

# TECHNICAL MEMORANDUM

## **Dollar General Briggs Road**

Salisbury NC

*Prepared for  
Teramore Development*







# Transportation Technical Memorandum

## Dollar General Briggs Road Salisbury, NC

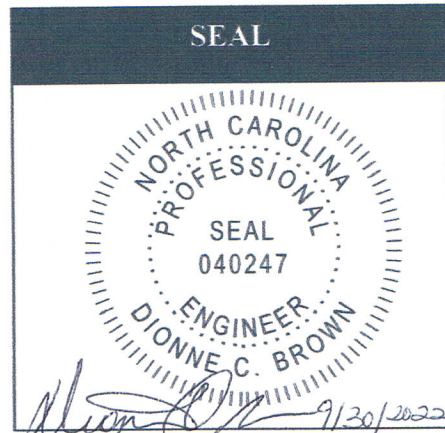
Prepared for Teramore Development  
September 30, 2022

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**Transportation Technical Memorandum  
Dollar General Briggs Road Development  
September 30, 2022**

The proposed Dollar General Briggs Road Development is to be located on the northwest of the intersection of NC 150 (Mooresville Road) at Briggs Road in Salisbury, NC. The proposed Dollar General is planned to be a 10,665 square foot building. Based on the site plan, the proposed development will have one (1) access point on Briggs Road. This analysis seeks to determine if an access on Briggs Road will be feasible and if any traffic impacts will affect the vicinity area.

Mooresville Road is a two-lane road and approximately 21 feet wide with a speed limit of 50 MPH. Briggs Road is a two-lane road and approximately 20 feet wide with a speed limit of 50 MPH. The predominant land uses in the study area are residential and farmland. The AADT on Mooresville Road is 4,500 vehicles per day in 2020. Briggs Road has an AADT of 3,800 vehicles per day in 2020.

The expected build-out year for this development is 2024 with a 2.0% annual growth rate. Turning movement counts were taken at the intersection on 9/7/2022 while schools were in session.

The proposed development is expected to generate less than the NCDOT's Driveway Manual standard to conduct a transportation impact analysis (TIA) of 3,000 vehicles per day. Though a TIA is not required, a capacity analysis was requested to determine the operation of the main intersection and site access.

**Vehicular Trip Generation**

The trip generation potential of this site was projected based on the 10<sup>th</sup> Edition of the *ITE Trip Generation Manual*. Table 1 presents the results.

<b>Table 1 – ITE Trip Generation</b>							
Land Use	Intensity	Data Source	Average Daily Traffic (vehicles per day)	AM Peak Hour (vehicles per day)		PM Peak Hour (vehicles per day)	
				Enter	Exit	Enter	Exit
815 – Free-Standing Discount Store	10,665 Sq. Ft. GFA	Adjacent/Equation	566	8	4	26	25
Pass-by Reduction (17% PM)			-	0	0	-4	-4
<b>Adjusted Trips</b>			<b>-</b>	<b>8</b>	<b>4</b>	<b>22</b>	<b>21</b>

The trip distribution and site trip figures can be found in the appendix.

### Capacity Analysis

Based on a capacity analysis for the intersection using Synchro 10 software based on HCM 6<sup>th</sup> methodology, the intersection is expected to operate at LOS E or better in all existing and future conditions. Table 2A displays the results of capacity analysis.

<b>Table 2A - Level of Service Summary</b>			
AM Peak	2022 Base Year	2024 No Build	2024 Build
Mooresville Road at Briggs Road	C (22.3) SB Approach	C (23.4) SB Approach	C (24.1) SB Approach
PM Peak	2022 Base Year	2024 No Build	2024 Build
Mooresville Road at Briggs Road	D (32.4) SB Approach	E (35.4) SB Approach	E (43.0) SB Approach
LOS (delay in seconds) Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay			

The intersection of Briggs Road and the site access is anticipated to perform at LOS B in both the AM and PM peaks under future-build conditions. Table 2B displays the results of the capacity analysis.

<b>Table 2B - Level of Service Summary</b>			
AM Peak	2022 Base Year	2043 No Build	2024 Build
Briggs Road at Site Access			B (10.1) EB Approach
PM Peak	2022 Base Year	2024 No Build	2023 Build
Briggs Road at Site Access			B (10.4) EB Approach
LOS (delay in seconds) Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay			

### Sight Distance

DAVENPORT carried out on-site field investigation of the proposed site access on Lee Road. Looking east there is clear sight distance to the intersection of Briggs Road which is approximately 500 feet from the proposed site access.

<b>Table 3 – Sight Distance Review</b>					
Direction	Measured SSD	Estimated Grades	AASHTO Required SSD	Measured ISD	AASHTO Required ISD
Site Access at Briggs Road					
Looking north (left)	725 feet	-1%	570 feet	750 feet	665 feet
Looking south (right)	250 feet	-2%	570 feet	250 feet	575 feet
<i>SSD: Stopping Sight Distance, ISD: Intersection Sight Distance</i>					

### Recommendations

Based on the projected volumes, the site access will not warrant a turn lane according to the NCDOT Driveway Manual. The development has already been issued a driveway permit from NCDOT; therefore, it is recommended to construct the driveway 250 feet north from the intersection of NC 150 (Mooresville Road) at Briggs Road.

It has been brought to our attention that there are concerns with queuing along Briggs Road by the Fire Department located on NC 150 across from the proposed development. DAVENPORT expanded the scope of work to observe this intersection with an in-person site visit as well as recording Briggs Road for 48 hours. During the one-hour morning site visit, the maximum queue was six cars for approximately 150 feet. The queue was cleared in under a minute. Clearing the queue is from the last car in line to enter the intersection. During the 48-hour recordings, queues were observed in the AM and PM peaks. Both peaks averaged 10 cars at approximately 200 feet on Briggs Road. The average time to clear the queue was 90 seconds. Though queues were observed on Briggs Road, it should be noted that it is expected for minor roadways maneuvering onto a major roadway while finding gaps for left turn movements. The proposed development will not adversely affect the roadway

It is recommended that the site access should be constructed to NCDOT design requirements.

