



## Albany Area Regional Transportation Plan

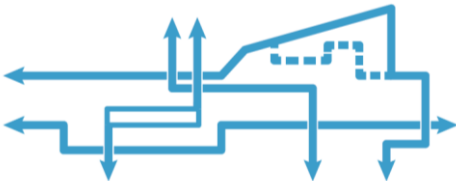
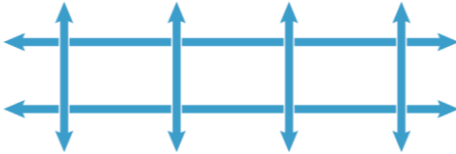
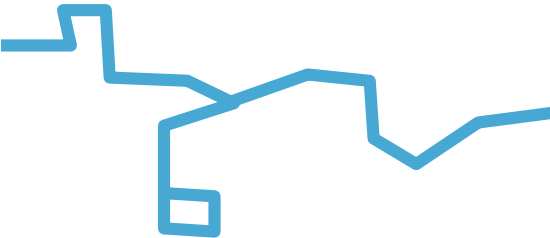





### Sample Service Design Principles



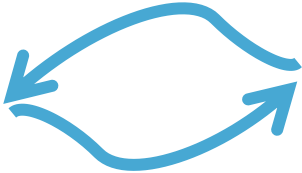


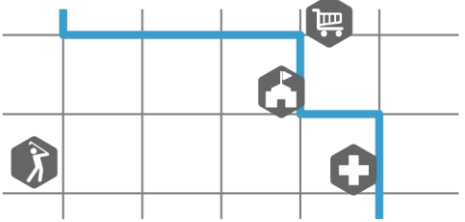
Service design principles can be either quantitative or qualitative. Their value is to provide an approach to structuring and evaluating services, especially productivity or ridership based services. In many cases, transit agencies find that over the years, land use decisions such as building a hospital or mall far from the center of town, or various requests from riders, cause a direct and simple route to become long and circuitous. When services underperform and a particular route warrants closer inspection, comparing the route design against these principles often helps pinpoint the reason why performance is suffering. These principles are summarized in Figure 1.

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Sample Service Design Principles

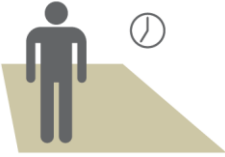

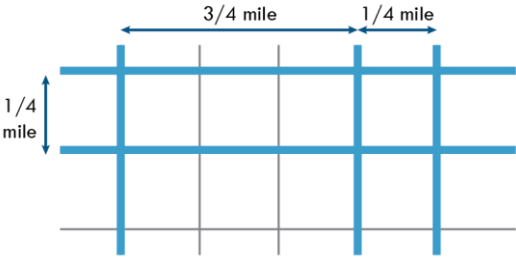
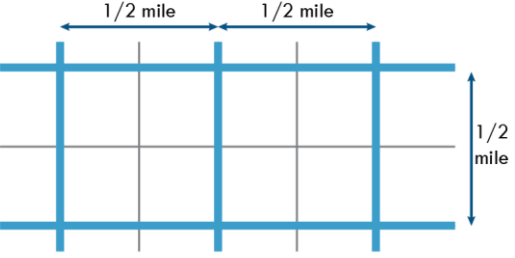
Figure 1 Service Design Principles

Principle	Benefit	Discouraged	Recommended
Service should be simple	Passengers can quickly and easily understand the service, where it goes, and the travel time.	 <p>Complex</p>	 <p>Simple and intuitive</p>
Routes operate along a direct path	Routes are easier to understand and navigate when they follow a direct line.	 <p>Circuitous, complicated</p>	 <p>Direct, easy to understand</p>
Minimize route deviations	Fewer directional changes make the route easy to understand and remember. It also reduces overall travel time.	 <p>Out of direction travel, with longer travel time</p>	 <p>Direct route, shorter travel time</p>

