

# CHAPMAN AVENUE AND TWINBROOK PARKWAY INTERSECTION IMPROVEMENT REPORT

Chapman Avenue and Twinbrook Parkway Intersection

Twinbrook Safe Routes to School and Transit Access Feasibility Studies  
City of Rockville Contract No. BCS 2017-01H

December 2024

Prepared For:

City of Rockville  
111 Maryland Ave,  
Rockville, Maryland 20850

Prepared By:

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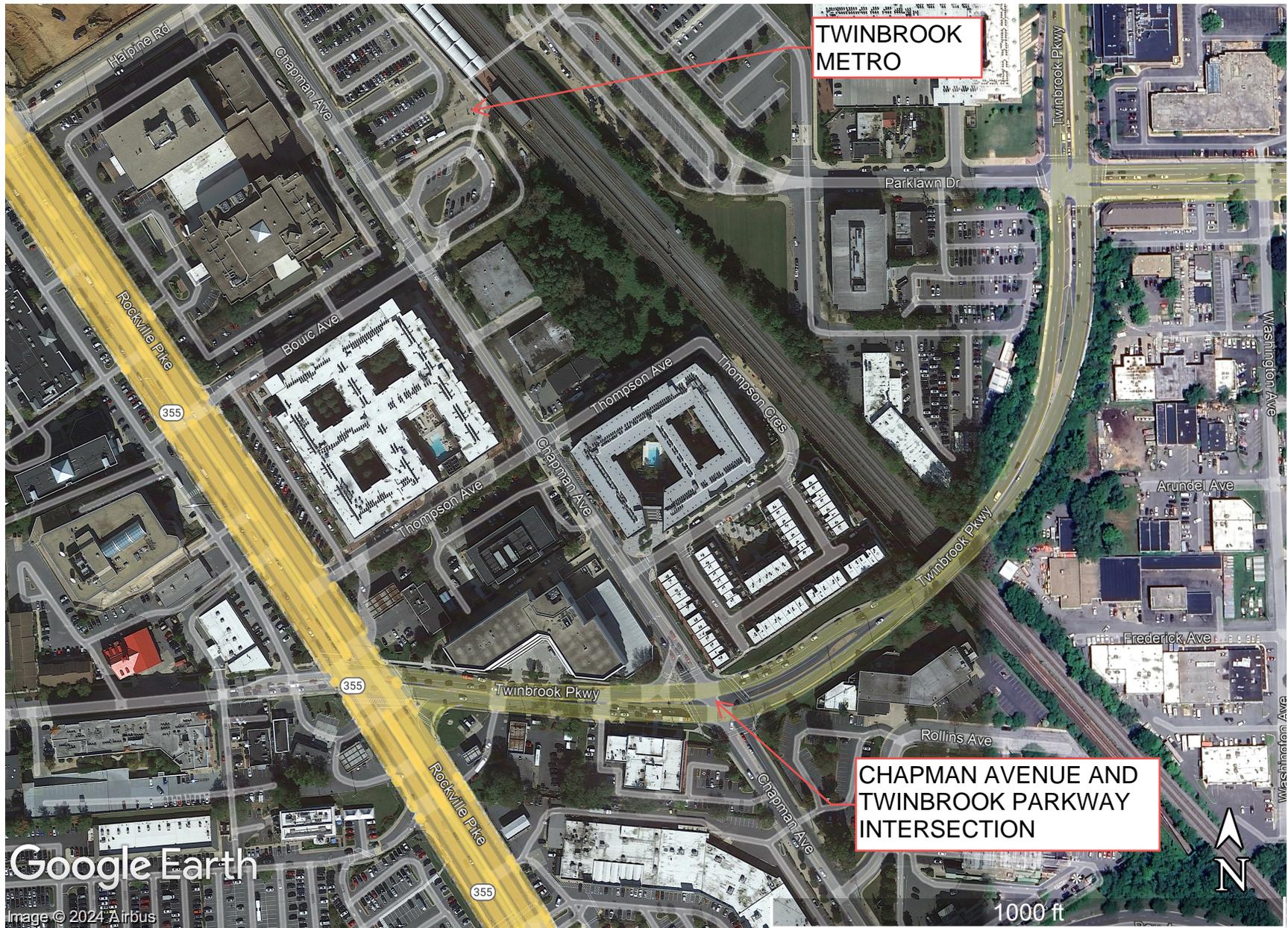
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1. LOCATION MAP



**CHAPMAN AVENUE AND TWINBROOK PARKWAY INTERSECTION**  
**FIGURE 1: LOCATION MAP**

## I. PROJECT INTRODUCTION

This report has been prepared for the City of Rockville as part of the Vision Zero program, a priority initiative of the Mayor and Council that seeks to eliminate serious injuries and fatalities that result from traffic crashes. This program is multimodal and aims to improve roadway safety for pedestrians, bicyclists, transit users, and motorists. The Twinbrook Safe Routes to School and Transit Access study will identify opportunities to improve intersection safety for all modes of transportation, especially for trips to and from Twinbrook Elementary School and the Twinbrook Metro Station. The intersections studied included:

1. Ardennes Avenue and Crawford Drive
2. Ardennes Avenue and Halsey Road
3. Ardennes Avenue and Halpine Road
4. Ardennes Avenue and Ridgway Avenue
5. Ardennes Avenue and Wainwright Avenue
6. Chapman Avenue and Bouic Avenue
7. Chapman Avenue and Twinbrook Parkway
8. Lemay Road and Ridgway Avenue

