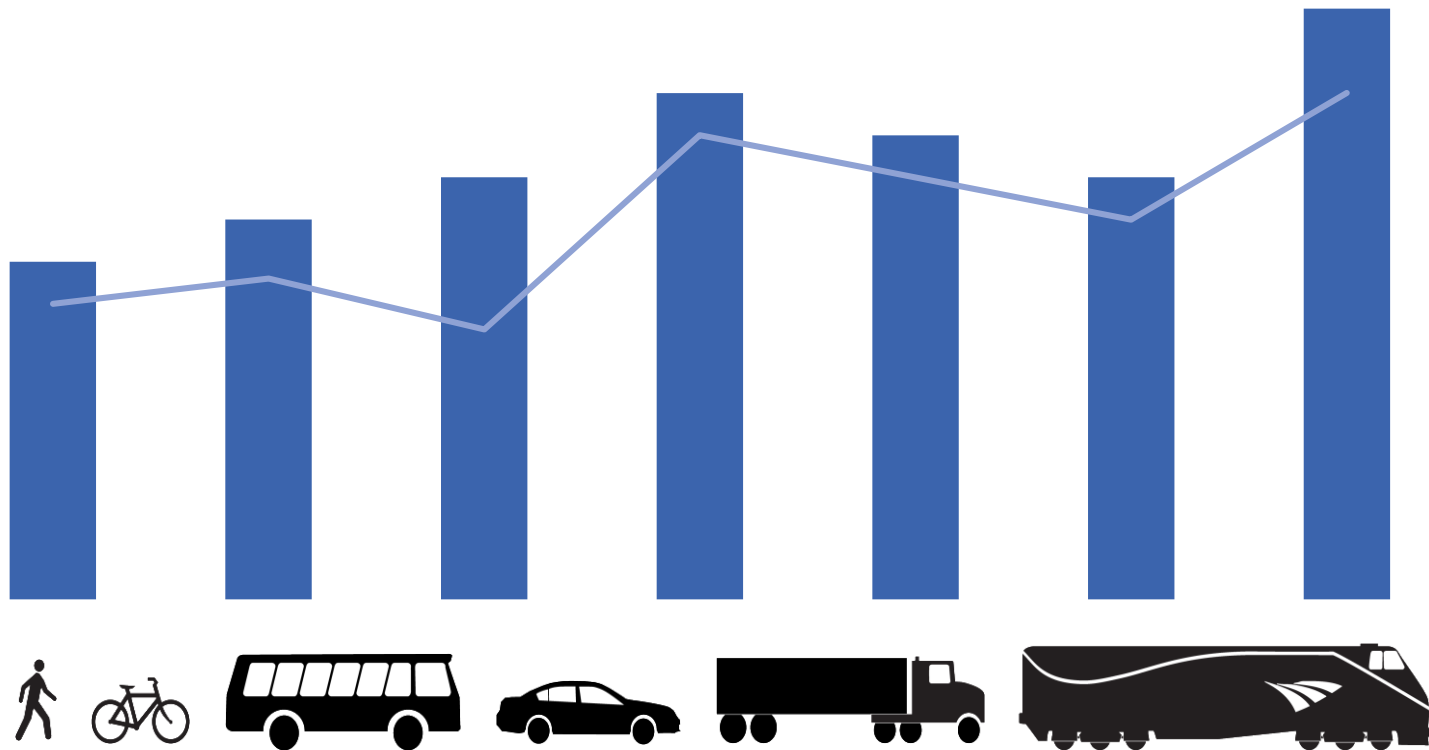


# Transportation Performance Measures

Progress Report • 2018



RRTPO Board – 10/4/2018

Presentation by:

Phil Riggan, Transportation Planner



# Purpose

1. Meet state requirements tied to receiving state match for RSTP



# State Requirements

## *Established in:*

- HB 2019, Chapter 670 of the 2009 Acts of General Assembly
- HB 30, Chapter 874 of the 2010 Acts of General Assembly  
(see VA Code §2.2-229, §33.2-353)



# Purpose

1. Meet state requirements tied to receiving state match for RSTP
2. Highlight RRTPO work program consistency with FHWA's "Performance-Based Planning and Programming" approach



# The PBPP Approach

**Performance-based planning and programming** includes using transportation performance measures, setting targets, reporting performance, and programming transportation investments directed toward the achievement of transportation system performance outcomes. (FHWA)



