

**APPENDIX F**

**Traffic Analysis**

**Table F-1  
Existing Conditions and No Action 2025 AM and PM Peak LOS**

Intersection	Existing (AM/PM)	No Action <sup>1</sup> (AM/PM)
New Hampshire Avenue and Virginia Avenue (Juarez Circle west) <sup>2</sup>	B/A	A/A
New Hampshire Avenue and 25 <sup>th</sup> Street (Juarez Circle east) <sup>2</sup>	A/B	A/B
Rock Creek Parkway and Virginia Avenue <sup>2</sup>	B/B	C/C
Virginia Avenue and 27 <sup>th</sup> Street <sup>2</sup>	C/A	B/B
27 <sup>th</sup> Street and I Street <sup>2</sup>	F/C	F/C
K Street/Whitehurst Freeway and 27 <sup>th</sup> Street <sup>2</sup>	F/F	F/F
Ramp 24 from K Street/Whitehurst Freeway and Rock Creek Parkway (northbound) <sup>2</sup>	NA/C	NA/C
Virginia Avenue and 20 <sup>th</sup> Street <sup>2</sup>	B/B	B/C
E Street Expressway (eastbound) and 20 <sup>th</sup> Street <sup>2</sup>	E/B	E/B
E Street Expressway (westbound) and 20 <sup>th</sup> Street <sup>2</sup>	B/B	B/B
Virginia Avenue and 23 <sup>rd</sup> Street (westbound) <sup>2</sup>	A/B	A/B
Virginia Avenue and 23 <sup>rd</sup> Street (eastbound) <sup>2</sup>	C/A	C/B
E Street and 23 <sup>rd</sup> Street <sup>2</sup>	B/A	B/B
E Street and Virginia Avenue <sup>2</sup>	B/A	B/B
Ramp off E Street Expressway (eastbound) and Virginia Avenue <sup>3</sup>	C/B	E/D
Virginia Avenue and 21 <sup>st</sup> Street <sup>2</sup>	B/A	B/B
Constitution Avenue and 23 <sup>rd</sup> Street <sup>2</sup>	E/F	F/F
Constitution Avenue and 22 <sup>nd</sup> Street <sup>2</sup>	E/F	F/F
Constitution Avenue and Henry Bacon Drive <sup>2</sup>	E/F	F/F
Potomac Freeway and Ohio Drive <sup>3</sup> I-1	N/A <sup>4</sup>	N/A <sup>4</sup>
Notes: <sup>1</sup> The 2025 No Action LOS assume 0.5 percent per year growth in traffic; this growth factor is used by the District of Columbia Department of Transportation for traffic projections <sup>2</sup> Existing signalized intersection. <sup>3</sup> Existing unsignalized intersection. <sup>4</sup> Traffic is free-flowing during the AM and PM peak periods.		

