

**Greater Cleveland  
Regional Transit Authority**

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**Fiscal Year 2021  
Service Management Plan**

**November 12, 2020**

**Operations Division  
Service Management Department**

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## **Section 1: Introduction**

The FY 2021 Service Management Plan (SMP) is a companion document to the recommended 2021 Operating and Capital Budget. As required by policy, the SMP reports the current performance of all RTA bus routes in the first half of 2020 and outlines plans for service levels and service changes anticipated in 2021.

This year's SMP is unusual because the COVID-19 pandemic had substantial effects on 2020 route performance and 2021 service plans.

## **Section 2: System Redesign Study and Response to COVID-19**

RTA service was reduced to 85 percent of the pre-COVID level as of April 12, 2020. Since then, service has been restored to 93 percent of the pre-COVID level. The timing of further service restoration will be influenced by COVID-19 developments, and the recommended 2021 budget is sufficient to support 100 percent of the pre-COVID service level. The aggregate **quantity** of service will be guided by the budget, but the **mix** of service will be guided by the System Redesign: NEXT GEN RTA.

In addition to implementing NEXT GEN RTA, the staff will also continue to make routine service adjustments as needed. For example:

1. Service resources will be reallocated to offset detours and delays due to road and bridge construction projects.
2. Temporary service will be operated to support rail construction projects and major special events.
3. Efforts to improve systemwide service reliability will continue.

### **Section 3: Bus Route Performance Summary**

Each year, the Service Management Plan includes an analysis of bus route productivity. RTA uses five indicators to measure route productivity:

- Boardings per revenue vehicle hour
- Boardings per revenue vehicle trip
- Boardings per revenue vehicle mile
- Boardings per total vehicle hour
- Boardings per total vehicle mile

The most important indicator is boardings per vehicle hour. This is an approximation of a route's benefit-cost ratio because labor costs accrue hourly and represent RTA's largest service cost. Ranking routes based on boardings per *revenue* vehicle hour ensures that routes with higher non-revenue hours due to distance from the garage or high volume of passengers in only a single direction are not penalized.

To provide fair comparisons of route performance, bus routes are compared with other routes in the same category of service. The categories are:

- Radial – regular routes operating to and from downtown.
- Crosstown/Feeder – routes that do not travel downtown, but typically connect with radial bus routes or rapid transit.
- Park-N-Ride – service operating on freeways between park-n-ride lots and downtown during rush hours.
- Downtown Trolley – local service traveling entirely within the downtown area.

As required by policy, the service statistics recorded between January 1 and June 30, 2020, were used to analyze current bus route performance. During most of this period, all routes experienced reduced ridership due to the COVID-19 pandemic.

## **Section 4: Bus Routes in the Bottom Quartile of Their Route Category**

By policy, RTA staff must identify every route whose utilization, in boardings per revenue vehicle hour (B/VH), is low in relation to other routes in its route category. Routes in the bottom quartile of each route category are listed below. The number in parentheses next to each route is the number of boardings per “revenue vehicle hour” (i.e., in-service vehicle hour) for the route. Detailed route performance statistics are included in the Appendix.

Typically RTA considers actions to improve the productivity of bottom-quartile routes by reducing service frequency or service hours, but the plan for 2021 is to implement NEXT GEN RTA in June and subsequently begin to monitor route performance in the post-redesign, post-COVID environment.

### **Radial (Category Average =15)**

#45 Ridge (10)

#38 Hough (10)

#90F Broadway - Libby (9)

#53F Broadview – N. Royalton (9)

#77F Brecksville (5)

### **Crosstown/Feeder (Category Avg. = 13)**

#86 Rocky River Dr - Bagley (7)

#34 E. 200 - Green (7)

#7 Monticello – Euclid Hts (7)

#54 Brookpark (7)

#25 Madison - Detroit (5)

### **Park-n-Ride (Category Avg. = 29)**

#251 Strongsville Park-N-Ride (27)

### **Trolley (Category Avg. = 30)**

C-Line Trolley (20)