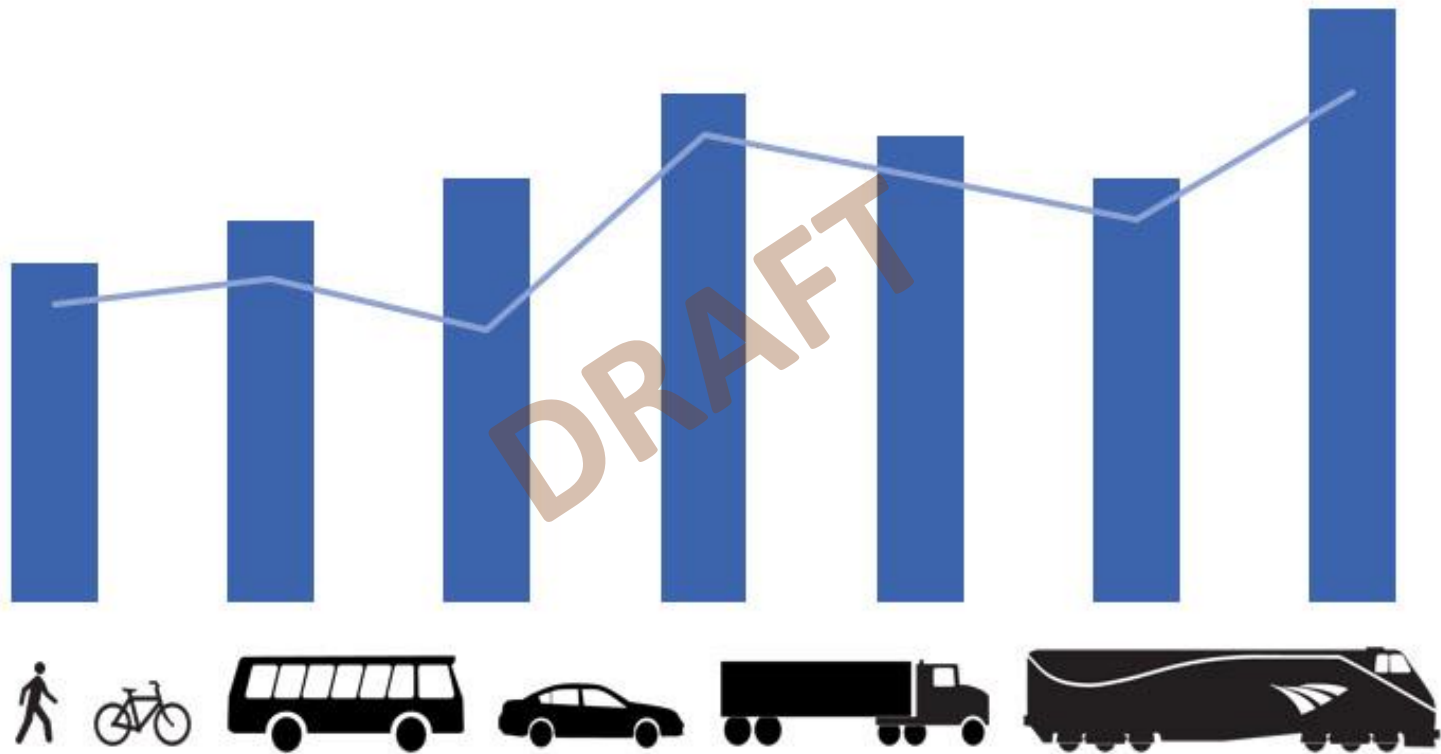
# Purpose

1. Meet state requirements tied to receiving state match for RSTP
2. Highlight RRTPO work program consistency with FHWA's "Performance-Based Planning and Programming" approach
3. Set foundation for compliance with new federal performance targets and reporting requirements



# Transportation Performance Measures

Progress Report • 2018



## goals & objectives



### Access to Employment

Provide for transportation system connections to areas of employment density and key activity centers, with an emphasis on connecting to areas of high poverty rates.



### Freight Mobility

Enhance freight corridors and intermodal connections to facilitate goods movement into, within and out of the region.



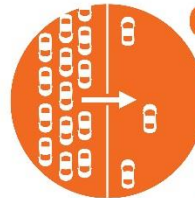
### Safety & Security

Provide for transportation improvements that increase safety and security for system users.



### System Reliability

Implement technologies and programs to improve travel times and support the ease of travel throughout the region.



### Congestion Mitigation

Support transportation system improvements that address existing and expected future traffic congestion.



### Environment & Air Quality

Provide for project alternatives that protect and enhance the region's natural resources.



### Multimodal Connectivity

Improve accessibility and interconnectivity of various transportation modes for all system users.



### Preservation & Maintenance

Ensure that existing transportation infrastructure and facilities achieve a constant state of good repair.



### Transportation & Land Use Integration

Support transportation investments that meet the needs of existing and future land use and development patterns.