**Table F-2  
Existing Conditions and No Action 2025 Pre-Performance Peak LOS**

Intersection	Existing	No Action <sup>1</sup>
New Hampshire Avenue and Virginia Avenue (Juarez Circle west) <sup>2</sup>	A	A
New Hampshire Avenue and 25 <sup>th</sup> Street (Juarez Circle east) <sup>2</sup>	C	C
Rock Creek Parkway and Virginia Avenue <sup>2</sup>	F	F
Virginia Avenue and 27 <sup>th</sup> Street <sup>2</sup>	B	B
27 <sup>th</sup> Street and I Street <sup>2</sup>	A	D
K Street/Whitehurst Freeway and 27 <sup>th</sup> Street <sup>2</sup>	F	F
Rock Creek Parkway and F Street <sup>2</sup>	A	A
New Hampshire Avenue and F Street <sup>3</sup>	A	A
F Street and 25 <sup>th</sup> Street <sup>3</sup>	D	F
Ohio Drive and Rock Creek Parkway <sup>3</sup>	F	F
Virginia Avenue and 23 <sup>rd</sup> Street (westbound) <sup>2</sup>	B	B
Virginia Avenue and 23 <sup>rd</sup> Street (eastbound) <sup>2</sup>	A	A
Virginia Avenue and 21 <sup>st</sup> Street <sup>2</sup>	B	B
Virginia Avenue and 20 <sup>th</sup> Street <sup>2</sup>	B	B
E Street Expressway (eastbound) and 20 <sup>th</sup> Street <sup>2</sup>	B	B
E Street Expressway (westbound) and 20 <sup>th</sup> Street <sup>2</sup>	B	B
Ohio Drive and Potomac Freeway <sup>3</sup>	F	F
E Street and 23 <sup>rd</sup> Street <sup>2</sup>	A	A
E Street and Virginia Avenue <sup>2</sup>	A	B
Virginia Avenue and Ramp from E Street Expressway eastbound (Ramp RP-17) <sup>3</sup>	B	B
Constitution Avenue and 23 <sup>rd</sup> Street <sup>2</sup>	F	F
Constitution Avenue and 22 <sup>nd</sup> Street <sup>2</sup>	F	F
Constitution Avenue and Henry Bacon Drive <sup>2</sup>	F	F
<p>Notes: <sup>1</sup> The 2025 No Action LOS assume 0.5 percent per year growth in traffic; this growth factor is used by the District of Columbia Department of Transportation for traffic projections</p> <p><sup>2</sup> Existing signalized intersection.</p> <p><sup>3</sup> Existing unsignalized intersection.</p>		

**Table F-3  
Alternative 4 2025 AM and PM Peak LOS**

<b>Intersection</b>	<b>Existing (AM/PM)</b>	<b>No Action (AM/PM)</b>	<b>Alternative 4 (AM/PM)</b>
New Hampshire Avenue and Virginia Avenue (Juarez Circle west) <sup>1</sup>	B/A	A/A	<b>B/B</b>
New Hampshire Avenue and 25 <sup>th</sup> Street (Juarez Circle east) <sup>1</sup>	A/B	A/B	<b>A/B</b>
Rock Creek Parkway and Virginia Avenue <sup>1</sup>	B/B	C/C	<b>B/B</b>
Virginia Avenue and 27 <sup>th</sup> Street <sup>1</sup>	C/A	B/B	<b>B/B</b>
27 <sup>th</sup> Street and I Street <sup>1</sup>	F/C	F/C	<b>NA<sup>4</sup>/NA<sup>4</sup></b>
K Street/Whitehurst Freeway and 27 <sup>th</sup> Street <sup>1</sup>	F/F	F/F	<b>F/F</b>
Ramp 24 (from K Street/Whitehurst Freeway) and Rock Creek Parkway (northbound) <sup>1</sup>	NA <sup>5</sup> /C	NA <sup>5</sup> /C	<b>NA<sup>4</sup>/NA<sup>4</sup></b>
Virginia Avenue and 20 <sup>th</sup> Street <sup>1</sup>	B/B	B/C	<b>C/C</b>
E Street Expressway (eastbound) and 20 <sup>th</sup> Street <sup>1</sup>	E/B	E/B	<b>C/A</b>
E Street Expressway (westbound) and 20 <sup>th</sup> Street <sup>1</sup>	B/B	B/B	<b>B/B</b>
Virginia Avenue and 23 <sup>rd</sup> Street (westbound) <sup>1</sup>	A/B	A/B	<b>A/B</b>
Virginia Avenue and 23 <sup>rd</sup> Street (eastbound) <sup>1</sup>	C/A	C/B	<b>B/A</b>
E Street and 23 <sup>rd</sup> Street <sup>1</sup>	B/A	B/B	<b>B/A</b>
E Street and Virginia Avenue <sup>1</sup>	B/A	B/B	<b>B/A</b>
Ramp off E Street Expressway (eastbound) and Virginia Avenue <sup>2</sup>	C/B	E/D	<b>NA<sup>4</sup>/NA<sup>4</sup></b>
Virginia Avenue and 21 <sup>st</sup> Street <sup>1</sup>	B/A	B/B	<b>B/A</b>
Constitution Avenue and 23 <sup>rd</sup> Street <sup>1</sup>	E/F	F/F	<b>F/F<sup>7</sup></b>
Constitution Avenue and 22 <sup>nd</sup> Street <sup>1</sup>	E/F	F/F	<b>F/F<sup>7</sup></b>
Constitution Avenue and Henry Bacon Drive <sup>1</sup>	E/F	F/F	<b>F/F<sup>7</sup></b>
Potomac Freeway and Ohio Drive <sup>2</sup>	NA/NA	NA/NA	<b>NA<sup>6</sup>/NA<sup>6</sup></b>
New ramp from northbound Potomac Freeway to northbound Rock Creek Parkway <sup>3</sup>	NA/NA	NA/NA	<b>NA<sup>5</sup>/C</b>
Intersection of Rock Creek Parkway with new ramp to southbound Potomac Freeway <sup>3</sup>	NA/NA	NA/NA	<b>NA<sup>6</sup>/NA<sup>6</sup></b>
Intersection of 27 <sup>th</sup> Street with new ramp between Rock Creek Parkway and southbound Potomac Freeway <sup>3</sup>	NA/NA	NA/NA	<b>D/C</b>
Notes: <sup>1</sup> . Existing Signalized Intersection. <sup>2</sup> . Existing Unsignalized Intersection. <sup>3</sup> . Proposed Signalized Intersection. <sup>4</sup> . Intersection would be eliminated. <sup>5</sup> . Closed during this period. <sup>6</sup> . Free-flowing traffic during this period. <sup>7</sup> . LOS based on corridor study for the segment of Constitution between Henry Bacon Drive and 23 <sup>rd</sup> Street.			

