.1	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.2		15.2	9.2	26.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		8.2		8.0	3.8	10.4
Green Ext Time (p_c), s		6.4		1.2	0.6	8.5
Intersection Summary						
HCM 6th Ctrl Delay			12.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	458	19	3	492	27	0
Future Vol, veh/h	458	19	3	492	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	520	22	3	559	31	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	542	0	1085	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1037	-	242	560
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1037	-	241	560
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	571	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	22.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	-	-	1037	-
HCM Lane V/C Ratio	0.127	-	-	0.003	-
HCM Control Delay (s)	22.1	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Total Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	339	103	17	338	3	105	3	19	4	2	33
Future Volume (veh/h)	41	339	103	17	338	3	105	3	19	4	2	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1870	1870	1900	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	47	385	117	19	384	3	119	3	22	5	2	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	0	2	2	0	0	0	0	0	0	0
Cap, veh/h	148	843	805	109	904	805	434	9	294	113	33	251
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	98	1687	1610	29	1809	1610	1458	51	1675	77	187	1429
Grp Volume(v), veh/h	432	0	117	403	0	3	122	0	22	45	0	0
Grp Sat Flow(s),veh/h/ln	1785	0	1610	1838	0	1610	1509	0	1675	1692	0	0
Q Serve(g_s), s	0.0	0.0	1.6	0.0	0.0	0.0	1.8	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	0.0	1.6	5.5	0.0	0.0	2.7	0.0	0.4	0.9	0.0	0.0
Prop In Lane	0.11		1.00	0.05		1.00	0.98		1.00	0.11		0.84
Lane Grp Cap(c), veh/h	992	0	805	1013	0	805	442	0	294	397	0	0
V/C Ratio(X)	0.44	0.00	0.15	0.40	0.00	0.00	0.28	0.00	0.07	0.11	0.00	0.00
Avail Cap(c_a), veh/h	2698	0	2414	2791	0	2414	1277	0	1255	1350	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.5	0.0	5.4	6.4	0.0	5.0	14.7	0.0	13.8	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.5	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	0.7	2.8	0.0	0.0	1.6	0.0	0.3	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.2	0.0	5.6	6.9	0.0	5.0	15.0	0.0	13.9	14.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		549			406			144			45	
Approach Delay, s/veh		6.8			6.9			14.8			14.1	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		13.0		27.0		13.0				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+l1), s		7.5		2.9		8.0		4.7				
Green Ext Time (p_c), s		6.0		0.2		7.8		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			8.1									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	28	354	320	11	15	30
Future Vol, veh/h	28	354	320	11	15	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	9	0	0
Mvmt Flow	31	389	352	12	16	33
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	364	0	-	0	803	352
Stage 1	-	-	-	-	352	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1206	-	-	-	355	696
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	646	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1206	-	-	-	343	696
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	646	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.7		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1206	-	-	-	518	
HCM Lane V/C Ratio	0.026	-	-	-	0.095	
HCM Control Delay (s)	8.1	0	-	-	12.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	330	41	11	291	37	12
Future Vol, veh/h	330	41	11	291	37	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	33	1	8	0
Mvmt Flow	344	43	11	303	39	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	387	0	669	344
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	-	-	4.43	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.497	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1021	-	414	703
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1021	-	409	703
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	711	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		13.9	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	456	-	-	1021	-	
HCM Lane V/C Ratio	0.112	-	-	0.011	-	
HCM Control Delay (s)	13.9	-	-	8.6	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	259	14	6	258	12	1
Future Vol, veh/h	259	14	6	258	12	1
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, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	17	2	8	100
Mvmt Flow	273	15	6	272	13	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	288	0	565	281
Stage 1	-	-	-	-	281	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	-	-	4.27	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.353	-	3.572	4.2
Pot Cap-1 Maneuver	-	-	1193	-	476	573
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1193	-	473	573
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	746	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.7	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	479	-	-	1193	-	
HCM Lane V/C Ratio	0.029	-	-	0.005	-	
HCM Control Delay (s)	12.7	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Total Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	178	21	3	190	30	13	50	7	34	73	71
Future Volume (veh/h)	56	178	21	3	190	30	13	50	7	34	73	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1914	1914	1914	1870	1870	1870
Adj Flow Rate, veh/h	57	182	21	3	194	31	13	51	7	35	74	72
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	227	650	68	93	779	123	134	274	33	144	149	124
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	240	1320	137	5	1583	250	156	1472	178	204	803	665
Grp Volume(v), veh/h	260	0	0	228	0	0	71	0	0	181	0	0
Grp Sat Flow(s),veh/h/ln	1697	0	0	1837	0	0	1805	0	0	1671	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	2.9	0.0	0.0	1.3	0.0	0.0	3.9	0.0	0.0
Prop In Lane	0.22		0.08	0.01		0.14	0.18		0.10	0.19		0.40
Lane Grp Cap(c), veh/h	944	0	0	995	0	0	441	0	0	417	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.23	0.00	0.00	0.16	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	2556	0	0	2805	0	0	1399	0	0	1323	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	5.9	0.0	0.0	13.9	0.0	0.0	15.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	0.0	6.2	0.0	0.0	14.1	0.0	0.0	15.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	260		228				71			181		
Approach Delay, s/veh	6.4		6.2				14.1			15.7		
Approach LOS	A		A				B			B		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	26.9		13.5		26.9		13.5					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	4.9		5.9		5.4		3.3					
Green Ext Time (p_c), s	2.6		1.0		3.2		0.3					
Intersection Summary												
HCM 6th Ctrl Delay			9.3									
HCM 6th LOS			A									

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	3788	3816	3893	3764	3720	3911	3747
Vehs Exited	3804	3818	3873	3777	3742	3902	3757
Starting Vehs	150	132	125	153	154	144	152
Ending Vehs	134	130	145	140	132	153	142
Travel Distance (mi)	3380	3420	3472	3372	3271	3506	3358
Travel Time (hr)	147.3	148.3	152.7	145.4	143.2	151.3	146.4
Total Delay (hr)	40.1	39.8	42.4	38.8	39.0	40.5	39.7
Total Stops	3353	3475	3640	3379	3318	3345	3405
Fuel Used (gal)	112.8	114.7	116.2	112.2	109.2	116.2	111.7

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	3810	3822	3869	3812
Vehs Exited	3787	3840	3898	3820
Starting Vehs	134	158	149	140
Ending Vehs	157	140	120	133
Travel Distance (mi)	3457	3501	3522	3426
Travel Time (hr)	150.1	151.5	152.3	148.8
Total Delay (hr)	40.6	40.4	40.5	40.2
Total Stops	3512	3454	3461	3431
Fuel Used (gal)	115.6	116.2	116.7	114.1

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3788	3816	3893	3764	3720	3911	3747
Vehs Exited	3804	3818	3873	3777	3742	3902	3757
Starting Vehs	150	132	125	153	154	144	152
Ending Vehs	134	130	145	140	132	153	142
Travel Distance (mi)	3380	3420	3472	3372	3271	3506	3358
Travel Time (hr)	147.3	148.3	152.7	145.4	143.2	151.3	146.4
Total Delay (hr)	40.1	39.8	42.4	38.8	39.0	40.5	39.7
Total Stops	3353	3475	3640	3379	3318	3345	3405
Fuel Used (gal)	112.8	114.7	116.2	112.2	109.2	116.2	111.7

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3810	3822	3869	3812
Vehs Exited	3787	3840	3898	3820
Starting Vehs	134	158	149	140
Ending Vehs	157	140	120	133
Travel Distance (mi)	3457	3501	3522	3426
Travel Time (hr)	150.1	151.5	152.3	148.8
Total Delay (hr)	40.6	40.4	40.5	40.2
Total Stops	3512	3454	3461	3431
Fuel Used (gal)	115.6	116.2	116.7	114.1

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	115	212	308	386	172	134	338	333	263	73	154	264
Average Queue (ft)	15	106	164	209	8	57	207	187	135	5	58	163
95th Queue (ft)	71	182	260	319	89	143	305	290	241	38	115	242
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	16	0	1	0	0	28		0			
Queuing Penalty (veh)	0	3	0	3	0	1	19		0			

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	275	259
Average Queue (ft)	165	130
95th Queue (ft)	249	226
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	225	79	140	272	140	47
Average Queue (ft)	61	37	42	114	63	18
95th Queue (ft)	164	69	95	214	115	40
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				1		
Queuing Penalty (veh)				1		

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	140	49	245	20	116	40	53
Average Queue (ft)	47	8	110	2	54	10	25
95th Queue (ft)	109	32	200	13	94	34	48
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		0		0	0	
Queuing Penalty (veh)	0		0		0	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	134	187	150	126
Average Queue (ft)	50	72	59	52
95th Queue (ft)	111	138	115	100
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 27

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:30	3:30	3:30	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4490	4402	4330	4478	4340	4493	4469
Vehs Exited	4482	4394	4391	4459	4383	4516	4422
Starting Vehs	181	177	209	161	186	214	155
Ending Vehs	189	185	148	180	143	191	202
Travel Distance (mi)	3875	3814	3723	3831	3732	3840	3837
Travel Time (hr)	183.6	177.8	173.4	182.3	171.9	179.5	177.8
Total Delay (hr)	60.3	56.2	54.8	60.3	52.4	57.2	55.4
Total Stops	4345	4260	4184	4458	4132	4251	4241
Fuel Used (gal)	135.0	133.0	129.3	134.0	129.4	133.0	132.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4356	4387	4454	4419
Vehs Exited	4350	4374	4505	4426
Starting Vehs	156	195	200	184
Ending Vehs	162	208	149	170
Travel Distance (mi)	3751	3690	3908	3800
Travel Time (hr)	174.5	174.2	181.8	177.7
Total Delay (hr)	55.0	56.2	57.7	56.6
Total Stops	4227	4129	4428	4266
Fuel Used (gal)	130.5	128.5	135.3	132.1

Interval #0 Information Seeding

Start Time	3:30
End Time	4:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4490	4402	4330	4478	4340	4493	4469
Vehs Exited	4482	4394	4391	4459	4383	4516	4422
Starting Vehs	181	177	209	161	186	214	155
Ending Vehs	189	185	148	180	143	191	202
Travel Distance (mi)	3875	3814	3723	3831	3732	3840	3837
Travel Time (hr)	183.6	177.8	173.4	182.3	171.9	179.5	177.8
Total Delay (hr)	60.3	56.2	54.8	60.3	52.4	57.2	55.4
Total Stops	4345	4260	4184	4458	4132	4251	4241
Fuel Used (gal)	135.0	133.0	129.3	134.0	129.4	133.0	132.8

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4356	4387	4454	4419
Vehs Exited	4350	4374	4505	4426
Starting Vehs	156	195	200	184
Ending Vehs	162	208	149	170
Travel Distance (mi)	3751	3690	3908	3800
Travel Time (hr)	174.5	174.2	181.8	177.7
Total Delay (hr)	55.0	56.2	57.7	56.6
Total Stops	4227	4129	4428	4266
Fuel Used (gal)	130.5	128.5	135.3	132.1

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	LT	R	L	T	T	T	R	L
Maximum Queue (ft)	125	492	11	259	290	79	134	385	362	342	218	271
Average Queue (ft)	28	293	0	120	190	5	60	243	226	173	70	121
95th Queue (ft)	107	449	11	212	275	67	146	356	344	297	172	224
Link Distance (ft)		1151	1151		866			1576	1576	1576		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100			300		300	110				270	460
Storage Blk Time (%)	0	56		0	0	0	0	35		1	0	
Queuing Penalty (veh)	0	14		0	1	0	0	23		1	0	

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	322	329	307
Average Queue (ft)	197	196	172
95th Queue (ft)	312	311	301
Link Distance (ft)	2028	2028	2028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	399	174	102	171	197	178
Average Queue (ft)	154	58	49	69	102	57
95th Queue (ft)	307	119	88	135	174	117
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)	0	0		0	0	0
Queuing Penalty (veh)	0	0		0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	265	121	157	26	98	51	50
Average Queue (ft)	97	19	56	4	43	11	16
95th Queue (ft)	203	79	115	19	81	36	39
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	1	0			0		
Queuing Penalty (veh)	1	0			0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	228	120	95	213
Average Queue (ft)	104	49	40	102
95th Queue (ft)	189	99	77	178
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 41

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	11:00	11:00	11:00	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4459	4592	4470	4526	4347	4627	4517
Vehs Exited	4492	4555	4470	4545	4373	4658	4491
Starting Vehs	207	158	188	189	162	184	137
Ending Vehs	174	195	188	170	136	153	163
Travel Distance (mi)	3498	3546	3456	3522	3389	3597	3484
Travel Time (hr)	168.7	177.9	163.4	167.1	155.4	175.2	173.5
Total Delay (hr)	56.9	63.9	52.5	54.2	46.5	59.8	61.7
Total Stops	3873	3973	3742	3806	3604	4038	3863
Fuel Used (gal)	121.4	124.6	119.0	121.7	115.3	125.6	122.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4528	4610	4612	4528
Vehs Exited	4549	4608	4575	4532
Starting Vehs	181	184	134	168
Ending Vehs	160	186	171	166
Travel Distance (mi)	3520	3636	3575	3522
Travel Time (hr)	173.9	175.7	179.6	171.0
Total Delay (hr)	60.8	59.4	65.2	58.1
Total Stops	3867	3927	4075	3879
Fuel Used (gal)	123.4	126.2	125.9	122.5

Interval #0 Information Seeding

Start Time	11:00
End Time	11:30
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4459	4592	4470	4526	4347	4627	4517
Vehs Exited	4492	4555	4470	4545	4373	4658	4491
Starting Vehs	207	158	188	189	162	184	137
Ending Vehs	174	195	188	170	136	153	163
Travel Distance (mi)	3498	3546	3456	3522	3389	3597	3484
Travel Time (hr)	168.7	177.9	163.4	167.1	155.4	175.2	173.5
Total Delay (hr)	56.9	63.9	52.5	54.2	46.5	59.8	61.7
Total Stops	3873	3973	3742	3806	3604	4038	3863
Fuel Used (gal)	121.4	124.6	119.0	121.7	115.3	125.6	122.0

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4528	4610	4612	4528
Vehs Exited	4549	4608	4575	4532
Starting Vehs	181	184	134	168
Ending Vehs	160	186	171	166
Travel Distance (mi)	3520	3636	3575	3522
Travel Time (hr)	173.9	175.7	179.6	171.0
Total Delay (hr)	60.8	59.4	65.2	58.1
Total Stops	3867	3927	4075	3879
Fuel Used (gal)	123.4	126.2	125.9	122.5

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	125	791	271	444	281	134	473	444	408	295	176	367
Average Queue (ft)	39	444	107	198	22	75	262	244	196	38	71	223
95th Queue (ft)	122	781	222	341	145	157	433	414	366	165	135	377
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	70	0	2	0	2	32		3	0		
Queuing Penalty (veh)	1	27	0	5	0	7	33		5	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	371	343
Average Queue (ft)	228	202
95th Queue (ft)	380	361
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	174	127	98	160	187	66
Average Queue (ft)	71	52	44	63	95	31
95th Queue (ft)	142	97	79	125	160	55
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	151	44	116	10	74	28	48
Average Queue (ft)	54	11	44	1	32	7	17
95th Queue (ft)	114	34	93	7	64	26	40
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	126	94	99	130
Average Queue (ft)	49	37	34	55
95th Queue (ft)	100	76	74	103
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 77

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	3882	3986	4037	3924	3846	4138	3994
Vehs Exited	3835	3984	4053	3912	3857	4116	4008
Starting Vehs	134	140	160	160	155	158	160
Ending Vehs	181	142	144	172	144	180	146
Travel Distance (mi)	3515	3643	3638	3605	3520	3822	3649
Travel Time (hr)	154.0	158.5	159.0	157.0	155.5	171.3	160.9
Total Delay (hr)	42.9	43.0	43.7	43.2	43.7	50.1	45.0
Total Stops	3538	3657	3565	3615	3615	4005	3807
Fuel Used (gal)	118.1	122.0	121.2	120.6	118.1	128.5	122.7

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	3988	4108	4043	3991
Vehs Exited	4030	4084	4074	3995
Starting Vehs	189	163	169	157
Ending Vehs	147	187	138	156
Travel Distance (mi)	3728	3756	3729	3660
Travel Time (hr)	164.8	165.1	160.7	160.7
Total Delay (hr)	46.6	46.0	42.8	44.7
Total Stops	3759	3809	3606	3699
Fuel Used (gal)	125.7	126.3	123.1	122.6

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3882	3986	4037	3924	3846	4138	3994
Vehs Exited	3835	3984	4053	3912	3857	4116	4008
Starting Vehs	134	140	160	160	155	158	160
Ending Vehs	181	142	144	172	144	180	146
Travel Distance (mi)	3515	3643	3638	3605	3520	3822	3649
Travel Time (hr)	154.0	158.5	159.0	157.0	155.5	171.3	160.9
Total Delay (hr)	42.9	43.0	43.7	43.2	43.7	50.1	45.0
Total Stops	3538	3657	3565	3615	3615	4005	3807
Fuel Used (gal)	118.1	122.0	121.2	120.6	118.1	128.5	122.7

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3988	4108	4043	3991
Vehs Exited	4030	4084	4074	3995
Starting Vehs	189	163	169	157
Ending Vehs	147	187	138	156
Travel Distance (mi)	3728	3756	3729	3660
Travel Time (hr)	164.8	165.1	160.7	160.7
Total Delay (hr)	46.6	46.0	42.8	44.7
Total Stops	3759	3809	3606	3699
Fuel Used (gal)	125.7	126.3	123.1	122.6

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	94	227	317	442	257	134	332	322	263	61	145	272
Average Queue (ft)	14	113	176	222	15	60	212	195	143	8	63	174
95th Queue (ft)	69	193	282	349	119	145	304	288	245	35	119	250
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	21	0	1	0	0	30		0			
Queuing Penalty (veh)	0	3	0	5	0	0	21		0			