Goals	Measure	2010	2011	2012	2013	2014	2015	2016	2017	Desired Trend	1-year Trend	5-year Trend	
<b>Congestion Mitigation &amp; System Reliability</b>	*Delay per peak period commuter <sup>1</sup> , annual hours	33	33	33	34	34	n.a.	n.a.	n.a.	👉	—	👉	
	Fuel Loss per peak period commuter <sup>2</sup> , gallons	13	13	14	14	14	n.a.	n.a.	n.a.	👉	—	👉	
	*Peak period travel time index <sup>3</sup>	1.12	1.12	1.12	1.13	1.13	n.a.	n.a.	n.a.	👉	—	👉	
<b>Transportation and Land Use Integration</b>	Congestion costs <sup>4</sup> , annual per peak period commuter	\$754	\$733	\$727	\$736	\$729	n.a.	n.a.	n.a.	👉	—	👉	
	*Daily VMT <sup>5</sup> , per capita	32.5	32.3	32.1	31.9	33.6	34.0	29.6	n.a. <sup>2</sup>	n.a.	—	👉	
	*Jobs/Housing Ratio <sup>6</sup>	n.a.	n.a.	1.28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
	*Jobs/Housing Dissimilarity Index <sup>7</sup>	0.060	0.061	0.056	0.049	0.047	0.067	n.a.	n.a.	n.a.	<.5	👍	👍
	% Workers working in jurisdiction in which they live <sup>8</sup>	48.8%	49.1%	48.9%	48.6%	48.2%	48.3%	48.0%	n.a. <sup>2</sup>	👉	—	👉	
	Travel Time to Work <sup>9</sup>	23.6	23.6	23.9	24.0	24.1	24.2	24.5	n.a. <sup>2</sup>	👉	—	👉	
<b>Environmental and Air Quality</b>	Population Density <sup>10</sup> , persons per square mile	n.a.	n.a.	475	n.a.	n.a.	n.a.	n.a.	n.a.	👉	—	—	
	*Ozone Exceedances, <sup>11</sup>												
	with 2008 EPA Ozone Standard (.075ppm)	10	11	11	1	1	1	2	1	👉	👍	👉	
	with 2015 EPA Ozone Standard (.070ppm)	25	22	15	1	2	3	4	1	👉	👍	👉	
	Multi-Pollutant Air Quality Index Exceedances <sup>12</sup>												
with 2008 EPA Ozone Standard (.075ppm)	10	11	11	1	1	1	2	1	👉	👍	👉		
with 2015 EPA Ozone Standard (.070ppm)	25	22	15	1	2	3	4	1	👉	👍	👉		
<b>Freight Mobility</b>	Commodity Flow, Freight Mode Share <sup>13</sup> , by tons												
	Truck	n.a.	n.a.	67%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
	Rail	n.a.	n.a.	30%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
	Commodity Flow, Freight Mode Share <sup>13</sup> , by dollar value												
	Truck	n.a.	n.a.	82%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
	Rail	n.a.	n.a.	5%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
	*Richmond Marine Terminal Containers, Outbound <sup>14</sup>	n.a.	n.a.	3,241	4,775	7,415	8,309	11,423	13,024	👉	👉	👉	
	*Richmond Marine Terminal Containers, Inbound <sup>14</sup>	n.a.	n.a.	3,205	4,821	6,699	8,038	11,077	14,602	👉	👉	👉	
RIC Total Cargo, Outbound/Enplaned, tons <sup>15</sup>	n.a.	18,545	21,857	27,108	29,915	30,167	30,380	29,577	👉	👉	👉		
RIC Total Cargo, Inbound/Deplaned, tons <sup>15</sup>	n.a.	28,062	30,863	31,756	28,369	29,281	36,863	38,081	👉	👉	👉		
<b>Multimodal Connectivity &amp; Access to Employment</b>	Park and Ride Lots / Spaces <sup>16</sup> , number	11 / 1,760	11 / 1,760	11 / 1,760	12 / 1,987	12 / 1,987	12 / 1,987	12 / 1,987	16 / 2,175	👉	👉	👉	
	RideFinders Vanpools <sup>17</sup> , number	n.a.	117	120	137	138	145	143	143	👉	👉	👉	
	Transit Trips <sup>18</sup> , per capita	31.6	28.5	22.3	19.5	20.6	20.3	20.9	n.a. <sup>2</sup>	👉	👉	👉	
	Transit Operating Expense per passenger trip <sup>19</sup>	\$3.45	\$3.62	\$4.82	\$5.42	\$5.06	\$4.97	\$4.90	n.a. <sup>2</sup>	👉	👍	👉	
	Transit Passenger Miles <sup>20</sup> , per capita	158.7	139.1	152.0	140.7	145.2	143.2	142.9	n.a. <sup>2</sup>	👉	👍	👉	
	Transit Operating Expense per passenger mile <sup>21</sup>	\$0.69	\$0.74	\$0.71	\$0.75	\$0.72	\$0.70	\$0.72	n.a. <sup>2</sup>	👉	👉	👉	
	Transit Revenue Miles <sup>22</sup> , number	11,310,381	11,319,872	11,486,456	11,418,456	11,712,133	11,877,541	11,908,963	n.a. <sup>2</sup>	👉	👉	👉	
	Transit Revenue Miles <sup>23</sup> , per capita	25.2	25.2	25.5	25.4	26.1	26.4	26.5	n.a. <sup>2</sup>	👉	👉	👉	
	Transit Operating Expense, per revenue mile <sup>24</sup>	\$4.32	\$4.10	\$4.20	\$4.17	\$4.01	\$3.82	\$3.87	n.a. <sup>2</sup>	👉	👍	👉	
	*Regional Households served by Transit <sup>25</sup> , percent	n.a.	n.a.	42.83%	n.a.	n.a.	n.a.	n.a.	n.a.	👉	—	—	
	*Regional Employment served by Transit <sup>25</sup> , percent	n.a.	n.a.	53.47%	n.a.	n.a.	n.a.	n.a.	n.a.	👉	—	—	
	*Bicycle to Work <sup>26</sup> , percent	0.46%	0.47%	0.51%	0.50%	0.52%	0.48%	0.49%	n.a. <sup>2</sup>	👉	👉	👉	
	*Drove Alone to Work <sup>27</sup> , percent	81.49%	81.51%	81.24%	81.66%	81.59%	81.38%	81.46%	n.a. <sup>2</sup>	👉	👍	👉	