### Conclusion

In conclusion, the analysis indicates this development is not expected to have a detrimental impact on traffic operations in the vicinity. Based on the driveway permit granted, it is recommended to construct the access 250 feet east from the intersection of NC 150 (Mooresville Road) at Briggs Road. Please note that the proposed access should be designed in accordance with NCDOT standards.

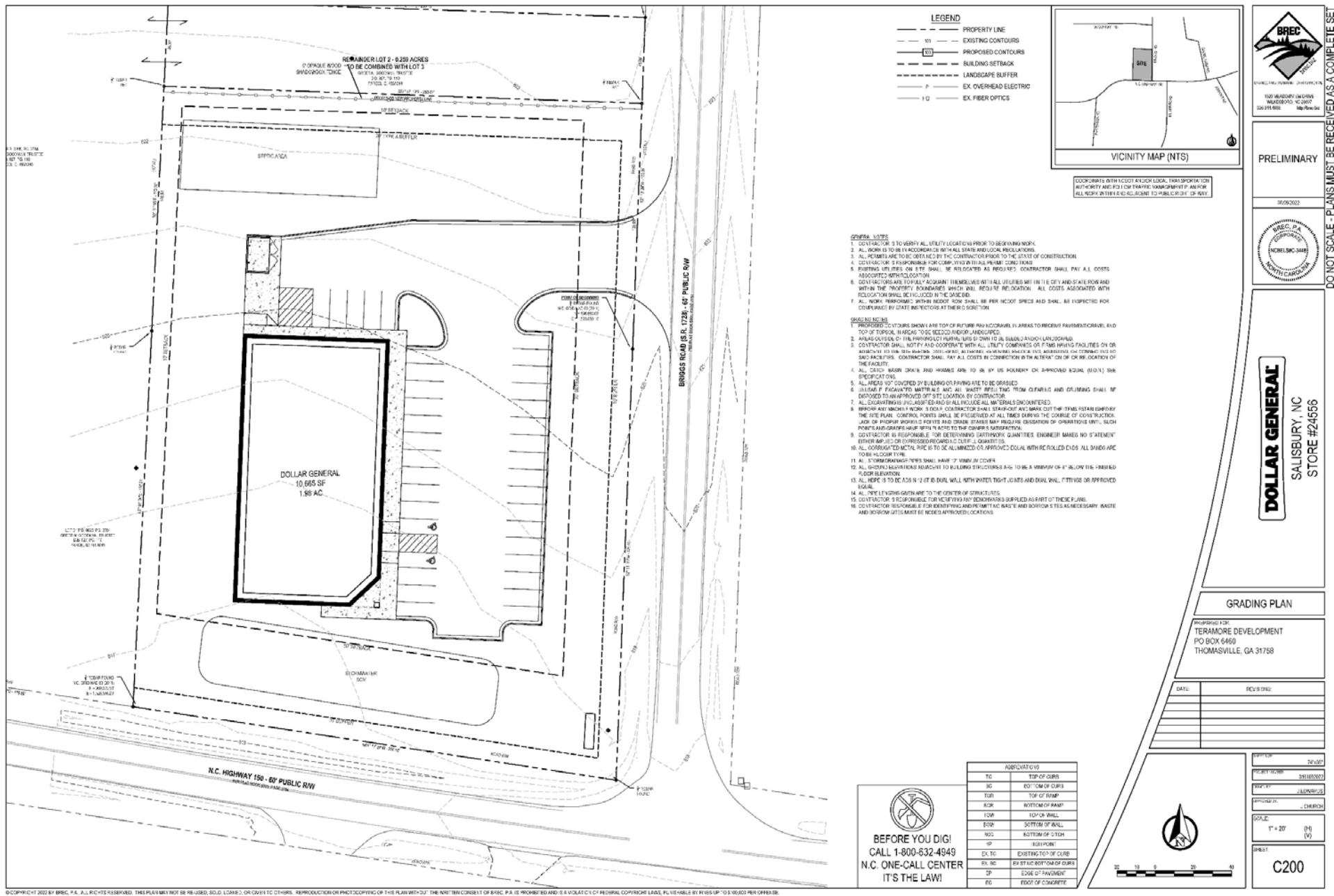


FIGURE 1  
CONCEPT PLAN

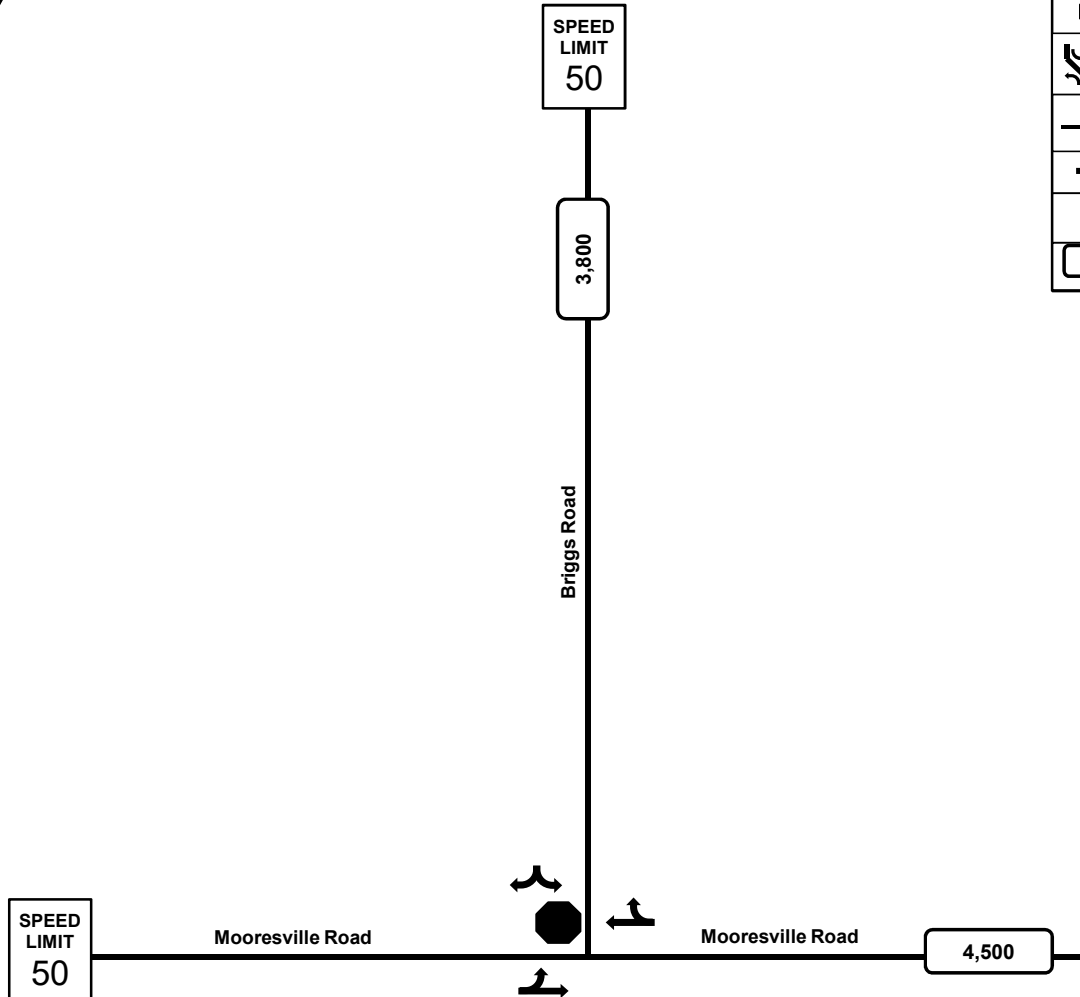




FIGURE 2  
VICINITY MAP

STUDY INTERSECTIONS  
EXISTING  
PROPOSED





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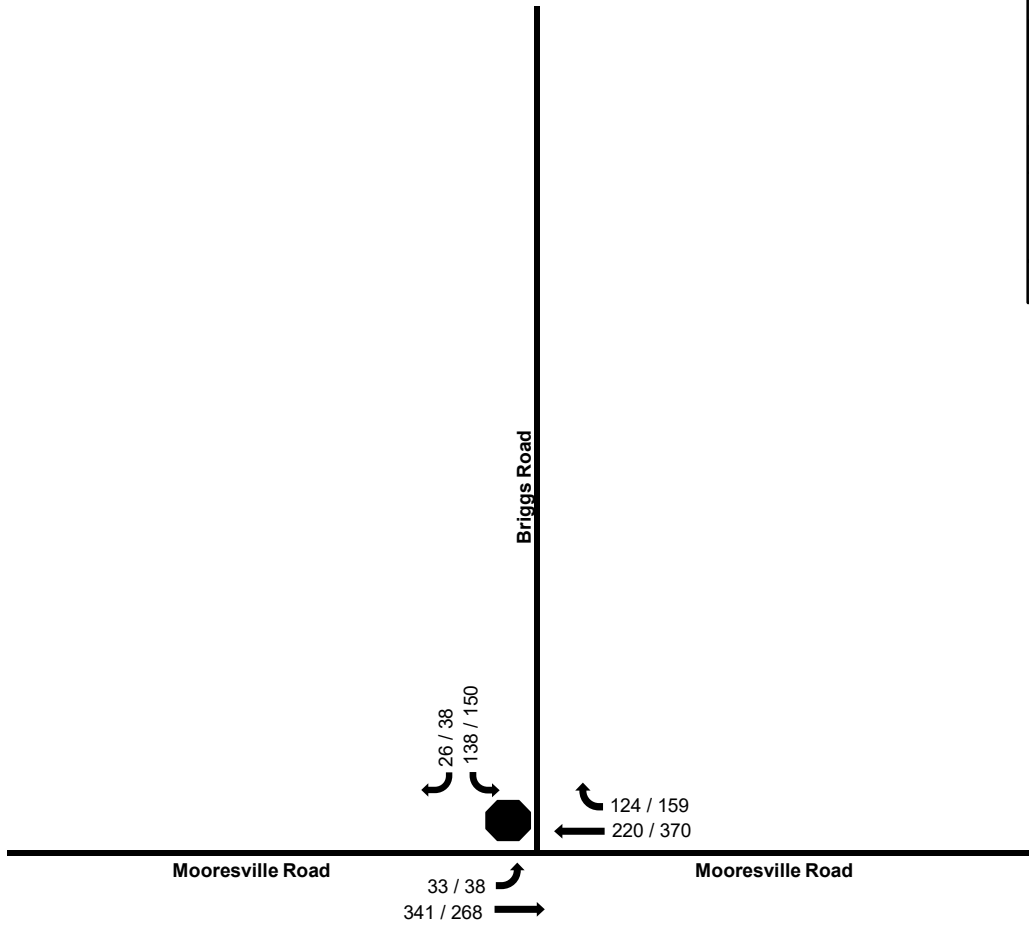
FIGURE 3  
EXISTING LANE  
GEOMETRY