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	281	254
Average Queue (ft)	176	141
95th Queue (ft)	254	233
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	239	87	209	292	147	47
Average Queue (ft)	71	37	52	129	66	18
95th Queue (ft)	182	71	131	246	122	40
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				1	0	
Queuing Penalty (veh)				2	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	144	45	322	20	137	38	62
Average Queue (ft)	50	7	129	1	61	11	27
95th Queue (ft)	115	29	255	9	112	35	52
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)			1		1	0	
Queuing Penalty (veh)			0		0	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	159	190	130	134
Average Queue (ft)	59	78	58	57
95th Queue (ft)	127	149	107	111
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 32

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:30	3:30	3:30	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4594	4575	4653	4736	4575	4679	4703
Vehs Exited	4585	4553	4670	4715	4573	4691	4684
Starting Vehs	181	206	192	198	198	206	222
Ending Vehs	190	228	175	219	200	194	241
Travel Distance (mi)	4123	4029	4126	4205	4120	4145	4189
Travel Time (hr)	199.1	191.2	194.3	198.9	197.8	197.4	199.5
Total Delay (hr)	67.7	63.2	63.0	65.5	66.7	65.8	66.3
Total Stops	4732	4460	4711	4666	4683	4647	4777
Fuel Used (gal)	144.5	141.1	142.8	147.2	144.4	144.4	146.4

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4454	4586	4705	4629
Vehs Exited	4469	4606	4754	4631
Starting Vehs	223	214	227	203
Ending Vehs	208	194	178	196
Travel Distance (mi)	3994	4168	4235	4133
Travel Time (hr)	188.6	200.8	204.2	197.2
Total Delay (hr)	61.7	68.3	69.7	65.8
Total Stops	4450	4854	4893	4687
Fuel Used (gal)	139.7	145.9	149.0	144.5

Interval #0 Information Seeding

Start Time	3:30
End Time	4:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4594	4575	4653	4736	4575	4679	4703
Vehs Exited	4585	4553	4670	4715	4573	4691	4684
Starting Vehs	181	206	192	198	198	206	222
Ending Vehs	190	228	175	219	200	194	241
Travel Distance (mi)	4123	4029	4126	4205	4120	4145	4189
Travel Time (hr)	199.1	191.2	194.3	198.9	197.8	197.4	199.5
Total Delay (hr)	67.7	63.2	63.0	65.5	66.7	65.8	66.3
Total Stops	4732	4460	4711	4666	4683	4647	4777
Fuel Used (gal)	144.5	141.1	142.8	147.2	144.4	144.4	146.4

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4454	4586	4705	4629
Vehs Exited	4469	4606	4754	4631
Starting Vehs	223	214	227	203
Ending Vehs	208	194	178	196
Travel Distance (mi)	3994	4168	4235	4133
Travel Time (hr)	188.6	200.8	204.2	197.2
Total Delay (hr)	61.7	68.3	69.7	65.8
Total Stops	4450	4854	4893	4687
Fuel Used (gal)	139.7	145.9	149.0	144.5

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	125	511	296	430	276	134	410	404	370	276	314	335
Average Queue (ft)	32	314	154	227	29	56	276	256	198	81	147	211
95th Queue (ft)	114	472	258	349	176	141	381	366	315	194	269	322
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	60	0	2	0	0	40		1	0		
Queuing Penalty (veh)	0	14	0	7	0	0	27		3	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	345	317
Average Queue (ft)	211	189
95th Queue (ft)	332	310
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	502	110	130	199	238	179
Average Queue (ft)	179	53	51	80	103	63
95th Queue (ft)	371	89	97	157	181	126
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	278	178	188	46	96	46	47
Average Queue (ft)	112	20	71	4	44	11	17
95th Queue (ft)	229	87	145	29	83	35	40
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	1	0	0	0	0		
Queuing Penalty (veh)	1	0	0	0	0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	260	116	113	237
Average Queue (ft)	113	51	44	111
95th Queue (ft)	209	100	87	195
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 55

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	11:30	11:30	11:30	11:30	11:30	11:30	11:30
End Time	1:00	1:00	1:00	1:00	1:00	1:00	1:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4750	4775	4800	4674	4744	4701	4783
Vehs Exited	4786	4764	4763	4662	4730	4723	4741
Starting Vehs	208	217	161	234	196	187	200
Ending Vehs	172	228	198	246	210	165	242
Travel Distance (mi)	3877	3885	3864	3759	3863	3833	3808
Travel Time (hr)	199.4	200.9	216.7	214.8	207.3	190.6	204.5
Total Delay (hr)	75.3	76.7	93.1	94.9	83.7	68.3	82.7
Total Stops	4341	4492	4450	4249	4466	4261	4134
Fuel Used (gal)	137.0	137.1	140.9	138.0	139.3	135.4	137.5

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	11:30	11:30	11:30	11:30
End Time	1:00	1:00	1:00	1:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4754	4763	4624	4740
Vehs Exited	4703	4728	4649	4725
Starting Vehs	169	218	232	196
Ending Vehs	220	253	207	206
Travel Distance (mi)	3871	3885	3751	3840
Travel Time (hr)	271.1	200.1	206.9	211.2
Total Delay (hr)	147.2	75.7	87.3	88.5
Total Stops	4367	4420	4337	4353
Fuel Used (gal)	154.1	137.8	136.2	139.3

Interval #0 Information Seeding

Start Time	11:30
End Time	12:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	12:00
End Time	1:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4750	4775	4800	4674	4744	4701	4783
Vehs Exited	4786	4764	4763	4662	4730	4723	4741
Starting Vehs	208	217	161	234	196	187	200
Ending Vehs	172	228	198	246	210	165	242
Travel Distance (mi)	3877	3885	3864	3759	3863	3833	3808
Travel Time (hr)	199.4	200.9	216.7	214.8	207.3	190.6	204.5
Total Delay (hr)	75.3	76.7	93.1	94.9	83.7	68.3	82.7
Total Stops	4341	4492	4450	4249	4466	4261	4134
Fuel Used (gal)	137.0	137.1	140.9	138.0	139.3	135.4	137.5

Interval #1 Information Recording

Start Time	12:00
End Time	1:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4754	4763	4624	4740
Vehs Exited	4703	4728	4649	4725
Starting Vehs	169	218	232	196
Ending Vehs	220	253	207	206
Travel Distance (mi)	3871	3885	3751	3840
Travel Time (hr)	271.1	200.1	206.9	211.2
Total Delay (hr)	147.2	75.7	87.3	88.5
Total Stops	4367	4420	4337	4353
Fuel Used (gal)	154.1	137.8	136.2	139.3

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	LT	R	L	T	T	T	R	L
Maximum Queue (ft)	125	1096	583	315	489	325	134	446	450	391	294	230
Average Queue (ft)	46	869	242	137	227	48	66	278	262	210	58	87
95th Queue (ft)	129	1295	993	253	372	227	144	446	434	382	209	170
Link Distance (ft)		1151	1151		866			1576	1576	1576		
Upstream Blk Time (%)		21	4									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	100			300		300	110				270	460
Storage Blk Time (%)	0	82		0	3	0	1	34		3	0	
Queuing Penalty (veh)	0	31		0	10	0	5	35		7	0	

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	374	389	361
Average Queue (ft)	229	235	214
95th Queue (ft)	386	395	374
Link Distance (ft)	2028	2028	2028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	231	115	94	169	182	72
Average Queue (ft)	97	52	46	76	96	33
95th Queue (ft)	183	94	80	143	157	60
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	175	65	146	20	86	33	46
Average Queue (ft)	59	11	59	1	33	7	16
95th Queue (ft)	134	42	121	10	65	27	39
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		0		0		
Queuing Penalty (veh)	0		0		0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	142	102	83	134
Average Queue (ft)	53	37	34	58
95th Queue (ft)	110	75	69	105
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 89

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4159	4210	4176	4196	4162	4217	4309
Vehs Exited	4108	4217	4189	4164	4168	4243	4296
Starting Vehs	155	171	179	166	178	204	167
Ending Vehs	206	164	166	198	172	178	180
Travel Distance (mi)	3867	3935	3915	3842	3878	3919	4027
Travel Time (hr)	174.4	178.6	179.6	172.5	177.2	176.6	182.6
Total Delay (hr)	51.6	53.7	55.1	50.0	53.5	51.8	54.4
Total Stops	4229	4206	4401	4058	4141	4230	4347
Fuel Used (gal)	131.2	133.9	132.9	129.6	132.1	133.6	136.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4189	4193	4174	4200
Vehs Exited	4195	4218	4176	4195
Starting Vehs	177	199	166	176
Ending Vehs	171	174	164	172
Travel Distance (mi)	3958	3858	3904	3910
Travel Time (hr)	178.0	172.4	175.2	176.7
Total Delay (hr)	52.1	49.1	51.5	52.3
Total Stops	4209	4044	4179	4204
Fuel Used (gal)	133.8	130.3	132.3	132.6

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4159	4210	4176	4196	4162	4217	4309
Vehs Exited	4108	4217	4189	4164	4168	4243	4296
Starting Vehs	155	171	179	166	178	204	167
Ending Vehs	206	164	166	198	172	178	180
Travel Distance (mi)	3867	3935	3915	3842	3878	3919	4027
Travel Time (hr)	174.4	178.6	179.6	172.5	177.2	176.6	182.6
Total Delay (hr)	51.6	53.7	55.1	50.0	53.5	51.8	54.4
Total Stops	4229	4206	4401	4058	4141	4230	4347
Fuel Used (gal)	131.2	133.9	132.9	129.6	132.1	133.6	136.1

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4189	4193	4174	4200
Vehs Exited	4195	4218	4176	4195
Starting Vehs	177	199	166	176
Ending Vehs	171	174	164	172
Travel Distance (mi)	3958	3858	3904	3910
Travel Time (hr)	178.0	172.4	175.2	176.7
Total Delay (hr)	52.1	49.1	51.5	52.3
Total Stops	4209	4044	4179	4204
Fuel Used (gal)	133.8	130.3	132.3	132.6

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	117	223	324	533	325	134	356	349	293	139	165	284
Average Queue (ft)	14	117	208	261	44	61	230	215	165	13	74	183
95th Queue (ft)	68	202	305	407	224	150	320	309	268	70	135	261
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	21	0	3	0	0	35		0	0		
Queuing Penalty (veh)	0	3	1	13	0	0	24		0	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	292	256
Average Queue (ft)	184	151
95th Queue (ft)	265	237
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	268	91	170	390	178	53
Average Queue (ft)	76	36	51	150	77	20
95th Queue (ft)	193	72	124	291	144	43
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				2	0	
Queuing Penalty (veh)				3	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	182	67	307	48	160	89	62
Average Queue (ft)	60	13	156	3	80	16	28
95th Queue (ft)	137	47	265	36	136	53	56
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		2		3	0	
Queuing Penalty (veh)	0		0		1	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	160	184	134	137
Average Queue (ft)	67	83	59	56
95th Queue (ft)	131	151	110	105
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 46

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	5101	5198	5138	5190	5122	5332	5234
Vehs Exited	5064	5245	5154	5185	5102	5332	5222
Starting Vehs	187	257	223	208	216	230	217
Ending Vehs	224	210	207	213	236	230	229
Travel Distance (mi)	4371	4442	4469	4453	4404	4584	4470
Travel Time (hr)	213.4	217.9	221.0	222.0	218.0	230.7	219.5
Total Delay (hr)	73.7	76.1	78.7	79.4	76.9	83.9	76.4
Total Stops	5060	5157	5145	5246	5224	5547	5280
Fuel Used (gal)	154.5	156.5	157.9	158.7	157.1	163.1	158.6

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	5319	5218	5255	5212
Vehs Exited	5303	5194	5258	5207
Starting Vehs	215	207	216	217
Ending Vehs	231	231	213	217
Travel Distance (mi)	4554	4547	4514	4481
Travel Time (hr)	231.0	228.9	224.7	222.7
Total Delay (hr)	85.0	83.6	80.5	79.4
Total Stops	5543	5362	5295	5289
Fuel Used (gal)	162.3	162.3	160.7	159.2

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	5101	5198	5138	5190	5122	5332	5234
Vehs Exited	5064	5245	5154	5185	5102	5332	5222
Starting Vehs	187	257	223	208	216	230	217
Ending Vehs	224	210	207	213	236	230	229
Travel Distance (mi)	4371	4442	4469	4453	4404	4584	4470
Travel Time (hr)	213.4	217.9	221.0	222.0	218.0	230.7	219.5
Total Delay (hr)	73.7	76.1	78.7	79.4	76.9	83.9	76.4
Total Stops	5060	5157	5145	5246	5224	5547	5280
Fuel Used (gal)	154.5	156.5	157.9	158.7	157.1	163.1	158.6

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	5319	5218	5255	5212
Vehs Exited	5303	5194	5258	5207
Starting Vehs	215	207	216	217
Ending Vehs	231	231	213	217
Travel Distance (mi)	4554	4547	4514	4481
Travel Time (hr)	231.0	228.9	224.7	222.7
Total Delay (hr)	85.0	83.6	80.5	79.4
Total Stops	5543	5362	5295	5289
Fuel Used (gal)	162.3	162.3	160.7	159.2

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	125	613	324	505	325	134	424	404	377	284	357	330
Average Queue (ft)	26	394	173	259	51	58	287	265	215	111	179	210
95th Queue (ft)	99	601	291	428	240	142	389	372	330	232	321	327
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	66	0	5	0	0	43		1	0		
Queuing Penalty (veh)	0	16	1	17	0	0	28		5	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	343	313
Average Queue (ft)	213	191
95th Queue (ft)	331	314
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	764	186	147	217	222	169
Average Queue (ft)	239	62	57	97	104	68
95th Queue (ft)	485	152	109	181	175	128
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)	0	0		0	0	0
Queuing Penalty (veh)	1	0		0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	361	218	222	32	134	77	52
Average Queue (ft)	135	33	87	4	62	16	18
95th Queue (ft)	266	126	175	20	112	51	41
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	2	0	0		1	0	
Queuing Penalty (veh)	3	0	0		0	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	269	138	105	233
Average Queue (ft)	127	52	42	109
95th Queue (ft)	220	105	85	188
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 73

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	11:00	11:00	11:00	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4737	4838	4834	4827	4804	4870	4850
Vehs Exited	4779	4866	4809	4804	4756	4863	4834
Starting Vehs	217	211	195	232	170	214	219
Ending Vehs	175	183	220	255	218	221	235
Travel Distance (mi)	3994	3995	3951	4007	3937	4006	4009
Travel Time (hr)	222.7	271.8	246.7	289.1	234.8	258.0	235.2
Total Delay (hr)	94.4	143.9	120.1	160.6	108.4	129.6	107.1
Total Stops	4924	4693	4632	4663	4596	4748	4675
Fuel Used (gal)	146.4	157.4	150.3	161.4	146.8	154.4	149.6

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4880	4980	4911	4853
Vehs Exited	4853	4970	4877	4840
Starting Vehs	206	231	201	206
Ending Vehs	233	241	235	219
Travel Distance (mi)	4013	4093	4001	4001
Travel Time (hr)	259.7	270.7	255.8	254.4
Total Delay (hr)	131.1	139.9	127.2	126.2
Total Stops	4712	4768	4784	4720
Fuel Used (gal)	155.3	160.1	153.8	153.6

Interval #0 Information Seeding

Start Time	11:00
End Time	11:30
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4737	4838	4834	4827	4804	4870	4850
Vehs Exited	4779	4866	4809	4804	4756	4863	4834
Starting Vehs	217	211	195	232	170	214	219
Ending Vehs	175	183	220	255	218	221	235
Travel Distance (mi)	3994	3995	3951	4007	3937	4006	4009
Travel Time (hr)	222.7	271.8	246.7	289.1	234.8	258.0	235.2
Total Delay (hr)	94.4	143.9	120.1	160.6	108.4	129.6	107.1
Total Stops	4924	4693	4632	4663	4596	4748	4675
Fuel Used (gal)	146.4	157.4	150.3	161.4	146.8	154.4	149.6

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4880	4980	4911	4853
Vehs Exited	4853	4970	4877	4840
Starting Vehs	206	231	201	206
Ending Vehs	233	241	235	219
Travel Distance (mi)	4013	4093	4001	4001
Travel Time (hr)	259.7	270.7	255.8	254.4
Total Delay (hr)	131.1	139.9	127.2	126.2
Total Stops	4712	4768	4784	4720
Fuel Used (gal)	155.3	160.1	153.8	153.6

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	LT	R	L	T	T	T	R	L
Maximum Queue (ft)	125	1190	1170	324	693	325	134	479	461	422	295	268
Average Queue (ft)	49	1118	765	173	292	94	69	299	280	231	77	107
95th Queue (ft)	135	1342	1621	314	554	320	146	462	445	402	250	201
Link Distance (ft)		1151	1151		866			1576	1576	1576		
Upstream Blk Time (%)		70	21		0							
Queuing Penalty (veh)		0	0		1							
Storage Bay Dist (ft)	100			300		300	110				270	460
Storage Blk Time (%)	0	82		0	9	0	1	36		4	0	
Queuing Penalty (veh)	0	31		1	35	0	6	37		10	0	

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	394	392	366
Average Queue (ft)	239	240	220
95th Queue (ft)	393	398	376
Link Distance (ft)	2028	2028	2028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	273	115	120	194	208	148
Average Queue (ft)	117	51	47	87	103	41
95th Queue (ft)	222	92	90	163	173	93
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	225	78	162	13	116	33	53
Average Queue (ft)	75	17	71	1	49	11	18
95th Queue (ft)	159	53	135	7	91	33	42
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		0		0		
Queuing Penalty (veh)	0		0		0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	134	113	94	137
Average Queue (ft)	55	38	34	59
95th Queue (ft)	107	80	71	109
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 122

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	10.1	31.0	0.2	21
Gannon Cir	3	2.5	37.9	0.3	29
Fisher Range Rd	4	6.9	32.2	0.2	23
Mile Post Dr	5	2.9	35.5	0.4	38
McCall St	6	0.6	12.5	0.1	39
Swann Haven Rd	7	1.7	28.1	0.4	46
Black Dog Aly	8	7.9	13.0	0.1	20
Total		32.6	190.1	1.6	31

