



Table 23: Intersection Summary – Channing Street NW & First Street NW

Channing Street NW & First Street NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour						PM Peak Hour						Saturday Peak Hour					
								Overall intersection: TF Southbound First Street NW: TF											
Percent of future traffic attributable to development:		27.3%						30.0%						29.8%					
Summary of capacity analysis results:		The delays at this intersection are due to the addition of the site-generated trips along First Street NW.																	
Potential Improvements:																			
Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)							
												In conjunction with Phase 1 of development, it is recommended that the intersection be converted from all-way to two-way stop controlled. Converting the north- and southbound movements to free-flowing allows the intersection to operate under acceptable conditions during all time periods.							
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Channing Street & First Street NW	Overall	12.0	B	17.2	C	8.6	A	13.3	B	31.6	D	8.9	A	33.1	D	147.1	F	11.5	B
	Westbound	11.1	B	9.7	A	8.0	A	12.0	B	10.5	B	8.2	A	16.1	C	11.1	B	9.4	A
	Northbound	11.5	B	10.5	B	9.4	A	13.1	B	11.7	B	9.7	A	43.6	E	17.9	C	13.1	B
	Southbound	13.4	B	22.5	C	8.7	A	15.0	B	45.6	E	9.0	A	36.4	E	233.6	F	11.1	B
<i>Improvements:</i>	<i>Westbound</i>	--	--	--	--	--	--	--	--	--	--	--	--	19.2	C	19.8	C	12.7	B



Table 24: Intersection Summary – Channing Street NE/NW & North Capitol Street (1 of 2)

Channing Street NE & North Capitol Street																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
		Southbound North Capitol Street: BG, TF				Overall intersection: TF Southbound North Capitol Street: BG, TF													
Percent of future traffic attributable to development:		14.7%				14.5%				7.6%									
Summary of capacity analysis results:		The delays at this intersection during the morning and afternoon peak periods are due to the addition of the background growth and trips generated by the background developments. The addition of the site-generated trips exacerbates these delays and causes the overall intersection to operate under unacceptable conditions.																	
Potential Improvements:																			
Existing Conditions (2013)			Future Background Conditions (2025)						Total Future Conditions (2025)										
			In the future background conditions, retiming the intersection allows it to operate under acceptable conditions during the morning and Saturday peak periods. The southbound movement can be improved, but still operate under unacceptable conditions, during the afternoon peak hour. This report recommends that DDOT consider these improvements outside the scope of this TIA, following the construction of the background developments.						In conjunction with Phase 1 of development, it is recommended that the on-street parking along the north- and southbound approaches of North Capitol Street adjacent to the site be restricted during the morning and afternoon peak periods. In the existing conditions, on-street parking is permitted on the northbound approach during the morning peak period and on the southbound approach during the afternoon peak period. Restricting this parking allows for three travel lanes north- and southbound, which leads to the intersection operating under acceptable conditions during all time periods.										
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Channing Street & North Capitol Street	Overall	38.0	C	18.9	B	10.2	B	60.1	E	58.0	E	12.0	B	79.9	E	122.3	F	11.6	B
	Westbound	50.2	D	53.8	D	49.4	D	50.2	D	54.8	D	49.4	D	50.2	D	57.2	E	49.4	D
	Northbound	7.7	A	7.7	A	5.7	A	7.4	A	8.1	A	5.8	A	8.9	A	8.6	A	5.9	A
	Southbound	61.5	E	34.7	C	14.5	B	106.1	F	118.6	F	17.6	B	153.7	F	243.2	F	16.6	B
Improvements:	Overall	--	--	--	--	--	--	34.4	C	47.5	D	--	--	40.0	D	13.5	B	--	--
	Westbound	--	--	--	--	--	--	50.2	D	53.8	D	--	--	50.2	D	53.8	D	--	--
	Northbound	--	--	--	--	--	--	10.6	B	4.5	A	--	--	9.4	A	4.3	A	--	--
	Southbound	--	--	--	--	--	--	55.0	E	99.7	F	--	--	71.5	E	22.9	C	--	--

Table 25: Intersection Summary – Channing Street NE/NW & North Capitol Street (2 of 2)

Channing Street NE & North Capitol Street					
Existing Conditions (2013)		Future Background Conditions (2025)		Total Future Conditions (2025)	
AM				AM	
PM				PM	



Table 26: Intersection Summary – Bryant Street NW & First Street NW

Bryant Street NW & First Street NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
						Overall intersection: TF Southbound First Street NW: TF													
Percent of future traffic attributable to development:		30.0%				27.9%				35.3%									
Summary of capacity analysis results:		The delays at this intersection are due to the addition of the site-generated trips along First Street NW.																	
Potential Improvements:																			
Existing Conditions (2013)				Future Background Conditions (2025)								Total Future Conditions (2025)							
												In conjunction with Phase 1 of development, it is recommended that this intersection be retimed during the afternoon peak period. In the existing conditions, the signal operates on a half-cycle length of 50 seconds. Retiming the signal with a cycle length of 100 seconds during the afternoon peak period allows the intersection to operate under acceptable conditions.							
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Bryant Street & First Street NW	Overall	15.2	B	20.7	C	11.8	B	17.0	B	35.2	D	12.4	B	29.7	C	116.6	F	15.5	B
	Eastbound	18.7	B	23.4	C	14.9	B	19.5	B	24.3	C	15.2	B	26.7	C	33.1	C	17.8	B
	Northbound	10.2	B	7.5	A	11.8	B	12.6	B	9.7	A	12.4	B	21.0	C	14.9	B	15.7	B
	Southbound	17.2	B	26.6	C	11.5	B	18.9	B	53.2	D	11.9	B	38.1	D	200.9	F	14.4	B
Improvements:	Overall	--	--	--	--	--	--	--	--	--	--	--	--	--	--	35.2	D	--	--
	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62.6	E	--	--
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.7	A	--	--
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	--	--	38.2	D	--	--



Table 27: Intersection Summary – Columbia Road NW & Georgia Avenue NW (1 of 2)

Columbia Road NW & Georgia Avenue NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
		Southbound Georgia Avenue NW: TF				Overall intersection: TF Westbound Columbia Road NW: BG, TF													
Percent of future traffic attributable to development:		3.6%				5.7%				--									
Summary of capacity analysis results:		The unacceptable delay on the westbound approach of Columbia Road NW during the afternoon peak period is due to the addition of the background growth and trips generated by the background developments. The addition of the site-generated trips exacerbates this delay and causes the overall intersection to operate under unacceptable conditions during the afternoon peak period. Additionally, the site-generated trips lead to unacceptable delays on the southbound approach of Georgia Avenue NW during the morning peak period.																	
Potential Improvements:																			
Existing Conditions (2013)					Future Background Conditions (2025)					Total Future Conditions (2025)									
					<p>In the future background conditions, it is recommended that approximately 125 feet of on-street parking on the southern side of Columbia Road NW be removed to allow for three lanes on the westbound approach during the morning and afternoon peak periods. Restriping the westbound approach as a shared through/left-turn lane, a through lane, and a right-turn lane is recommended.</p> <p>In addition to the restriping, it is recommended that the intersection be retimed. Following these improvements, the intersection is projected to operate under acceptable conditions during the morning and afternoon peak periods.</p> <p>This report recommends that DDOT consider these improvements outside the scope of this TIA, following the construction of the background developments.</p>					<p>No additional improvements are recommended in the total future conditions. The intersection is projected to operate under acceptable conditions during the morning and afternoon peak periods following the implementation of the improvements recommended in the future background conditions.</p>									
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Columbia Road & Georgia Avenue NW	Overall	22.0	C	17.5	B	--	--	55.4	E	57.4	E	--	--	70.4	E	85.1	F	--	--
	Westbound	36.7	D	36.6	D	--	--	47.3	D	84.5	F	--	--	54.3	E	141.9	F	--	--
	Northbound	7.5	A	8.7	A	--	--	12.0	B	50.9	D	--	--	14.4	B	54.9	D	--	--
	Southbound	19.5	B	10.6	B	--	--	75.1	E	23.6	C	--	--	98.6	F	24.1	C	--	--
Improvements:	Overall	--	--	--	--	--	--	37.4	D	27.2	C	--	--	48.0	D	33.7	C	--	--
	Westbound	--	--	--	--	--	--	33.2	C	35.8	D	--	--	33.1	C	42.6	D	--	--
	Northbound	--	--	--	--	--	--	10.9	B	22.8	C	--	--	14.8	B	31.9	C	--	--
	Southbound	--	--	--	--	--	--	48.9	D	19.0	B	--	--	67.9	E	21.2	C	--	--