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091







LEGEND	
	SIGNAL
	STOP
	DIRECTIONAL CROSSOVER
	ROADWAY
	TRAFFIC MOVEMENT
BLACK = EXISTING	
AM / PM PEAKS	

FIGURE 4  
2022 EXISTING TRAFFIC  
VOLUMES

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091

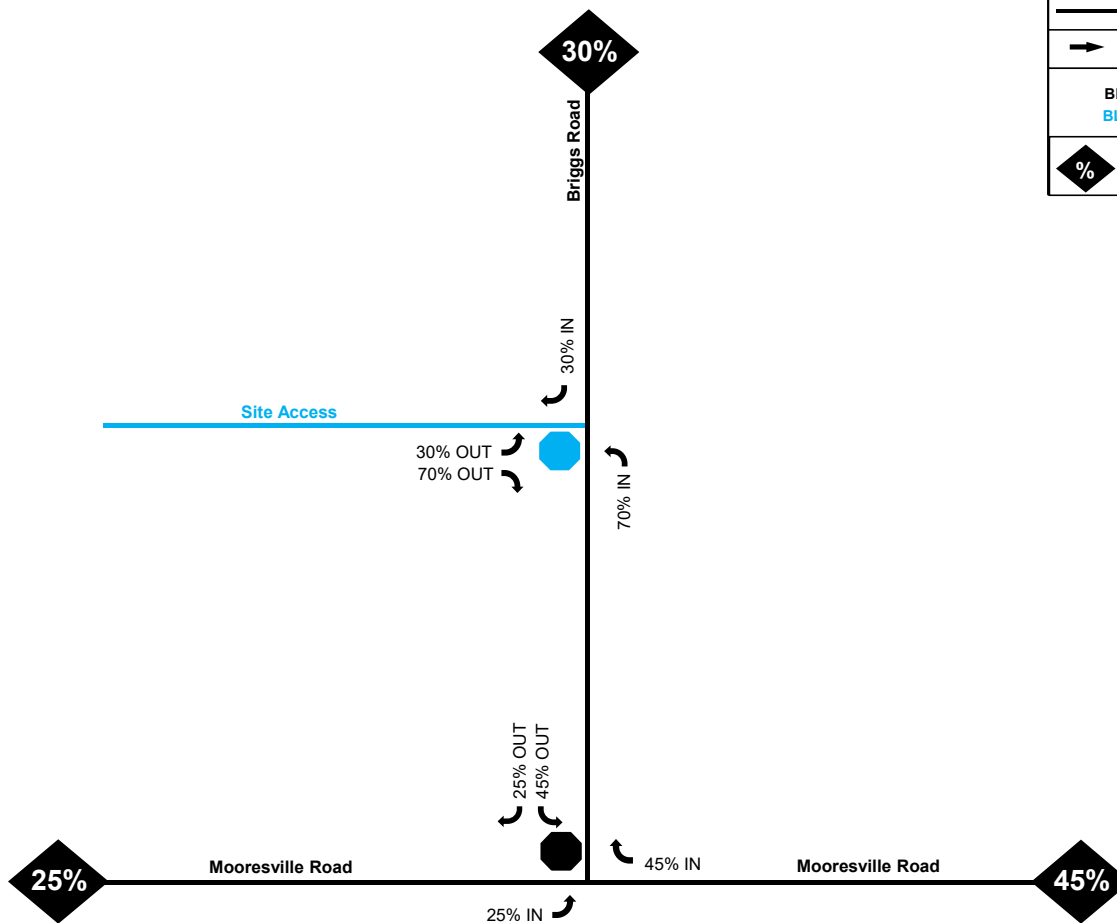
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LEGEND	
	SIGNAL
	STOP
	DIRECTIONAL CROSSOVER
	RIGHT IN / RIGHT OUT
	ROADWAY
	TRAFFIC MOVEMENT
BLACK = EXISTING BLUE = PROPOSED	
	DESTINATION NODE



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FIGURE 5A  
PRIMARY TRIP  
DISTRIBUTION

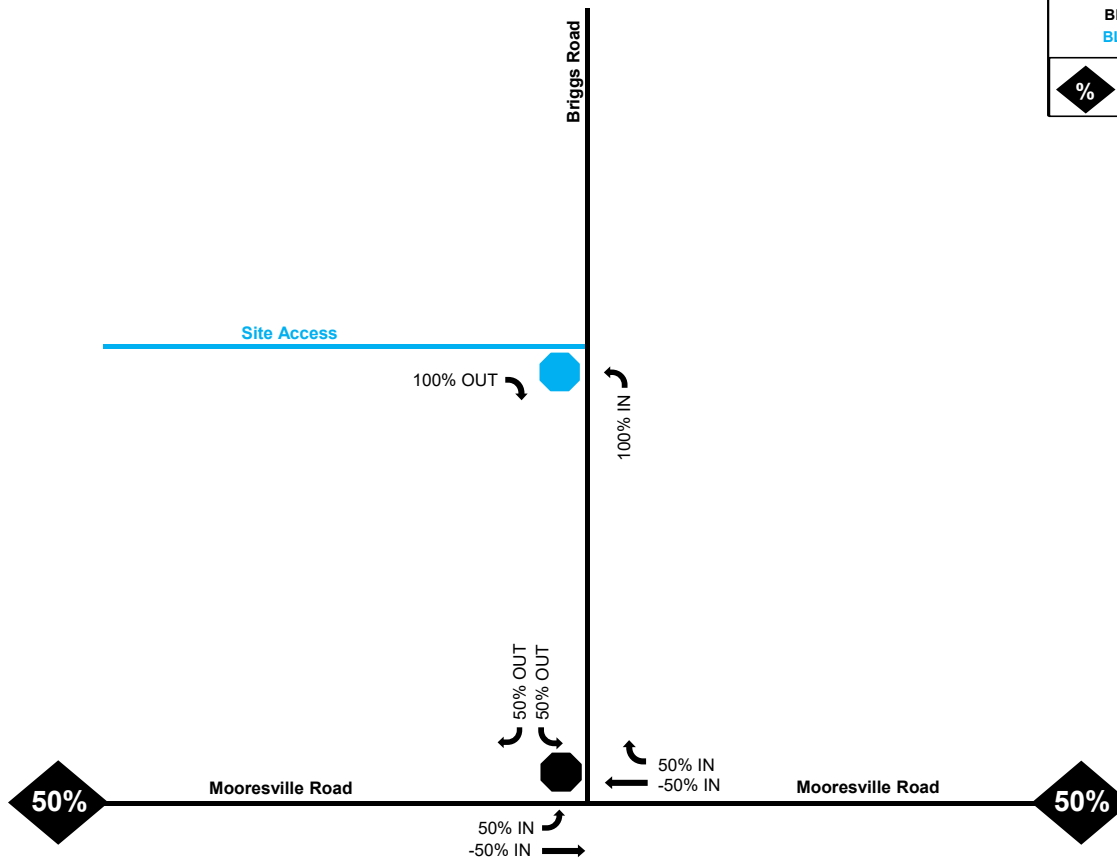
DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220912