Additionally, as a separate effort, this project evaluated the feasibility of constructing a sidewalk along several street segments in Twinbrook including:

1. Brooke Drive between Lewis Avenue and Rockland Avenue
2. Crawford Drive between Rockcrest Circle and Hillcrest Park
3. Crawford Drive between Atlantic Avenue and Ardennes Avenue
4. Halsey Road between Henry Road and Ardennes Avenue
5. Lemay Road between Vandegrift Avenue and Ardennes Avenue
6. Midway Avenue between Crawford Drive and Stillwell Road
7. Wade Avenue between Edmonston Drive and Crawford Drive

This project was funded by a MDOT Transportation Alternatives (TA) Program grant, and the improvements and cost estimate are proposed by the project team consisting of Mercado Consultants and AECOM.

## II. PROJECT DESCRIPTION

This report discusses the feasibility of improvements at the intersection of Chapman Avenue and Twinbrook Parkway. Please see Appendix A for the recommended feasible safety upgrades and cost estimate.

## III. DESIGN CRITERIA AND ASSUMPTIONS

The design criteria used for intersection improvements include both intersection and sidewalk aspects. Intersection design criteria come from the AASHTO Geometric Design of Highways and Streets. This reference document outlines specific elements affecting the performance of pedestrians at intersections. The elements outlined include sidewalk and crosswalk width, crossing distances, conflicting traffic volumes, speed and visibility of approaching traffic, turning speeds, permissive right-turn-on-red, permissive left-turn movements, crosswalk lighting, and accessibility for persons with disabilities. Improving these elements was explored within this study.

The Maryland Manual on Uniform Traffic Control Devices (MD MUTCD) was referenced for the proposed signs, placement, pavement markings, and traffic control devices applicable to improving the intersections studied. Specifically, the MD MUTCD was referenced for choosing advanced warning signs and sign placement. This document was also used for proposing crosswalks, upgrading crosswalk style, and pavement markings for the crosswalk and stop bar. The MD MUTCD was also used for verifying warrants for additional proposed traffic controls at the intersections.

The NACTO Urban Street Design Guide was also used as a reference for intersection upgrades. Various design techniques are outlined in this document which improve pedestrian safety and mobility across intersections.

The sidewalk criteria for the intersection came from the ADA Standards for Accessible Design and the recently adopted Public Right-of-Way Accessibility Guidelines. A 5-foot minimum width sidewalk was proposed to meet this standard. The acceptable running slopes on the ramps are 12:1 maximum, and the proposed landing pads are a minimum of 5-foot x 5-foot with a 48:1 maximum cross-slope. The depressed landing pads located at crossings contain a 2-foot-wide minimum detectable warning surface.

The buffer between the proposed sidewalk and back of curb was set to a 2-foot minimum but could vary to avoid tree and utility impacts. Any proposed sidewalk was also set to tie into existing sidewalk where applicable.

It was assumed the proposed sidewalk is entirely within the City of Rockville's right-of-way. Impacted fences, mailboxes, and other resident belongings located within the City of Rockville's right-of-way are to be relocated. Impacted steps or resident walkways are to be reconstructed to tie into the proposed sidewalk. Utility impacts such as inlets, fire hydrants, and utility poles were avoided.

The Fire Department Access Performance-Based Design Guide was also referenced for the intersection upgrades. This guide dictates the roadway clear width to be 20-foot minimum for emergency vehicles. The curb radius recommended at intersections is 25-foot minimum and was used to upgrade curb radii throughout the site.

The design vehicle recommended to be used to confirm turning movements for this intersection is a transport truck (WB-50) and Metro Bus (CITY-BUS) per the direction of the City of Rockville. It is also assumed the intersection will remain fully signal-controlled.

#### IV. EXISTING CONDITIONS

Chapman Avenue is an undivided two-way road, classified by the city as a business district road. Twinbrook Parkway is a divided multilane road, classified by the city as an arterial road. The four-way intersection of Chapman Avenue and Twinbrook Parkway is signal-controlled in all directions. The posted speed through the intersection is 30 MPH. This intersection is located 0.8 miles from Twinbrook Elementary School and 0.3 miles from the Twinbrook Metro Station.

The approaches to the Chapman Avenue and Twinbrook Parkway intersection contain pavement markings for lane separation. Twinbrook Parkway has two through lanes in each direction, one left turn only lane west of the intersection, and two left turn only lanes east of the intersection. Chapman Avenue has one through lane in each direction and a right turn only lane south of the intersection, and two left turn only lanes north of the intersection. There is an existing bike lane on the north, past the intersection on Chapman Avenue.

There are existing marked crosswalks on all approaches at this intersection. Pedestrian crosswalks are also signalized at this intersection.

The Chapman Avenue and Twinbrook Parkway intersection has an existing sidewalk in all directions. There is an existing utility pole, signal pole, and pushbutton at the northeast corner. There is also an existing inlet along Twinbrook Parkway at the northeast corner. The southeast corner has an existing utility pole, signal pole, pushbutton, and traffic cabinets. The southwest corner has two existing pushbuttons and one utility pole. The northwest corner has one slip lane and pedestrian island that contains an existing signal pole and two pushbuttons. The western approach pedestrian refuge island contains two existing inlets. The eastern approach contains a narrow concrete median.