## Appendix - Route Performance Tables

### 1st Half 2020 Route Performance: Sorted By Boarding Per Revenue Vehicle Hour in Descending Order

1. Radial Ridership By Route ROUTE	Ridership by Route		Vehicle Statistics					Route Performance Indicators				
	Boardings	% Contribution	Revenue			Total		Revenue			Total	
			Trips	Hours	Miles	Hours	Miles	B/VT	B/VH	B/VM	B/VH	B/VM
HealthLine	806,573	17%	33,720	25,911	229,363	26,528	233,034	24	31	3.52	30	3.46
3 Superior	298,291	6%	20,404	15,360	139,380	15,674	142,955	15	19	2.14	19	2.09
22 Lorain	324,526	7%	19,924	16,950	157,290	17,786	170,474	16	19	2.06	18	1.90
1 St. Clair	387,231	8%	21,644	20,528	233,103	21,635	254,254	18	19	1.66	18	1.52
14 Kinsman	285,713	6%	17,668	17,020	177,411	18,139	195,440	16	17	1.61	16	1.46
26 Detroit	320,903	7%	19,776	20,841	211,308	21,800	229,182	16	15	1.52	15	1.40
11 Quincy - Buckeye	143,261	3%	12,652	10,033	94,920	10,640	105,410	11	14	1.51	13	1.36
51/51A/51B/51C W. 25	535,403	11%	33,333	38,423	488,063	40,524	534,112	16	14	1.10	13	1.00
55 Cleveland State Line	137,219	3%	10,348	10,273	136,992	12,455	184,457	13	13	1.00	11	0.74
19 Broadway - Miles	194,064	4%	13,590	14,937	187,059	16,142	215,897	14	13	1.04	12	0.90
15 Union - Harvard	373,566	8%	20,344	28,813	314,332	30,655	374,088	18	13	1.19	12	1.00
39/39F Lakeshore	87,079	2%	6,888	6,816	112,722	8,432	146,025	13	13	0.77	10	0.60
76 Broadway - Turney	123,474	3%	8,930	9,708	120,821	10,578	145,986	14	13	1.02	12	0.85
79/79A Fulton	146,650	3%	11,296	11,821	136,620	13,538	161,591	13	12	1.07	11	0.91
81 Tremont - Storer	156,670	3%	11,324	13,595	161,434	14,056	167,235	14	12	0.97	11	0.94
8 Cedar- E. 116	51,879	1%	6,080	4,813	47,223	4,974	49,083	9	11	1.10	10	1.06
45 Ridge	104,060	2%	8,268	10,329	122,702	11,273	142,495	13	10	0.85	9	0.73
38 Hough	69,810	1%	7,456	7,269	63,805	7,486	66,278	9	10	1.09	9	1.05
90F Broadway - Libby	105,030	2%	9,508	11,396	197,288	12,862	239,430	11	9	0.53	8	0.44
53F Broadview - N. Royalton	13,138	0%	1,240	1,530	24,202	2,648	51,732	11	9	0.54	5	0.25
77F Brecksville	36,069	1%	7,612	7,212	141,347	8,158	166,525	5	5	0.26	4	0.22
<b>All Radial Routes</b>	<b>4,700,609</b>	<b>100%</b>	<b>302,005</b>	<b>303,580</b>	<b>3,497,385</b>	<b>325,979</b>	<b>3,975,683</b>	<b>16</b>	<b>15</b>	<b>1.34</b>	<b>14</b>	<b>1.18</b>

**B/VT** Boardings per vehicle trip  
**B/VH** Boardings per vehicle hour  
**B/VM** Boardings per vehicle mile  
**Revenue** Includes in-service and layover stats only.  
**Total** Includes dead-head and other pull out/in stats.  
**% Contribution** Category specific contribution -- not system-wide.

## Appendix - Route Performance Tables

**1st Half 2020 Route Performance: Sorted By Boarding Per Revenue Vehicle Hour in Descending Order**

2. Crosstown/Feeder Ridership By Route ROUTE	Ridership by Route		Vehicle Statistics					Route Performance Indicators				
	Boardings	% Contribution	Revenue			Total		Revenue			Total	
			Trips	Hours	Miles	Hours	Miles	B/VT	B/VH	B/VM	B/VH	B/VM
41/41F Warrensville	433,549	17%	16,370	23,771	324,335	25,234	368,943	26	18	1.34	17	1.18
28/28A Euclid	300,410	12%	23,356	16,692	165,810	17,235	178,155	13	18	1.81	17	1.69
30 E.140 - Lakeshore	209,480	8%	16,820	13,479	152,417	13,781	158,600	12	16	1.37	15	1.32
10 E.105	239,245	9%	20,056	16,265	162,766	17,007	177,010	12	15	1.47	14	1.35
16 E.55	99,046	4%	10,504	7,717	85,146	8,257	99,066	9	13	1.16	12	1.00
9 Mayfield	146,759	6%	10,822	11,451	128,157	12,205	144,013	14	13	1.15	12	1.02
48/48A University Circle - E.131	172,637	7%	14,496	14,009	135,661	14,750	145,335	12	12	1.27	12	1.19
32 Cedar	99,777	4%	10,102	8,498	81,574	9,040	88,794	10	12	1.22	11	1.12
40 Lakeview - Lee	144,834	6%	9,436	12,919	141,889	13,642	164,514	15	11	1.02	11	0.88
37 E.185 - Taylor	76,448	3%	7,312	6,827	72,220	6,914	73,305	10	11	1.06	11	1.04
78 W.117 - Puritas	100,554	4%	9,200	9,046	105,084	9,634	112,464	11	11	0.96	10	0.89
2 E.79	39,108	2%	3,712	3,671	45,038	3,795	48,965	11	11	0.87	10	0.80
49 Center Ridge	69,331	3%	8,288	6,588	99,539	6,769	102,890	8	11	0.70	10	0.67
75 Lorain	74,060	3%	9,160	7,151	106,301	7,561	115,272	8	10	0.70	10	0.64
5 Chagrin	42,184	2%	8,452	4,200	53,924	4,524	58,750	5	10	0.78	9	0.72
83 Warren - W.130	69,420	3%	7,852	7,118	96,342	7,925	111,465	9	10	0.72	9	0.62
94 E.260 - Richmond	64,356	3%	5,748	8,129	114,486	8,638	123,909	11	8	0.56	7	0.52
86 Rocky River Dr - Bagley	38,667	2%	4,568	5,256	77,445	5,408	80,366	8	7	0.50	7	0.48
34 E.200 - Green	22,830	1%	3,968	3,223	40,305	3,332	41,892	6	7	0.57	7	0.54
7 Monticello - Euc Hts	48,201	2%	7,980	7,091	79,815	7,381	83,921	6	7	0.60	7	0.57
54 Brookpark	9,699	0%	2,944	1,484	18,088	1,602	20,179	3	7	0.54	6	0.48
25 Madison	18,250	1%	4,096	3,909	54,338	4,038	55,995	4	5	0.34	5	0.33
<b>All Crosstown/Feeder Routes</b>	<b>2,518,845</b>	<b>100%</b>	<b>215,242</b>	<b>198,496</b>	<b>2,340,680</b>	<b>208,669</b>	<b>2,553,803</b>	<b>12</b>	<b>13</b>	<b>1.08</b>	<b>12</b>	<b>0.99</b>