LEGEND	
	SIGNAL
	STOP
	DIRECTIONAL CROSSOVER
	RIGHT IN / RIGHT OUT
	ROADWAY
	TRAFFIC MOVEMENT
BLACK = EXISTING BLUE = PROPOSED	
	DESTINATION NODE



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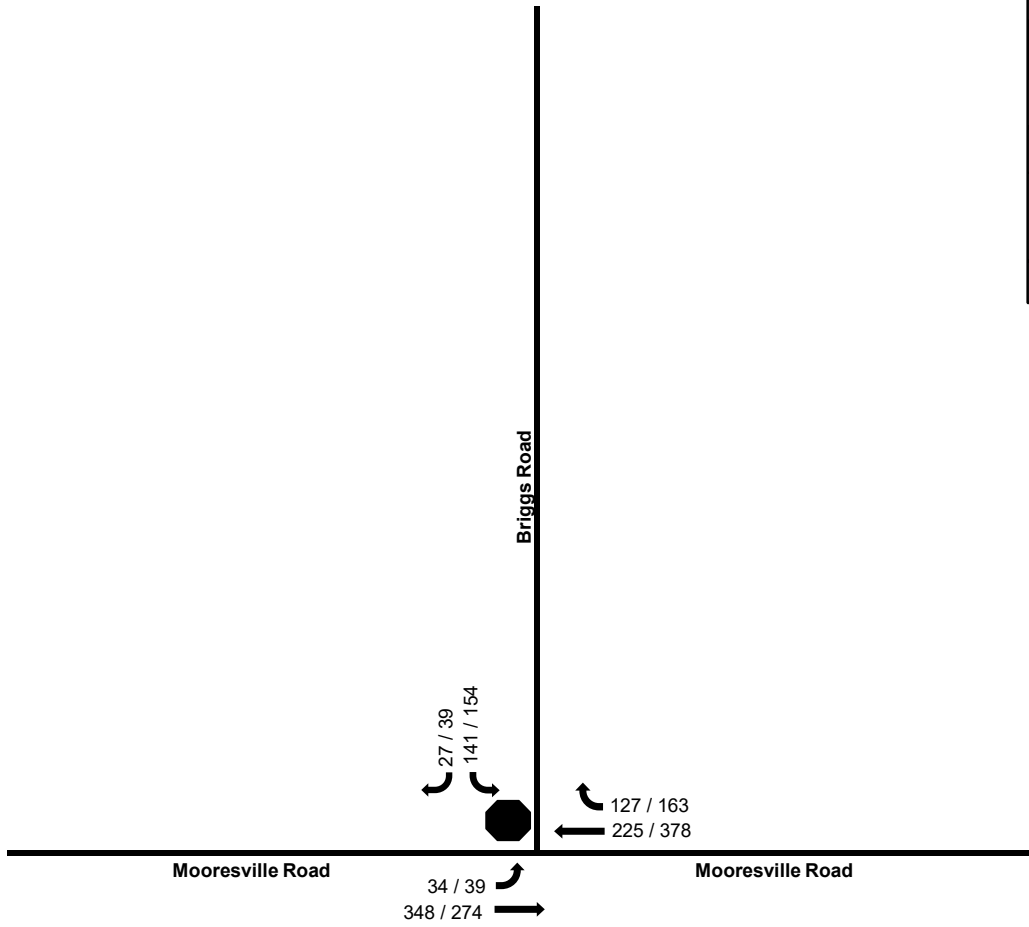
FIGURE 5B  
PASSBY TRIP  
DISTRIBUTION

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220912







## LEGEND



SIGNAL



STOP



DIRECTIONAL  
CROSSOVER



ROADWAY



TRAFFIC MOVEMENT

BLACK = EXISTING

AM / PM PEAKS

\*\*\* NOT TO SCALE \*\*\*

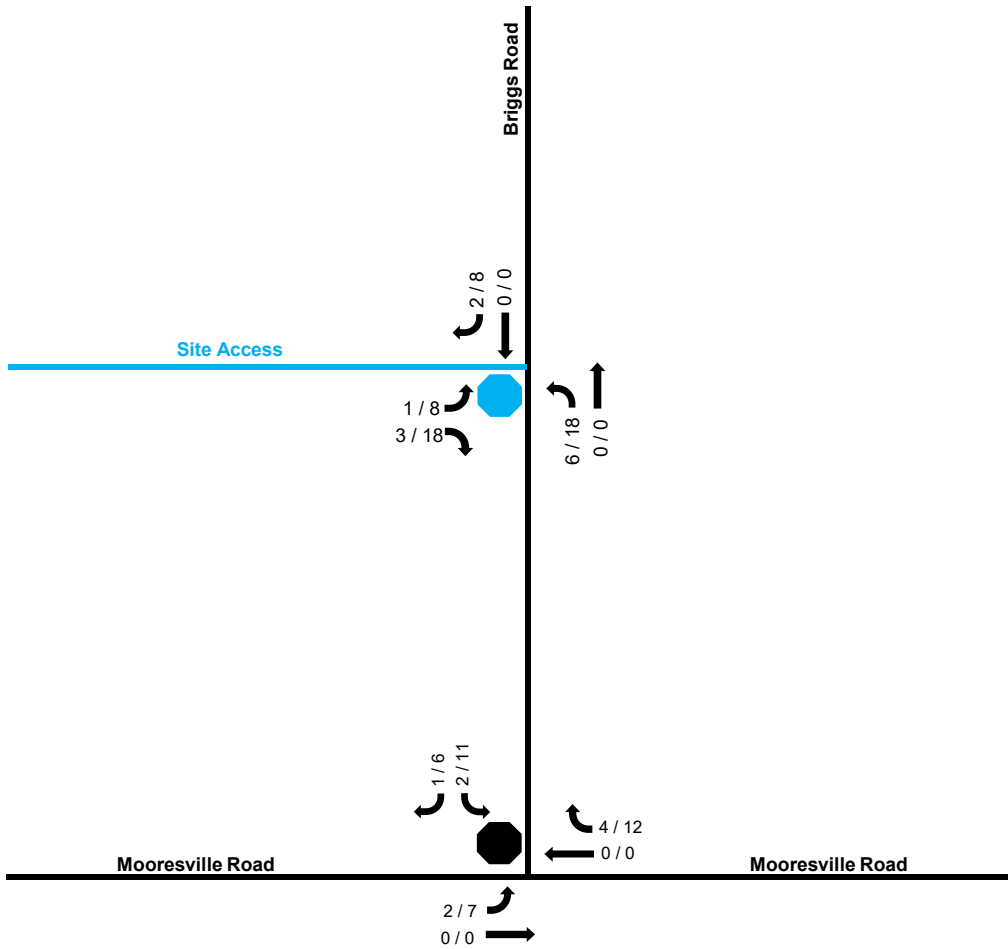
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FIGURE 6  
2024 FUTURE NO BUILD  
VOLUMES