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.2	24.9	0.2	32
Swann Haven Rd	7	2.9	8.0	0.1	32
McCall St	6	1.6	33.6	0.4	38
Mile Post Dr	5	1.4	13.3	0.1	37
Dyott Ct	4	9.7	50.8	0.4	26
Gannon Cir	3	3.4	28.6	0.2	26
Elliott Rd	2	9.3	45.3	0.3	24
US 50	1	40.5	58.9	0.2	11
Total		78.0	263.4	1.9	25

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	15.3	36.6	0.2	18
Gannon Cir	3	4.4	40.4	0.3	27
Fisher Range Rd	4	8.1	33.2	0.2	23
Mile Post Dr	5	4.8	38.0	0.4	35
McCall St	6	1.2	13.1	0.1	38
Swann Haven Rd	7	3.4	29.5	0.4	44
Black Dog Aly	8	11.1	16.3	0.1	16
Total		48.2	207.0	1.6	28

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.3	24.8	0.2	32
Swann Haven Rd	7	2.7	7.8	0.1	33
McCall St	6	0.8	32.2	0.4	40
Mile Post Dr	5	0.9	12.9	0.1	38
Dyott Ct	4	6.7	49.8	0.4	27
Gannon Cir	3	2.1	27.5	0.2	27
Elliott Rd	2	8.3	44.0	0.3	25
US 50	1	73.2	92.3	0.2	7
Total		104.0	291.5	1.9	23

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	9.6	30.2	0.2	22
Gannon Cir	3	2.9	37.4	0.3	30
Fisher Range Rd	4	6.0	30.1	0.2	25
Mile Post Dr	5	3.0	35.8	0.4	37
McCall St	6	0.7	12.9	0.1	38
Swann Haven Rd	7	1.8	27.4	0.4	47
Black Dog Aly	8	7.5	12.6	0.1	20
Total		31.5	186.4	1.6	32

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	7.3	22.7	0.2	35
Swann Haven Rd	7	2.5	7.6	0.1	34
McCall St	6	0.7	32.2	0.4	40
Mile Post Dr	5	0.8	13.0	0.1	38
Dyott Ct	4	5.3	48.2	0.4	28
Gannon Cir	3	2.0	26.4	0.2	28
Elliott Rd	2	7.7	43.9	0.3	25
US 50	1	77.8	97.1	0.2	7
Total		104.1	291.1	1.9	23

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	11.4	32.3	0.2	20
Gannon Cir	3	2.7	38.2	0.3	29
Fisher Range Rd	4	7.0	32.0	0.2	23
Mile Post Dr	5	3.1	35.4	0.4	38
McCall St	6	0.7	12.7	0.1	38
Swann Haven Rd	7	2.0	28.3	0.4	46
Black Dog Aly	8	8.9	14.0	0.1	18
Total		35.9	192.8	1.6	31

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.7	25.4	0.2	31
Swann Haven Rd	7	3.0	8.2	0.1	31
McCall St	6	1.7	32.3	0.4	40
Mile Post Dr	5	1.5	13.4	0.1	37
Dyott Ct	4	10.6	51.7	0.4	26
Gannon Cir	3	3.6	28.8	0.2	26
Elliott Rd	2	10.1	46.1	0.3	24
US 50	1	40.3	58.9	0.2	11
Total		80.5	264.7	1.9	25

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	15.4	36.9	0.2	18
Gannon Cir	3	4.6	40.5	0.3	27
Fisher Range Rd	4	8.6	33.4	0.2	22
Mile Post Dr	5	5.2	38.5	0.4	35
McCall St	6	1.4	13.3	0.1	37
Swann Haven Rd	7	3.2	27.7	0.4	47
Black Dog Aly	8	12.2	17.4	0.1	15
Total		50.6	207.7	1.6	28

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.4	25.0	0.2	32
Swann Haven Rd	7	2.7	7.8	0.1	33
McCall St	6	1.0	32.6	0.4	40
Mile Post Dr	5	1.1	13.0	0.1	38
Dyott Ct	4	7.8	51.0	0.4	26
Gannon Cir	3	2.5	28.0	0.2	27
Elliott Rd	2	8.9	45.0	0.3	25
US 50	1	82.2	101.8	0.2	6
Total		115.6	304.3	1.9	22

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	12.2	33.0	0.2	20
Gannon Cir	3	3.4	38.5	0.3	29
Fisher Range Rd	4	6.1	30.3	0.2	25
Mile Post Dr	5	3.5	36.6	0.4	37
McCall St	6	0.9	13.0	0.1	38
Swann Haven Rd	7	1.9	25.7	0.4	50
Black Dog Aly	8	7.7	12.8	0.1	20
Total		35.6	189.9	1.6	31

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	7.2	22.8	0.2	35
Swann Haven Rd	7	2.4	7.6	0.1	34
McCall St	6	0.8	31.2	0.4	41
Mile Post Dr	5	0.9	13.1	0.1	37
Dyott Ct	4	6.2	49.4	0.4	27
Gannon Cir	3	2.4	26.9	0.2	28
Elliott Rd	2	8.8	45.0	0.3	25
US 50	1	87.0	106.6	0.2	6
Total		115.7	302.5	1.9	22

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	11.0	32.1	0.2	21
Gannon Cir	3	2.9	38.8	0.3	28
Fisher Range Rd	4	8.9	34.2	0.2	22
Mile Post Dr	5	3.5	36.6	0.4	37
McCall St	6	0.8	12.9	0.1	38
Swann Haven Rd	7	2.2	28.3	0.4	46
Black Dog Aly	8	9.1	14.3	0.1	18
Total		38.4	197.2	1.6	30

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	10.1	25.8	0.2	31
Swann Haven Rd	7	3.2	8.3	0.1	31
McCall St	6	2.0	32.6	0.4	40
Mile Post Dr	5	1.7	13.5	0.1	36
Dyott Ct	4	12.2	53.4	0.4	25
Gannon Cir	3	3.9	29.2	0.2	26
Elliott Rd	2	11.2	47.2	0.3	23
US 50	1	44.6	63.4	0.2	10
Total		88.8	273.6	1.9	24

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	19.5	41.1	0.2	16
Gannon Cir	3	5.1	41.2	0.3	27
Fisher Range Rd	4	10.6	35.4	0.2	21
Mile Post Dr	5	5.7	39.1	0.4	34
McCall St	6	1.5	13.5	0.1	37
Swann Haven Rd	7	14.0	35.8	0.4	37
Black Dog Aly	8	14.9	20.0	0.1	13
Total		71.3	226.0	1.6	26

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	8.9	24.5	0.2	32
Swann Haven Rd	7	3.7	8.8	0.1	29
McCall St	6	1.2	32.7	0.4	40
Mile Post Dr	5	1.1	13.1	0.1	37
Dyott Ct	4	9.5	52.6	0.4	25
Gannon Cir	3	2.6	27.9	0.2	27
Elliott Rd	2	9.9	45.8	0.3	24
US 50	1	89.6	109.4	0.2	6
Total		126.5	314.8	1.9	21

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	14.0	35.3	0.2	19
Gannon Cir	3	3.7	38.9	0.3	28
Fisher Range Rd	4	7.5	32.0	0.2	23
Mile Post Dr	5	3.9	37.0	0.4	36
McCall St	6	1.0	13.2	0.1	37
Swann Haven Rd	7	2.0	25.8	0.4	50
Black Dog Aly	8	8.0	13.1	0.1	20
Total		40.0	195.4	1.6	30

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	7.2	22.8	0.2	35
Swann Haven Rd	7	2.4	7.5	0.1	34
McCall St	6	0.9	31.6	0.4	41
Mile Post Dr	5	0.9	13.1	0.1	37
Dyott Ct	4	7.5	50.8	0.4	26
Gannon Cir	3	2.5	27.1	0.2	28
Elliott Rd	2	9.3	45.6	0.3	24
US 50	1	98.3	117.9	0.2	6
Total		129.0	316.3	1.9	21

APPENDIX C

Signal Timing





MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B	B	B	B												

Sequence 1

Ring 1	1	2	3	4	9	10	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X										
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	4A29
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	O				-	Auto	X		
2	2	O				-	Auto	X		X
3	3	O				-	Auto	X		
4	4	O				-	Auto	X		
5	5	O				-	Auto	X		
6	6	O				-	Auto	X		X
7	7	O				-	Auto	X		
8	8	O				-	Auto	X		
9	9	O				-	Auto	X		
10	10	O				-	Auto	X		
11	2	P				-	Auto			
12	6	P				-	Auto			
13	13	O				-	Auto	X		X

14	14	O				-	Auto	X		X
15	15	O				-	Auto	X		
16	16	O				-	Auto	X		

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modern - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBLT	WB	NB	SB	WBLT	EB										
Min Green	5	20	7	7	5	20	0	0	0	0	0	0	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	1	0	0	0	1	0	0	0	0	0	0	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	7	7	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.5	5.0	3.5	3.0	2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	30	25	35	35	30	25	0	0	0	0	0	0	35	35	35	35
Max2	40	25	50	45	40	25	0	0	0	0	0	0	40	40	40	40
Max3	35	25	45	45	35	25	0	0	0	0	0	0	0	0	0	0
DYM Max	20	25	45	45	20	25	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	5.0	4.0	4.0	3.5	5.0	3.5	3.5	0.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	1.5	2.0	2.0	2.0	1.5	1.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	30	30	30	30	0	0	0	0
Time B4	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modern - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X					X										
Non-Act II																
Dual Entry																
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector			X	X												
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modern - Econolite Type - ASC/3

Coordination Pattern Data**Coordinator Pattern Data (MM) 3-2****Coordinator Pattern # 1**

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	135	Std (COS)	81	Offsets In	Percent
Offset Value	90%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 1)	18	36	18	28	18	36	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	54%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	150	Std (COS)	154	Offsets In	Percent
Offset Value	6%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 2)	18	35	27	20	18	35	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	53%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	135	Std (COS)	9	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 3)	18	32	25	25	18	32	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	50%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	180	Std (COS)	155	Offsets In	Percent
Offset Value	80%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 4)	21	35	26	18	21	35	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	56%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 4

Pattern	4	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 97

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3			X													
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 98

Pattern	Free	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X															
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 99

Pattern	Free	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X															
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 100

Pattern	Flash	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

*MOVING TRAFFIC FORWARD*

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	98	00:00
2	1	06:30
3	3	08:30
4	4	15:30
5	98	18:30

Day Plan #2

Event	Action Plan	Start Time
1	99	00:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
						X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22

	X	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

Schedule Number - 4

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 5

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 6

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X		

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		

	X	X	X	X	X	X	X	X	X		
--	---	---	---	---	---	---	---	---	---	--	--



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B											

Sequence 1

Ring 1	1	11	2	3	4	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	12	6	8	10	.	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X										
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	C0A3
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	O				-	Auto	X		
2	2	O				-	Auto	X		X
3	3	O				-	Auto	X		
4	4	O				-	Auto	X		
5	5	O				-	Auto	X		
6	6	O				-	Auto	X		X
7	7	O				-	Auto	X		
8	8	O				-	Auto	X		
9	2	O				-	Auto	X		X
10	4	O				-	Auto	X		
11	6	O				-	Auto	X		X
12	8	O				-	Auto	X		
13	13	O				-	Auto	X		X

14	14	O				-	Auto	X		X
15	15	O				-	Auto	X		
16	16	O				-	Auto	X		

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBLT	WB	NB	SB	WBLT	EB										
Min Green	5	25	5	5	5	25	0	0	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	7	0	7	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.0	3.0	3.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	2.5	6.5	2.5	2.5	2.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	75	35	35	35	75	0	0	0	0	0	0	0	0	0	0
Max2	45	120	50	55	35	120	0	0	0	0	0	0	0	0	0	0
Max3	20	135	45	45	20	135	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	45	45	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	5.0	4.0	4.0	3.5	5.0	3.5	3.5	0.0	0.0	4.5	4.5	3.0	3.0	3.0	3.0
Red Clear	2.0	1.5	2.0	2.0	2.0	1.5	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	30	30	30	30	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X				X											
Non-Act II																
Dual Entry																
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector			X	X												
Vehicle Recall		X				X					X	X				
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Coordination Pattern Data**Coordinator Pattern Data (MM) 3-2****Coordinator Pattern # 1**

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	135	Std (COS)	81	Offsets In	Percent
Offset Value	67%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 1)	16	32	24	28	16	32	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	48%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	150	Std (COS)	154	Offsets In	Percent
Offset Value	9%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 2)	20	32	24	24	20	32	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	135	Std (COS)	9	Offsets In	Percent
Offset Value	25%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 3)	21	30	25	24	21	30	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	51%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	180	Std (COS)	155	Offsets In	Percent
Offset Value	82%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 4)	22	30	25	23	22	30	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 4

Pattern	4	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 92

Pattern	Free	Override Sys	Yes
Timing Plan	2	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3	X	X			X	X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 93

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3		X				X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 94

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3	X	X	X	X	X	X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 95

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3	X	X			X	X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 96

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3		X				X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 97

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X										
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 98

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 99

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 100

Pattern	Flash	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Time Base Day Plan/Schedule Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	98	00:00
2	1	06:30
3	3	08:30
4	4	15:30
5	98	18:30

Day Plan #2

Event	Action Plan	Start Time
1	98	00:00
2	97	11:45

Day Plan #3

Event	Action Plan	Start Time
1	96	00:00
2	95	08:00
3	94	12:00

Day Plan #4

Event	Action Plan	Start Time
1	93	00:00
2	92	09:00
3	96	22:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
						X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22

	X	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

Schedule Number - 4

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 5

Day Plan No.: 4

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 6

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X		

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		

	X	X	X	X	X	X	X	X	X		
--	---	---	---	---	---	---	---	---	---	--	--



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B									

Sequence 1

Ring 1	1	2	3	4	9	10	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use		X		X	X	X										
Exclusive Ped																

Phase Compatibility (MM)

1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		SB		WB	SBLT	NB										
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	D6ED
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase Disable	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	O				-	Auto	X		
2	2	O				-	Auto	X		X
3	3	O				-	Auto	X		
4	4	O				-	Auto	X		
5	5	O				-	Auto	X		
6	6	O				-	Auto	X		X
7	7	O				-	Auto	X		
8	8	O				-	Auto	X		
9	2	P				-	Auto			

10	4	P				-	Auto			
11	6	P				-	Auto			
12	8	P				-	Auto			
13	13	O				-	Auto	X		
14	14	O				-	Auto	X		
15	15	O				-	Auto	X		
16	16	O				-	Auto	X		

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction		SB		WB	SBLT	NB										
Min Green	20	20	0	8	5	20	0	0	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	0.0	3.0	4.0	5.0	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	45	45	0	30	35	45	0	0	35	35	35	35	35	35	35	35
Max2	60	60	0	40	35	60	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	30	30	30	30	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5

O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X					X										
Non-Act II																
Dual Entry																
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X					X									
Ped Recall																
Max Recall		X														
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Time Base Action Plan Action Plan (MM) 5-2

Action Plan - 99

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Action Plan - 100

Pattern	Flash	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	99	00:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X	X	X	X	X	X	X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B								
Sequence 1																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 2																	
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 3																	
Ring 1		1	2		4	3		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 4																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.
Sequence 5																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		8	7		11	12		15	16		.	.	.	.
Sequence 6																	
Ring 1		1	2		3	4		10	9		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 7																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		12	11		15	16		.	.	.	.
Sequence 8																	
Ring 1		2	1		4	3		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 9																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		6	5		8	7		11	12		15	16		.	.	.	.
Sequence 10																	
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		8	7		11	12		15	16		.	.	.	.
Sequence 11																	
Ring 1		1	2		4	3		9	10		13	14		.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.
Sequence 12																	
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.
Sequence 13																	

Ring 1		1	2		4	3		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		5	6		8	7		11	12		15	16		.	.	.	.	.	.	.	.
Sequence 14																					
Ring 1		2	1		4	3		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.	.	.	.	.
Sequence 15																					
Ring 1		1	2		4	3		9	10		14	13		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		12	11		16	15		.	.	.	.	.	.	.	.
Sequence 16																					
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		11	12		15	16		.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use		X		X		X		X								
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	F779
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase Disable	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	0	O				-	Auto	X		
2	2	O				-	Auto		X	X
3	0	O				-	Auto	X		
4	4	O				-	Auto	X		X
5	0	O				-	Auto	X		
6	6	O				-	Auto		X	X
7	0	O				-	Auto	X		
8	8	O				-	Auto	X		X
9	0	P				-	Auto			

10	0	P				-	Auto			
11	0	P				-	Auto			
12	0	P				-	Auto			
13	0	O				-	Auto	X		
14	0	O				+	Auto	X		X
15	0	O				-	Auto	X		
16	0	O				+	Auto	X		X

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	0	20	0	8	0	20	0	8	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	5.0	0.0	3.0	0.0	5.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	60	0	30	0	60	0	30	35	35	35	35	35	35	35	35
Max2	0	60	0	35	0	60	0	35	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	5.0	3.0	4.0	3.0	5.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5

O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X				X											
Non-Act II																
Dual Entry	X	X	X	X	X											
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall	X					X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 99

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Schedule (MM) 5-4

APPENDIX D

Correspondence



Ming-Yu Chien

From: Betty Tustin
Sent: Wednesday, July 13, 2022 11:33 AM
To: Ming-Yu Chien
Subject: FW: Aspire

From: Henry Dierker <HDierker@mdot.maryland.gov>
Sent: Friday, May 20, 2022 11:14 AM
To: Betty Tustin <btustin@trafficgroup.com>
Cc: Mike Mertaugh <mmertaugh@talbgov.org>; Richard Baker (SHA) <RBaker@mdot.maryland.gov>; Casey Rauch <casey@raucheng.com>; Stephanie McFaden (Consultant) <SMcFaden.consultant@mdot.maryland.gov>; Paul Rogers <paul@raucheng.com>; Rick Van Emburgh <rvanemburgh@eastonmd.gov>; Virginia Richardson <virginia@raucheng.com>; Henry Dierker <HDierker@mdot.maryland.gov>
Subject: RE: Aspire

Good morning,

Through collaborative conversations and Traffic Study general guidance from the MDOT SHA Access Manual, MDOT SHA District Two issues the minimum following comment for the traffic scope of study.