Table 28: Intersection Summary – Columbia Road NW & Georgia Avenue NW (2 of 2)





Table 29: Intersection Summary – Harvard Street NW & Georgia Avenue NW (1 of 2)

Harvard Street NW & Georgia Avenue NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
		Overall intersection: BG, TF Southbound Georgia Avenue NW: BG, TF																	
Percent of future traffic attributable to development:		5.3%				3.0%				--									
Summary of capacity analysis results:		The unacceptable delay on the southbound approach of Georgia Avenue NW during the morning peak period is due to the addition of the background growth and trips generated by the background developments. The addition of the site-generated trips exacerbates this delay.																	
Potential Improvements:																			
Existing Conditions (2013)			Future Background Conditions (2025)						Total Future Conditions (2025)										
			<p>In the future background conditions, it is recommended that approximately 100 feet of on-street parking on the southbound approach of Georgia Avenue NW be removed to allow for a southbound left-turn lane.</p> <p>In addition to the restriping, it is recommended that the intersection be retimed to include a protected + permitted southbound left-turn phase. Following these improvements, the intersection is projected to operate under acceptable conditions during the morning and afternoon peak periods.</p> <p>This report recommends that DDOT consider these improvements outside the scope of this TIA, following the construction of the background developments.</p>						<p>No additional improvements are recommended in the total future conditions. The intersection is projected to operate under acceptable conditions during the morning and afternoon peak periods following the implementation of the improvements recommended in the future background conditions.</p>										
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Harvard Street & Georgia Avenue NW	Overall	10.3	B	14.3	B	--	--	89.6	F	21.3	C	--	--	135.9	F	25.0	C	--	--
	Eastbound	43.0	D	40.5	D	--	--	39.0	D	35.4	D	--	--	38.0	D	34.8	C	--	--
	Northbound	4.3	A	6.8	A	--	--	7.4	A	9.6	A	--	--	8.4	A	10.1	B	--	--
	Southbound	3.6	A	4.2	A	--	--	142.1	F	22.9	C	--	--	226.8	F	33.4	C	--	--
Improvements:	Overall	--	--	--	--	--	--	14.0	B	20.5	C	--	--	16.3	B	22.1	C	--	--
	Eastbound	--	--	--	--	--	--	41.0	D	41.3	D	--	--	42.8	D	42.9	D	--	--
	Northbound	--	--	--	--	--	--	14.0	B	18.8	B	--	--	16.2	B	19.5	B	--	--
	Southbound	--	--	--	--	--	--	3.6	A	5.0	A	--	--	5.1	A	6.8	A	--	--

Table 30: Intersection Summary – Harvard Street NW & Georgia Avenue NW (2 of 2)

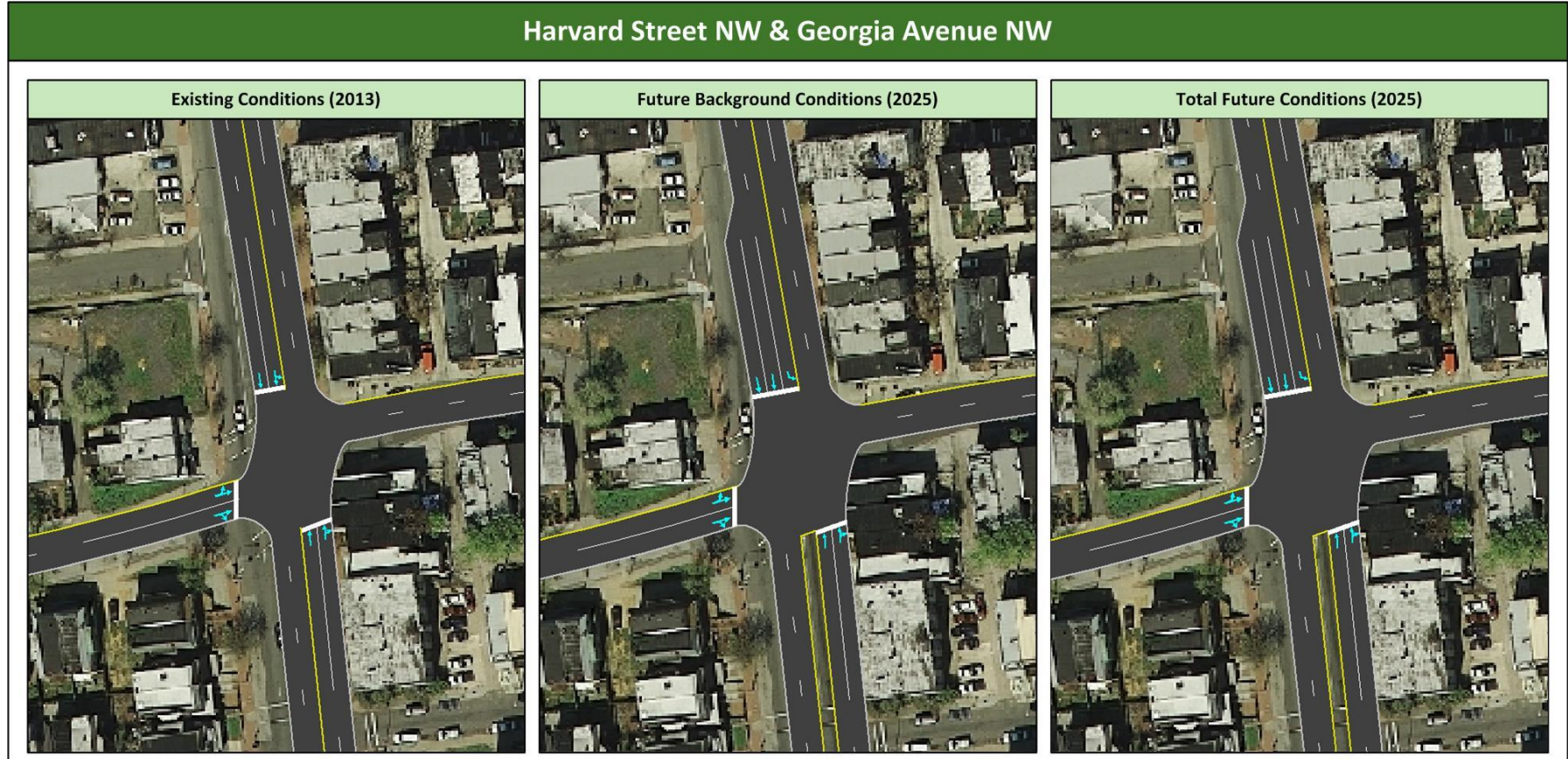




Table 31: Intersection Summary – W Street NW & Georgia Avenue NW (1 of 2)