The Chapman Avenue and Twinbrook Parkway intersection is fairly level at the intersection. The eastern approach slopes upward leading to the intersection. The existing curb radii at the intersection are greater than the recommended 25-feet.

This intersection is also under review by the Montgomery County Planning Department as a component of a nearby development application

Please see Appendix B for existing site photos.

V. CRASH DATA

There are twenty-two police-reported crashes at this location during the 2018-2022 study period. Please see Appendix C for Crash Data.

VI. ALTERNATIVES CONSIDERED

Various strategies were considered for improving safety at the Chapman Avenue and Twinbrook Parkway intersection.

The project team first considered removal of the right turn slip lane from Chapman Avenue to Twinbrook Parkway. Removal of the slip lane would reduce the number of locations for pedestrian conflicts. Changing the movement from free-flowing right turns to signal controlled right turns also would improve pedestrian safety. A traffic study will be necessary to evaluate the impact of eliminating the free-right turns would have on intersection operations for all modes and possible impacts to surrounding intersections.

Crosswalk upgrades were also considered. All crosswalks were considered for upgrade to continental style. This strategy provides greater visibility and warning to motorists of the upcoming crosswalk and pedestrians.

Lane width reductions from 12-foot lanes to 11-foot lanes were also considered throughout the intersection. Reduced lane widths encourage motorists to decrease their speed as they approach and traverse the intersection.

Additional signage was another strategy considered for this intersection. Advanced warning signs were considered ahead of the crosswalks. Signage at the locations of the crosswalks was also considered. Additional signage warns motorist of the upcoming conditions but excessive signage is also not recommended. There are currently existing signs on the concrete medians at this intersection.

The project team also considered extending and widening the existing concrete median on the east side of Twinbrook Parkway. The proposed concrete median would serve as a pedestrian refuge island for those crossing the intersection. These proposed modifications would impact the left-turn maneuver for design vehicles traveling southbound on Chapman Avenue, intending to turn onto Twinbrook Parkway. The design vehicle would be unable to make this movement without encroaching onto other lanes or the proposed widened median.

Radii upgrades to 25-feet at this intersection were also considered. Reducing curb radii is another effective strategy that can enhance pedestrian safety by forcing vehicles to slow down for turns.

## VII. PUBLIC INPUT

The in-person and virtual meeting to discuss proposed intersection improvements for all eight intersections took place on June 26<sup>th</sup> and July 1<sup>st</sup>, 2024. During these meetings improvements across all intersections were discussed and residents overall appeared to be in favor of the proposed improvements. The Twinbrook Community Association submitted formal comments including a comment related to this intersection. Please see Appendix D for comments and the project team's response.

## VIII. RECOMMENDATIONS

The project team recommends decreasing curb radii to the recommended 25-feet. Smaller curb radii encourage motorists to decrease their speed to make turns. The southeast quadrant's radius cannot be reduced to the preferred 25-feet as it would negatively impact turning movements of the design vehicles.

The project team also recommends converting the crosswalks at this intersection to continental style crosswalks. This would improve pedestrian visibility throughout the intersection.

An additional object marker sign is also recommended for the concrete median south of the intersection. The object marker sign should be placed below the existing keep right sign.

Lane width reduction is also recommended for westbound vehicles on Twinbrook Parkway.

The project team recommends a further traffic study be conducted to determine the effects of removing the right turn slip lane from Chapman Avenue to Twinbrook Parkway and to evaluate the impact of eliminating the free-right turns at this intersection.

Lastly, the project team recommends a lighting survey to be conducted in the future for this intersection.

There are also no impacts outside of the City of Rockville's right-of-way for any of the recommended strategies. Easements are required to allow for the construction of a connection to the pre-existing sidewalk.

### A. IMPACTS:

Easements required: 2

B. COST ESTIMATE:

Project cost was estimated using the unit cost method plus an overall 40% contingency to reflect the current level of study. Unit costs were gathered for proposed items and quantities were gathered. The unit costs used were derived from similar projects within Montgomery County. The approximate cost for constructing the recommended safety upgrades is \$160,000. Please see Appendix A for cost estimate breakdown.