US 50 @ MD 328
MD 328 @ Elliot Road
MD 328 @ Gannon Circle
MD 328 @ Dyott Ct/ Fisher Ranger Road
MD 328 @ Mile Post Drive
MD 328 @ Hunters Mill
MD 328 @ Swann Haven Road
MD 328 @ Black Dog Alley

Inclusion of the background development of "Lands of Gannon Family" is imperative.

Henry R. Dierker III
Access Permits Regional Engineer
MDOT SHA District Two
615 Morgnec Road
Chestertown, MD 21620
410-810-3244
Fax: 410-778-0851

From: Betty Tustin <btustin@trafficgroup.com>
Sent: Friday, May 20, 2022 9:55 AM
To: Henry Dierker <HDierker@mdot.maryland.gov>
Cc: Mike Mertaugh <mmertaugh@talbgov.org>; Richard Baker (SHA) <RBaker@mdot.maryland.gov>; Casey Rauch <casey@raucheng.com>; Stephanie McFaden (Consultant) <SMcFaden.consultant@mdot.maryland.gov>; Paul Rogers <paul@raucheng.com>; Rick Van Emburgh <rvanemburgh@eastonmd.gov>; Virginia Richardson <virginia@raucheng.com>
Subject: Re: Aspire

Henry
Do you require an additional information?
Thank you
Betty

Sent from my iPhone

On May 19, 2022, at 2:47 PM, Betty Tustin <btustin@trafficgroup.com> wrote:

I believe that's the neighborhood to the south to which Aspire will interconnect. Does that help?

Sent from my iPhone

On May 19, 2022, at 2:29 PM, Henry Dierker <HDierker@mdot.maryland.gov> wrote:

Good afternoon Betty,

Can you give a better description of Matthewstown Run location (highlighted below)?

Thank you,
Henry R. Dierker III
Access Permits Regional Engineer
MDOT SHA District Two
615 Morgnec Road
Chestertown, MD 21620
410-810-3244
Fax: 410-778-0851

From: Betty Tustin <btustin@trafficgroup.com>
Sent: Wednesday, May 18, 2022 6:26 PM
To: Henry Dierker <HDierker@mdot.maryland.gov>; Mike Mertaugh <mmertaugh@talbgov.org>; Richard Baker (SHA) <RBaker@mdot.maryland.gov>; Casey Rauch <casey@raucheng.com>; Stephanie McFaden (Consultant) <SMcFaden.consultant@mdot.maryland.gov>; Paul Rogers <paul@raucheng.com>; Rick Van Emburgh <rvanemburgh@eastonmd.gov>; Virginia Richardson <virginia@raucheng.com>
Subject: RE: Aspire

All

This email serves as meeting minutes which took place today via Teams regarding the Aspire development in Easton, MD.

The following were in attendance in addition to myself: Rick Van Emburgh, Mike Mertaugh, Paul Rogers.

The primary purpose of the meeting was to develop a scope for a Traffic Impact Study. The density is in the process of being developed as the project continues through engineering. A potential density consists of 135 apartments (to be accessed through Hunters Mill and 46 townhomes to be accessed through **Matthewstown Run**). This

would generate the following trips: 83 morning peak hour trips (22 in and 61 out) and 103 evening peak hour trips (64 in and 39 out). I do not have the Saturday trips at hand at the moment.

Rick Van Embrugh and Mike Mertaugh agreed to defer to the MDOT SHA for a Scope for the Traffic Impact Study. All did agree that the weekday peak hour trips should be collected when schools are in session and the Saturday peak hour trips should be collected on a summer Saturday.

Other discussion involved the concerns being raised by the residents of Hunters Mill and Matthewstown Run. As stub streets into the subject property were constructed for both of these developments, some type of development on the subject property has been planned for. Paul Rogers or Rich Van Emburgh will provide the approved plans for these developments. Traffic calming measures may be investigated by the Town. The developer of Aspire is working towards a community meeting with the residents of these communities.

The other development in the area was also discussed including the Elliot development (Town limits) and the Gannon development (County). (Please provide corrections to names as necessary.)

Other discussion involved the design of the development with regard to access for school buses, emergency vehicles, and trash collection trucks.

Rich, Henry, and/or Stephanie – Please provide a Scope for the Traffic Study as soon as possible so we can schedule the weekday counts before schools ends for the summer. I am available via phone tomorrow morning.

Rick, Mike, and Paul – Please provide any additions, deletions, or corrections to these minutes.

Respectively submitted
Betty



Betty H. Tustin, P.E., PTOE
Senior Project Manager – Delmarva Region

The Traffic Group, Inc.

104 Kenwood Court

Berlin, MD 21811

T 443.290.4060

M 410.603.6251

btustin@trafficgroup.com

www.trafficgroup.com

Merging Innovation and Excellence®



Sent: Monday, May 16, 2022 4:23 PM

To: Henry Dierker <HDierker@mdot.maryland.gov>

Cc: Mike Mertaugh <mmertaugh@talbgov.org>; Rick Van Emburgh <rvanemburgh@eastonmd.gov>; Richard Baker (SHA) <RBaker@mdot.maryland.gov>; Stephanie McFaden (Consultant) <SMcFaden.consultant@mdot.maryland.gov>; Casey Rauch <casey@raucheng.com>; Paul Rogers <paul@raucheng.com>; Virginia Richardson <virginia@raucheng.com>

Subject: Re: Aspire

Henry

Rick and Mike are available only in the morning, I believe. I am eager to have a Scope set for the study so we can collect counts while schools are in session. That is, if that is a concern. Could I meet with you in the afternoon and relay the morning conversation?

Betty

Sent from my iPhone

On May 16, 2022, at 1:51 PM, Henry Dierker <HDierker@mdot.maryland.gov> wrote:

Good afternoon Betty,

Thank you for the invite. Due to a previously schedule meeting at 10:30 am, can this be moved to the afternoon?

Henry R. Dierker III
Access Permits Regional Engineer
MDOT SHA District Two
615 Morgnec Road
Chestertown, MD 21620
410-810-3244
Fax: 410-778-0851

From: Betty Tustin <btustin@trafficgroup.com>

Sent: Monday, May 16, 2022 12:36 PM

To: Mike Mertaugh <mmertaugh@talbgov.org>; Rick Van Emburgh <rvanemburgh@EastonMD.gov>; Richard Baker (SHA) <RBaker@mdot.maryland.gov>; Henry Dierker <HDierker@mdot.maryland.gov>; Stephanie McFaden (Consultant) <SMcFaden.consultant@mdot.maryland.gov>

Cc: Casey Rauch <casey@raucheng.com>; Paul Rogers

<paul@raucheng.com>; Virginia Richardson <virginia@raucheng.com>

Subject: RE: Aspire

Resending to include Henry and Stephanie!

-----Original Appointment-----

From: Betty Tustin

Sent: Monday, May 16, 2022 12:27 PM

To: Mike Mertaugh; Rick Van Emburgh; Rich Baker
(rbaker@mdot.maryland.gov)

Cc: Casey Rauch; Paul Rogers; Virginia Richardson

Subject: Aspire

When: Wednesday, May 18, 2022 11:00 AM-12:00 PM (UTC-05:00)
Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

To discuss Traffic Study Scope for proposed Aspire residential
development.

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

[Learn More](#) | [Meeting options](#)



A SERVICE DISABLED
VETERAN-OWNED
SMALL BUSINESS

MBE Certified
Charles County
Howard County
Prince George's County

MFD Certified
Montgomery County

Delmarva Region
104 Kenwood Court
Berlin, Maryland 21811
Phone: 443.290.4060
Cell: 410.603.6251

Corporate Office
Baltimore, MD
1.800.583.8411

SOUTH CAROLINA OFFICES
Columbia: 803.422.9965
Rock Hill: 410.446.3992

FIELD OFFICE LOCATIONS
Arkansas
Florida
Maine
Mississippi
New York
North Carolina
Ohio
Pennsylvania
South Carolina
Texas
Utah
Virginia
West Virginia

Merging Innovation and Excellence®
www.trafficgroup.com

December 22, 2022

Mr. Ken Fender
MDOT SHA, District 2
615 Morgnec Road
Chestertown, MD 21620

Attn: Mr. Henry R. Dierker III

RE: Aspire
POINT-BY-POINT RESPONSE
Talbot County, Maryland
SHA Tracking No. 22apta004xx
Our Job No.: 2021-1217

Dear Mr. Fender:

The Traffic Group, Inc. has received comments from the Maryland Department of Transportation State Highway Administration (MDOT SHA) in correspondence dated September 26, 2022, on our Traffic Impact Study for the proposed Aspire Development dated August 30, 2022. A copy of this correspondence is attached for your convenience. Below, each of the comments is restated along with our response. A revised report is also submitted for your review.

Traffic Development and Support Division (TDSD):

Comment No. 1 – The Fisher Range Road approach to MD 328 is not marked as two lanes; the existing conditions and analyses should be provided for a single lane approach as well as a proposed two-lane approach.

Response No. 1 – There are no pavement markings on Fisher Range Road. We collect turning movement counts with video from which it can be seen that Fisher Range Road operates as two lanes outbound.

Comment No. 2 – There are different trip distributions between the north and south parcel, both are residential developments, so the distribution should be the same. Please explain.

Response No. 2 – Ten percent of the vehicles accessing US 50 from the north parcel are assigned to use Black Dog Alley due to its close proximity. The assigned distribution reflects the existing distribution at McCall Street and Fisher Range Road.

Comment No. 3 – Page 8 shows the MD 328/Fisher Range Road intersection as a signalized intersection. Please confirm with pictures that it is signalized.

Response No. 3 – Photo below.



Comment No. 4 – Please apply 0.5% increase in volumes along MD 328 for 3 years per MD statewide model.

Response No. 4 – Please see the revised report.

Comment No. 5 – The US 50/MD 328 intersection shows significant increases in MD 328 queues for both the PM and Saturday peak hours. Please clarify if these queues to clear each cycle. Please provide arterial data for MD 328 to ensure that travel times are reasonable through this corridor.

Response No. 5 – As discussed on page 28, we recommend signal timing adjustments to improve the queues and operations through the corridor. No other intersections along US 50 were selected for analysis. SimTraffic was utilized to conduct an arterial analysis in the revised report.

District Traffic:

Comment No. 1 – The timing adjustments that are recommended for the queueing problem on Goldsboro St. @ US 50 would be difficult to make due to weekend Beach traffic on US 50.

Response No. 1 – Traffic volumes on US 50 increase on Saturdays during the summer months. However, signal timing adjustments would relieve the queues on the side streets during the non-summer months and potentially reduce the queues on summer Saturdays.

Comment No. 2 – This signal is coordinated with the signal at US 50 @ MD 331/Dover Rd using a call/hold relay circuit (the US 50 directions @ MD 328 are held by the signal @ US 50 & MD 331) and the amount of green time for US 50 is increased on weekends due to seasonal traffic.

Response No. 2 – Comment acknowledged.

Comment No. 3 – The weekday timing plans have lower cycle lengths, but if timing changes are needed due to increased volumes on Matthewstown Rd, because this signal is coordinated, the additional time would have to be taken from another movement or the cycle lengths would need to be increased.

Response No. 3 – Comment acknowledged.

Regional and Intermodal Planning Division (RIPD):

Comment No. 1 – The State’s fiscally unconstrained Highway Needs Inventory (HNI), the State’s long-range plan, includes projects that are critical to Maryland’s transportation needs. The 2021 Talbot County HNI includes a multi-lane urban reconstruct project on MD 328, from US 50 to Beans Road. If and when such improvements proceed, they may affect the right-of-way.

Response No. 1 – Comment acknowledged. This multi-lane urban reconstruct project on MD 328 will improve operations at the US 50/MD 328/Goldsborough intersection.

Comment No. 2 – This segment of MD 328 is included in the MDOT SHA Bike Spine Network. It is recommended that any needed roadway improvements include appropriate bicycle accommodations. Any work performed on/or adjacent to the MDOT SHA Bicycle Spine Network should safely accommodate bicycle access throughout construction. In the event that this is not feasible, an alternative plan that will minimize bicyclist roadway use obstruction must be approved by MDOT SHA. Coordination with RIPD occurs for any development that may impact bicyclists, specifically through the Bike Pedestrian Planner, Molly Porter, who can be reached at mporter@mdot.maryland.gov or at 410-545-5673.

Response No. 2 – Comment acknowledged.

Comment No. 3 – For all improvements to MDOT SHA roadways, please provide for and or maintain bicycle facilities and full ADA-compliant pedestrian and/or transit facilities. Coordinate design with Jared Paper-Evers, Assistant Division Chief, MDOT SHA Design Technical Services Division, at 410-545-8400 or jpaperevers@mdot.maryland.gov.

Response No. 3 – Comment acknowledged.

Comment No. 4 – MDOT SHA currently is pursuing a planning study to assess safety, access, and mobility needs along MD 328, from US 50 to Black Dog Alley; especially to improve access from the developing residential corridor east of US 50 to central Easton, west of US 50. RIPD recommends coordination with MDOT SHA District 2 to ensure any necessary design elements and or restrictions are incorporated into this development.

Response No. 4 – Comment acknowledged.

Traffic Forecasting and Analysis Division (TFAD):

Comment No. 1 – The report notes that construction is anticipated to begin in 2025, however, this does not necessarily mean the build year is 2025. If the development is not completed in 2025 then the background traffic should be updated to be grown out to the build year when the trips generated to the development would be on the corridor.

Response No. 1 – Comment acknowledged.

Comment No. 2 – Please note, past ADT growth is not indicative of future growth as it does not consider future land use. Whenever possible a regional travel demand model should be used to determine reasonable growth rate. Although historical growth may be used as a supplement, it should not be the only consideration. Based on the Maryland Statewide Transportation Model (MSTM), the projected growth is ranges from 0.5%–1.0%. While in this case, the growth rate used in the analysis matched the MSTM, the appropriate methodology should be used in the future.

Response No. 2 – Comment acknowledged.

Comment No. 3 – In the CLV calculations, the EB volume at the intersection of US 50 at MD 328 does not include the left turn volume, even though it is a shared left thru lane. Please confirm and revise as needed.

Response No. 3 – The Eastbound through volume is higher than the Eastbound left turn volume; therefore, the shared left/through lane becomes a de facto through lane and all the left turns will use the left turn only lane.

Comment No. 4 – Based on the HCM analysis, although the intersections operate at a LOS D or better, several of the movements and approaches are failing. Please provide mitigations to address operational deficiencies. Additionally, please provide summary with HCM results for overall intersection as well as approaches.

Response No. 4 – The LOS for signalized intersections is typically reported for the intersection and not the approaches. The approaches, which have LOS deficiencies, exhibit that deficiency for the background conditions. According to the draft TIS guidelines, “Mitigation may be proposed as part of this report, and must improve overall intersections and intersection movements to a “D” level of service if the study indicates background conditions operate at acceptable levels of service (e.g., Level of

Service “D” or better).” As requested, however, the summary table of HCM results included the results for the approaches for the signalized intersections.

Comment No. 5 – Please provide Synchro Files to be reviewed.

Response No. 5 – Comment acknowledged.

Comment No. 6 – Please note, the queue at MD 328 at US 50 exceeds the available storage length. Although there is an existing left turn lane, it will likely not help with the queuing issues. As evident in the intersection aerial, the through volumes block access to the left turn lane.

Response No. 6 – Comment acknowledged.

If you have any questions or require additional information, please do not hesitate to contact me at btustin@trafficgroup.com or (410) 603-6251.

Sincerely,

A handwritten signature in cursive script that reads "Betty H. Tustin". The ink is dark and the signature is fluid.

Betty H. Tustin, P.E., PTOE
Senior Project Manager

BHT:amr

(F:\2021\2021-1217_Aspire\DOCS\CORRESP\ANALYST\Comment Response Ltr_Fender.docx)

September 26, 2022

Mrs. Betty H. Tustin, P.E., PTOE
The Traffic Group
9900 Franklin Square Drive, Suite H
Baltimore, MD 21236

RE: Talbot County
MD 328, Matthewstown Road
Aspire
SHA Tracking No. 22apta004xx
Mile Point: 0.07

Dear Ms. Tustin:

Thank you for the opportunity to review the Traffic Impact Study (TIS) submittal for the proposed Aspire Development expansion located at the intersection of MD 328 and Fisher Range Road within the town limits of Easton in Talbot County. The Maryland Department of Transportation State Highway Administration (MDOT SHA) has reviewed the TIS, and we are pleased to offer the following recommendations:

Traffic Development and Support Division (TDSD):

- The Fisher Range Road approach to MD 328 is not marked as two lanes; the existing conditions and analyses should be provided for a single lane approach as well as a proposed two-lane approach.
- There are different trip distributions between the north and south parcel, both are residential developments, so the distribution should be the same. Please explain.
- Page 8 shows the MD 328/Fisher Range Road intersection as a signalized intersection. Please confirm with pictures that it is signalized.
- Please apply 0.5% increase in volumes along MD 328 for 3 years per MD statewide model.
- The US 50/MD 328 intersection shows significant increases in MD 328 queues for both the PM and Saturday peak hours. Please clarify if these queues to clear each cycle. Please provide arterial data for MD 328 to ensure that travel times are reasonable through this corridor.

District Traffic:

- The timing adjustments that are recommended for the queueing problem on Goldsboro St. @ US 50 would be difficult to make due to weekend Beach traffic on US 50.
- This signal is coordinated with the signal at US 50 @ MD 331/Dover Rd using a call/hold relay circuit (the US 50 directions @ MD 328 are held by the signal @ US 50 & MD 331) and the amount of green time for US 50 is increased on weekends due to seasonal traffic.
- The weekday timing plans have lower cycle lengths, but if timing changes are needed due to increased volumes on Matthewstown Rd, because this signal is coordinated, the additional time would have to be taken from another movement or the cycle lengths would need to be increased.