Goals	Measure	2010	2011	2012	2013	2014	2015	2016	2017	Desired Trend	1-year Trend	5-year Trend
<b>Congestion Mitigation &amp; System Reliability</b>	*Delay per peak period commuter <sup>1</sup> , annual hours	33	33	33	34	34	n.a.	n.a.	n.a.	👉	—	👉
	Fuel Loss per peak period commuter <sup>2</sup> , gallons	13	13	14	14	14	n.a.	n.a.	n.a.	👉	—	👉
	*Peak period travel time index <sup>3</sup>	1.12	1.12	1.12	1.13	1.13	n.a.	n.a.	n.a.	👉	—	👉
	Congestion costs <sup>4</sup> , annual per peak period commuter	\$754	\$733	\$727	\$736	\$729	n.a.	n.a.	n.a.	👉	—	👉
<b>Transportation and Land Use Integration</b>	*Daily VMT <sup>5</sup> , per capita	32.5	32.3	32.1	31.9	33.6	34.0	29.6	n.a. <sup>6</sup>	n.a.	—	👉
	*Jobs/Housing Ratio <sup>6</sup>	n.a.	n.a.	1.28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	—
	*Jobs/Housing Dissimilarity Index <sup>7</sup>	0.060	0.061	0.056	0.049	0.047	0.067	n.a.	n.a.	<.5	✅	✅
	% Workers working in jurisdiction in which they live <sup>8</sup>	48.8%	49.1%	48.9%	48.6%	48.2%	48.3%	48.0%	n.a. <sup>9</sup>	👉	—	👉
	Travel Time to Work <sup>9</sup>	23.6	23.6	23.9	24.0	24.1	24.2	24.5	n.a. <sup>9</sup>	👉	—	👉
<b>Commodity Flow, Freight Mode Share<sup>13</sup>, by tons</b>												
<b>Freight Mobility</b>	Truck						n.a.	n.a.	—	—	—	—
	Rail						n.a.	n.a.	—	—	—	—
	<b>Commodity Flow, Freight Mode Share<sup>13</sup>, by dollar value</b>											
	Truck						n.a.	n.a.	—	—	—	—
	Rail						n.a.	n.a.	—	—	—	—
	*Richmond Marine Terminal Containers, Outbound <sup>14</sup>						13,024		👉	👉	👉	👉
*Richmond Marine Terminal Containers, Inbound <sup>14</sup>						14,602		👉	👉	👉	👉	
RIC Total Cargo, Outbound/Enplaned, tons <sup>15</sup>						29,577		👉	👉	👉	👉	
RIC Total Cargo, Inbound/Deplaned, tons <sup>15</sup>						38,081		👉	👉	👉	👉	
<b>Connectivity &amp; Access to Employment</b>												
<b>Connectivity &amp; Access to Employment</b>	Transit passenger miles <sup>16</sup> , per capita	2307	2302	2320	2167	2152	2152	2165	n.a.	👉	👉	👉
	Transit Operating Expense per passenger mile <sup>21</sup>	\$0.69	\$0.74	\$0.71	\$0.75	\$0.72	\$0.70	\$0.72	n.a. <sup>22</sup>	👉	👉	👉
	Transit Revenue Miles <sup>22</sup> , number	11,310,381	11,319,872	11,486,456	11,418,456	11,712,133	11,877,541	11,908,963	n.a. <sup>23</sup>	👉	👉	👉
	Transit Revenue Miles <sup>23</sup> , per capita	25.2	25.2	25.5	25.4	26.1	26.4	26.5	n.a. <sup>24</sup>	👉	👉	👉
	Transit Operating Expense, per revenue mile <sup>24</sup>	\$4.32	\$4.10	\$4.20	\$4.17	\$4.01	\$3.82	\$3.87	n.a. <sup>25</sup>	👉	👉	👉
	*Regional Households served by Transit <sup>25</sup> , percent	n.a.	n.a.	42.83%	n.a.	n.a.	n.a.	n.a.	n.a.	👉	—	—
	*Regional Employment served by Transit <sup>25</sup> , percent	n.a.	n.a.	53.47%	n.a.	n.a.	n.a.	n.a.	n.a.	👉	—	—
	*Bicycle to Work <sup>26</sup> , percent	0.46%	0.47%	0.51%	0.50%	0.52%	0.48%	0.49%	n.a. <sup>27</sup>	👉	👉	👉
	*Drove Alone to Work <sup>27</sup> , percent	81.49%	81.51%	81.24%	81.66%	81.59%	81.38%	81.46%	n.a. <sup>28</sup>	👉	👉	👉