**Table F-4  
Alternative 4 2025 Pre-performance LOS**

<b>Intersection</b>	<b>Existing</b>	<b>No Action</b>	<b>Alternative 4</b>
New Hampshire Avenue and Virginia Avenue (Juarez Circle west) <sup>1</sup>	A	A	A
New Hampshire Avenue and 25 <sup>th</sup> Street (Juarez Circle east) <sup>1</sup>	C	C	B
Rock Creek Parkway and Virginia Avenue <sup>1</sup>	F	F	C
Virginia Avenue and 27 <sup>th</sup> Street <sup>1</sup>	B	B	A
27 <sup>th</sup> Street and I Street <sup>1</sup>	A	D	NA <sup>3</sup>
K Street/Whitehurst Freeway and 27 <sup>th</sup> Street <sup>1</sup>	F	F	E
Rock Creek Parkway and F Street <sup>1</sup>	A	A	A
New Hampshire Avenue and F Street <sup>2</sup>	A	A	B
F Street and 25 <sup>th</sup> Street <sup>2</sup>	D	F	F
Ohio Drive and Rock Creek Parkway <sup>2</sup>	F	F	B
Virginia Avenue and 23 <sup>rd</sup> Street (westbound) <sup>1</sup>	B	B	B
Virginia Avenue and 23 <sup>rd</sup> Street (eastbound) <sup>1</sup>	A	A	A
Virginia Avenue and 21 <sup>st</sup> Street <sup>1</sup>	B	B	B
Virginia Avenue and 20 <sup>th</sup> Street <sup>1</sup>	B	B	D
E Street Expressway (eastbound) and 20 <sup>th</sup> Street <sup>1</sup>	B	B	A
E Street Expressway (westbound) and 20 <sup>th</sup> Street <sup>1</sup>	B	B	B
Ohio Drive and Potomac Freeway <sup>2</sup>	F	F	NA <sup>4</sup>
E Street and 23 <sup>rd</sup> Street <sup>1</sup>	A	A	A
E Street and Virginia Avenue <sup>1</sup>	A	B	A
Virginia Avenue and Ramp from E Street Expressway eastbound (Ramp RP-17) <sup>2</sup>	B	B	NA <sup>4</sup>
Constitution Avenue and 23 <sup>rd</sup> Street <sup>1</sup>	F	F	F
Constitution Avenue and 22 <sup>nd</sup> Street <sup>1</sup>	F	F	F
Constitution Avenue and Henry Bacon Drive <sup>1</sup>	F	F	F
Notes: <sup>1</sup> . Existing Signalized Intersection. <sup>2</sup> . Existing Unsignalized Intersection. <sup>3</sup> . Intersection would be eliminated. <sup>4</sup> . Free-flowing traffic.			