W Street NW & Georgia Avenue NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
						Eastbound W Street NW: BG, TF													
Percent of future traffic attributable to development:		4.2%				6.3%				--									
Summary of capacity analysis results:		The unacceptable delay on the eastbound approach of W Street NW during the afternoon peak period is due to the addition of the background growth and trips generated by the background developments. The addition of the site-generated trips exacerbates this delay.																	
Potential Improvements:																			
Existing Conditions (2013)					Future Background Conditions (2025)					Total Future Conditions (2025)									
					In the future background conditions, it is recommended that eastbound approach of W Street be constructed as separate left- and right-turn lanes. Widening the eastbound approach allows the intersection to operate under acceptable conditions during all time periods. This report recommends that DDOT consider these improvements outside the scope of this TIA, following the construction of the background developments.					No additional improvements are recommended in the total future conditions. The intersection is projected to operate under acceptable conditions during the morning and afternoon peak periods following the implementation of the improvements recommended in the future background conditions.									
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
W Street & Georgia Avenue NW	Overall	11.3	B	15.0	B	--	--	14.8	B	24.2	C	--	--	15.8	B	25.4	C	--	--
	Eastbound	0.0	A	33.4	C	--	--	35.7	D	85.9	F	--	--	32.9	C	89.0	F	--	--
	Westbound	40.7	D	50.0	D	--	--	43.0	D	29.7	C	--	--	41.8	D	31.3	C	--	--
	Northbound	5.0	A	5.7	A	--	--	6.2	A	11.4	B	--	--	7.5	A	12.5	B	--	--
	Southbound	2.9	A	2.8	A	--	--	7.2	A	7.8	A	--	--	8.6	A	8.3	A	--	--
Improvements:	Overall	--	--	--	--	--	--	13.0	B	19.9	B	--	--	13.9	B	21.5	C	--	--
	Eastbound	--	--	--	--	--	--	38.4	D	68.9	E	--	--	36.1	D	74.0	E	--	--
	Westbound	--	--	--	--	--	--	41.3	D	36.8	D	--	--	41.1	D	38.3	D	--	--
	Northbound	--	--	--	--	--	--	4.6	A	7.3	A	--	--	5.5	A	7.9	A	--	--
	Southbound	--	--	--	--	--	--	4.8	A	2.8	A	--	--	5.9	A	3.0	A	--	--

Table 32: Intersection Summary – W Street NW & Georgia Avenue NW (2 of 2)

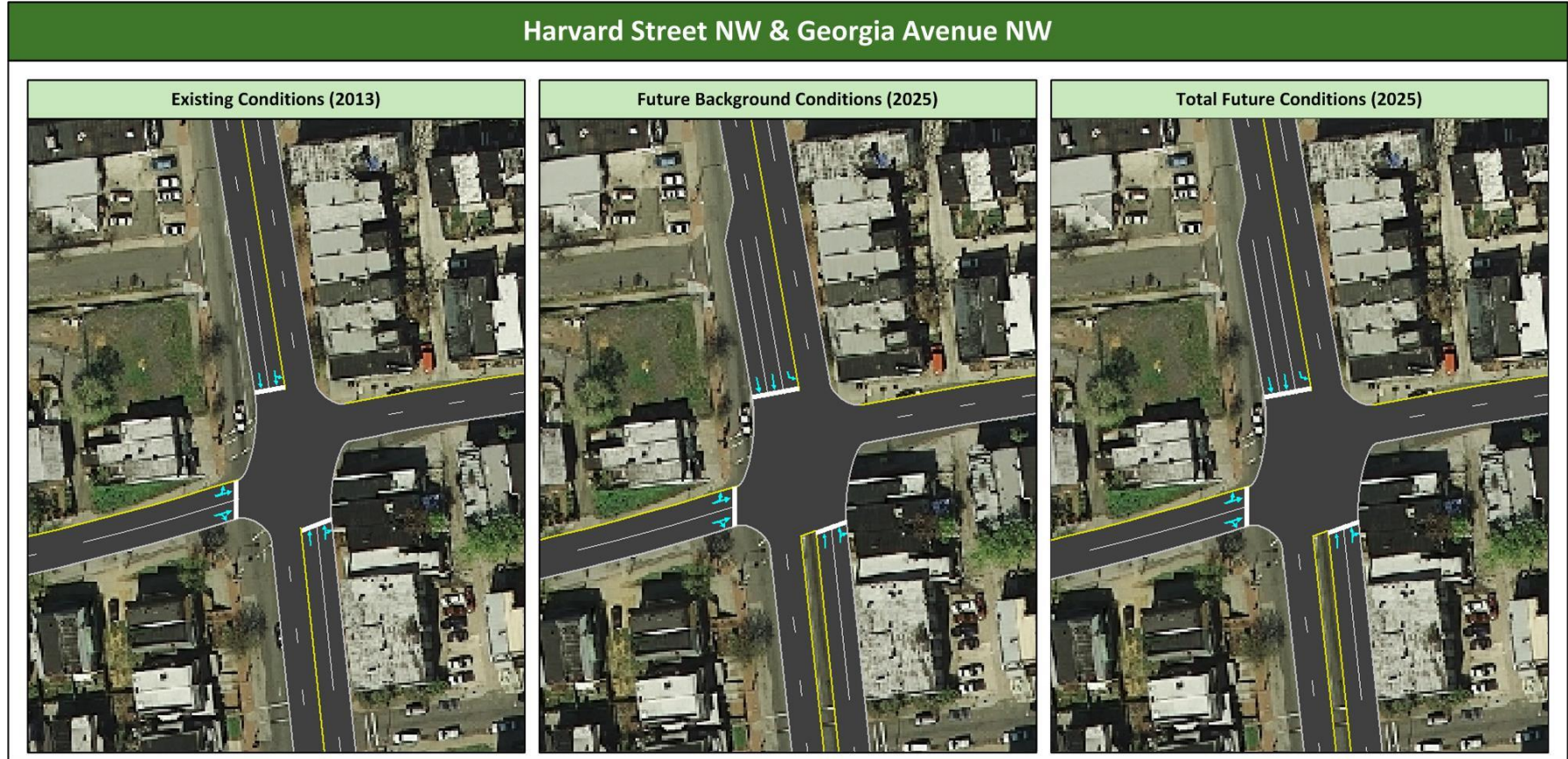




Table 33: Intersection Summary – North Service Court NW & North Capitol Street (1 of 2)