<b>Multimodal Connectivity &amp; Access to Employment</b>	*Pedestrian to Work <sup>28</sup> , percent	1.57%	1.65%	1.47%	1.56%	1.65%	1.65%	1.77%	n.a. <sup>‡</sup>	👉	👉	👉
	*Passenger Rail Ridership <sup>29</sup> , number	313,026	375,226	404,700	439,525	427,426	435,199	426,966	451,078	👉	👉	👉
	Commercial Air Boardings <sup>30</sup>	1,651,131	1,571,155	1,582,565	1,597,913	1,671,096	1,740,380	1,775,573	1,822,483	👉	👉	👉
	Commercial Air Available Seat-Miles <sup>31</sup> Inbound, thousands	1,072,879	1,066,139	1,014,951	1,035,901	1,038,566	1,062,431	1,086,048	1,152,279	👉	👉	👉
	Commercial Air Available Seat-Miles <sup>31</sup> Outbound, thousands	1,043,167	1,045,854	1,007,221	1,026,515	1,025,401	1,042,401	1,065,520	1,127,483	👉	👉	👉
	*Commercial Air Non-Stop Destinations <sup>32</sup>	n.a.	n.a.	n.a.	n.a.	16	17	17	17	👉	👉	—
<b>Safety and Security</b>	*Highway Crashes, number <sup>33</sup>	17,423	18,460	18,359	18,453	18,234	19,752	20,550	20,329	👉	👉	👉
	Highway Crash Rate, per 100 million VMT <sup>34</sup>	157	167	167	169	163	168	173	n.a. <sup>‡</sup>	👉	👉	👉
	*Highway Fatalities, number <sup>33</sup>	85	90	70	83	76	92	78	102	👉	👉	👉
	Highway Fatality Rate, per 100 million VMT <sup>34</sup>	0.77	0.83	0.69	0.83	0.73	0.78	0.66	n.a. <sup>‡</sup>	👉	👉	👉
	Transit Crashes, number <sup>35</sup>	35	35	41	32	27	20	18	14	👉	👉	👉
	Transit Crash Rate, per 100 million PMT <sup>36</sup>	80.8	101.8	108.8	101.8	88.12	67.2	53.65	41.58	👉	👉	👉
	Transit Fatalities, number <sup>35</sup>	0	0	0	0	0	0	0	0	👉	👉	👉
	Transit Fatality Rate, per 100 million PMT <sup>36</sup>	-	-	-	-	-	-	-	-	👉	👉	👉
	Bicycle and Pedestrian Crashes, number <sup>37</sup>	344	441	425	386	382	338	367	386	👉	👉	👉
	Bicycle and Pedestrian Fatalities, number <sup>37</sup>	9	15	14	12	13	11	14	29	👉	👉	👉
<b>Preservation and Maintenance</b>	*Interstate Pavement Condition, % rated fair or better <sup>38</sup>	n.a.	n.a.	71.7%	75.1%	75.7%	76.7%	79.4%	83.3%	👉	👉	👉
	*Primary Pavement Condition, % rated fair or better <sup>38</sup>	n.a.	n.a.	74.6%	79.4%	74.4%	72.5%	78.5%	83.1%	👉	👉	👉
	Interstate Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	345	341	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11	9	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.19%	2.64%	👉	👉	—
	Primary Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	474	469	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24	20	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.06%	4.26%	👉	👉	—
	Secondary Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	492	484	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	27	27	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.49%	5.58%	👉	👉	—
	Urban Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	132	126	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17	15	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.88%	11.90%	👉	👉	—
	Unclassified Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	2	👉	👉	—
Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	👉	👉	—	
Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0%	0%	👉	👉	—	
Entire Road System <sup>39</sup>												
Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,447	1,422	👉	👉	—	
Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	79	71	👉	👉	—	
Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.46%	4.99%	👉	👉	—	
	Average Age of GRTC Bus Fleet, years <sup>40</sup>	7.3	7.8	8.8	8.1	6.2	7.2	7.6	n.a.	👉	👉	👉

<b>Multimodal Connectivity &amp; Access to Employment</b>	*Pedestrian to Work <sup>28</sup> , percent	1.57%	1.65%	1.47%	1.56%	1.65%	1.65%	1.77%	n.a. <sup>#</sup>	👉	👉	👉
	*Passenger Rail Ridership <sup>29</sup> , number	313,026	375,226	404,700	439,525	427,426	435,199	426,966	451,078	👉	👉	👉
	Commercial Air Boardings <sup>30</sup>	1,651,131	1,571,155	1,582,565	1,597,913	1,671,096	1,740,380	1,775,573	1,822,483	👉	👉	👉
	Commercial Air Available Seat-Miles <sup>31</sup> Inbound, thousands	1,072,879	1,066,139	1,014,951	1,035,901	1,038,566	1,062,431	1,086,048	1,152,279	👉	👉	👉
	Commercial Air Available Seat-Miles <sup>31</sup> Outbound, thousands	1,043,167	1,045,854	1,007,221	1,026,515	1,025,401	1,042,401	1,065,520	1,127,483	👉	👉	👉
	*Commercial Air Non-Stop Destinations <sup>32</sup>	n.a.	n.a.	n.a.	n.a.	16	17	17	17	👉	👉	—