**Table F-5  
Alternative 4V 2025 AM and PM Peak LOS**

<b>Intersection</b>	<b>Existing (AM/PM)</b>	<b>No Action (AM/PM)</b>	<b>Alternative 4V (AM/PM)</b>
New Hampshire Avenue and Virginia Avenue (Juarez Circle west) <sup>1</sup>	B/A	A/A	<b>B/B</b>
New Hampshire Avenue and 25 <sup>th</sup> Street (Juarez Circle east) <sup>1</sup>	A/B	A/B	<b>A/B</b>
Rock Creek Parkway and Virginia Avenue <sup>1</sup>	B/B	C/C	<b>B/A</b>
Virginia Avenue and 27 <sup>th</sup> Street <sup>1</sup>	C/A	B/B	<b>C/C</b>
27 <sup>th</sup> Street and I Street <sup>1</sup>	F/C	F/C	<b>NA<sup>4</sup>/NA<sup>4</sup></b>
K Street/Whitehurst Freeway and 27 <sup>th</sup> Street <sup>1</sup>	F/F	F/F	<b>F/F</b>
Ramp 24 (from K Street/Whitehurst Freeway) and Rock Creek Parkway (northbound) <sup>1</sup>	NA <sup>5</sup> /C	NA <sup>5</sup> /C	<b>NA<sup>4</sup>/NA<sup>4</sup></b>
Virginia Avenue and 20 <sup>th</sup> Street <sup>1</sup>	B/B	B/C	<b>B/B</b>
E Street Expressway (eastbound) and 20 <sup>th</sup> Street <sup>1</sup>	E/B	E/B	<b>C/B</b>
E Street Expressway (westbound) and 20 <sup>th</sup> Street <sup>1</sup>	B/B	B/B	<b>B/B</b>
Virginia Avenue and 23 <sup>rd</sup> Street (westbound) <sup>1</sup>	A/B	A/B	<b>A/B</b>
Virginia Avenue and 23 <sup>rd</sup> Street (eastbound) <sup>1</sup>	C/A	C/B	<b>B/A</b>
E Street and 23 <sup>rd</sup> Street <sup>1</sup>	B/A	B/B	<b>B/A</b>
E Street and Virginia Avenue <sup>1</sup>	B/A	B/B	<b>B/B</b>
Ramp RP-17 off E Street Expressway (eastbound) and Virginia Avenue <sup>2</sup>	C/B <sup>2</sup>	E/D <sup>2</sup>	<b>F/E<sup>2</sup> A/A<sup>3</sup></b>
Virginia Avenue and 21 <sup>st</sup> Street <sup>1</sup>	B/A	B/B	<b>A/A</b>
Constitution Avenue and 23 <sup>rd</sup> Street <sup>1</sup>	E/F	F/F	<b>F/F<sup>7</sup></b>
Constitution Avenue and 22 <sup>nd</sup> Street <sup>1</sup>	E/F	F/F	<b>F/F<sup>7</sup></b>
Constitution Avenue and Henry Bacon Drive <sup>1</sup>	E/F	F/F	<b>F/F<sup>7</sup></b>
Potomac Freeway and Ohio Drive <sup>2</sup>	NA/NA	NA/NA	<b>C/A<sup>3</sup></b>
New ramps to and from the Potomac Freeway and Rock Creek Parkway <sup>3</sup>	NA/NA	NA/NA	<b>NA<sup>6</sup>/NA<sup>6</sup></b>
New ramps to and from the Potomac Freeway and 27 <sup>th</sup> Street <sup>3</sup>	NA/NA	NA/NA	<b>C/B</b>
Notes: <sup>1</sup> . Existing signalized intersection. <sup>2</sup> . Existing unsignalized intersection. <sup>3</sup> . Proposed signalized intersection. <sup>4</sup> . Intersection would be eliminated. <sup>5</sup> . Closed during this period. <sup>6</sup> . Free-flowing traffic during this period. <sup>7</sup> . LOS based on corridor study for the segment of Constitution Avenue between Henry Bacon Drive and 23 <sup>rd</sup> Street.			