North Service Court NW & North Capitol Street																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
		Overall intersection: TF Northbound North Capitol Street: TF																	
Percent of future traffic attributable to development:		11.0%				13.6%				8.3%									
Summary of capacity analysis results:		The delays at this intersection during the morning peak period are due to the projected left-turn volumes entering the McMillan development. Due to heavy southbound commuter volumes, the northbound left-turn movement experiences an unacceptable level of delay while waiting for acceptable gaps in the vehicular flow.																	
Potential Improvements:																			
Existing Conditions (2013)					Future Background Conditions (2025)					Total Future Conditions (2025)									
										<p>In conjunction with Phase 1 of development, it is recommended that this intersection be constructed to include a 125-foot northbound left-turn lane in the existing median. This turn lane would extend approximately 100 feet south of the adjacent intersection at Franklin Street NE, thus reinforcing the recommendation to convert that intersection to a right-in/right-out configuration.</p> <p>Additionally, it is recommended that the on-street parking along the north- and southbound approaches of North Capitol Street adjacent to the site be restricted during the morning and afternoon peak periods. In the existing conditions, on-street parking is permitted on the northbound approach during the morning peak period and on the southbound approach during the afternoon peak period. Restricting this parking allows for three travel lanes north- and southbound.</p>									
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
North Service Court & North Capitol Street	Overall	--	--	--	--	--	--	--	--	--	--	--	--	104.0	F	11.8	C	3.2	A
	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	47.2	D	44.1	D	46.0	D
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	236.0	F	17.3	C	2.9	A
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	1.3	A	4.5	A	1.9	A
Improvements:	Overall	--	--	--	--	--	--	--	--	--	--	--	--	10.1	B	5.9	A	6.6	A
	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	47.2	D	44.1	D	46.0	D
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	5.4	A	4.9	A	3.5	A
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	13.2	B	5.2	A	8.1	A

Table 34: Intersection Summary – North Service Court NW & North Capitol Street (2 of 2)

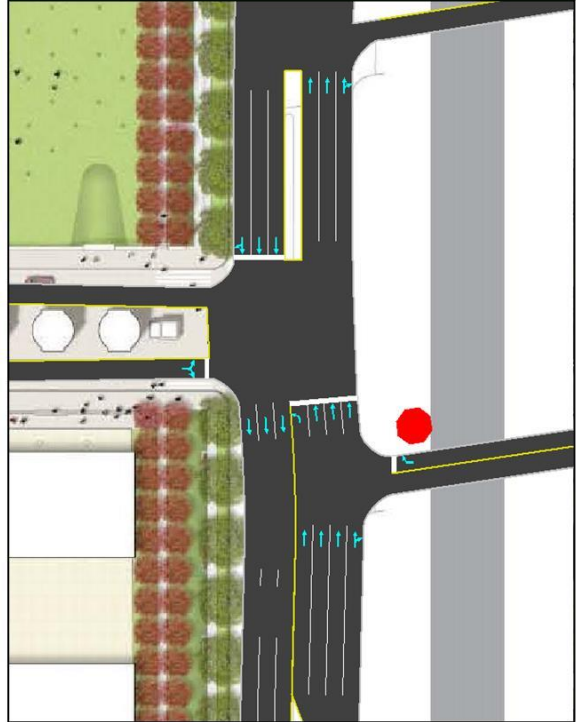
North Service Court NW & North Capitol Street		
Existing Conditions (2013)	Future Background Conditions (2025)	Total Future Conditions (2025)
N/A	N/A	



Table 35: Intersection Summary – Evarts Street NW & North Capitol Street (1 of 2)

Evarts Street NW & North Capitol Street																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
						Southbound North Capitol Street: TF													
Percent of future traffic attributable to development:		17.4%				18.1%				10.7%									
Summary of capacity analysis results:		The delays at this intersection during the afternoon peak period are due to the addition of the site-generated trips. The heavy northbound commuter volumes, coupled with the site-generated trips entering and exiting the McMillian development leads to unacceptable southbound delays on North Capitol Street during the afternoon peak period.																	
Potential Improvements:																			
Existing Conditions (2013)				Future Background Conditions (2025)						Total Future Conditions (2025)									
										In conjunction with Phase 1 of development, it is recommended that the on-street parking along the north- and southbound approaches of North Capitol Street adjacent to the site be restricted during the morning and afternoon peak periods. In the existing conditions, on-street parking is permitted on the northbound approach during the morning peak period and on the southbound approach during the afternoon peak period. Restricting this parking allows for three travel lanes north- and southbound.									
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Evarts Street & North Capitol Street	Overall	--	--	--	--	--	--	--	--	--	--	--	--	36.3	D	68.4	E	10.1	B
	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	44.1	D	50.9	D	44.2	D
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	12.3	B	16.9	B	5.6	A
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	58.6	E	127.6	F	12.2	B
Improvements:	Overall	--	--	--	--	--	--	--	--	--	--	--	--	41.6	D	12.7	B	--	--
	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	44.1	D	46.4	D	--	--
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	8.3	A	13.4	B	--	--
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	72.8	E	7.7	A	--	--

Table 36: Intersection Summary – Everts Street NW & North Capitol Street (2 of 2)

Everts Street NW & North Capitol Street		
Existing Conditions (2013)	Future Background Conditions (2025)	Total Future Conditions (2025)
N/A	N/A	<p>The diagram shows an aerial view of the intersection of Everts Street NW and North Capitol Street. Everts Street NW runs vertically through the center, with traffic flowing both north and south, indicated by blue arrows. North Capitol Street runs horizontally across the top and bottom. At the intersection, there are two red octagonal stop signs, one on each side of Everts Street NW. The diagram also shows landscaping with trees and grass along the streets, and a grey building on the right side of North Capitol Street.</p>



Table 37: Intersection Summary – Evarts Street NW & First Street NW (1 of 2)

Evarts Street NW & First Street NW																				
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour										
		Westbound Evarts Street NW: TF				Westbound Evarts Street NW: TF														
Percent of future traffic attributable to development:		40.4%				41.6%				39.6%										
Summary of capacity analysis results:		The delays at this intersection are due to the site-generated trips entering and exiting the McMillan development.																		
Potential Improvements:																				
Existing Conditions (2013)				Future Background Conditions (2025)						Total Future Conditions (2025)										
										<p>In conjunction with Phase 1 of development, it is recommended that this intersection be constructed to include a southbound left-turn lane along First Street NW. Construction of a 100-foot left-turn lane could be achieved by removing existing on-street parking along First Street NW.</p> <p>Additionally, it is recommended that this intersection be signalized following the construction of Parcels 2 and 3 (full build-out) to aid vehicles turning in and out of the McMillan development and to provide a signalized crossing for pedestrians. The intersection operates under acceptable conditions during all time periods with these recommended improvements.</p>										
Capacity Analysis Results:																				
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)						
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
Evarts Street & First Street NW	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	--	219.8	F	257.2	F	16.2	C
	Southbound Left	--	--	--	--	--	--	--	--	--	--	--	--	--	2.1	A	3.2	A	2.0	A
Improvements:	Overall	--	--	--	--	--	--	--	--	--	--	--	--	--	26.9	C	10.6	B	10.1	B
	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	--	18.6	B	35.7	D	13.8	B
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	--	37.1	D	6.3	A	9.7	A
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	--	13.5	B	6.4	A	8.5	A

Table 38: Intersection Summary – Everts Street NW & First Street NW (2 of 2)

Everts Street NW & First Street NW		
Existing Conditions (2013)	Future Background Conditions (2025)	Total Future Conditions (2025)
N/A	N/A	



Table 39: Intersection Summary – North Service Court NW & First Street NW (1 of 2)