*Highway Crashes, number <sup>33</sup>	17,423	18,460	18,359	18,453	18,234	19,752	20,550	20,329	👉	👉	👉
Highway Crash Rate, per 100 million VMT <sup>34</sup>	157	167	167	169	163	168	173	n.a. <sup>#</sup>	👉	👉	👉
*Highway Fatalities, number <sup>33</sup>	85	90	70	83	76	92	78	102	👉	👉	👉
Highway Fatality Rate, per 100 million VMT <sup>34</sup>	0.77	0.83	0.69	0.83	0.73	0.78	0.66	n.a. <sup>#</sup>	👉	👉	👉

<b>Multimodal Connectivity &amp; Access to Employment</b>	*Pedestrian to Work <sup>28</sup> , percent							n.a. <sup>#</sup>	👉	👉	👉
	*Passenger Rail Ridership <sup>29</sup> , number							451,078	👉	👉	👉
	Commercial Air Boardings <sup>30</sup>							1,822,483	👉	👉	👉
	Commercial Air Available Seat-Miles <sup>31</sup> Inbound, thousands							1,152,279	👉	👉	👉
	Commercial Air Available Seat-Miles <sup>31</sup> Outbound, thousands							1,127,483	👉	👉	👉
	*Commercial Air Non-Stop Destinations <sup>32</sup>							17	👉	👉	—

<b>Preservation and Maintenance</b>	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24	20	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.06%	4.26%	👉	👉	—
	Secondary Roads Bridge Sufficiency Rating <sup>39</sup>									👉	👉	—
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	492	484	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	27	27	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.49%	5.58%	👉	👉	—
	Urban Roads Bridge Sufficiency Rating <sup>39</sup>									👉	👉	—
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	132	126	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17	15	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.88%	11.90%	👉	👉	—
	Unclassified Roads Bridge Sufficiency Rating <sup>39</sup>									👉	👉	—
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	2	👉	👉	—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	👉	👉	—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0%	0%	👉	👉	—
	Entire Road System <sup>39</sup>									👉	👉	—
Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,447	1,422	👉	👉	—	
Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	79	71	👉	👉	—	
Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.46%	4.99%	👉	👉	—	
Average Age of GRTC Bus Fleet, years <sup>40</sup>	7.3	7.8	8.8	8.1	6.2	7.2	7.6	n.a.	👉	👉	👉	

<b>Multimodal Connectivity &amp; Access to Employment</b>	*Pedestrian to Work <sup>28</sup> , percent	1.57%	1.65%	1.47%	1.56%	1.65%	1.65%	1.77%	n.a. <sup>f</sup>			
	*Passenger Rail Ridership <sup>29</sup> , number	313,026	375,226	404,700	439,525	427,426	435,199	426,966	451,078			
	Commercial Air Boardings <sup>30</sup>	1,651,131	1,571,155	1,582,565	1,597,913	1,671,096	1,740,380	1,775,573	1,822,483			
	Commercial Air Available Seat-Miles <sup>31</sup> Inbound, thousands	1,072,879	1,066,139	1,014,951	1,035,901	1,038,566	1,062,431	1,086,048	1,152,279			
	Commercial Air Available Seat-Miles <sup>31</sup> Outbound, thousands	1,043,167	1,045,854	1,007,221	1,026,515	1,025,401	1,042,401	1,065,520	1,127,483			
	*Commercial Air Non-Stop Destinations <sup>32</sup>	n.a.	n.a.	n.a.	n.a.	16	17	17	17			—
<b>Safety and Security</b>	*Highway Crashes, number <sup>33</sup>	17,423	18,460	18,359	18,453	18,234	19,752	20,550	20,329			
	Highway Crash Rate, per 100 million VMT <sup>34</sup>	157	167	167	169	163	168	173	n.a. <sup>f</sup>			
	*Highway Fatalities, number <sup>33</sup>	85	90	70	83	76	92	78	102			
	Highway Fatality Rate, per 100 million VMT <sup>34</sup>	0.77	0.83	0.69	0.83	0.73	0.78	0.66	n.a. <sup>f</sup>			
	Transit Crashes, number <sup>35</sup>	35	35	41	32	27	20	18	14			
	Transit Crash Rate, per 100 million PMT <sup>36</sup>	80.8	101.8	108.8	101.8	88.12	67.2	53.65	41.58			
	Transit Fatalities, number <sup>35</sup>	0	0	0	0	0	0	0	0			
	Transit Fatality Rate, per 100 million PMT <sup>36</sup>	-	-	-	-	-	-	-	-			
	Bicycle and Pedestrian Crashes, number <sup>37</sup>	344	441	425	386	382	338	367	386			
Bicycle and Pedestrian Fatalities, number <sup>37</sup>	9	15	14	12	13	11	14	29				
<b>Preservation and Maintenance</b>	*Interstate Pavement Condition, % rated fair or better <sup>38</sup>	n.a.	n.a.	71.7%	75.1%	75.7%	76.7%	79.4%	83.3%			
	*Primary Pavement Condition, % rated fair or better <sup>38</sup>	n.a.	n.a.	74.6%	79.4%	74.4%	72.5%	78.5%	83.1%			
	Interstate Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	345	341			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11	9			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.19%	2.64%			—
	Primary Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	474	469			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24	20			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.06%	4.26%			—
	Secondary Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	492	484			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	27	27			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.49%	5.58%			—
	Urban Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	132	126			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17	15			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.88%	11.90%			—
	Unclassified Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	2			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0%	0%			—
	Entire Road System <sup>39</sup>											
Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,447	1,422			—	
Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	79	71			—	
Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.46%	4.99%			—	
Average Age of GRTC Bus Fleet, years <sup>40</sup>	7.3	7.8	8.8	8.1	6.2	7.2	7.6	n.a.				