IX. SUMMARY

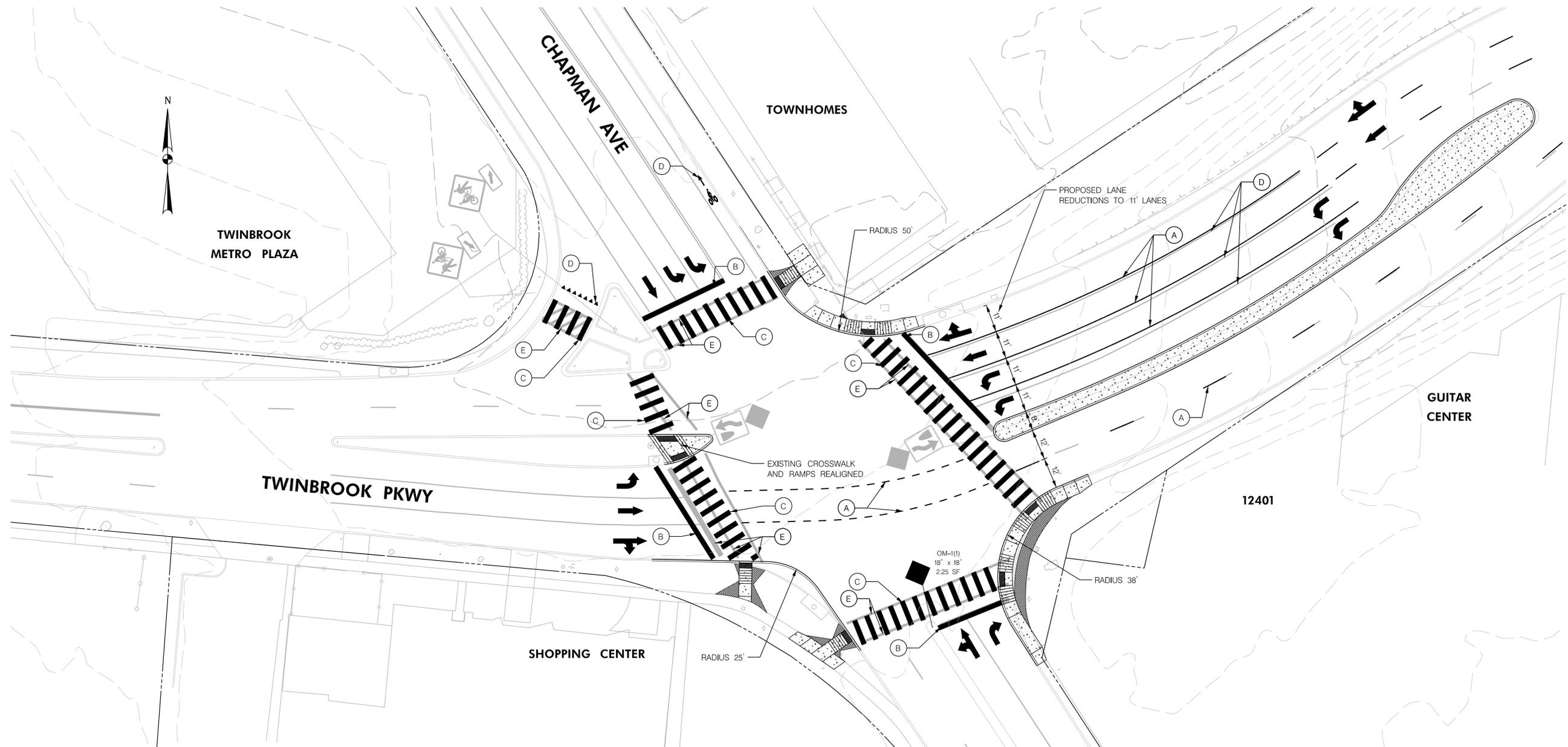
The project team proposes moving forward with several intersection improvement techniques for Chapman Avenue and Twinbrook Parkway. The curb radii for this intersection should be reduced to 25-feet for all quadrants except for the southeast quadrant where it can be reduced to 38-feet.

The project team also proposes the addition of an obstacle marker sign for the south approach median. All crosswalks should be upgraded to continental style crosswalks.

The westbound lanes on Twinbrook Parkway should be reduced to 11-feet. These upgrades should improve pedestrian safety across the Chapman Avenue and Twinbrook Parkway intersection.

# APPENDIX A:

PLAN SHEET(S) AND ESTIMATE



**LEGEND**

- 5 INCH CONCRETE SIDEWALK
- CONCRETE REMOVAL
- 8 INCH PORTLAND CEMENT CONCRETE DRIVEWAY
- 8 INCH ASPHALT DRIVEWAY
- DETECTABLE WARNING SURFACE
- NEW CURB
- APPROX. RIGHT OF WAY
- ADA RAMP
- PROPOSED SIGN AND POST

**SIGNING AND PAVEMENT MARKING LEGEND**

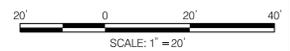
- (A) 5 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS
- (B) 24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS
- (C) 24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS (SPACING: 20-36 INCH, TYPICAL 36 INCH)
- (D) THERMOPLASTIC PAVEMENT MARKING SYMBOLS
- (E) REMOVAL OF EXISTING PAVEMENT MARKINGS

- NOTE: 1. ALL SIGNING AND MARKING SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD), MARYLAND'S STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS, SPECIFICATIONS, AND GUIDELINES.
2. ALL PAVEMENT MARKING SHALL BE DONE USING THERMOPLASTIC MATERIALS.
3. STOP LINES SHALL BE 24 INCH WIDE USING THERMOPLASTIC MATERIAL. THE SPACING BETWEEN THE STOP LINE AND THE CROSSWALK MARKING SHALL BE 4 FEET AT A MINIMUM.
4. SIGN HEIGHT SHALL BE MINIMUM 7 FEET FROM THE BOTTOM OF THE SIGN FACE TO THE GROUND.
5. FOR SIGN POST, USE EITHER 2# GALVANIZED U CHANNEL POSTS OR GALVANIZED BREAKAWAY TUBULAR STEEL SIGN POSTS BASED ON THE MD SHA STANDARD MD-802.04
6. THESE IMPROVEMENTS SHOULD BE COORDINATED WITH THE COMMUNITY PLANNING AND DEVELOPMENT SERVICES AND MONTGOMERY COUNTY BEFORE IMPLEMENTATION



DEPARTMENT OF PUBLIC WORKS  
CITY OF  
**ROCKVILLE**  
111 MARYLAND AVE. ROCKVILLE, MARYLAND

NOTE: 1. TOPOGRAPHY BASED ON MOBILE LIDAR SCAN  
2. DESIGN VEHICLES FOR THIS INTERSECTION ARE A TRANSPORT TRUCK (WB-50) AND BUS (CITY-BUS)