North Service Court NW & First Street NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
		Westbound North Service Court: TF																	
Percent of future traffic attributable to development:		47.6%				42.5%				35.0%									
Summary of capacity analysis results:		The delays at this intersection are due to the site-generated trips entering and exiting the McMillan development, primarily the westbound right turn movement generated by the employee parking entrance at the adjacent Medical Office Building.																	
Potential Improvements:																			
Existing Conditions (2013)					Future Background Conditions (2025)					Total Future Conditions (2025)									
										<p>In conjunction with Phase 1 of development, it is recommended that this intersection be constructed to include a short southbound left-turn lane along First Street NW. Construction of a 30-foot left-turn lane would require removing the on-street parking along First Street NW and widening the roadway to accommodate a four-lane cross-section.</p> <p>Additionally, it is recommended that this intersection be signalized to aid vehicles turning in and out of the McMillan development and to provide a signalized crossing for pedestrians. The intersection operates under acceptable conditions during all time periods with these recommended improvements.</p>									
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
North Service Court & First Street NW	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	273.0	F	23.0	C	12.3	B
	Southbound Left	--	--	--	--	--	--	--	--	--	--	--	--	1.1	A	0.6	A	0.8	A
Improvements:	Overall	--	--	--	--	--	--	--	--	--	--	--	--	9.6	A	9.5	A	5.2	A
	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	20.5	C	36.0	D	12.0	B
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	5.0	A	3.4	A	2.1	A
	Southbound	--	--	--	--	--	--	--	--	--	--	--	--	12.2	B	7.3	A	9.4	A

Table 40: Intersection Summary – North Service Court NW & First Street NW (2 of 2)

North Service Court NW & First Street NW		
Existing Conditions (2013)	Future Background Conditions (2025)	Total Future Conditions (2025)
N/A	N/A	



Table 41: Intersection Summary – Medical Office Driveway #1 & First Street NW (1 of 2)

Medical Office Driveway #1 & First Street NW																			
Location/Scenarios with LOS F EX = Existing (2013) BG = Future Background (2025) TF = Total Future (2025)		AM Peak Hour				PM Peak Hour				Saturday Peak Hour									
		Westbound Medical Office Driveway #1: TF				Westbound Medical Office Driveway #1: TF													
Percent of future traffic attributable to development:		53.3%				56.0%				42.2%									
Summary of capacity analysis results:		The delays at this intersection are due to the site-generated trips entering and exiting the McMillan development, namely the employee access to the Medical Office Building parking garage.																	
Potential Improvements:																			
Existing Conditions (2013)			Future Background Conditions (2025)						Total Future Conditions (2025)										
									<p>In conjunction with Phase 1 of development, it is recommended that the driveway function as two lanes inbound and one lane outbound during the morning peak period. During the afternoon peak period, it is recommended that the driveway function as one lane inbound and two lanes outbound. The outbound lanes should be signed as left-turn and right-turn only, respectively, during the afternoon peak period.</p> <p>Additionally, it is recommended that signage and pavement markings be installed along First Street NW in order to prevent vehicles from “blocking the box” at the driveway. Construction of the adjacent signal at the North Service Court is projected to improve the frequency of adequate gaps along First Street NW, improving the outbound vehicular movement.</p>										
Capacity Analysis Results:																			
Intersection	Approach	Existing Conditions (2013)						Future Background Conditions (2025)						Total Future Conditions (2025)					
		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak		AM Peak		PM Peak		Saturday Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Medical Office Dwy #1 & First Street NW	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	570.1	F	791.6	F	15.1	C
	Southbound Left	--	--	--	--	--	--	--	--	--	--	--	--	9.4	A	1.5	A	0.9	A
Improvements:	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	63.9	F	40.3	E	11.1	B
	Southbound Left	--	--	--	--	--	--	--	--	--	--	--	--	9.3	A	2.4	A	1.9	A

Table 42: Intersection Summary – Medical Office Driveway #1 & First Street NW (2 of 2)

Medical Office Driveway #1 & First Street NW		
Existing Conditions (2013)	Future Background Conditions (2025)	Total Future Conditions (2025)
N/A	N/A	<div style="display: flex; flex-direction: column;"> <div style="background-color: #C6E0B4; padding: 2px; margin-bottom: 2px;">AM</div> </div> <div style="display: flex; flex-direction: column;"> <div style="background-color: #C6E0B4; padding: 2px; margin-bottom: 2px;">PM</div> </div>



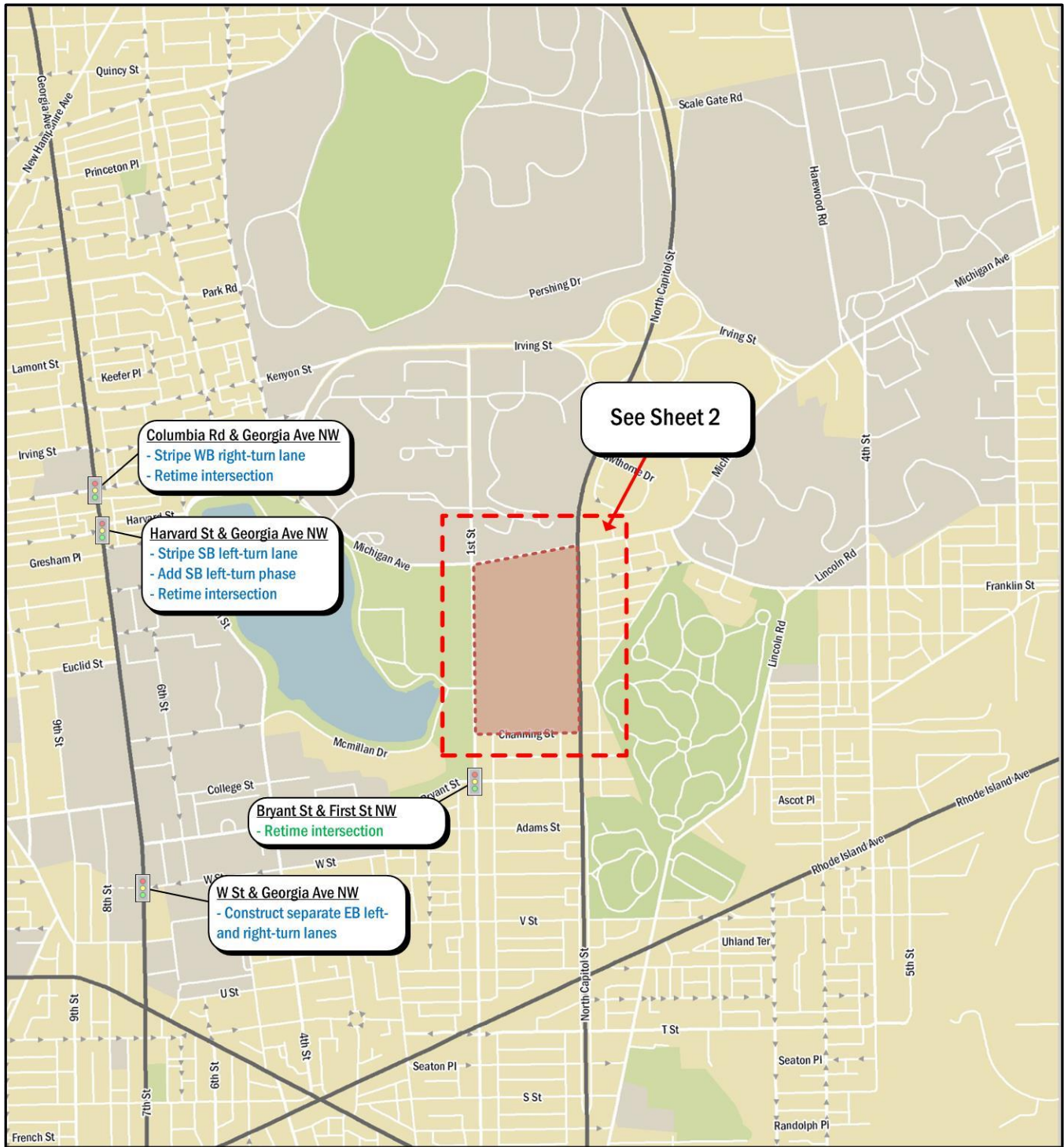
SUMMARY OF IMPROVEMENTS AND RECOMMENDATIONS