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091





LEGEND	
	SIGNAL
	STOP
	DIRECTIONAL CROSSOVER
	ROADWAY
	TRAFFIC MOVEMENT
BLACK = EXISTING BLUE = PROPOSED	
AM / PM PEAKS	

\*\*\* NOT TO SCALE \*\*\*

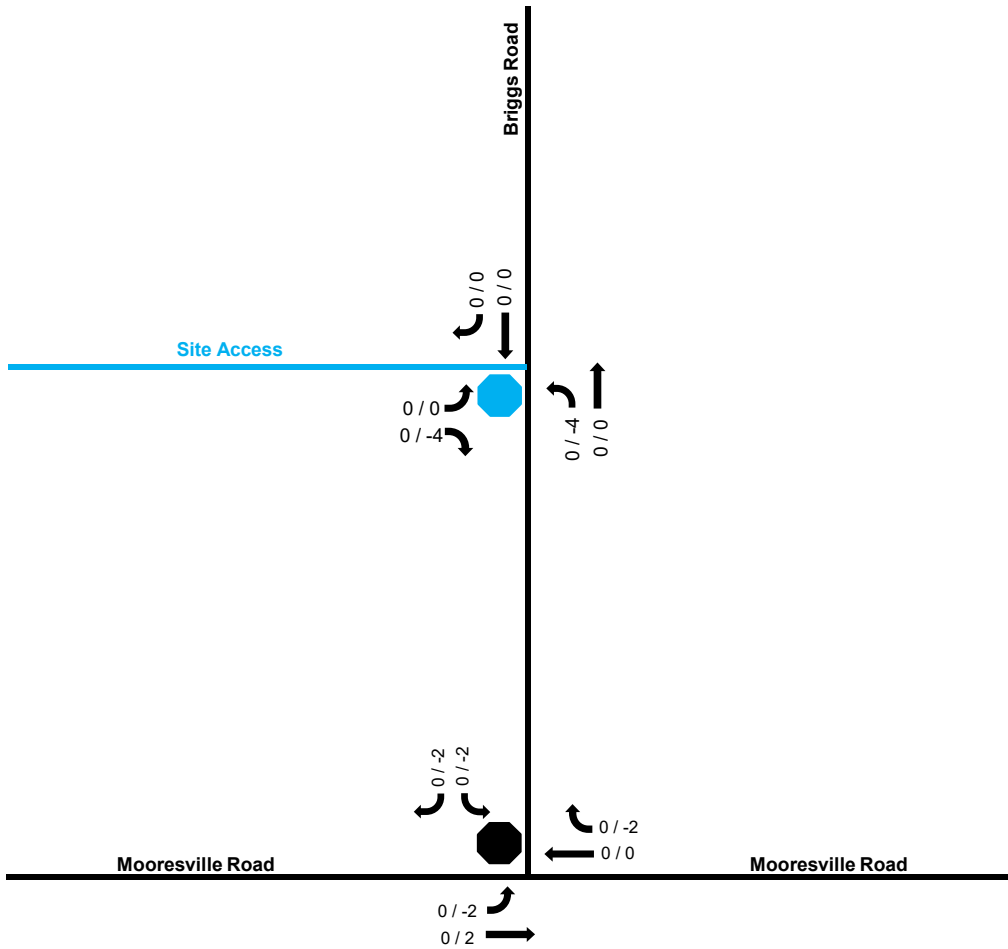
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FIGURE 7A  
PRIMARY SITE TRIPS