INTERSECTION IMPROVEMENT PLANS  
CHAPMAN AVE-TWINBROOK PKWY INTERSECTION

TWINBROOK SAFE ROUTES TO SCHOOL AND TRANSIT  
ACCESS FEASIBILITY STUDIES

DATE SUBMITTED: 12/2024	SCALE 1"=20'	SHEET NO. 1 OF 1
CONTRACT NO. BCS 2017-01H		
City of Rockville, Maryland		

DRAFT



### Engineer's Cost Estimate

Contract No. BCS 2017-01H  
 Twinbrook Safe Routes to School and  
 Transit Access Feasibility Studies  
 Chapman Avenue and Twinbrook Parkway Intersection  
 December 16, 2024

ITEM NO.	CATEGORY CODE	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
<b>CATEGORY 1</b>						
		MAINTENANCE OF TRAFFIC	LS	1	\$20,000.00	20,000.00
		REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH	LF	1566	\$1.00	1,566.00
				<b>CATEGORY 1 TOTAL</b>		<b>\$21,566.00</b>
<b>CATEGORY 2</b>						
		CLASS 1 EXCAVATION	CY	51	\$60.00	\$3,060.00
				<b>CATEGORY 2 TOTAL</b>		<b>\$3,060.00</b>
<b>CATEGORY 3</b>						
				<b>CATEGORY 3 TOTAL</b>		<b>\$0.00</b>
<b>CATEGORY 4</b>						
				<b>CATEGORY 4 TOTAL</b>		<b>\$0.00</b>
<b>CATEGORY 5</b>						
		5 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS	LF	719	\$3.00	\$2,157.00
		24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS	LF	733	\$5.00	\$3,665.00
		THERMOPLASTIC PAVEMENT MARKING SYMBOLS	SF	320	\$10.00	\$3,200.00
				<b>CATEGORY 5 TOTAL</b>		<b>\$6,865.00</b>
<b>CATEGORY 6</b>						
		5 INCH CONCRETE FOR SIDEWALK	CY	51	\$650.00	\$33,150.00
		TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH	LF	823	\$60.00	\$49,380.00
				<b>CATEGORY 6 TOTAL</b>		<b>\$82,530.00</b>
<b>CATEGORY 7</b>						
				<b>CATEGORY 7 TOTAL</b>		<b>\$0.00</b>
<b>CATEGORY 8</b>						
		SHEET ALUMINUM SIGN	SF	3	\$45.00	135.00
				<b>CATEGORY 8 TOTAL</b>		<b>\$135.00</b>
				<b>SUBTOTAL</b>		<b>\$114,156.00</b>
				<b>40% CONTINGENCY</b>		<b>\$45,662.40</b>
				<b>TOTAL</b>		<b>\$159,818.40</b>

# APPENDIX B:

SITE PHOTOS



Ardennes Avenue and Halsey Road Intersection – Looking North



Ardennes Avenue and Halsey Road Intersection – Looking South



Ardennes Avenue and Halsey Road Intersection – Looking East



Ardennes Avenue and Halsey Road Intersection – Looking West

# APPENDIX C:

## CRASH DATA REPORT



Twinbrook Metro Plaza

Affiliated Engineers

Twinbrook Pkwy & Chapman Ave

Los Primos Latin American Cuisine

Peake ReLeaf Cannabis Dispensary

Google Earth

Image Landsat / Copernicus



100 ft

Location: CHAPMAN AVE @ TWINBROOK PKWY  
 County: Montgomery, D3 Period: January 01, 2018 To December 31, 2022

Logmiles: 0.36 At 2.07 Radius: 250 ft.  
 Note:

YEAR >>	2018	2019	2020	2021	2022	Total
<b>Fatal</b>	0	0	0	0	0	0
<b>No. Killed</b>	0	0	0	0	0	0
<b>Injury</b>	3	2	1	3	1	10
<b>No. Injured</b>	3	2	1	3	1	10
<b>Prop. Damage</b>	1	5	0	3	3	12
<b>Total Crashes</b>	4	7	1	6	4	22
<b>Severity Index</b>	9	13	2	14	5	Avg 9
<b>Opposite Dir.</b>	0	0	0	0	0	0
<b>Rear End</b>	0	2	0	1	2	5
<b>Sideswipe</b>	0	0	1	1	0	2
<b>Left Turn</b>	2	2	0	2	0	6
<b>Angle</b>	0	1	0	0	1	2
<b>Pedestrian</b>	2	2	0	1	1	6
<b>Parked Veh.</b>	0	0	0	0	0	0
<b>Fixed Object</b>	0	0	0	0	0	0
<b>Other</b>	0	0	0	1	0	1
<b>U-Turn</b>	0	0	0	0	0	0
<b>Backing</b>	0	0	0	1	0	1
<b>Animal</b>	0	0	0	0	0	0
<b>Railroad</b>	0	0	0	0	0	0
<b>Fire / Expl.</b>	0	0	0	0	0	0
<b>Overturn</b>	0	0	0	0	0	0
<b>Truck Related</b>	0	0	0	1	0	1
<b>Night Time</b>	2	3	0	2	0	7
<b>Wet Surface</b>	2	2	1	1	1	7
<b>Alcohol</b>	1	0	0	0	0	1
<b>Intersection</b>	4	7	1	6	4	22
<b>Total Vehicles</b>	6	13	2	12	9	42
<b>Total Trucks</b>	0	0	0	1	0	1
<b>Truck %</b>	0.0	0.0	0.0	8.3	0.0	2.4
<b>Comments:</b>						
_____						
_____						
_____						

Location: CHAPMAN AVE @ TWINBROOK PKWY

Logmiles: 0.36 At 2.07 Radius: 250 ft.