<b>Multimodal Connectivity &amp; Access to Employment</b>	*Pedestrian to Work <sup>28</sup> , percent	1.57%	1.65%	1.47%	1.56%	1.65%	1.65%	1.77%	n.a. <sup>f</sup>	↔	↔	↔
	*Passenger Rail Ridership <sup>29</sup> , number	313,026	375,226	404,700	439,525	427,426	435,199	426,966	451,078	↔	↔	↔
	Commercial Air Boardings <sup>30</sup>	1,651,131	1,571,155	1,582,565	1,597,913	1,671,096	1,740,380	1,775,573	1,822,483	↔	↔	↔
	Commercial Air Available Seat-Miles <sup>31</sup> Inbound, thousands	1,072,879	1,066,139	1,014,951	1,035,901	1,038,566	1,062,431	1,086,048	1,152,279	↔	↔	↔
	Commercial Air Available Seat-Miles <sup>31</sup> Outbound, thousands	1,043,167	1,045,854	1,007,221	1,026,515	1,025,401	1,042,401	1,065,520	1,127,483	↔	↔	↔
	*Commercial Air Non-Stop Destinations <sup>32</sup>	n.a.	n.a.	n.a.	n.a.	16	17	17	17	↔	↔	—

	*Highway Crashes, number <sup>33</sup>	17,423	18,460	18,359	18,453	18,234	19,752	20,550	20,329	↔	↔	↔
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<b>Safety and Security</b>	*Highway Crashes, number <sup>33</sup>							20,329	↔	↔	↔
	Highway Crash Rate, per 100 million VMT <sup>34</sup>							n.a. <sup>f</sup>	↔	↔	↔
	*Highway Fatalities, number <sup>33</sup>							102	↔	↔	↔
	Highway Fatality Rate, per 100 million VMT <sup>34</sup>							n.a. <sup>f</sup>	↔	↔	↔
	Transit Crashes, number <sup>35</sup>							14	↔	↔	↔
	Transit Crash Rate, per 100 million PMT <sup>36</sup>							41.58	↔	↔	↔
	Transit Fatalities, number <sup>35</sup>							0	↔	↔	↔
	Transit Fatality Rate, per 100 million PMT <sup>36</sup>							-	↔	↔	↔
	Bicycle and Pedestrian Crashes, number <sup>37</sup>							386	↔	↔	↔
	Bicycle and Pedestrian Fatalities, number <sup>37</sup>							29	↔	↔	↔

	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.88%	11.90%	↔	↔
	Unclassified Roads Bridge Sufficiency Rating <sup>39</sup>									↔	↔
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	2	↔	↔
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	↔	↔
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0%	0%	↔	↔
	Entire Road System <sup>39</sup>									↔	↔
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,447	1,422	↔	↔
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	79	71	↔	↔
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.46%	4.99%	↔	↔
	Average Age of GRTC Bus Fleet, years <sup>40</sup>	7.3	7.8	8.8	8.1	6.2	7.2	7.6	n.a.	↔	↔