**Table F-6  
Alternative 4V 2025 Pre-performance LOS**

<b>Intersection</b>	<b>Existing</b>	<b>No Action</b>	<b>Alternative 4V</b>
New Hampshire Avenue and Virginia Avenue (Juarez Circle west) <sup>1</sup>	A	A	<b>A</b>
New Hampshire Avenue and 25 <sup>th</sup> Street (Juarez Circle east) <sup>1</sup>	C	C	<b>C</b>
Rock Creek Parkway and Virginia Avenue <sup>1</sup>	F	F	<b>D</b>
Virginia Avenue and 27 <sup>th</sup> Street <sup>1</sup>	B	B	<b>B</b>
27 <sup>th</sup> Street and I Street <sup>1</sup>	A	D	<b>NA<sup>3</sup></b>
K Street/Whitehurst Freeway and 27 <sup>th</sup> Street <sup>1</sup>	F	F	<b>F</b>
Rock Creek Parkway and F Street <sup>1</sup>	A	A	<b>C</b>
New Hampshire Avenue and F Street <sup>2</sup>	A	A	<b>A</b>
F Street and 25 <sup>th</sup> Street <sup>2</sup>	D	F	<b>E</b>
Ohio Drive and Rock Creek Parkway <sup>2</sup>	F	F	<b>F</b>
Virginia Avenue and 23 <sup>rd</sup> Street (westbound) <sup>1</sup>	B	B	<b>B</b>
Virginia Avenue and 23 <sup>rd</sup> Street (eastbound) <sup>1</sup>	A	A	<b>B</b>
Virginia Avenue and 21 <sup>st</sup> Street <sup>1</sup>	B	B	<b>B</b>
Virginia Avenue and 20 <sup>th</sup> Street <sup>1</sup>	B	B	<b>A</b>
E Street Expressway (eastbound) and 20 <sup>th</sup> Street <sup>1</sup>	B	B	<b>B</b>
E Street Expressway (westbound) and 20 <sup>th</sup> Street <sup>1</sup>	B	B	<b>B</b>
Ohio Drive and Potomac Freeway <sup>2</sup>	F	F	<b>A<sup>4</sup></b>
E Street and 23 <sup>rd</sup> Street <sup>1</sup>	A	A	<b>A</b>
E Street and Virginia Avenue <sup>1</sup>	A	B	<b>A</b>
Virginia Avenue and Ramp from E Street Expressway eastbound (Ramp RP-17) <sup>2</sup>	B	B	<b>B<sup>4</sup></b>
Constitution Avenue and 23 <sup>rd</sup> Street <sup>1</sup>	F	F	<b>F</b>
Constitution Avenue and 22 <sup>nd</sup> Street <sup>1</sup>	F	F	<b>F</b>
Constitution Avenue and Henry Bacon Drive <sup>1</sup>	F	F	<b>F</b>
Notes: <sup>1</sup> . Existing signalized intersection. <sup>2</sup> . Existing unsignalized intersection. <sup>3</sup> . Intersection would be eliminated. <sup>4</sup> . Proposed signalized intersection.			