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091





LEGEND	
	SIGNAL
	STOP
	DIRECTIONAL CROSSOVER
	ROADWAY
	TRAFFIC MOVEMENT
BLACK = EXISTING BLUE = PROPOSED	
AM / PM PEAKS	

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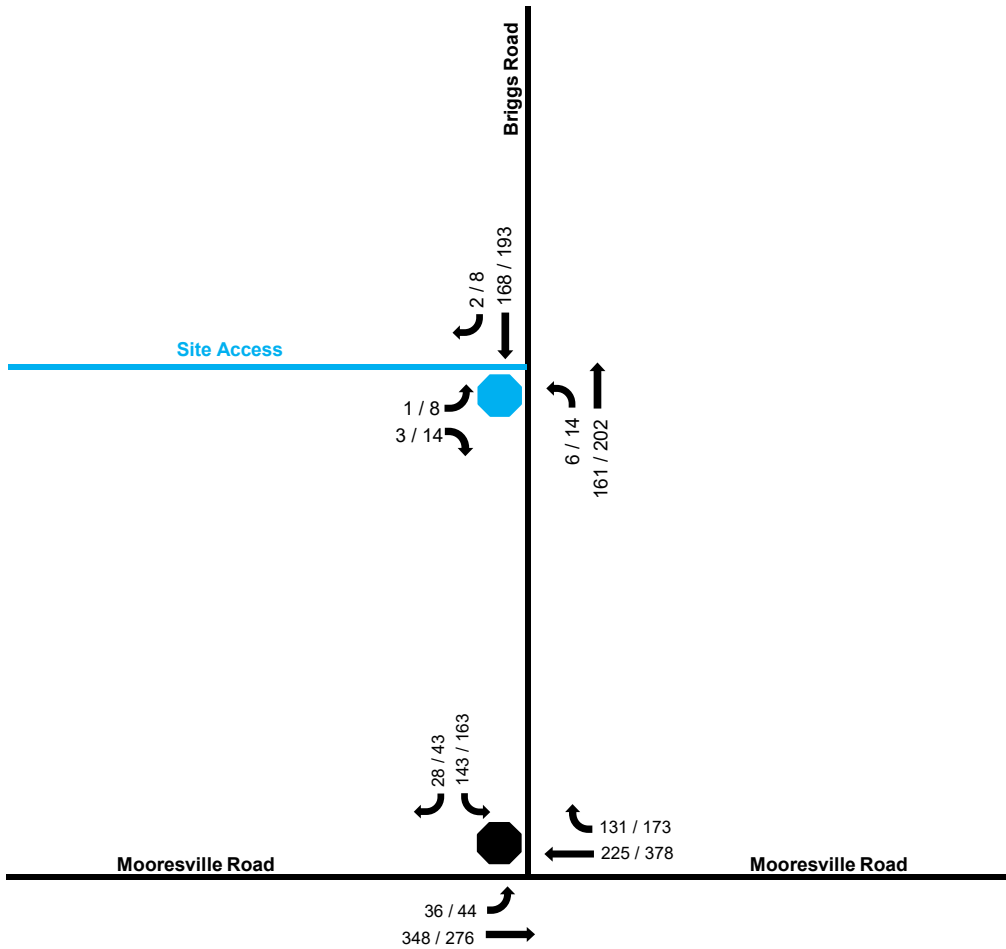
FIGURE 7B  
PASSBY SITE TRIPS

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091







LEGEND	
	SIGNAL
	STOP
	DIRECTIONAL CROSSOVER
	ROADWAY
	TRAFFIC MOVEMENT
BLACK = EXISTING BLUE = PROPOSED	
AM / PM PEAKS	

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FIGURE 8  
2024 FUTURE BUILD  
VOLUMES

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091





### LEGEND



SIGNAL



STOP



RIGHT IN /  
RIGHT OUT



DIRECTIONAL  
CROSSOVER



ROADWAY



TRAFFIC MOVEMENT

BLACK = EXISTING

BLUE = PROPOSED

Construct according to  
NCDOT design standards

Site Access

Briggs Road

Mooreville Road

Mooreville Road

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### FIGURE 9 RECOMMENDED IMPROVEMENTS

DOLLAR GENERAL DEVELOPMENT  
SALISBURY, NC

PROJECT NUMBER 220091



## Trip Generation Summary

Alternative: Alternative 1

Phase:

Project: 220091

Open Date: 9/12/2022

Analysis Date: 9/12/2022

ITE	Land Use	Weekday Average Daily Trips				Weekday AM Peak Hour of Adjacent Street Traffic				Weekday PM Peak Hour of Adjacent Street Traffic			
		*	Enter	Exit	Total	*	Enter	Exit	Total	*	Enter	Exit	Total
815	STOREDISC 1 10.66 1000 Sq. Ft. GFA		283	283	566		8	4	12		26	25	51
Unadjusted Volume			283	283	566		8	4	12		26	25	51
Internal Capture Trips			0	0	0		0	0	0		0	0	0
Pass-By Trips			0	0	0		0	0	0		4	4	8
Volume Added to Adjacent Streets			283	283	566		8	4	12		22	21	43

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**

P. 1






HCM 6th TWSC  
100: SR- 150 (Mooresville Road ) & Briggs Road

09/12/2022

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	341	220	124	138	26
Future Vol, veh/h	33	341	220	124	138	26
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	379	244	138	153	29

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	382	0	0 766 313
Stage 1	-	-	- 313 -
Stage 2	-	-	- 453 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1176	-	- 371 727
Stage 1	-	-	- 741 -
Stage 2	-	-	- 640 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1176	-	- 356 727
Mov Cap-2 Maneuver	-	-	- 356 -
Stage 1	-	-	- 711 -
Stage 2	-	-	- 640 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	22.3
HCM LOS			C




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1176	-	-	-	387
HCM Lane V/C Ratio	0.031	-	-	-	0.471
HCM Control Delay (s)	8.2	0	-	-	22.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.4

HCM 6th TWSC  
100: SR- 150 (Mooresville Road ) & Briggs Road

09/13/2022

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	348	225	127	141	27
Future Vol, veh/h	34	348	225	127	141	27
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	387	250	141	157	30

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	391	0	0 784 321
Stage 1	-	-	- 321 -
Stage 2	-	-	- 463 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1168	-	- 362 720
Stage 1	-	-	- 735 -
Stage 2	-	-	- 634 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1168	-	- 347 720
Mov Cap-2 Maneuver	-	-	- 347 -
Stage 1	-	-	- 705 -
Stage 2	-	-	- 634 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	23.4
HCM LOS			C




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1168	-	-	-	379
HCM Lane V/C Ratio	0.032	-	-	-	0.493
HCM Control Delay (s)	8.2	0	-	-	23.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.6

HCM 6th TWSC  
100: SR- 150 (Mooresville Road ) & Briggs Road

09/13/2022

Intersection

Int Delay, s/veh 4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	348	225	131	143	28
Future Vol, veh/h	36	348	225	131	143	28
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	387	250	146	159	31