County: Montgomery, D3 Period: January 1, 2018 To December 31, 2022

Note:

SEVERITY											DAY OF THE WEEK												
FATAL	INJURY		P-DAMAGE		TOTAL		SUN	MON	TUE	WED	THU	FRI	SAT	UNK									
Accidents		10		12		22																	
Veh Occ		5					2	6	2	1	6	2	3										
Pedestrian		5					AVG Severity Index: 9																
MONTH OF THE YEAR													CONDITION	DRIVER	PED								
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK	Normal:	35	5								
1		1	3	1	1		2		5	5	3		Alcohol:		1								
													Other:	6									
TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK	VEHICLES INVOLVED PER ACCIDENT									
AM:							1	1	1	1	1	4		1	2	3	4	5	6+	UNK	TOTAL		
PM:	1		1	1	2	3	2	1	1	1				6	13	2	1				42		
VEHICLE TYPE				SURFACE			MOVEMENTS																
Motorcycle/Moped		Tractor Trailer		7 Wet			NORTH			SOUTH			EAST			WEST							
34	Passenger Vehicle	Passenger Bus		15 Dry			LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT					
1	Sport Utility Veh	School Bus		Sno/Ice					4	3	1	4	7	9		2	7						
	Pick-Up Truck	Emergency Veh		Mud			OTHER MOVEMENTS																
1	Trucks (2+3 axles)	12 Other Types		Other			5																
PROBABLE CAUSES											COLLISION TYPES				FATAL	INJURY	PROP	TOTAL					
Influence of Drugs				Improper Lane Change							Opposite Dir		Related:										
Influence of Alcohol				Improper Backing							UnRelated:												
Influence of Medication				Improper Passing							Rear End		Related:		2	3	5						
Influence of Combined Subst.				Improper Signal							UnRelated:												
Physical/Mental Difficulty				Improper Parking							Sideswipe		Related:		1	1	2						
Fell Asleep/Fainted, etc.				Passenger Interfere/Obstruct.							UnRelated:												
4	Fail to give full Attention	Illegally in Roadway							Left Turn		Related:		2	4	6								
Lic. Restr. Non-compliance				Bicycle Violation							UnRelated:												
1	Fail to Drive in Single Lane	Clothing Not Visible							Angle		Related:		2		2								
1 Improper Right Turn on Red				Sleet, Hail, Freezing Rain							UnRelated:												
3	Fail to Yield Right-of-way	Severe Crosswinds							Pedestrian		Related:		5	1	6								
Fail to Obey Stop Sign				Rain, Snow							UnRelated:												
Fail to Obey Traffic Signal				Animal							Parked Vehicle		Related:										
Fail to Obey Other Control				Vision Obstruction							UnRelated:												
Fail to Keep Right of Center				Vehicle Defect							Other Collision		Related:		1	1							
Fail to Stop for School Bus				Wet							UnRelated:												
Wrong Way on One Way				Icy or Snow Covered							F	Bridge	01										
Exceeded Speed Limit				Debris or Obstruction							I	Building	02										
Operator Using Cell Phone				Ruts, Holes or Bumps							X	Culvert/Ditch	03										
Stopping in Lane Roadway				Road Under Construction							E	Curb	04										
1 Too Fast for Conditions				Traffic Control Device Inop.							D	Guardrail/Barrier	05										
Followed too Closely				Shoulders Low, Soft or High							O	Embankment	06										
Improper Turn				12 Other or Unknown							B	Fence	07										
											J	Light Pole	08										
												Sign Pole	09										
											E	Other Pole	10										
											C	Tree/Shrubbery	11										
											T	Contr. Barrier	12										
											S	Crash Attenuator	13										
															Other Fixed Object								
WEATHER		ILLUMINATION			TOTALS																		
14	Clear / Cloudy	13 Day			18-22		22																
	Foggy	2 Dawn/Dusk																					
6	Raining	7 Dark - Lights On																					
	Snow / Sleet	Dark - No Lights																					
2	Other	Other																					

Location: CHAPMAN AVE @ TWINBROOK PKWY

Logmiles: 0.36 At 2.07 Radius: 250 ft.

County: Montgomery, D3

Period: January 01, 2018 To December 31, 2022

Note:

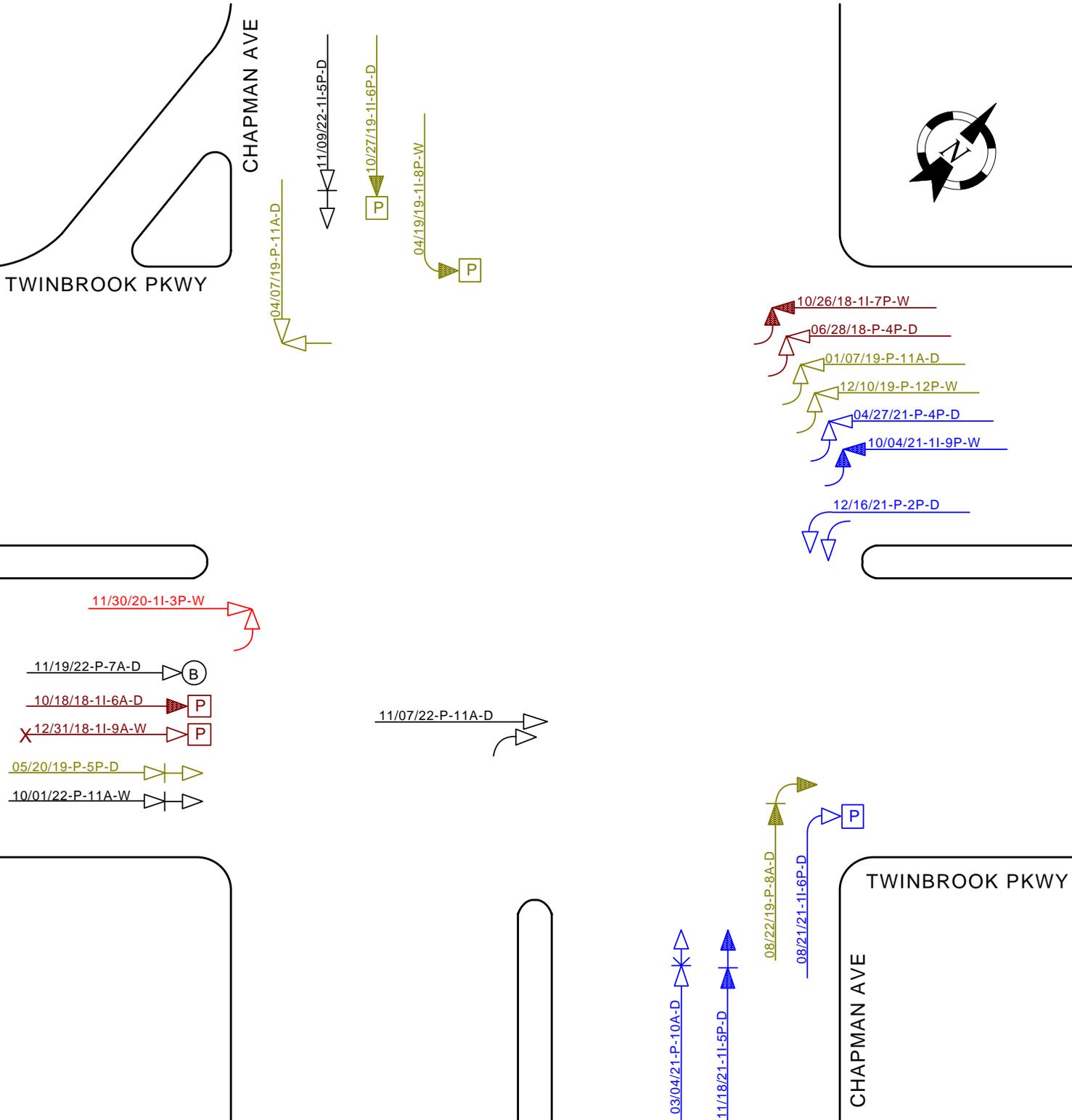
MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement		Probable Cause
										V1	V2	
<b>MU2970</b>												
2.060	<input type="checkbox"/>	11302020	1 Injured	03P	Day	Wet			SDSWP	ES	EL	Other or Unknown
2.070	<input type="checkbox"/>	06282018	Property	04P	Day	Dry			LFTRN	EL	WS	Fail to give full attention
2.070	<input type="checkbox"/>	10182018	1 Injured	06A	Night	Dry			PED	ES	--	Other or Unknown
2.070	<input type="checkbox"/>	10262018	1 Injured	07P	Night	Wet			LFTRN	EL	WS	Fail to give full attention
2.070	<input type="checkbox"/>	12312018	1 Injured	09A	Day	Wet	<input type="checkbox"/>		PED	ES	--	Other or Unknown
2.070	<input type="checkbox"/>	01072019	Property	11A	Day	Dry			LFTRN	EL	WS	Other or Unknown
2.070	<input type="checkbox"/>	04072019	Property	11A	Day	Dry			ANGLE	WS	SS	Fail to yield right-of-way
2.070	<input type="checkbox"/>	04192019	1 Injured	08P	Night	Wet			PED	SL	--	Other or Unknown
2.070	<input type="checkbox"/>	05202019	Property	05P	Day	Dry			RREND	ES	ES	Fail to give full attention
2.070	<input type="checkbox"/>	12102019	Property	12P	Day	Wet			LFTRN	EL	WS	Other or Unknown
2.070	<input type="checkbox"/>	04272021	Property	04P	Day	Dry			LFTRN	EL	WS	Fail to yield right-of-way
2.070	<input type="checkbox"/>	08212021	1 Injured	06P	Day	Dry			PED	NR	--	Other or Unknown
2.070	<input type="checkbox"/>	10042021	1 Injured	09P	Night	Wet			LFTRN	EL	WS	Fail to yield right-of-way
2.070	<input type="checkbox"/>	12162021	Property	02P	Day	Dry			SDSWP	WL	WL	Fail to drive in single lane
2.070	<input type="checkbox"/>	10012022	Property	11A	Day	Wet			RREND	ES	ES	Too fast for conditions
2.070	<input type="checkbox"/>	11072022	Property	11A	Day	Dry			ANGLE	NR	ES	Other or Unknown
2.070	<input type="checkbox"/>	11192022	Property	07A	Day	Dry			PED	ES	--	Other or Unknown
2.090	<input type="checkbox"/>	11182021	1 Injured	05P	Night	Dry			RREND	NS	NS	Other or Unknown
<b>MU650</b>												
0.360	<input type="checkbox"/>	08222019	Property	08A	Night	Dry			RREND	NS	NR	Other or Unknown
0.360	<input type="checkbox"/>	10272019	1 Injured	06P	Night	Dry			PED	SS	--	Improper right turn on red
0.360	<input type="checkbox"/>	03042021	Property	10A	Day	Dry			OTHER	Nu	NS	Other or Unknown
0.360	<input type="checkbox"/>	11092022	1 Injured	05P	Day	Dry			RREND	SS	SS	Fail to give full attention