<b>Multimodal Connectivity &amp; Access to Employment</b>	*Pedestrian to Work <sup>28</sup> , percent	1.57%	1.65%	1.47%	1.56%	1.65%	1.65%	1.77%	n.a. <sup>†</sup>			
	*Passenger Rail Ridership <sup>29</sup> , number	313,026	375,226	404,700	439,525	427,426	435,199	426,966	451,078			
	Commercial Air Boardings <sup>30</sup>	1,651,131	1,571,155	1,582,565	1,597,913	1,671,096	1,740,380	1,775,573	1,822,483			
	Commercial Air Available Seat-Miles <sup>31</sup> Inbound, thousands	1,072,879	1,066,139	1,014,951	1,035,901	1,038,566	1,062,431	1,086,048	1,152,279			
	Commercial Air Available Seat-Miles <sup>31</sup> Outbound, thousands	1,043,167	1,045,854	1,007,221	1,026,515	1,025,401	1,042,401	1,065,520	1,127,483			
	*Commercial Air Non-Stop Destinations <sup>32</sup>	n.a.	n.a.	n.a.	n.a.	16	17	17	17			—
<b>Safety and Security</b>	*Highway Crashes, number <sup>33</sup>	17,423	18,460	18,359	18,453	18,234	19,752	20,550	20,329			
	Highway Crash Rate, per 100 million VMT <sup>34</sup>	157	167	167	169	163	168	173	n.a. <sup>†</sup>			
	*Highway Fatalities, number <sup>33</sup>	85	90	70	83	76	92	78	102			
	Highway Fatality Rate, per 100 million VMT <sup>34</sup>	0.77	0.83	0.69	0.83	0.73	0.78	0.66	n.a. <sup>†</sup>			
	Transit Crashes, number <sup>35</sup>	35	35	41	32	27	20	18	14			
	Transit Crash Rate, per 100 million PMT <sup>36</sup>	80.8	101.8	108.8	101.8	88.12	67.2	53.65	41.58			
	Transit Fatalities, number <sup>35</sup>	0	0	0	0	0	0	0	0			
	Transit Fatality Rate, per 100 million PMT <sup>36</sup>	-	-	-	-	-	-	-	-			
	Bicycle and Pedestrian Crashes, number <sup>37</sup>	344	441	425	386	382	338	367	386			
	Bicycle and Pedestrian Fatalities, number <sup>37</sup>	9	15	14	12	13	11	14	29			
	*Interstate Pavement Condition, % rated fair or better <sup>38</sup>	n.a.	n.a.	71.7%	75.1%	75.7%	76.7%	79.4%	83.3%			
<b>Preservation and Maintenance</b>	Interstate Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	345	341			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11	9			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.19%	2.64%			—
	Primary Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	474	469			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24	20			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.06%	4.26%			—
	Secondary Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	492	484			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	27	27			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.49%	5.58%			—
	Urban Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	132	126			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17	15			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.88%	11.90%			—
	Unclassified Roads Bridge Sufficiency Rating <sup>39</sup>											
	Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	2			—
	Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0			—
	Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0%	0%			—
Entire Road System <sup>39</sup>												
Total Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,447	1,422			—	
Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	79	71			—	
Percentage of Structurally Deficient Bridges	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.46%	4.99%			—	
	Average Age of GRTC bus fleet, years	7.3	7.8	8.8	8.1	6.2	7.2	7.6	n.a.			

Multimodal Connectivity & Access to Employment	*Interstate Pavement Condition, % rated fair or better <sup>38</sup>	79.4%	83.3%	↔	↔	↔	↔	↔
	*Primary Pavement Condition, % rated fair or better <sup>38</sup>	78.5%	83.1%	↔	↔	↔	↔	↔
	Interstate Bridge Sufficiency Rating <sup>39</sup>							
Safety and Security	Total Bridges	345	341	↔	↔	—	↔	↔
	Structurally Deficient Bridges	11	9	↔	↔	—	↔	↔
	Percentage of Structurally Deficient Bridges	3.19%	2.64%	↔	↔	—	↔	↔
	Primary Roads Bridge Sufficiency Rating <sup>39</sup>							
	Total Bridges	474	469	↔	↔	—	↔	↔
	Structurally Deficient Bridges	24	20	↔	↔	—	↔	↔
	Percentage of Structurally Deficient Bridges	5.06%	4.26%	↔	↔	—	↔	↔
	Secondary Roads Bridge Sufficiency Rating <sup>39</sup>							
	Total Bridges	492	484	↔	↔	—	↔	↔
Preservation and Maintenance	Structurally Deficient Bridges	27	27	↔	↔	—	↔	↔
	Percentage of Structurally Deficient Bridges	5.49%	5.58%	↔	↔	—	↔	↔
	Urban Roads Bridge Sufficiency Rating <sup>39</sup>							
	Total Bridges	132	126	↔	↔	—	↔	↔
	Structurally Deficient Bridges	17	15	↔	↔	—	↔	↔
	Percentage of Structurally Deficient Bridges	12.88%	11.90%	↔	↔	—	↔	↔
	Unclassified Roads Bridge Sufficiency Rating <sup>39</sup>							
	Total Bridges	4	2	↔	↔	—	↔	↔
	Structurally Deficient Bridges	0	0	↔	↔	—	↔	↔
Percentage of Structurally Deficient Bridges	0%	0%	↔	↔	—	↔	↔	
Preservation and Maintenance	Entire Road System <sup>39</sup>							
	Total Bridges	1,447	1,422	↔	↔	—	↔	↔
	Structurally Deficient Bridges	79	71	↔	↔	—	↔	↔
	Percentage of Structurally Deficient Bridges	5.46%	4.99%	↔	↔	—	↔	↔
	Average Age of GRTC Bus Fleet, years <sup>40</sup>	7.6	n.a.	↔	↔	↔	↔	↔



# Next Steps

- Oct. 4 - Final draft report presented to RRTPO
- Oct. 9 – Final draft report presented to TAC for recommendation to RRTPO approval of UPWP work task complete
- Oct. 31 – Publish report on RRPDC website
- Dec. 6 – Consent agenda for RRTPO action to approve UPWP work task complete



# Transportation Performance Measures

Progress Report • 2018



Phil Riggan

[priggan@richmondregional.org](mailto:priggan@richmondregional.org)

(804) 323-2033