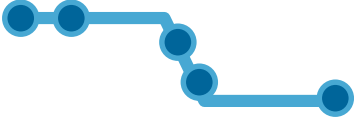
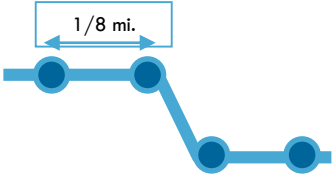

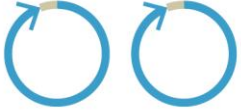
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Principle	Benefit	Discouraged	Recommended
Operate major routes on arterials	Passengers have a good knowledge of major roads and use them for reference.	 <p data-bbox="856 521 1066 570">Travels slowly on local streets</p>	 <p data-bbox="1409 521 1711 570">Travels on main roads with many destinations</p>
Routes should be symmetrical	A route that operates on the same street in both directions makes it easy for riders to return to their starting point.	 <p data-bbox="831 824 1047 857">One-way service</p>	 <p data-bbox="1436 824 1652 857">Two-way service</p>
Routes should serve well-defined markets	Routes need major destinations to anchor them and attract riders.	 <p data-bbox="762 1117 1167 1149">Serves areas with little demand</p>	 <p data-bbox="1383 1117 1711 1149">Serves major destinations</p>



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Principle	Benefit	Discouraged	Recommended
Service should be well-coordinated	Coordination between different services minimizes redundancy, balances passenger loads, and ensures short transfers.	 <p data-bbox="831 509 1094 542">Lack of coordination</p>	 <p data-bbox="1360 509 1734 542">Service operates as a system</p>
Routes should be spaced apart from each other.	Consistent route spacing minimizes redundancy (parallel routes operating too close) and increases access to service (maximizes number of routes within 1/4 mile walk).	 <p data-bbox="848 945 1066 977">Irregular spacing</p>	 <p data-bbox="1432 945 1663 977">Consistent spacing</p>

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Principle	Benefit	Discouraged	Recommended												
Service should be consistent	People can easily remember repeating patterns. Consistent schedules allow passengers to know when to catch a bus, without needing to remember the times for each trip.	<table border="1" data-bbox="795 358 1104 626"> <tr> <td>10:21</td> <td>10:36</td> </tr> <tr> <td>10:54</td> <td>11:09</td> </tr> <tr> <td>11:28</td> <td>11:43</td> </tr> </table> <p data-bbox="842 667 1073 695">Irregular schedule</p>	10:21	10:36	10:54	11:09	11:28	11:43	<table border="1" data-bbox="1413 367 1713 630"> <tr> <td>10:30</td> <td>10:45</td> </tr> <tr> <td>11:00</td> <td>11:15</td> </tr> <tr> <td>11:30</td> <td>11:45</td> </tr> </table> <p data-bbox="1444 662 1686 690">Consistent schedule</p>	10:30	10:45	11:00	11:15	11:30	11:45
10:21	10:36														
10:54	11:09														
11:28	11:43														
10:30	10:45														
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Space stops appropriately	Stop spacing needs to balance the needs of convenient access and reducing travel times. Stop spacing should be consistent and support the type of service being offered.	 <p data-bbox="806 997 1115 1024">Inconsistent stop spacing</p>	 <p data-bbox="1409 1003 1703 1031">Consistent stop spacing</p>												
Service design should maximize service	Cycle time <sup>1</sup> and frequency must be matched to make the most efficient use of revenue hours.	 <p data-bbox="827 1268 1094 1295">Inefficient use of time</p>	 <p data-bbox="1394 1268 1696 1295">Route maximizes service</p>												

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Principle	Benefit	Discouraged	Recommended
Match vehicle type to service type	Size vehicles according to ridership. Smaller vehicles may be better suited to operate on local streets.	 <p>Vehicles not matched to service</p>	 <p>Vehicles matched to service</p>

Notes: [1] Cycle time is the amount of time required for a bus to complete a full round trip on a route, including layover and recovery time, and be able to start another round trip