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	396	0	0 790 323
Stage 1	-	-	- 323 -
Stage 2	-	-	- 467 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1163	-	- 359 718
Stage 1	-	-	- 734 -
Stage 2	-	-	- 631 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1163	-	- 343 718
Mov Cap-2 Maneuver	-	-	- 343 -
Stage 1	-	-	- 702 -
Stage 2	-	-	- 631 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1163	-	-	-	375
HCM Lane V/C Ratio	0.034	-	-	-	0.507
HCM Control Delay (s)	8.2	0	-	-	24.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.8

HCM 6th TWSC  
200: Briggs Road & Site Access

09/13/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	4	6	161	168	4
Future Vol, veh/h	4	4	6	161	168	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	7	179	187	4

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	382	189	191
Stage 1	189	-	-
Stage 2	193	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	620	853	1383
Stage 1	843	-	-
Stage 2	840	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	616	853	1383
Mov Cap-2 Maneuver	616	-	-
Stage 1	838	-	-
Stage 2	840	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.3	0
HCM LOS	B		




Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1383	-	715	-	-
HCM Lane V/C Ratio	0.005	-	0.012	-	-
HCM Control Delay (s)	7.6	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC  
100: SR- 150 (Mooresville Road ) & Briggs Road

09/12/2022

Intersection

Int Delay, s/veh 6.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	268	370	159	150	38
Future Vol, veh/h	38	268	370	159	150	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	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	298	411	177	167	42

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	588	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	987	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	987	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	32.4
HCM LOS			D




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	987	-	-	-	333
HCM Lane V/C Ratio	0.043	-	-	-	0.627
HCM Control Delay (s)	8.8	0	-	-	32.4
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	4

HCM 6th TWSC  
100: SR- 150 (Mooresville Road ) & Briggs Road

09/13/2022

Intersection

Int Delay, s/veh 6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	274	378	163	154	39
Future Vol, veh/h	39	274	378	163	154	39
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	304	420	181	171	43

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	601	0	0 901 511
Stage 1	-	-	- 511 -
Stage 2	-	-	- 390 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	976	-	- 309 563
Stage 1	-	-	- 602 -
Stage 2	-	-	- 684 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	976	-	- 293 563
Mov Cap-2 Maneuver	-	-	- 293 -
Stage 1	-	-	- 570 -
Stage 2	-	-	- 684 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	976	-	-	-	324
HCM Lane V/C Ratio	0.044	-	-	-	0.662
HCM Control Delay (s)	8.9	0	-	-	35.4
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	4.4






HCM 6th TWSC  
100: SR- 150 (Mooresville Road ) & Briggs Road

09/13/2022

Intersection

Int Delay, s/veh 8.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	276	378	173	166	44
Future Vol, veh/h	44	276	378	173	166	44
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	307	420	192	184	49




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	612	0	0 921 516
Stage 1	-	-	- 516 -
Stage 2	-	-	- 405 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	967	-	- 300 559
Stage 1	-	-	- 599 -
Stage 2	-	-	- 673 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	967	-	- 282 559
Mov Cap-2 Maneuver	-	-	- 282 -
Stage 1	-	-	- 562 -
Stage 2	-	-	- 673 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	43
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	967	-	-	-	315
HCM Lane V/C Ratio	0.051	-	-	-	0.741
HCM Control Delay (s)	8.9	0	-	-	43
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	5.6

HCM 6th TWSC  
200: Briggs Road & Site Access

09/13/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	14	14	202	193	8
Future Vol, veh/h	8	14	14	202	193	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	16	16	224	214	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	475	219	223	0	-	0
Stage 1	219	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	548	821	1346	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	540	821	1346	-	-	-
Mov Cap-2 Maneuver	540	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1346	-	690	-	-	
HCM Lane V/C Ratio	0.012	-	0.035	-	-	
HCM Control Delay (s)	7.7	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

# Queuing and Blocking Report

## AM Existing 2022

09/12/2022

### Intersection: 100: SR- 150 (Mooresville Road ) & Briggs Road

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	61	2	104
Average Queue (ft)	9	0	45
95th Queue (ft)	38	2	81
Link Distance (ft)	3959	4700	3777
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

### Network Summary

Network wide Queuing Penalty: 0

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Intersection: 100: SR- 150 (Mooresville Road ) & Briggs Road

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Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	59	2	105
Average Queue (ft)	10	0	46
95th Queue (ft)	38	2	84
Link Distance (ft)	3959	4700	3777
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Network Summary

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Network wide Queuing Penalty: 0

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## Queuing and Blocking Report

### AM FB 2023

09/13/2022

#### Intersection: 100: SR- 150 (Mooresville Road ) & Briggs Road

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	63	4	108
Average Queue (ft)	12	0	47
95th Queue (ft)	42	3	84
Link Distance (ft)	3959	4700	196
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

#### Intersection: 200: Briggs Road & Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	18
Average Queue (ft)	8	1
95th Queue (ft)	30	11
Link Distance (ft)	1788	250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

#### Network Summary

Network wide Queuing Penalty: 0
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# Queuing and Blocking Report

## PM Exisiting 2022

09/12/2022

### Intersection: 100: SR- 150 (Mooresville Road ) & Briggs Road

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	84	6	141
Average Queue (ft)	18	0	56
95th Queue (ft)	57	4	107
Link Distance (ft)	3959	4700	3777
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

### Network Summary

Network wide Queuing Penalty: 0
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Intersection: 100: SR- 150 (Mooresville Road ) & Briggs Road

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Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	90	4	146
Average Queue (ft)	18	0	59
95th Queue (ft)	59	3	114
Link Distance (ft)	3959	4700	3777
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Network Summary

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Network wide Queuing Penalty: 0

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## Queuing and Blocking Report

### PM FB 2023

09/13/2022

#### Intersection: 100: SR- 150 (Mooresville Road ) & Briggs Road

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	80	16	163
Average Queue (ft)	19	1	69
95th Queue (ft)	57	8	130
Link Distance (ft)	3959	4700	196
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

#### Intersection: 200: Briggs Road & Site Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	40	40	5
Average Queue (ft)	15	5	0
95th Queue (ft)	42	24	5
Link Distance (ft)	1788	250	2417
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

#### Network Summary

Network wide Queuing Penalty: 0
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