Regional and Intermodal Planning Division (RIPD):

- The State's fiscally unconstrained Highway Needs Inventory (HNI), the State's long-range plan, includes projects that are critical to Maryland's transportation needs. The 2021 Talbot County HNI includes a multi-lane urban reconstruct project on MD 328, from US 50 to Beans Road. If and when such improvements proceed, they may affect the right-of-way.
- This segment of MD 328 is included in the MDOT SHA Bike Spine Network. It is recommended that any needed roadway improvements include appropriate bicycle accommodations. Any work performed on/or adjacent to the MDOT SHA Bicycle Spine Network should safely accommodate bicycle access throughout construction. In the event that this is not feasible, an alternative plan that will minimize bicyclist roadway use obstruction must be approved by MDOT SHA. Coordination with RIPD occurs for any development that may impact bicyclists, specifically through the Bike Pedestrian Planner, Molly Porter, who can be reached at mporter@mdot.maryland.gov or at 410-545-5673.
- For all improvements to MDOT SHA roadways, please provide for and or maintain bicycle facilities and full ADA-compliant pedestrian and/or transit facilities. Coordinate design with Jared Paper-Evers, Assistant Division Chief, MDOT SHA Design Technical Services Division, at 410-545-8400 or jpaperevers@mdot.maryland.gov.
- MDOT SHA currently is pursuing a planning study to assess safety, access, and mobility needs along MD 328, from US 50 to Black Dog Alley; especially to improve access from the developing residential corridor east of US 50 to central Easton, west of US 50. RIPD recommends coordination with MDOT SHA District 2 to ensure any necessary design elements and or restrictions are incorporated into this development.

Traffic Forecasting and Analysis Division (TFAD):

- The report notes that construction is anticipated to begin in 2025, however, this does not necessarily mean the build year is 2025. If the development is not completed in 2025 then the background traffic should be updated to be grown out to the build year when the trips generated to the development would be on the corridor.

- Please note, past ADT growth is not indicative of future growth as it does not consider future land use. Whenever possible a regional travel demand model should be used to determine reasonable growth rate. Although historical growth may be used as a supplement, it should not be the only consideration. Based on the Maryland Statewide Transportation Model (MSTM), the projected growth is ranges from 0.5%-1.0%. While in this case, the growth rate used in the analysis matched the MSTM, the appropriate methodology should be used in the future.
- In the CLV calculations, the EB volume at the intersection of US 50 at MD 328 does not include the left turn volume, even though it is a shared left thru lane. Please confirm and revise as needed.
- Based on the HCM analysis, although the intersections operate at a LOS D or better, several of the movements and approaches are failing. Please provide mitigations to address operational deficiencies. Additionally, please provide summary with HCM results for overall intersection as well as approaches.
- Please provide Synchro Files to be reviewed.
- Please note, the queue at MD 328 at US 50 exceeds the available storage length. Although there is an existing left turn lane, it will likely not help with the queuing issues. As evident in the intersection aerial, the through volumes block access to the left turn lane.

District Access Comments:

Plan submittals should reflect the above comments. Please submit a revised Traffic Impact Study, a flash-drive and/or electronic submittal containing the TIS and supporting documentation in PDF format, a point-by-point response to reflect the comments noted above directly to Mr. Ken Fender at 615 Morgnec Road, Chestertown, MD 21620, attention of Mr. Henry R. Dierker III. Please reference the MDOT SHA tracking number on future submissions. Please keep in mind that you can view the reviewer and project status via the MDOT SHA Access Management web page at <http://www.roads.maryland.gov/pages/amd.aspx>. If you have any questions or require additional information, please contact Mr. Henry R. Dierker III at 410-778-3061, by using our toll-free number (in Maryland only) at 1-800-637-9740 (x3244), or via hdierker@mdot.maryland.gov.

Sincerely,



Richard Baker
Assistant District Two Engineer-Traffic

RB (STM/HD)

Exhibit 'B'



BOARD OF ZONING APPEALS FOR EASTON, MARYLAND

14 S. Harrison Street

Easton, Maryland 21601

Planning and Zoning Office: 410-822-1943

April 06, 2023

**RE: BOZA Application- Aspire Apartments
SE-911 / SE 23-06 and V-911 / V 23-06**

Aspire Outdoors LLC
29760 Standish Street
Easton, Maryland 21601

Tax Map 026, Grid 020, Parcel 0186
Easton, Maryland 21601
Zoning District: R-10A

Town of Easton
*** CUSTOMER RECEIPT ***
Oper: SMILES Type: OC Drawer: 1
Date: 3/31/23 01 Receipt no: 8362

Year	Number	Amount
2023	911	
PZ	PZ - PAYMENTS	\$950.00

ASPIRE DALY INC

Tender detail

CK CHECK	1157	\$700.00
CK CHECK	1158	\$250.00
Total tendered		\$950.00
Total payment		\$950.00

Trans date: 3/31/23 Time: 9:33:56

THANK YOU FOR YOUR PAYMENT.

- \$700.00 Application No. SE-911 / SE 23-06
- \$250.00 Application No. V-911 / V 23-05

Exhibit 'C'



Sign posted on April 4, 2023

Exhibit 'C'



Sign posted on April 4, 2023

Exhibit 'D'

Date of Hearing: April, 18, 2023

3d

BOARD OF ZONING APPEALS PUBLIC HEARING STAFF REPORT

SUBJECT: VARIANCE-911 & SPECIAL EXCEPTION-911

ELECTION WARD(S): Ward 2

CRITICAL ACTION DATE: At the pleasure of the Board.

STAFF CONTACT(S): Nicholas Johnson - Planner
Miguel Salinas - Director of Planning and Zoning
Joseph Mayer - Plan Reviewer

APPLICANT: Aspire Outdoors LLC.

PURPOSE: The applicant is seeking a special exception to permit a six-building, multi-family housing development on a property zoned R-10A. The applicant is also seeking a variance from 28-1007.1.14.1 of the Town of Easton Zoning Code, 2021 Edition (Zoning Ordinance) to allow an apartment structure and a parking area to be constructed within seventy-five (75) feet of adjacent single-family dwellings.

RECOMMENDATION:

Staff supports a Board of Zoning Appeals (Board) **continuance** of the application. Outstanding issues regarding connectivity, the traffic study, and public facilities capacity should be addressed before action by the Board.

APPLICATION INFORMATION:	
APPLICANT: Aspire Outdoors LLC.	REPRESENTATIVE: Rough Inc. Robert D. Rough 106 N Harrison Street Easton, MD 21601

PARCELS/ACREAGE:	
Parcel Information	Acreage
Map 26, Grid 20, Parcel 186	61.81
ACCEPTANCE DATE: March, 30, 2023	LOCATION: Camac Street Parcel 186
EXISTING ZONING Residential District (R-10A)	EXISTING LAND USE: Residential
HISTORIC DISTRICT: Not Applicable	FUTURE LAND USE: Residential

CONTEXT:

Location/Site Access – The subject property is located adjacent to Matthewstown Road (MD 328). It is accessed via Camac Street in the Hunters Mill subdivision, Tallulah Lane in the Matthewstown Run subdivision, Juanita Lane in the Matthewstown Run subdivision, and an unnamed 60 foot right-of-way easement in the Gannon Farms PUD.

Existing Conditions – The subject property is vacant and can generally be described as approximately 62 acres of existing forest with sensitive environmental features such as a stream and non-tidal wetlands scattered throughout the property. Much of the property is in forest conservation from the Matthewstown Run subdivision and the Hunters Mill subdivision (Figure 1). There are flood hazard areas located at the southern tip of the property.



Figure 1: Protected Areas

Surrounding Properties –

	Land Use	Zoning District(s)	Future Planned Land Use
North	Agriculture Residential	PUD R-10A	Residential Residential
West	Residential	R-10A	Residential
South	Residential	R-10A	Residential
East	Forest	County Zoning	County

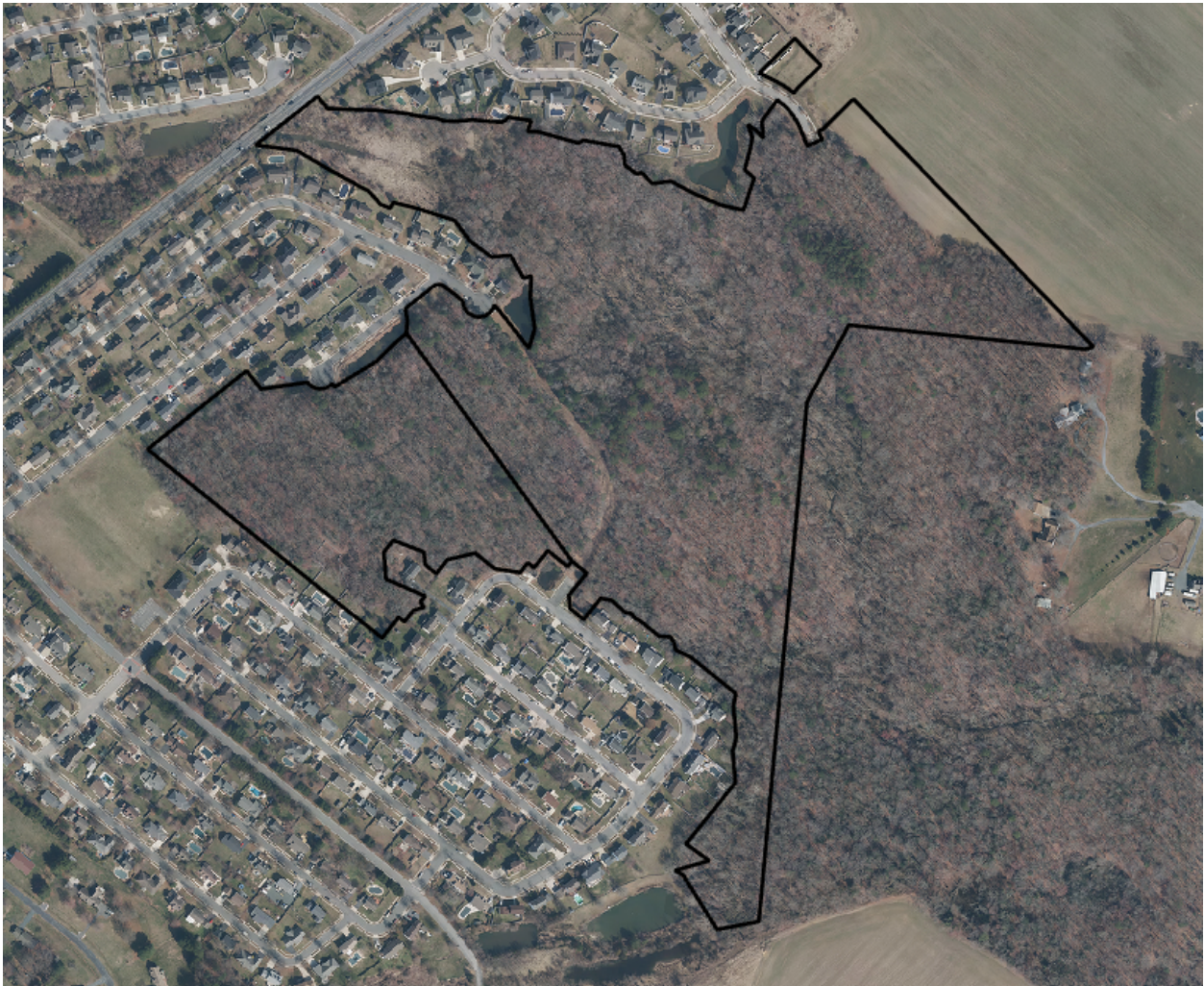


Figure 2: Vicinity Map¹

PROPOSAL: Aspire Outdoors LLC., the applicant, is proposing to construct a 162-unit multi-family apartment complex consisting of six (6) three story apartment buildings, a pool/clubhouse, parking facilities, and stormwater management features. This parcel is zoned R-10A which allows a maximum density of 5 dwelling units per gross acre for multi-family developments. The current proposed density is 2.62 dwelling units per acre. The applicant has submitted:

- Conceptual site plan
- Architectural renderings
- Deed

¹ The vicinity map shows the subject property as two parcels, per the Maryland State Department of Assessments and Taxation. However, staff's review of the deed (02644/00114) and Plat (82/151) shows the subject property as one parcel.

- Traffic Study
- Variance/Special Exception Narrative

BACKGROUND: The subject property was approved as Parcel A in a final plat recorded in February of 2008. The Plat, titled Hunters Mill - Phase 1, resulted in the existing 50-lot Hunters Mill subdivision. The plat also created Parcel B, which is now part of an approved Planned Unit Development (PUD). The original plan called for future development phases of single-family homes on Parcels A and B. The subject property was planned to be part of the existing Hunters Mill subdivision with single family lots as part of phase 2 with an extension of the existing Camac Street. The subject property would also connect the Camac Street extension with Phase 3 now the Gannon Estates PUD. The PUD that would have allowed for this development was never approved. Only the existing portion of Hunters Mill was constructed via the subdivision process and the portion of phase 2 where the proposed multi family apartments are now proposed was never improved.

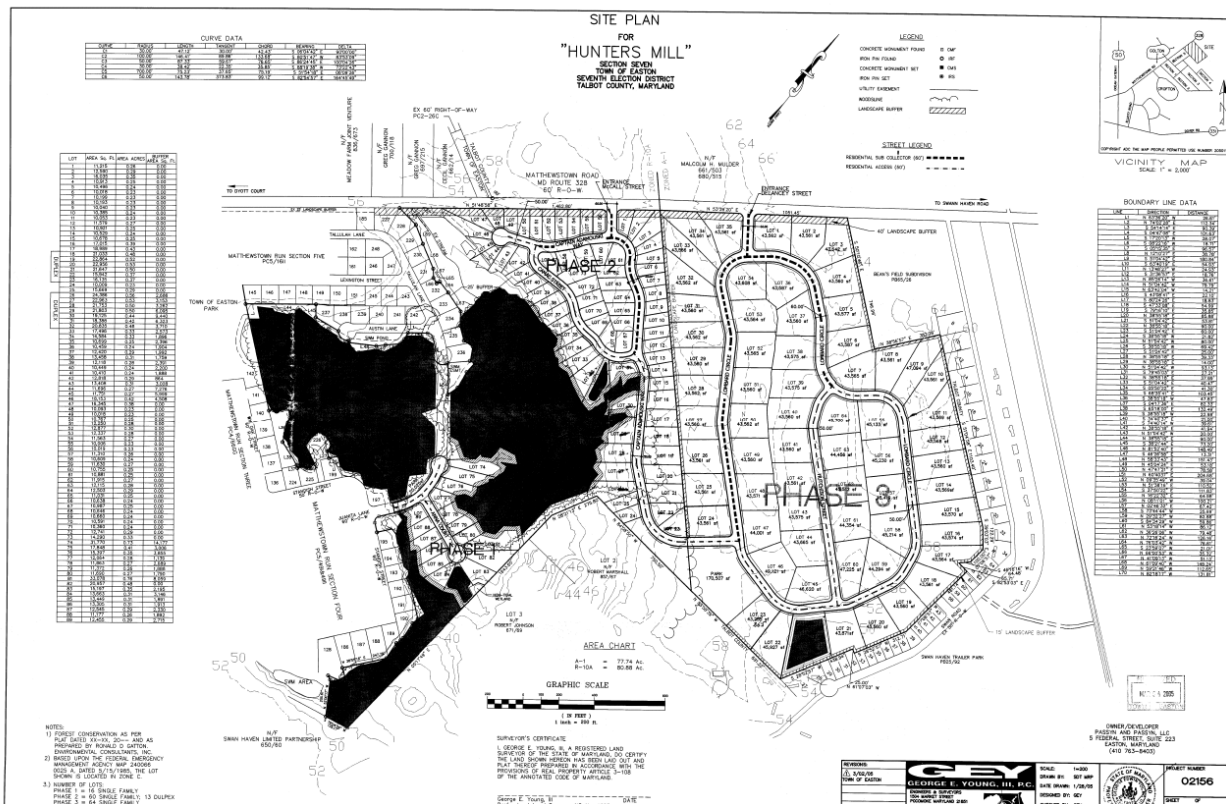


Figure 3: Original Hunters Mill Site Plan

This project first went before the Easton Staff Development Review Board (ESDR) on December 21, 2022. During this meeting the Department of Planning and Zoning (P&Z) Comments included:

1. Per Section 28-200, Table 2.1, Table of Permitted Uses, the Applicant will be required to obtain a Special Exception request from the Board of Zoning Appeals for the use of a Multifamily/Apartment Complex.
2. The side yard setback requirements for apartment buildings adjacent to a single family detached residence or vacant residential lot shall be fifty (50). In addition, the parking setback is also fifty (50) (see Zoning Ordinance Section 28-1007.1(14)k for reference). The Applicant may choose to revise the layout or obtain a Variance from the Board of Zoning Appeals for a setback revision².
3. The rear yard setback requirements for apartment buildings adjacent to a single family detached residence or vacant residential lot shall be seventy-five (75). In addition, the parking setback is also seventy-five (75). See Zoning Ordinance Section 28-1007.1(14)l for reference. The Applicant may choose to revise the layout or obtain a Variance from the Board of Zoning Appeals for a setback revision.

Other comments were generated from P&Z related to topics such as connectivity (See Outstanding Issues for more information), landscaping, site plans, and non-tidal wetland impacts. Easton Utilities had one major comment regarding the capacity of the Matthewstown pump station (see Outstanding Issues and Attachment 3 for more information). The Town Engineering Department also had major comments regarding connectivity and stormwater management (See Attachment 2).

On January 5, 2023 the project went before the Planning Commission as a discussion item. At this meeting, the applicant submitted a revised traffic impact analysis, a connectivity exhibit, and a site plan. Since this was a discussion item, no action was taken at this meeting.

In regards to the subject property's relationship with the Gannon Estates PUD to the North-East, approved by the Town Council on February 21, 2022, the Town Council required the developer of Gannon Estates to set aside land for a future road connection to the property now owned by Aspire Outdoors LLC through Ordinance 773 (See Attachment 1). The Town Council also conditioned its approval of the PUD upon the developer dedicating this right-of-way to the Town simultaneously with the recordation of the final plat. The location of this future connection was then shown on the PUD Concept and Land Use Plan (Figure 4) and approved by the Planning Commission on March 17, 2022. This connection has been subsequently shown on the Gannon Estates Preliminary Plat submitted to the Town on November 23, 2022.

² Staff later determined that the proposed site plan met the fifty (50) feet setback after discussion with the applicant.