The results of the roadway capacity analysis led to several recommended improvements to mitigate the impact of the site-generated traffic volumes. The following provides a summary of the recommended improvements:

- As outlined in the PUD, new traffic signals at recommended at the following intersections:
 - Michigan Avenue and Half Street NW;
 - North Capitol Street and the North Service Court; and
 - North Capitol Street and Evarts Street NW.Preliminary warrant for these traffic signals are included in the Technical Appendices.
A new traffic signal is also recommended at the intersection of First Street NW & the North Service Court. An additional traffic signal at the intersection of First Street NW and Evarts Street should be considered following full build-out of the PUD. A preliminary warrant for this traffic signals is included in the Technical Appendices.
- In conjunction with installing a signal at the intersection of North Capitol Street and the North Service Court, it is recommended that the adjacent intersection of North Capitol Street with Franklin Street NE be converted to right-in/right-out operation.
- It is recommended that parking restrictions along North Capitol Street adjacent to the site be extended to include peak hour restrictions on both sides of the roadway during the weekday morning and afternoon peak hours. In the existing conditions, on-street parking is permitted on the northbound approach during the morning peak period and on the southbound approach during the afternoon peak period. Restricting this parking allows for three travel lanes on the north- and southbound approached adjacent to the site.
- As outlined in the PUD, a northbound left-turn lane is recommended on North Capitol Street at the intersection with Evarts Street NW. An additional northbound left-turn lane is recommended along North Capitol Street at the intersection with the North Service Court.
- Along Michigan Street NW, it is recommended that an eastbound right-turn lane be constructed at the intersection with North Capitol Street. An additional eastbound right-turn lane should be studied at the intersection with First Street NW following full-build-out of the site.

- Along First Street NW, southbound left-turn lanes are recommended at the intersections with the North Service Court and with Evarts Street NW. Additionally, it is recommended that First Street NW adjacent to Parcel 1 be reconstructed and widened to allow for a four-lane cross-section between Michigan Avenue NW and the North Service Court.
- A southbound left-turn lane and signal timing improvements are recommended at the intersection of First Street with Michigan Avenue due to traffic generated by the background developments, not as a mitigation measure for the PUD. Thus, if the PUD constructs this improvement as part of its work on the intersection, the portion of work spent on mitigating the background development trips should be counted as a PUD amenity and not a required PUD mitigation measure.
- Signal timing improvements are recommended at the following intersections:
 - Michigan Avenue NW and First Street NW;
 - Michigan Avenue NE/NW and North Capitol Street; and
 - Bryant Street NW and First Street NW.
- It is also recommended that the intersection of Channing Street NW and First Street NW be converted from all-way to one-way stop.

A summary of the recommended improvements is included as Figure 33 and Figure 34.

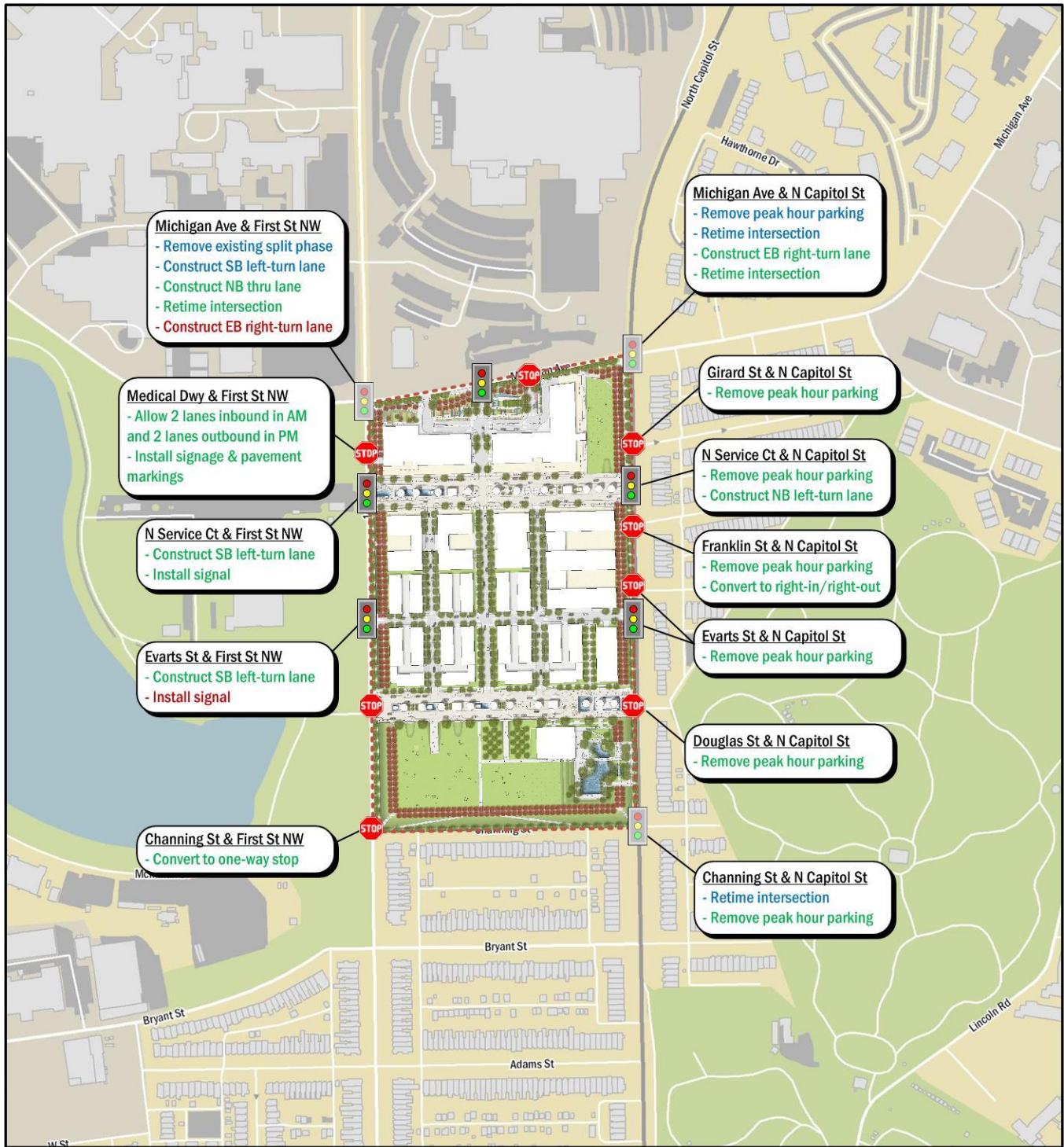


Summary of Recommended Improvements

- Development Site
- Existing Signalized Intersection
- Future Signalized Intersection
- Stop-Controlled Intersection
- Recommended Future Background Improvement
- Recommended Phase 1 Site Improvement
- Recommended Consideration at Full Build-Out

1" = 1,250 ft

Figure 33: Summary of Recommended Improvements (1 of 2)



Summary of Recommended Improvements

- Development Site
- Existing Signalized Intersection
- Future Signalized Intersection
- Stop-Controlled Intersection
- Recommended Future Background Improvement
- Recommended Phase 1 Site Improvement
- Recommended Consideration at Full Build-Out



Figure 34: Summary of Recommended Improvements (2 of 2)



TRANSIT

This section discusses the existing and projected future transit facilities in the vicinity of the site and analyzes the overall transit impacts due to the McMillan PUD. The overall purpose of this analysis is to:

- Determine the existing capacity and ridership on the surrounding transit system;
- Determine the overall impact of the McMillan PUD on the surrounding transit network;
- Discuss potential improvements or new transit options to accommodate the additional transit trips; and
- Evaluate on-site transit facilities (i.e. bus stops, bus shelters) in order to determine the most effective layout for the future.