**B/VT** Boardings per vehicle trip  
**B/VH** Boardings per vehicle hour  
**B/VM** Boardings per vehicle mile  
**Revenue** Includes in-service and layover stats only.  
**Total** Includes dead-head and other pull out/in stats.  
**% Contribution** Category specific contribution -- not system-wide.

## Appendix - Route Performance Tables

**1st Half 2020 Route Performance: Sorted By Boarding Per Revenue Vehicle Hour in Descending Order**

3. Park-N-Ride	Ridership by Route		Vehicle Statistics					Route Performance Indicators				
Ridership By Route	Boardings	% Contribution	Revenue			Total		Revenue			Total	
ROUTE			Trips	Hours	Miles	Hours	Miles	B/VT	B/VH	B/VM	B/VH	B/VM
246 Westlake Park-N-Ride	23,441	31%	1,044	768	16,086	1,384	31,875	22	31	1.46	17	0.74
263 N.Olmsted Park-N-Ride	22,976	30%	1,044	802	18,030	1,496	36,131	22	29	1.27	15	0.64
251 Strongsville Park-N-Ride	29,632	39%	1,102	1,079	23,662	1,963	48,204	27	27	1.25	15	0.61
<b>All Park-N-Ride Routes</b>	<b>76,049</b>	<b>100%</b>	<b>3,190</b>	<b>2,649</b>	<b>57,778</b>	<b>4,844</b>	<b>116,209</b>	<b>24</b>	<b>29</b>	<b>1.32</b>	<b>16</b>	<b>0.65</b>

**B/VT** Boardings per vehicle trip  
**B/VH** Boardings per vehicle hour  
**B/VM** Boardings per vehicle mile  
**Revenue** Includes in-service and layover stats only.  
**Total** Includes dead-head and other pull out/in stats.  
**% Contribution** Category specific contribution -- not system-wide.

## Appendix - Route Performance Tables

**1st Half 2020 Route Performance: Sorted By Boarding Per Revenue Vehicle Hour in Descending Order**

4. Downtown Trolley Ridership By Route	Ridership by Route		Vehicle Statistics					Route Performance Indicators				
	Boardings	% Contribution	Revenue			Total		Revenue			Total	
			Trips	Hours	Miles	Hours	Miles	B/VT	B/VH	B/VM	B/VH	B/VM
61 E-Line Trolley	102,350	50%	8,062	2,877	13,913	2,993	16,356	13	36	7.36	34	6.26
60 East 9/12 Trolley	27,174	13%	3,422	841	5,392	1,028	8,898	8	32	5.04	26	3.05
62 B-Line Trolley	42,608	21%	3,944	1,400	8,749	1,475	10,353	11	30	4.87	29	4.12
63 C Line Trolley	31,871	16%	2,768	1,625	9,937	1,711	12,307	12	20	3.21	19	2.59
<b>All Downtown Trolley Routes</b>	<b>204,004</b>	<b>100%</b>	<b>18,196</b>	<b>6,742</b>	<b>37,991</b>	<b>7,206</b>	<b>47,914</b>	<b>11</b>	<b>30</b>	<b>5.37</b>	<b>28</b>	<b>4.26</b>

**B/VT** Boardings per vehicle trip  
**B/VH** Boardings per vehicle hour  
**B/VM** Boardings per vehicle mile  
**Revenue** Includes in-service and layover stats only.  
**Total** Includes dead-head and other pull out/in stats.  
**% Contribution** Category specific contribution -- not system-wide.