Figure 4: Gannon Estate Concept and Land Use Plan

Before the Aspire project can move forward to the Planning Commission for Sketch site plan review and decision, the applicant must obtain a special exception allowing the construction of multi-family dwelling units within the R-10A Zoning District. Because of the large amount of non-tidal wetlands and land in forest conservation, the proposed apartment buildings are located within 75 feet of the rear property line and require a variance from 28-1007.1.14.1.

OUTSTANDING ISSUES:

1. **Connectivity**– Connectivity is an important tenet of the Town’s Comprehensive Plan for safety, accessibility, community building, and sustainability. The Town of Easton’s Comprehensive Plan’s Transportation Chapter states that “where possible, retrofit existing subdivisions with road connections within and between subdivisions to more closely approximate a gridded street system and increase connectivity between neighborhoods.” (p. 225). The Community Character chapter of the Comprehensive Plan also states “The one new Design Principle to be added in this 2009 Plan concerns the connectivity of neighborhoods and subdivisions. In short, we believe that they should be connected to neighboring properties to the maximum extent possible. This is a fundamental characteristic of the older parts of Easton that is essential to emulate in new development projects.” (p. 110). These quotes demonstrate the Comprehensive Plan’s focus on creating new subdivisions and retrofitting existing subdivisions to connect. As mentioned previously, Gannon Estates was required by the Town Council as part of their PUD process to provide a vehicular connection between their property and the property now owned by Aspire Outdoors LLC. This future connection is currently located directly behind

one of the proposed apartment buildings (Figure 5) and is not proposed to be utilized by this project.

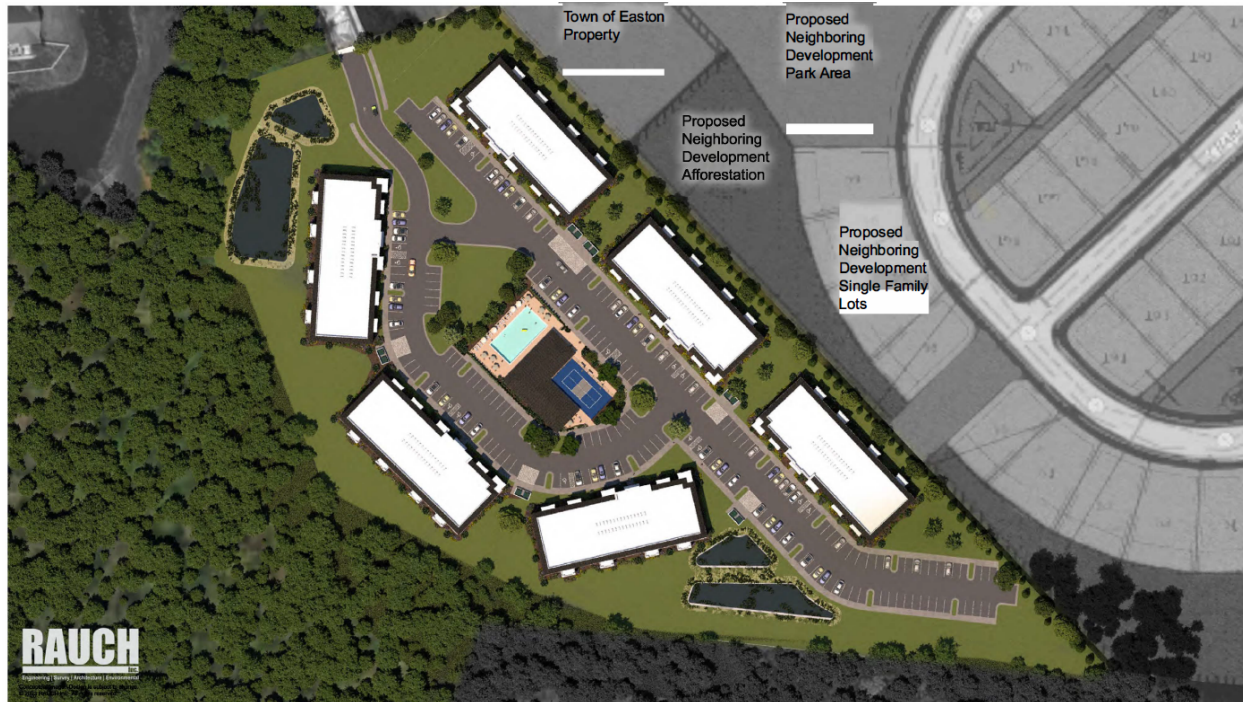


Figure 5: Gannon Estates Vehicular Access

Both the P&Z and the Engineering Department requested that the applicant include connectivity to the Gannon Estates subdivision at the first ESDR meeting. However, this suggestion has not yet been included in the official site plan and special exception submittal. Staff notes that not all subdivisions approved since the Comprehensive Plan was published have included connectivity between parcels. Examples include Cooke's Hope, Easton Village, Brant Court and Patriot Square. The Town Engineer identified connectivity as an outstanding issue in his letter sent to Rauch Engineering on December 28, 2022 (See Attachment 2).

2. Matthewstown Road Pump Station Capacity – Easton Utilities has identified issues relating to the capacity at the Matthewstown pump station. The pump station currently only has the remaining capacity to serve an additional forty (40) dwelling units. Easton Utilities states that “the Matthewstown Pump station does not have the capacity to serve this development.”(See Attachment 3).

3. Traffic Impact Analysis - The current Traffic Impact Analysis (TIA) that was submitted by the applicant has not yet been approved by the State Highway Administration (SHA) or the Town Engineer. The previously submitted TIA generated comments from the SHA that were sent to the applicant on September 26, 2022. To the Town's knowledge, the comments have not been addressed. Since the TIA has not been approved by the SHA or Town Engineer, it is difficult to

determine the final impacts this project will have on existing intersections and road segments that may need to be mitigated.

POLICY ANALYSIS (Special Exception):

a. The proposed use conforms in all aspects to minimum requirements of the district in which it is located;

Analysis – The proposed use meets the Zoning Ordinance’s requirements for density, front setbacks, and side setbacks. The current site plan violates the rear setback between multi-family apartments and single family dwelling units and requires a variance. Off-street parking is provided in accordance with the parking requirements for multi-family residential buildings. The required 81 bicycle spaces are not currently shown on the proposed site plan. Landscape buffering is being provided between both the existing Hunters Mill subdivision and the future Gannon Estates subdivision. The height of the proposed structures meets the maximum 35-foot height requirement of the R-10A Zoning District.

b. The proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;

Analysis - The Town of Easton’s Housing Chapter of the Comprehensive Plan states that “That is to say that the rental problem is more one of the availability of units than the cost of those units. There simply are not many apartments in Easton. Those that do exist, rather subsidized apartments or market-rate, have waiting lists for units.” (p. 135). The proposed apartments further the goals of the comprehensive plan to increase housing diversity and benefit the welfare of the community by providing a housing typology that is in desperate need.

c. The proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exceptions;

Analysis - There are issues regarding capacity at the Matthewstown Road pumping station that prohibit more than 40 units from being developed between Aspire and Gannon Estates at this time. Easton Utilities has stated in their review letter that “the Matthewstown Pump station does not have the capacity to serve this development.”

d. The proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;

Analysis- The traffic impact study submitted by the applicant finds that all of the studied intersections will continue to operate at an acceptable level of service. The only recommended improvements are signal timing adjustments at the intersection of Matthewstown Road and Ocean Gateway. Ingress and egress are provided via an existing 60-foot right of way on Camac Street. However, this traffic study has not yet been approved by the SHA or the Town Engineer due to unaddressed comments from the SHA.

e. The proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;

Analysis - The proposed apartment complex is screened from the surrounding residential properties via existing forest and landscape installations. Access is currently provided via Camac Street. However, in the event of an emergency such as a water main break, a second access point will allow emergency vehicles and traffic to access the property. Drainage is provided via stormwater features on the south and north west sides of the property.

f. The proposed use will not adversely affect the established character of the area.

Analysis - This use should not affect the established character of the area since it is a primarily residential area. Even though the surrounding residential units are all single family units, the Comprehensive Plan states that a diversity of housing choices is needed.

g. The proposed use shall be in conformity with the provisions of the Easton Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complementary and uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

Analysis - The proposed site plan contradicts the Comprehensive Plans focus on creating connected communities. The proposed apartment complex is located on a dead end street and does not utilize the proposed 60-foot wide right-of-way between this property and Gannon Estates as shown on the PUD's Preliminary Plat. The Comprehensive Plan envisions interconnected neighborhoods that form a more grid-like pattern.

This Comprehensive Plan's future land use map envisions this property's future land use as residential, which is consistent with the proposed use. The site plan accomplishes the Comprehensive Plan's objective of directing development away from environmentally sensitive areas by clustering development away from the existing stream and non-tidal wetlands. The proposed project also provides open space and adds more housing choices to the community.

POLICY ANALYSIS (VARIANCE):

a. Granting the application: (i) will not be contrary to the public interest, (ii) will be in harmony with the purpose and intent of the Ordinance and (iii) will not be injurious to the neighborhood or otherwise detrimental to the public welfare;

Analysis - Allowing the proposed apartment structures to be located close to the rear property line keeps the structures further away from future housing in Gannon Estates and existing housing in Hunter's Mill. The goal of the setback requirement for apartment buildings is to provide separation from less intense uses such as single family detached dwellings. The area of the property where the variance is needed is constrained by environmental features including forested land and nontidal wetlands. Locating the structures in this corner of the lot keeps the apartments away from existing structures and helps to preserve sensitive environmental features located elsewhere on site.

b. Owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Analysis - There is very little buildable space on this lot due to the large areas of forest conservation, nontidal wetlands, and setbacks from adjoining properties. This general location, clusters development in one of the few buildable pockets of land on this property.

DRAFT MOTIONS:

1. I move that the Board of Zoning Appeals **continue** Special Exception and Variance 911, pending a revised site plan that provides vehicular connectivity between the subject property, Hunters Mill subdivision, and Gannon Estates subdivision. The applicant shall also obtain a traffic impact analysis that has been approved by both the SHA and the Town Engineer and address Easton Utilities comments.

OR

2. I move that the Board of Zoning Appeals deny Special Exception and Variance 911 based on the following findings...

OR

3. I move an alternate motion.

ATTACHMENTS:

1. Ordinance 773: Gannon Estates Planned Unit Development
2. Town of Easton Engineering Department Outstanding Issues
3. Easton Utilities Outstanding Issues

Attachment 1 : PUD Ordinance 773

ORDINANCE NO. 773

AN ORDINANCE OF THE TOWN OF EASTON GRANTING THE APPLICATION OF D.R. HORTON, INC. FOR A PLANNED UNIT DEVELOPMENT UNDER THE PROVISIONS OF THE EASTON ZONING ORDINANCE

INTRODUCED BY Mr. Silverstein

WHEREAS, the Town of Easton is authorized by the Land Use Article of the Maryland Annotated Code (the "Code") to enact and administer a zoning ordinance, which ordinance is Chapter 28 of the Easton Town Code; and

WHEREAS, the Town is authorized by Section 4-201 *et seq.* of the Land Use Article of the Code to divide land within the municipal boundaries into zoning districts in a manner it deems best suited to execute the purposes of the Land Use Article; and

WHEREAS, Section 28-701 of the Easton Zoning Ordinance authorizes the Easton Town Council to approve, deny and amend Planned Unit Development ("PUD") zoning districts in order to encourage the development of land in certain areas of the Town according to a total development concept incorporating a detailed development plan; and

WHEREAS, D.R. Horton, Inc. submitted an application for a PUD as described in the Town Council's findings of fact supporting this Ordinance and shown in detail on the plans referenced and attached hereto as Exhibit "A" (collectively, the "PUD Plan").

WHEREAS, the Easton Town Council held a duly noticed public hearing regarding the PUD application and this Ordinance on November 1, 2021, November 15, 2021, and December 6, 2021; and

WHEREAS, for the reasons expressed in the findings of fact of the Town Council, which are attached to this Ordinance as Exhibit "B", the Town Council concludes that the request for the PUD should be granted.

NOW, THEREFORE, the Town of Easton hereby ordains:

Section 1. The Findings of Fact attached hereto as Exhibit "B" are hereby incorporated into this Ordinance by reference.

Section 2. The application of D.R. Horton, Inc. for a PUD as depicted by Exhibit "A" and described by Exhibit B is hereby approved subject to the conditions set forth in Exhibit "B".

Section 3. Severability. The Easton Town Council intends that, if a court of competent jurisdiction issues a final decision holding that any part of this ordinance is invalid, the remaining provisions hereof remain in full force and effect.

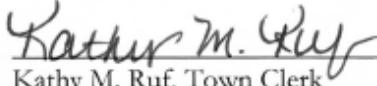
Section 4. In accordance with Article II, Section 9 of the Easton Town Charter, this ordinance shall become effective on the later of (a) twenty (20) calendar days after approval by the Mayor or passage of this ordinance by the Council over the Mayor's veto; or (b) the effective date of Ordinance 774 to amend the Subdivision Regulations to allow the waiver of the alley requirement for PUDs.

Silverstein	-	Yea
Abbatiello	-	Nay
Engle	-	Yea
Davis	-	Yea
Cook	-	Nay

I hereby certify that the above Ordinance was passed by a yea and nay vote of the Council this 21st day of February, 2022.


Megan J. M. Cook, Town Council President

Delivered to the Mayor by me this 21st day of February, 2022.


Kathy M. Ruf, Town Clerk

APPROVED: February 21, 2022

Date: February 21, 2022


Robert C. Willey, Mayor

EFFECTIVE DATE: March 13, 2022.

EXHIBIT "A"

The following materials are referred to as the "PUD Plan":

"PUD SKETCH PLAN FOR 'THE ESTATES AT GANNON FARM' IN THE TOWN OF EASTON TALBOT COUNTY, MD" (Sheets 1-5) prepared by Lane Engineering, LLC and dated August 24, 2001.

COPIES ARE ON FILE AT THE TOWN OFFICE

Page 443 of 471





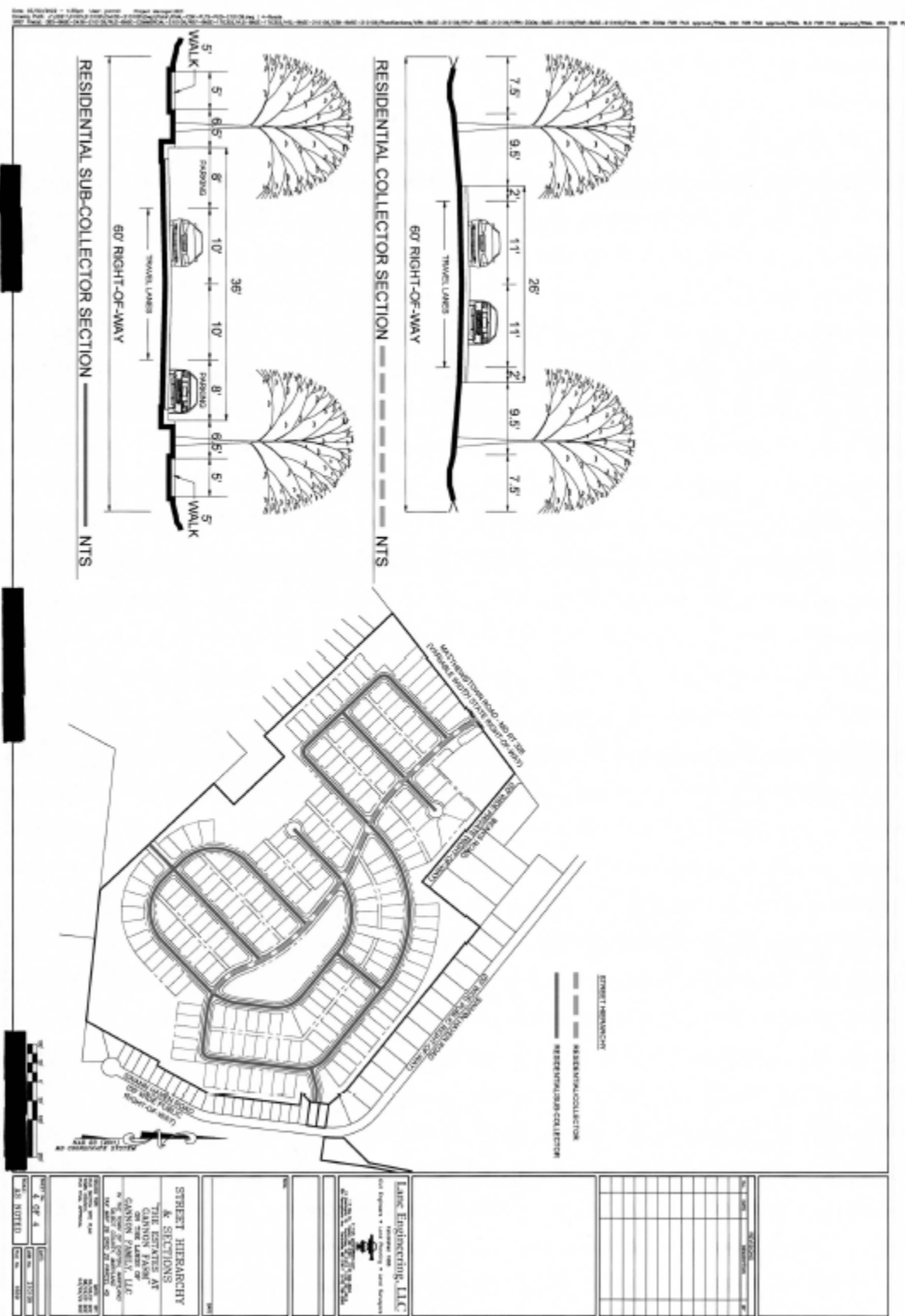


EXHIBIT "B" TO ORDINANCE NO. 773

IN THE MATTER OF : BEFORE THE
:
THE APPLICATION OF : EASTON TOWN COUNCIL
:
D.R. HORTON, INC. :

FINDINGS OF FACT

During meetings of the Easton Town Council held on November 1, 2021, November 15, 2021, and December 6, 2021, a public hearing was held on the application of D.R. Horton, Inc. (the "Applicant" and/or "Developer") to establish a planned unit development ("PUD") in the Town of Easton for 200 single family residential homes and a two-acre commercial parcel. The PUD is located on Matthewstown Road and is Parcel 45 on Talbot County Tax Map 26 (the "Property"). The Applicant is the Contract Purchaser. The Property is owned by Gannon Family, LLC. The Property is more commonly known as 29659 Matthewstown Road, Easton, Maryland.