TRANSIT CAPACITY ANALYSIS

This analysis consisted of determining the transit capacity and ridership for the following conditions:

- 2013 Existing Conditions
- 2025 Future Background Conditions (with transit improvements, but without the McMillan PUD)
- 2025 Total Future Conditions (with transit improvements and the McMillan PUD)

For the purpose of this analysis, Metrobus routes within a quarter-mile of the site were considered for evaluation. For rail, typically only Metrorail stations within a half mile of the site are evaluated; however, as shown in Figure 35, 2011 Census Data for the site shows about a 50/50 split between Metrobus and Metrorail ridership. Thus, the Green/Yellow and Red Lines were evaluated despite the fact that the nearest stations for these lines are over a mile away. Figure 36 depicts the existing transit facilities included within this analysis.

Bus Study Area

Metrobus routes within a quarter-mile of the site include the 80 Line, the D8 Line, and the H1-H4 Lines, as described below.

- 80 – North Capitol Street Line
The 80 Line runs southbound to the Kennedy Center and northbound to Fort Totten. It runs seven days a week with 8 to 15 minute headways during weekday peak hours and 20 to 30 minute headways during the Saturday peak. This route travels through downtown and stops at many

significant locations such as Metrorail Stations at Farragut North/West, McPherson Square, Gallery Place/Chinatown, Union Station, Brookland-CUA, and Fort Totten. Therefore, it is likely that many people who commute via Metrorail will utilize the 80 Line buses for the remainder of their trip to and from the McMillan PUD.

- D8 – Hospital Center Line
The D8 line runs southbound to Union Station and northbound to Washington Hospital Center. It runs seven days a week with 10 to 20 minute headways during the weekday peak periods and 20 minute headways during the Saturday afternoon peak. The D8 Line is a short route with significant stops located at Union Station, Rhode Island Metro Station, and the Washington Hospital Center.
- H1 – Brookland-Potomac Park Line
The H1 line runs southbound to Potomac Park and northbound to the Brookland-CUA Metro Station. It runs Monday through Friday with southbound service during the morning peak period and northbound service during the afternoon peak period. It operates at 15 to 20 minute headways at all times. The H1 Line connects with significant locations such as the Columbia Heights Metro Station, Adams Morgan, the Dupont Circle Metro Station, and the Foggy Bottom-GMU Metro Station.
- H2, H3, H4 – Crosstown Line
The H2-H4 Lines run westbound to the Tenleytown-AU Metro Station and eastbound to the Brookland-CUA Station. The H2 and H4 Lines run seven days a week and the H3 Line runs Monday through Saturday, during AM and PM peak periods only. Between the three lines, this route operates at 7 to 15 minute headways during weekday peak periods and 15 minute headways during the Saturday PM peak period. It provides service to several Metrorail stations at Brookland-CUA, Columbia Heights, Cleveland Park, and Tenleytown-AU. Additionally, the H2 and H3 Lines provide access to the Veterans Affairs Medical Center.

Because multiple transit improvements are made in the future conditions that completely or partially overlap these routes, the Metrobus Lines were categorized into corridors in order to best evaluate the ridership and capacity during each study condition. The corridors are designated as follows:

- North Capitol Street Corridor (includes the 80 Line);



- Hospital Center Corridor (includes the D8 Line);
- Brookland-Potomac Park Corridor (includes the H1 Line); and
- The Crosstown Corridor (includes the H2, H3, and H4 Lines).

Each corridor was studied during the weekday morning and afternoon peak periods, as well as the Saturday afternoon peak period for both travel directions (eastbound/westbound for the Crosstown Corridor and northbound/southbound for the North Capitol Street Corridor, the Hospital Center Corridor, and the Brookland-Potomac Park Corridor).

Rail Study Area

For the purpose of this analysis, the two nearest Metrorail Lines were included: the Green/Yellow Lines (which run along the same alignment near the site) and the Red Line. The Metrorail system opens at 5:00 AM on weekdays and 7:00 AM on weekends. It closes at midnight Sunday through Thursday and at 3:00 AM on Friday and Saturday.

▪ Green/Yellow Line

The Green and Yellow Lines travel from the city of Greenbelt, MD to the north, extending downtown through Chinatown/Gallery Place and L'Enfant Plaza. From there, the Green Line crosses the Anacostia River towards Southeast DC and ends at the Branch Avenue Station in Suitland, MD. The Yellow Line crosses the Potomac River towards Virginia and ends at the Huntington Station just outside the beltway. The arrival of Yellow and Green Line trains typically alternate and run frequently during the weekday morning and afternoon peak periods with headways of approximately six minutes (or three minutes at stations that serve both Lines). During the Saturday afternoon peak period, trains typically operate with headways of approximately 12 minutes (or six minutes at stations that serve both Lines). The nearest Green/Yellow Line station is the U Street-African American Civil War Memorial-Cardozo Station, which is a 1.3-mile walk from the centermost point of the McMillan site.

▪ Red Line

The Red Line travels southbound from the Shady Grove Station in Rockville, MD; travels through downtown DC via Dupont Circle, Chinatown/Gallery Place, and Union Station; and then continues northbound towards the Glenmont Station in Glenmont, MD. Red Line trains typically operate

at three- to five-minute headways during the weekday morning and afternoon peak periods and six-minute headways during the Saturday afternoon peak period. The nearest Red Line station is the Brookland Station which is a 1.1 mile walk from the centermost point of the McMillan site.

Existing Conditions

Existing transit conditions were evaluated for the Metrobus and Metrorail study areas to determine a benchmark for future transit improvements and site-generated transit trips.

Bus System

In order to determine the existing conditions of the Metrobus system, the following steps were taken:

1. Determine the existing capacity of each corridor.
2. Determine the existing ridership along each corridor.
3. Determine the existing ridership/capacity (R/C) ratios.

Existing Capacity

Existing capacity was determined based on the number of buses per hour and the number of seats per bus. According to the *2010 Metrobus Fleet Management Plan*¹ standard buses have an average of 41 seats and articulated buses have an average of 63 seats. Currently none of the bus routes near the site utilize articulated buses. Bus route timetables located on the WMATA website were used to determine the number of buses per hour for each study scenario. For the purpose of this analysis, capacity is described as the number of seated passengers per hour. Therefore, the following equation was used to determine existing capacity:

$$\text{Existing Capacity} = (\# \text{ of buses / hour}) * (\# \text{ of seats / bus})$$

Existing Ridership

In order to effectively compare ridership to capacity, it was necessary to develop an hourly ridership for each route based on the daily ridership provided by WMATA. According to the *Metrobus Fleet Management Plan*, 31.4% of daily ridership occurs during the morning peak and 33.9% of daily ridership occurs during the evening peak. It was assumed that the morning and afternoon peak periods consist of a four-hour period. Additionally, Saturday ridership is approximately 34% of weekday ridership; for the purpose of the study, it was

¹ *2010 Metrobus Fleet Management Plan Final Report*, July 2010, Washington Metropolitan Area Transit Authority



assumed that 33.9% of Saturday ridership would occur during the afternoon peak hour.