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence  
 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator



Office of Traffic & Safety  
Traffic Development & Support Division  
Crash Analysis Safety Team

Location: Chapman Ave @ Twinbrook Pkwy  
County: MONTGOMERY  
Study Period: 01/01/2018 to 12/31/2022  
Analyst: Robert L. Booker, Jr. Date: 04/18/2024



	DATE-SEVERITY-TIME-SURFACE
	NIGHT
	ALCOHOL
	DRUGS

<b>SEVERITY</b>
F - Fatalities
I - Injured
P - Property Damage Only
<b>SURFACE</b>
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable	08 - Light Support Pole
01 - Bridge or Overpass	09 - Sign Support Pole
02 - Building	10 - Other Pole
03 - Culvert or Ditch	11 - Tree Shrubbery
04 - Curb	12 - Construction Barrier
05 - Guardrail or Barrier	13 - Crash Attenuator
06 - Embankment	88 - Other
07 - Fence	99 - Unknown

B - Bicycle	U - Units Separated
P - Other Pedalcycle	N - Other Non collision
C - Other Conveyance	D - Off Road
T - Railway Train	R - Downhill Runaway
A - Animal	F - Explosion or Fire
O - Other Object	? - Unknown
S - Spilled Cargo	
J - Jackknife	

	U - TURN
	BACKING
	OVERTURN
	Parked Vehicle
	Pedestrian

# APPENDIX D:

## RESIDENT COMMENTS AND RESPONSES



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## TCA Support for Safe Routes to School

July 5, 2024

City of Rockville  
111 Maryland Avenue  
Rockville, MD 20850

Dear Bryan Barnett-Woods,

On behalf of the Twinbrook Community Association, I am writing to express our strong support for the city's "Safe Routes to School" project. We commend your efforts to enhance pedestrian safety at targeted intersections in Twinbrook, which will greatly benefit our community's residents, particularly our children.

We are pleased to see the city taking proactive steps to improve road safety and encourage walking and cycling to school.

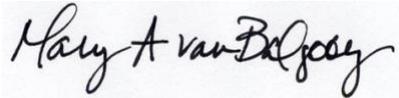
While we fully support the current plans, we would like to respectfully suggest a few additional considerations that we believe would further enhance the project's impact:

1. **Mini Traffic Circle:** We propose the installation of a mini traffic circle at the intersection of Halpine Road and Ardennes Avenue. This would help calm traffic and improve safety at this busy intersection, which is frequently used by students. If possible, the mini circle should incorporate landscaping (e.g. potted plants/trees and/or public art).
2. **Pedestrian-Level Lighting Assessment:** We request a comprehensive assessment of pedestrian-level lighting at all intersections being studied under this project. Adequate lighting is crucial for pedestrian visibility and safety, especially during early morning and evening hours when many students are traveling to and from school-related activities. This would serve as an additional benefit for low-wage workers traveling during off-peak work hours.
3. **Slip Lane Elimination:** We strongly advocate for the elimination of the slip lane on the northwest corner of Twinbrook Parkway and Chapman Avenue. Removing this slip lane would significantly improve pedestrian safety by reducing vehicle speeds and decreasing the number of pedestrian vehicle conflict points.

The Twinbrook Community Association is committed to working collaboratively with the City of Rockville to ensure the success of this important project. We would be happy to provide any additional input or assistance as needed.

Thank you for your consideration of these suggestions and for your ongoing commitment to improving pedestrian safety in our community. We look forward to seeing the positive impact of the “Safe Routes to School” project in Twinbrook.

Sincerely,

A handwritten signature in black ink, reading "Mary A. van Balgooy". The signature is written in a cursive style and is set against a light gray rectangular background.

Mary A. van Balgooy  
President, Twinbrook Community Association

In response to the Twinbrook Community Associate comments please see below

1. A mini-traffic circle is only recommended for intersections without stop-control. The intersection of Halpine Road and Ardennes Avenue is an all-way stop control intersection, and has a stop sign on each leg of the intersection. Motorists are required to make a complete stop at this intersection. Staff has reached out to Rockville City Police Department to provide additional traffic enforcement at this intersection.
2. The Transportation Alternatives project did not include an assessment of lighting conditions. Most of the streetlights in Twinbrook are owned and maintained by Pepco. Staff will separately request Pepco to evaluate lighting levels at each intersection.
3. A comprehensive traffic study was not included to evaluate whether the northeast slip lane could be removed. However, the post for the existing signals is installed on the northeast corner refuge island and would require relocation to the new corner if the slip lane were removed. This would be too expensive to implement without being a separate CIP item. Additionally, this intersection is currently subject to an adequacy evaluation and improvements per a county development. Staff is coordinating with MNCPPC regarding this project.