The Property and the proposed PUD are more particularly shown on plans entitled "PUD SKETCH PLAN FOR 'THE ESTATES AT GANNON FARM' IN THE TOWN OF EASTON TALBOT COUNTY, MD" (Sheets 1-5) prepared by Lane Engineering, LLC and dated August 24, 2001 (collectively, the "PUD Plan").

A. The PUD Application and the Public Hearing.

The Property is 76.274 acres more or less and is currently zoned A-1 under the Easton Zoning Ordinance. The Property is located on the Southeast side of Matthewstown Road. The Property is bounded on the north by a farm and farmhouse. To the Northeast is the Swann Haven Mobile Home Park. To the Southeast is a wooded parcel of land. To the South is a small residential subdivision. To the West is the Hunter's Mill residential subdivision and a wooded parcel, and further west is the Matthewstown Run residential subdivision. Across Matthewstown Road to the west is the Bretridge residential subdivision. The Applicant is requesting permission to build 200 single family residences on the Property and to carve out a two-acre commercial piece. No details were provided for proposed development of the commercial parcel, so any development on that portion of the Property will require a PUD Amendment. The Planning and Zoning Commission ("Planning Commission") reviewed the request and found the proposed PUD to be consistent with the Comprehensive Plan and recommended approval of the PUD to the Town Council conditioned on four items being addressed. The Planning Commission also reviewed and approved the sketch plan. However, the sketch plan was revised during the Town Council's process, and will need to go back to the Planning Commission for additional review and approval.

The Applicant was represented by Brett Ewing, AICP of Lane Engineering, LLC, Zach Smith, Esquire of Armistead, Lee, Rust, and Wright, and Jay Heilman, representative of D.R. Horton, Inc. who presented both testimonial and documentary evidence in support of the application. Following the close of the public hearing, during its regularly scheduled meeting on December 6, 2021, the Town Council developed a consensus concerning the application. The Council instructed the Town Attorney to prepare findings of fact reflecting these opinions and comments. In so doing, the Town Attorney has reviewed the evidence presented to the Council solely in the context of this application in order to set out the basis for the Council's decision.

B. Legal Background

The Town of Easton Zoning Ordinance as recently updated (the "Ordinance") establishes the Planned Unit Development (PUD) Zoning District for "carefully planned residential, mixed use and certain commercial developments at appropriate locations" in Easton.

The standards and regulations for PUD districts are found in Article VII of the Ordinance. Section 28-701.A of the Ordinance explains that the PUD regulations are intended:

. . . to allow all aspects of a PUD District to be subject to public review and control by the Town with specific provisions to be made on a case-by-case basis for adequate open space, architectural appearance, the height, bulk and location of buildings, required public facilities, and a variety of housing types, densities, and/or compatible commercial or industrial uses as a part of a detailed development plan.

Section 28-701 sets out various development standards and procedures and, finally, establishes the standards by which PUD applications are reviewed by the Town Council. Section 28-701.C sets forth the uses that are permitted in a PUD District. Specifically, Section 28-701.C(1) provides that "Residential uses of all types" are permitted in a PUD District and 28-701.C(2) provides that Commercial uses in the A-1 District "shall be oriented to benefit the residents of the community and the Town." Section 28-701.G articulates eight specific development standards and a chart with varying standards for minimum size, maximum size, maximum residential density, and minimum open space requirement depending on the type of PUD being requested. In this case, the PUD-General is being proposed.

The PUD application procedure is described by Section 28-701.H. Upon receipt of a written recommendation by the Planning Commission, the Council shall conduct a public hearing on the application. The Council shall consider, but is not bound by, the recommendation of the Commission. The Ordinance establishes nine standards that must be met as precondition to granting an application. If the Council affirmatively finds that all

preconditions have been met, the Council is then authorized but not required to grant the application. In making its decision, the Council:

“may consider, in addition to the factors outlined above [i.e., the criteria set out in Section 28-701.H(3)A], other factors it deems appropriate including but not limited to the degree to which the proposed development:

1. helps accomplish the coordinated, adjusted, and harmonious development of the Town and its environs in accordance with present and future needs;
2. promotes health, safety, morals, order, convenience, prosperity, and general welfare; including among other things, adequate provisions for traffic, the promotion of public safety, adequate provisions for light and air, conservation of natural resources, the prevention of environmental pollution, the promotion of the healthful and convenient distribution of population;
3. exemplifies good civic design and arrangement and the stewardship of the Chesapeake Bay and the land as a universal ethic;
4. encourages the conservation of resources, including a reduction in resource consumption;
5. is located in a location suitable for it given existing and reasonably foreseeable development; and
6. encourages appropriate and sustainable economic growth.”

These six enumerated standards are paraphrases of the statement of intent of the Ordinance found in Section 28-103. In short, the Ordinance sets out a two-step decision-making process: first, the Council must determine whether or not an application satisfies certain minimum criteria and, if it does, then the Council considers whether to grant or deny the application based upon relevant factors including the degree to which the application satisfies the standards enunciated by the General Assembly as goals for land use planning in this State.

*C. Does the Proposed Development Meet the Minimum Criteria
Set Out in the Easton Zoning Ordinance for PUD Development?*

As required by Section 28-701.H(3)A of the Ordinance, the Town Council makes the following findings of fact with regard to the application¹:

¹ Given that no specific proposal was made for the commercial parcel proposed as part of the PUD, the findings articulated herein relate to the residential portion of the PUD only. Any future development in the commercial portion shall require a PUD Amendment and will have to satisfy all of the required findings for the commercial

1. The Town Council finds that the property was properly posted and that adequate legal notice of the public hearing was published in the Easton Star-Democrat.

2. The Town Council finds that the proposed development conforms to applicable standards set forth in this Zoning Ordinance for planned unit developments. In particular, the Town Council finds that the development standards set forth in Section 28-701.G of the Ordinance are satisfied as follows:

- (1) The land comprising the Property is in one ownership. Specifically, the Property is owned by Gannon Family, LLC. The contract purchaser is D.R. Horton, Inc., the Applicant.
- (2) The Property is of a configuration suitable for the development proposed. The size and configuration of the Property and the proposed site plan are suitable to accommodate the proposed 200 single family residential homes in a manner consistent with applicable Town design guidelines and requirements.
- (3) Public water and sewer systems are available to the Property for service of the PUD.
- (4) The Property is adjacent to adequate transportation facilities capable of serving existing traffic and that expected to be generated by the proposed development. The PUD site has frontage on Matthewstown Road. Matthewstown Road is a state road so the entrance and improvements required to Matthewstown Road are governed by the State Highway Administration ("SHA"). However, the Town Council requests that the Town Engineer communicate its preference to SHA. Specifically, the Town Council would like SHA to require the Applicant to construct acceleration and deceleration lanes to the entrance into the development and a dedicated left hand turn lane into the development when traveling southwest on Matthewstown Road. In addition, the Town Council believes that it is important for there to be multiple points of access to communities and interconnectivity between neighborhoods. Therefore, the Applicant shall construct an access to Swann Haven Road at the location designated as "Roadway Connection" on the PUD Concept & Land Use Plan. In addition, the Town Council is requiring the developer to designate and set aside land for a potential future connection to the property to the west of the Property. The Planning Commission shall approve the exact location of the access.

development proposed.

- (5) The owners or developers must begin construction of the development within two years after final approval. If there is no action on the part of the applicant at any point in the process for a period of two years, the zoning shall revert to its previous classification unless a time extension is requested and granted by the Planning Commission.
- (6) The setback, lot size, lot coverage, height, minimum frontage, minimum open space and yard requirements are as shown on the PUD Plan and reproduced here for convenience:

SETBACKS PROPOSED:

GARDEN HOMESITES: MINIMUM LOT SIZE - 6,000 SF

FRONT SETBACK - 10'
SIDE SETBACK - 5'
REAR SETBACK - 15'

MEADOW HOMESITES: MINIMUM LOT SIZE - 7,500 SF

FRONT SETBACK - 10'
SIDE SETBACK - 5'
REAR SETBACK - 25'

COUNTRY HOMESITES: MINIMUM LOT SIZE - 8,000 SF

FRONT SETBACK - 10'
SIDE SETBACK - 5'
REAR SETBACK - 25'

THE MINIMUM FRONTAGE, HEIGHT AND YARD REQUIREMENTS WILL REMAIN CONSISTENT WITH THE TOWN'S BASE RESIDENTIAL ZONING DISTRICT STANDARDS.

- (7) The off-street parking required for single family detached dwellings is a driveway at least 10 feet wide and 35 feet long. The Applicant is proposing driveways of 20 feet wide by 25 feet long which provide increased parking area.
- (8) The off-street parking requirements for major retail or shopping center use are not applicable.
- (9) The property is 76.274 acres in size which satisfies the 5-acre minimum size requirement.
- (10) Since the property is a PUD-General, there is no maximum size applicable.
- (11) The proposed density is 2.62 dwelling units per acre, which is significantly less than the 16 dwelling units per acre permissible.
- (12) The Applicant is proposing 22.882 acres for open space which is exactly the 30% open space required for PUD-General.

In summary, as is more specifically set forth above, the Town Council finds that the proposed PUD complies with applicable Development Standards in the Ordinance.

3. The proposed PUD is not necessarily superior to or more innovative than conventional development. In fact, it is very similar to a conventional development that could occur in R-10A Residential zoning. However, the Property is zoned Agricultural (A-1). In the A-1 zoning, the minimum lot size is one acre. By granting the PUD, the developer will be able to reach a density closer to Smart Growth standards without adding significant adverse impacts to public health, safety or the environment. The Town has not had a new residential subdivision of this size in quite a few years. With the shortage of available housing particularly in the price range for this project, this PUD provides a greater public benefit without the adverse impacts.

4. By letter dated August 23, 2021, the Easton Planning Commission made a favorable recommendation to the Town Council conditioned on the following four items:

a. The proposed PUD site plan shall be revised to comply with the alley requirement of the Town's Subdivision Regulations, as the flexibility afforded by the PUD does not extend to provisions of the Subdivision Regulations and we do not believe the application warrants the relief from this standard provided by these regulations (either there are too few lots proposed for alleys to be feasible or the standard poses a hardship for the Applicant);

b. A determination that two points of ingress/egress are sufficient in this instance to meet the objectives of connectivity called for in the Comprehensive Plan. Specifically, connections off of Matthewstown Road and to the Swann Haven Subdivision are deemed sufficient;

c. The Developer shall be responsible for the buildout of these remaining ingress/egress accesses subject to approval by the Town and Talbot County; and

d. The Developer shall provide some amount of greater variety in the home design including some models with rear garages/rear access and a variation of architectural styles.

The Town Council does not agree with the Planning Commission on condition a, b, and part of d, but does agree with c and part of d. Specifically, as to the alleys in condition a, the Town Council has simultaneously introduced legislation to amend the Subdivision Regulations to allow for the alley requirement to be waived for this PUD since this subdivision is not adjacent to other subdivisions that are served by alleys.

With respect to condition b, the Town Council believes that in addition to the ingress/egress to Matthewstown Road and to the Swann Haven Subdivision, the Applicant

shall preserve the ability to connect to the neighboring wooded property which is Parcel 186 on Talbot County Tax Map 26.

For condition d, since the Town Council is waiving the requirement for alleys, the Town Council does not believe that models with rear garages and rear access are required, but does agree that the Developer shall provide greater variety in the home design and variations of architectural styles, which is also included as a condition to these Findings of Fact.

5. Based upon the recommendation of the Planning Commission and information contained within the record, the Council finds that the proposed PUD conforms to the Town's Comprehensive Plan.

The Plan is intended to serve as the guide for land use decisions of the Town and articulates many broad policy issues and objectives intended to apply on a town-scale. The Plan has an entire chapter devoted to Housing. The Plan recognizes the problems in the housing market in Easton as housing cost, housing quality, and housing availability. (Plan p. 133).

Finally, at the end of the Housing Chapter in the Plan, the Town establishes Housing Goals and Objectives. Among them are to "Establish design standards and require physical distribution of different housing types that provide visual interest and a smooth blend of affordable housing in the community"; "Achieve a density that creates a sense of place, uses infrastructure efficiently, produces pedestrian-friendly neighborhoods and accommodates plans for transit." (Plan p. 140). The Council believes that the proposed PUD advances these goals and that the proposed PUD conforms with the Plan.

6. The proposed PUD, in conjunction with existing and reasonably anticipated development in the neighborhood surrounding the site for the proposed PUD, will not interfere with the adequate and orderly provision of public services to the area. Adequate water and sewer services to serve the proposed PUD exist and are within relatively close proximity to the Property. The Applicant will provide the utility extension that is necessary to connect the PUD to Town services. The Town's wastewater treatment plant has adequate capacity to serve the PUD. The Property currently has a "S2/W2" classification in the Talbot County Comprehensive Water and Sewer Plan. The Applicant will need to have the Property reclassified to "S1/W1".

7. The Town Council finds that the proposed PUD will not cause unacceptable traffic congestion or hazards either in or near the site for the proposed PUD development or elsewhere in the Town or Talbot County. The primary access to the Property will be from Matthewstown Road with a secondary access point connecting to the Swann Haven community and the potential for an additional secondary access point connecting to the west of the Property.

A Traffic Impact Analysis ("TIA") was conducted by Mike Lenhart, P.E. PTOE and President of Lenhart Traffic Consulting, Inc. in July 2018 and updated in October 2020. The TIA analysis concludes that all intersections studied will operate at a Level of Service A after the PUD is completed. Matthewstown Road is a state road and the entrance and required improvements will be governed by the State Highway Administration ("SHA"). The Town Council requests that the Town Engineer communicate its preference to SHA. Specifically, the Town Council would like SHA to require the Applicant to construct acceleration and deceleration lanes to the entrance into the development and a dedicated left hand turn lane into the development when traveling southwest on Matthewstown Road. The Applicant will continue to work with SHA and the Town Engineer to determine the specific design of the entrance.

The Town Council does not make this finding regarding traffic lightly. A previous PUD approved for this same property was vetoed by the Mayor due, in large part, to the inadequacy of the transportation system at the time. Since then, a number of improvements have been made on Matthewstown Road between Black Dog Alley and Route 50. In addition, this PUD is proposing significantly less units than the previous PUD proposal.

8. The record contains no indication that there are any features of ecological, historical, or cultural significance on the Property, and the Council so finds. Ecologically, stormwater management techniques and practices that comply with State and local regulations and protect sensitive, downstream resources are proposed.

9. The Town Council finds that the proposed PUD is compatible with existing ~~development in the surrounding neighborhood and with development reasonably~~ anticipated to occur in the neighborhood in terms of size, scale, design, and appearance. The surrounding developments are residential. The site is identified as residential use on the Future Land Use Map in the Town's Comprehensive Plan and will contain single family residential homes, consistent with the housing on all adjacent properties. Although consistent with adjacent housing types, a Town compliant landscaped bufferyard is proposed to help soften the impact on adjoining properties.

10. The proposed PUD will not adversely affect the value of property in the neighborhood surrounding the site. There is a significant demand for residential units in the Town of Easton. The values for Easton real estate have been escalating.

*D. Should the Town Council Exercise Its Legislative Discretion To
Grant The Application?*

The Council finds that the Applicant has met the minimum criteria for granting a PUD application. The Council has further concluded that it is appropriate for it to exercise its legislative discretion to grant the application.

The Council finds that the proposed PUD helps accomplish the coordinated, adjusted, and harmonious development of the Town and its environs in accordance with present and future needs and is located in a location suitable for its given existing and reasonably foreseeable development.

The Council further finds that the PUD is located in a location suitable for it given existing and reasonably foreseeable development and encourages appropriate and sustainable economic growth. The demand for housing in Easton outweighs the current supply. The PUD will enhance housing opportunities in the Town of Easton.

Based on the foregoing, the Town Council finds approval of the PUD to be in the public interest, subject to the conditions set forth below.

E. Conditions.

The following conditions are binding on the Applicant and any successor developer(s) of the land located within this PUD district:

1. To advance the Town's objectives related to making housing more affordable, the Developer shall establish a program for the community that offers closing assistance for individuals who are active military, law enforcement, firefighters, healthcare professionals, educators and/or social workers, whereby the developer pays the following closing costs associated with the purchase of a new home within the community, provided that the buyer(s) uses the developer's preferred lender: (i) cash contribution towards buyer's closing costs in an amount not less than 2% of the purchase price for the new home, and (ii) interest rate buy down of not less than one-quarter (0.25) of one (1) percentage point.

2. In furtherance of the Town's objected for affordable housing, the Applicant shall pay a fee to the Town's Affordable Housing Fund in the amount of Three Thousand Dollars (\$3,000.00) per lot payable at the time of application for a building permit for each lot.

3. Given that the Town Council has agreed to waive the requirement for alleys in accordance with the ordinance amending the Subdivision Regulations effective simultaneously with the PUD Ordinance, the Town Council believes that widening the proposed street sections to a 60-foot wide right of way with 36 feet wide street section (typical cross section for residential sub-collector street) is more appropriate to provide some on-street parking.

4. The Applicant shall construct a pedestrian pathway along the north side of the residential collector street that is shown on the site plan. The Applicant shall also establish and designate, to the Town, an easement along the entire frontage of the Property along Matthewstown Road for a future pedestrian pathway to be designed and constructed in accordance with the Maryland State Highway Administration. The easement shall be established prior to any building permit being issued for the Property.

5. Subject to approval by Talbot County, the Developer shall construct a vehicular connection, in accordance with applicable Town and County standards, between the community and Swann Haven Road in the location shown on the site plan. Provided that approval from Talbot County has been obtained, the vehicular connection shall be built concurrent with the construction of other roadways within the community. If the approval from Talbot County has not been obtained prior to the construction of the other roadways in the community, then the Applicant shall be required to continue to keep a bond in place to cover the cost of construction of the improvements until such time as the approval from Talbot County has been obtained and the road connection constructed to the Town's satisfaction.