The existing ridership was based on the 2012 daily ridership values with the amount of morning, afternoon, and Saturday peak ridership determined from the percentages listed above. These ridership values were divided by four to determine the hourly ridership. From there, the directional ridership (EB/WB, NB/SB) was determined based on the ratio of bus service between each direction.

Existing Ridership/Capacity Ratio

The existing Ridership/Capacity (R/C) ratio was determined by dividing the number of passengers by the number of available seats. According to the *Metrobus Regional Bus Services Performance Assessment Report*¹ performed by WMATA in January of 2000, an R/C ratio of 1.2 is acceptable for Radial service, an R/C ratio of 1.1 is acceptable for Crosstown service, and an R/C ratio of 1.0 is acceptable for Express and Off-Peak service. Therefore, an R/C ratio of 1.1 is acceptable for the

Crosstown Corridor and an R/C ratio of 1.2 is acceptable for the remaining three corridors.

Results

Based on the methodology outlined above, the existing capacity, ridership, and R/C ratio was determined for each corridor as shown in Table 43 and depicted in Figure 37. As can be seen, the Hospital Center and Brookland-Potomac Park Corridors operate at acceptable R/C ratios during all study scenarios; however the North Capitol Street Corridor, which provides the most direct southbound service, exceeds the R/C threshold of 1.2 during nearly all study scenarios and the Crosstown Corridor sits at the threshold of 1.1 during the weekday PM scenario. Without the addition of any background transit growth or the site-generated transit trips from the McMillan development, the North Capitol Street Corridor is already over capacity. Therefore, regardless of changes in the area improvements should be made to this corridor in order to increase capacity and reduce the R/C ratio.

Table 43: Existing Metrobus Conditions

Bus Route	Time	Direction	Existing Capacity (passengers/hour)	Existing Ridership (passengers/hour)	Existing R/C Ratio
North Capitol Street Corridor	Weekday AM	Southbound	246	346	1.4
		Northbound	164	264	1.6
	Weekday PM	Southbound	164	292	1.8
		Northbound	205	366	1.8
	Saturday PM	Southbound	82	109	1.3
		Northbound	82	98	1.2
Hospital Center Corridor	Weekday AM	Southbound	164	162	1.0
		Northbound	164	184	1.1
	Weekday PM	Southbound	123	139	1.1
		Northbound	246	234	1.0
	Saturday PM	Southbound	246	75	0.3
		Northbound	123	52	0.4
Brookland-Potomac Park Corridor	Weekday AM	Southbound	164	56	0.3
	Weekday PM	Northbound	123	61	0.5
Crosstown Corridor	Weekday AM	Westbound	328	312	1.0
		Eastbound	246	234	1.0
	Weekday PM	Westbound	246	273	1.1
		Eastbound	287	318	1.1
	Saturday PM	Westbound	164	100	0.6
		Eastbound	164	101	0.6

¹ *Metrobus Regional Bus Services Performance Assessment Report*, January 2000, Washington Metropolitan Area Transit Authority

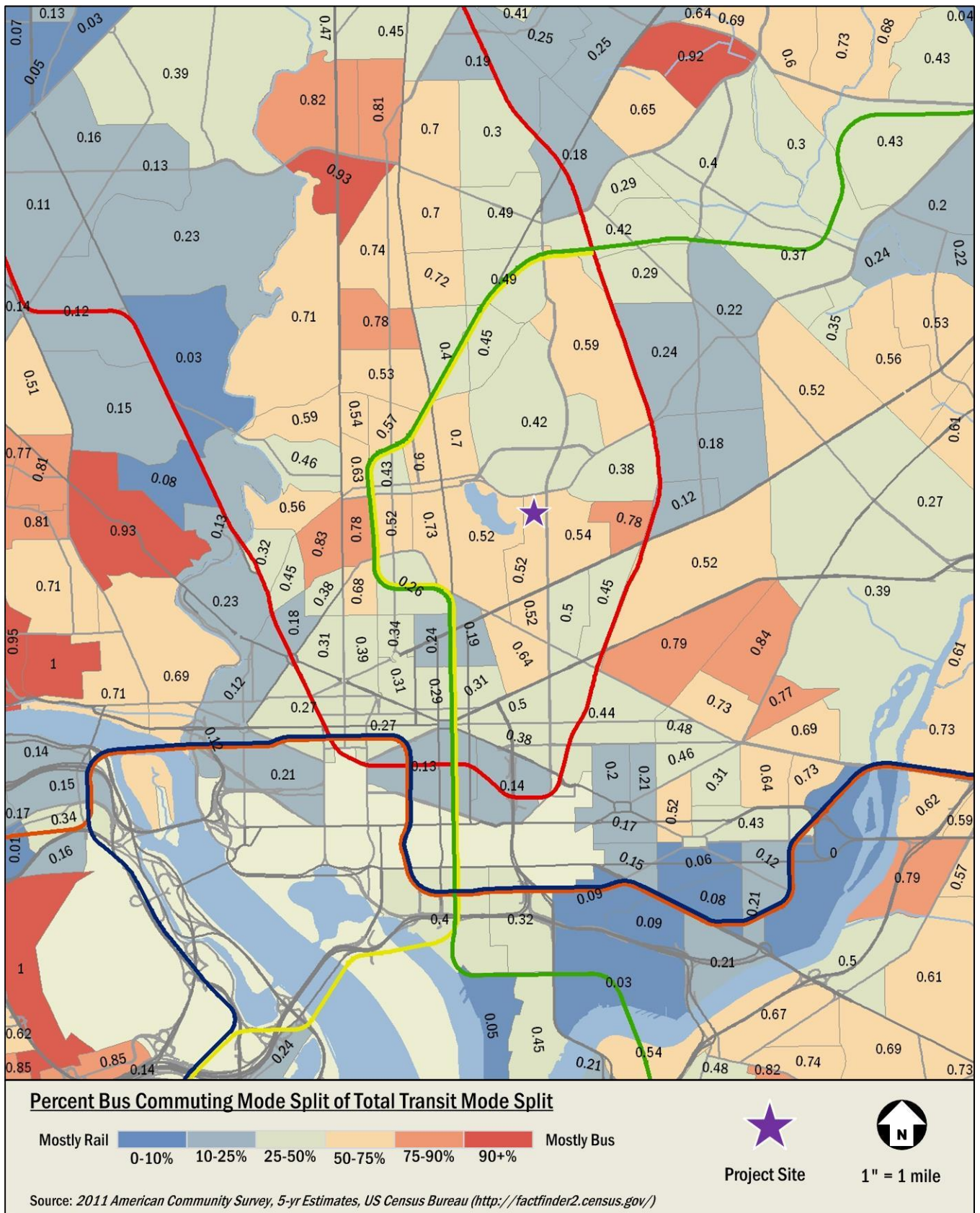


Figure 35: Percent Bus Commuting Mode Split of Total Transit Mode Split



Figure 36: Transit Study Area - Existing Conditions