6. Developer shall plat a 60-foot right-of-way on the Property to provide for a future vehicular connection between the Property and the adjoining Parcel 186 on Talbot County Tax Map 26. The right-of-way shall be platted and dedicated to the Town simultaneously with the approval and recordation of the final plat for the Property, but the Applicant shall not be required to construct the road within the right-of-way.

7. The Town Council believes that the Applicant should provide a greater variety of home design and variation of architectural styles than what was provided with the PUD application. The specific elevations for the home designs shall be subject to the approval of the Easton Planning and Zoning Commission.

VOTING TO GRANT THE APPLICATION:



Alan I. Silverstein



Ron E. Engle



Rev. Elmer Davis

VOTING TO DENY THE APPLICATION:



Megan J. M. Cook, President


Don Abbatiello

Attachment 2: Town Engineer Review Letter



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: April 11th, 2023
TO: Aspire Outdoors LLC - Owner
Cc: Rick Van Emburgh - Town Engineer
Miguel Salinas - Planning and Zoning Department
Aaron Goller - EUC
FROM: Sierra Clem - Engineering Department
SUBJECT: Aspire Outdoors - BOZA application for Variance and Special Exception

I have reviewed the special exception for multi-family use and the setback variance applications for the proposed six apartment buildings located at the subject location which was received on 4/6/2023. The Town Of Easton Engineering Department does not have any comments regarding the use which is the subject of the BOZA Applications.

The application includes proposed improvements to the site which have been reviewed by staff via the ESDR application process. Attached is the 12/28/2022 the Engineering review letter.

Additionally, since that review, a traffic impact study has been submitted. The traffic impact study finds that all existing intersections will function at a LOS D or better with the proposed development and the neighboring Gannon Range. Please note, that SHA and the Town Engineering Department have not yet approved this study.

Please contact me if you have any questions. Thank you.



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: December 28, 2022
TO: Casey Rauch
CC: Derick Daly
Sierra Clem - Town of Easton Engineering Department
Joe Mayer - Town of Easton Planning & Zoning Department
FROM: Rick Van Emburgh, P.E. - Town Engineer
SUBJECT: Aspire
Sketch Site Plan and
Sketch Stormwater Management Plan Review

I reviewed the Application for the Subject project received on 12/9/2022.

Site Plan

The **Sketch Site Plan** must be revised to address the following:

1. **SHEET G-100 - GENERAL NOTES** - Replace TOWN OF EASTON DPW with TOWN OF EASTON ENGINEERING - 410-820-8822.
2. **SHEET G-100 - SITE DATA** - List the total amount of Limit of Disturbance (or list on an Erosion & Sediment Control Sheet).
3. **SHEET G-100 - SITE DATA** - List the Existing and Proposed Impervious Area.
4. **SHEET C-101** - The Town of Easton Engineering Department recommends proposed connectivity with Gannon Estates to eliminate a dead end and provide a second means of ingress/egress in the event of an emergency. Aspire may still be private/gated (similar to Londonderry or Bailey Chase). This is our recommendation to the Planning Commission.
5. Show Existing Easements and Buffers (NTW, Stream, etc.) on the property on all applicable sheets (should be around the perimeter of the property at a minimum).
6. Label adjacent property owners on all applicable sheets.
7. Provide an additional sheet in the set showing the entire property boundary.
8. Consider a roundabout or some other ability to turn around at the transition from Camac Street to private property.
9. Connect the proposed parking area near Camac Street to the proposed entrance to improve circulation.
10. Label Camac Street on all plan sheets.

P.O. Box 520, Easton, Maryland 21601
410-820-8822
Engineering@EastonMD.gov - www.EastonMD.gov

Aspire
Sketch Site Plan and
Sketch Stormwater Management Plan Review

11. Label the proposed roads as privately owned/maintained. Provide an END OF TOWN MAINTENANCE sign at the end of Camac Street.
12. Will the streets be named? If so, please provide street names prior to the Final Site Plan.
13. Connect Camac Street sidewalk on the northeast side to the proposed sidewalks and provide connection from the proposed community to the Town Park.
14. The Preliminary Site Plan application should provide more detail for the pool fence/sidewalk/deck and label trash location for the pool.
15. Number/Label the buildings.
16. Prior to Final Site Plan approval, provide a PWA (Public Works Agreement) to address Phasing of the project.
17. Provide a Traffic Impact Study. Compare original Hunters Mill design to proposed design and confirm existing Town roads and entrance to MD-328 are adequately designed. (See Zoning Code Section 28-901.2.G.3 for Sketch Site Plan requirement and Zoning Code Sections 28-1303.5.B.5 and 28-1303.5.B.6 for Special Exception requirements).

Please address the comments above and submit a revised Sketch Site Plan.

Stormwater Management

The **Sketch Stormwater Management Plan** must be revised to address the following:

18. **SHEET C-201.02** - Provide a SWM Quantity Summary Table (similar to TOE-SWM-7.02 or the Table provided in the SWM Report).
19. **Quantity Management** - The Drainage Areas used for the analysis include significant offsite areas. Please revise the analysis to include a Study Point(s) at the edge of the LOD to determine the impact immediately adjacent to the proposed project.
20. At the Preliminary Stormwater Management Plan Review, provide project specific cross sections (not typical sections) through the embankments of the Submerged Gravel Wetlands to illustrate side slopes, top of embankment width, and proximity to property lines and LOD.
21. At the Preliminary Stormwater Management Plan Review, provide a note or detail on how the Pool Equipment will discharge to the proposed stormwater management system. Pool water must be dechlorinated before released to the stormwater system or it will be an Illicit Discharge.

Please address the comments above and submit a revised Sketch Stormwater Management Plan.

Please contact me if you have any questions. Thank you.

Attachment 3: Easton Utilities Outstanding Issues



EASTON UTILITIES
Life. Made better.™

Plan Review Comment Sheet

Project Name: ASPIRE APARTMENTS
Project Address: _____
Type of Permit: _____

Date Received: 4/5/2023
EU Deadline: 4/11/2023
TOE Due Date: 4/11/2023
Submission #: _____

Department	Approved	Approved as Noted	Revise & Resubmit	Rejected	Plan Review Signature
Addressing					
Cable					
Electric					
Engineering					
Gas					
Meter					
Water/Wastewater					

No.	DWG / PAGE	Project Review Comments	Comment By:	Confirmed
1		Capital Charges Due for 162 Residential Units + Clubhouse		
2		Easements required for all utilities outside of Town Right of Ways		
3		Watermain shall be looped to neighboring parcels.		
4		Wastewater Pump Station required as the Matthewstown Pump Station does not have capacity for this development.		
5		Wastewater forcemain required to reroute forcemain discharge.		
6		Water and Sewer mains shall not be under parking areas.		



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: April 11th, 2023
TO: Aspire Outdoors LLC - Owner
Cc: Rick Van Emburgh – Town Engineer
Miguel Salinas – Planning and Zoning Department
Aaron Goller – EUC
FROM: Sierra Clem – Engineering Department
SUBJECT: Aspire Outdoors – BOZA application for Variance and Special Exception

I have reviewed the special exception for multi-family use and the setback variance applications for the proposed six apartment buildings located at the subject location which was received on 4/6/2023. The Town Of Easton Engineering Department does not have any comments regarding the use which is the subject of the BOZA Applications.

The application includes proposed improvements to the site which have been reviewed by staff via the ESDR application process. Attached is the 12/28/2022 the Engineering review letter.

Additionally, since that review, a traffic impact study has been submitted. The traffic impact study finds that all existing intersections will function at a LOS D or better with the proposed development and the neighboring Gannon Range. Please note, that SHA and the Town Engineering Department have not yet approved this study.

Please contact me if you have any questions. Thank you.



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: December 28, 2022
TO: Casey Rauch
cc: Derick Daly
Sierra Clem - Town of Easton Engineering Department
Joe Mayer - Town of Easton Planning & Zoning Department
FROM: Rick Van Emburgh, P.E. – Town Engineer
SUBJECT: Aspire
Sketch Site Plan and
Sketch Stormwater Management Plan Review

I reviewed the Application for the Subject project received on 12/9/2022.

Site Plan

The **Sketch Site Plan** must be revised to address the following:

1. **SHEET G-100 - GENERAL NOTES** - Replace TOWN OF EASTON DPW with TOWN OF EASTON ENGINEERING - 410-820-8822.
2. **SHEET G-100 - SITE DATA** - List the total amount of Limit of Disturbance (or list on an Erosion & Sediment Control Sheet).
3. **SHEET G-100 - SITE DATA** - List the Existing and Proposed Impervious Area.
4. **SHEET C-101** - The Town of Easton Engineering Department recommends proposed connectivity with Gannon Estates to eliminate a dead end and provide a second means of ingress/egress in the event of an emergency. Aspire may still be private/gated (similar to Londonderry or Bailey Chase). This is our recommendation to the Planning Commission.
5. Show Existing Easements and Buffers (NTW, Stream, etc.) on the property on all applicable sheets (should be around the perimeter of the property at a minimum).
6. Label adjacent property owners on all applicable sheets.
7. Provide an additional sheet in the set showing the entire property boundary.
8. Consider a roundabout or some other ability to turn around at the transition from Camac Street to private property.
9. Connect the proposed parking area near Camac Street to the proposed entrance to improve circulation.
10. Label Camac Street on all plan sheets.

P.O. Box 520, Easton, Maryland 21601
410-820-8822
Engineering@EastonMD.gov - www.EastonMD.gov

11. Label the proposed roads as privately owned/maintained. Provide an END OF TOWN MAINTENANCE sign at the end of Camac Street.
12. Will the streets be named? If so, please provide street names prior to the Final Site Plan.
13. Connect Camac Street sidewalk on the northeast side to the proposed sidewalks and provide connection from the proposed community to the Town Park.
14. The Preliminary Site Plan application should provide more detail for the pool fence/sidewalk/deck and label trash location for the pool.
15. Number/Label the buildings.
16. Prior to Final Site Plan approval, provide a PWA (Public Works Agreement) to address Phasing of the project.
17. Provide a Traffic Impact Study. Compare original Hunters Mill design to proposed design and confirm existing Town roads and entrance to MD-328 are adequately designed. (See Zoning Code Section 28-901.2.G.3 for Sketch Site Plan requirement and Zoning Code Sections 28-1303.5.B.5 and 28-1303.5.B.6 for Special Exception requirements).

Please address the comments above and submit a revised Sketch Site Plan.

Stormwater Management

The **Sketch Stormwater Management Plan** must be revised to address the following:

18. **SHEET C-201.02** - Provide a SWM Quantity Summary Table (similar to TOE-SWM-7.02 or the Table provided in the SWM Report).
19. **Quantity Management** - The Drainage Areas used for the analysis include significant offsite areas. Please revise the analysis to include a Study Point(s) at the edge of the LOD to determine the impact immediately adjacent to the proposed project.
20. At the Preliminary Stormwater Management Plan Review, provide project specific cross sections (not typical sections) through the embankments of the Submerged Gravel Wetlands to illustrate side slopes, top of embankment width, and proximity to property lines and LOD.
21. At the Preliminary Stormwater Management Plan Review, provide a note or detail on how the Pool Equipment will discharge to the proposed stormwater management system. Pool water must be dechlorinated before released to the stormwater system or it will be an Illicit Discharge.

Please address the comments above and submit a revised Sketch Stormwater Management Plan.

Please contact me if you have any questions. Thank you.

Exhibit 'E'

THE STAR DEMOCRAT - ONE TIME - SUNDAY, APRIL 2, 2023

NOTICE

Notice is hereby given that Robert Rauch & Brian Fitzgerald of Rauch, Inc. on behalf of Aspire Outdoors LLC has filed Application SE-911 / SE 23-06, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to permit a Multifamily Apartment Complex per 1.105 in Table 2.1, Section 28-202 of the Ordinance. The applicant has also filed Application V-911 / V 23-05, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a Variance of Section 28-1007.1.(1)14(l) which requires a minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot. The applicant is proposing to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units.

The property is located on Camac Street, Easton, Maryland and is also known as Tax Map 26, Grid 20, Parcel 186. The property is situated in the R-10A – Residential District and owned by Aspire Outdoors LLC. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.

EASTON BOARD OF ZONING APPEALS

Notice to Star Democrat: Please publish as indicated above and send Certificate of Publication to Planning and Zoning, Town of Easton, P.O. Box 520, Easton, Maryland 21601, prior to date of hearing.

Exhibit 'E'

APG Media of Chesapeake, LLC

**29088 Airpark Drive
Easton, MD 21601**

Phone: Fax:

**INVOICE
03/31/23**

Cust. AcctID:	Creation Date: 03/30/23
	Ad Date: 04/02/23
	Class: 10
Name: Joanne Drummer	Ad ID: 3017994
Company: TOWN OF EASTON (L)	Words: 255
Address: PO Box 520	Lines: 27
EASTON, MD 21601	Agate Lines: 84
	Depth: 3.5
	Inserts: 2
	Blind Box:
Telephone: (410) 822-2525	
Description: Application SE-911 / SE	

Other Charges:	\$0.00	Total:	\$122.50
Discount:	\$0.00		
Surcharge:	\$0.00	Paid Amount:	- \$0.00
Credits:	\$0.00		
Bill Depth:	3.5	Amount Due:	\$122.50

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	
The Star Democrat	04/02/23	04/02/23	1	\$122.50

Ad Note:

Customer Note:

*We Appreciate Your Business!
Thank You Joanne Drummer!*

NOTICE

Notice is hereby given that Robert Rauch & Brian Fitzgerald of Rauch, Inc. on behalf of Aspire Outdoors LLC has filed Application SE-911 / SE-23-06, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to permit a Multifamily Apartment Complex per 1.105 in Table 2.1, Section 28-202 of the Ordinance. The application is requesting a Special Exception to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units. The applicant has also filed Application V-911 / V 23-05, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a Variance of Section 28-1007.1.(1)(14)(i) which requires a minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot. The applicant is proposing to reduce the 75' rear yard setback to 50'.

The property is located on Camac Street, Easton, Maryland and is also known as Tax Map 26, Grid 20, Parcel 186. The property is situated in the R-10A - Residential District and owned by Aspire Outdoors LLC. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on April 18, 2023 at 9:00 A.M. in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend.

EASTON BOARD OF ZONING APPEALS

3017994 SD

4/2/2023



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY

2023-04-18

SE-911 / SE 23-06 AND V-911 / V 23-06

Applicant notified of hearing date: 2023-04-03 – 15 days

Exhibit A: Application – 2023-03-30 – 19 days

Exhibit B: Paid Receipt – 2023-03-30 – 19 days

Exhibit C: Picture of Property Sign Posting – 2023-04-04 – 14 days

Exhibit D: Staff Report – 2023-04-11 – 7 days

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2023-03-30 – 19 days

Advertisement run in Star Democrat: 2023-04-02 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: 2023-04-03 – 15 days

400' Notices Distributed: 2023-04-03 – 15 days



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Derick Daly
Aspire Outdoors, LLC
29760 Standish Street
Easton, MD 21601

Re: Application No. SE-911 / SE 23-06
Camac Street
Tax Map 026, Grid 020, Parcel 0186
Easton, MD 21601

Mr. Daly,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. the proposed use conforms in all aspects to minimum requirements of the district in which it is located;
2. the proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;
3. the proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exception;
4. the proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;
5. the proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;
6. the proposed use will not adversely affect the established character of the area;
7. the proposed use shall be in conformity with the provisions of the Easton

Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complementary to uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

NOTE: In the event your application pending before the Easton Board of Zoning Appeals requires a recommendation to the Board from the Easton Planning and Zoning Commission, the Appeals Board will not hear your application until it is in receipt of the Planning and Zoning Commission's recommendation. It is your responsibility to see that the recommendation required is before the Board of Zoning Appeals before any evidence is heard.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith
Administrative Specialist
Planning and Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

April 3, 2023

Derick Daly
Aspire Outdoors, LLC
29760 Standish Street
Easton, MD 21601

Re: Application No. V-911 / V 23-05
Camac Street
Tax Map 026, Grid 020, Parcel 0186
Easton, MD 21601

Mr. Daly,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 18th at 9:00 A. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. That granting the application will not be contrary to the public interest;
2. that granting the application will be in harmony with the purpose and intent of the Ordinance;
3. that granting the application will not be injurious to the neighborhood or otherwise detrimental to the public welfare;
4. that owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Please be prepared to answer the four listed items above at the time of the Hearing.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
Town of Easton, MD
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

14 South Harrison Street
Easton, Maryland 21601

April 3, 2023

Dear Resident,

The Easton Board of Zoning Appeals will hold a public meeting on **Tuesday, April 18, 2023 at 9:00 a.m.** in the Easton Town Council Chambers located on the second floor of 14 South Harrison Street. The Town of Easton Zoning Ordinance requires that owners of property located within 400 feet of a parcel on which certain types of applications are pending be given notice of upcoming meetings or hearings. If you are a tenant in or an owner of a multi-unit building, please distribute or post this notice in a visible location for all other tenants or owners to view. If you are a tenant of a rental property, please notify the property owner that this notice letter has been distributed to their property. Notice has also been sent to the Star Democrat, a sign has been posted at the subject property and the hearing agenda has been posted on the Town of Easton website: <http://eastonmd.gov/>.

This letter is sent to inform you that an application for Aspire Outdoors LLC located on Camac Street and is also known as Tax Map 26, Grid 20, Parcel 186 has been filed for a Special Exception request pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to permit a Multifamily Apartment Complex per 1.105 in Table 2.1, Section 28-202 of the Ordinance. The applicant is requesting a Special Exception to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units. The applicant has also filed a Variance request, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a Variance of Section 28-1007.1.(1)14(l) which requires a minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot. The applicant is proposing to reduce the 75' rear yard setback to 50'.

Copies of the proposed application are on file and available for public review in the Town's Planning Office at 14 South Harrison Street between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday. **In addition, digital copies are also available for review via the Town's website at <https://www.eastonmd.gov/129/Agendas-Minutes>.** If you have any questions regarding this application, please contact the Planning Office at (410) 822-1943 or via e-mail at ssmith@eastonMD.gov.

Samantha N. Smith
Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov