

Transit Mode Characteristics

Transit Mode	Capacity (Persons per vehicle)	Vehicles per set	Density Thresholds (Dwelling Units/ Residential Acre)	Guideway	Speed (mph)	Power Supply	Suspension	Station/Stop Spacing	Capital Cost	Operating Cost (per vehicle revenue hour)
Bus	-Standard: 80 (40 seated, 40 standing) -Articulated: 120 (60 seated, 60 standing)	1	4 (minimum service) - 5 (frequent service)	Mixed Traffic or Exclusive ROW	30 - 55	Diesel or Alternative Fuels	Rubber tire on pavement	1-2 Blocks	Vehicle: \$200K-\$275K	\$104.20
Electric Trolley Bus	80 (40 seated, 40 standing)	1	9 (5-minute peak headways)	Mixed Traffic or Exclusive ROW	30 - 55	Electrically powered via overhead wires.	Rubber tire on pavement	1-2 Blocks	Standard Vehicle: \$560K-\$600K Articulated Vehicle: up to \$870K Electrification (2-way line): \$900K-\$1.5M	\$124.40
Bus Rapid Transit	80 (40 seated, 40 standing)	1	9 (5-minute peak headways)	Mixed Traffic or Exclusive ROW recommended	30 - 55	Diesel or Alternative Fuels	Rubber tire on pavement	.5-1 mile	Vehicle: \$400K-\$600K Construction: \$7M-\$12M per mile	\$124.40
Paratransit	15-30	1	1-2	Mixed traffic	45 -55	Diesel or Alternative Fuels	Rubber tire on pavement	Varies (usually exceed several miles)	Vehicle: \$50K-\$175K	\$54.90
Vanpool	7-15	1	1-2	Mixed traffic	50 - 76	Gasoline, Diesel or Alternative Fuels	Steel wheel on steel rail	Varies (usually exceed several miles)	Vehicle: \$25K-\$40K	\$26.70
Heritage Trolley	30 (single truck) - 70 (double truck)	1	30	Mixed Traffic or Exclusive ROW	15 - 33	Electrically powered via overhead wires	Steel wheel on steel rail	.25 mile	\$15M-\$25M per mile	\$180.00
Modern Streetcar	127 (35 seated, 92 standing)	1-2	30	Mixed traffic	15 - 45	Electrically powered via overhead wires	Steel wheel on steel rail	.25 mile	\$20M-\$35M per mile	\$180.00
Light Rail Transit	160 (90 seated, 70 standing)	1-4	9 (5-minute peak headways)	Mixed Traffic or Exclusive ROW	30 - 60	Electrically powered via overhead wires	Steel wheel on steel rail	.5-1 mile	Tunnel: \$150M-\$200M per mile Aerial: \$80M-\$120M per mile At-grade: \$60M-\$80M per mile	\$216.00
Heavy Rail	170-300	4-10	30(5-minute peak headways)	Exclusive fixed guideway	55 - 70/80	Electrified third rail	Steel wheel on steel rail	.33-2 miles	Tunnel: \$150M-\$225M per mile Aerial: \$80M-\$120M per mile At-grade: \$60M-\$80M per mile	\$167.20
Commuter Rail	120 (single level) - 240 (double level)	4-10	1-2 using existing track (20 trains/day)	Exclusive fixed guideway	50 - 79	Diesel or Electric	Steel wheel on steel rail	4-7 miles	Existing Rail ROW: \$3M-\$15M per mile New Facility: \$15M-\$30M per mile	\$411.30
Diesel Multiple Unit	120 (single level)	1-2	9 (5-minute peak headways)	Exclusive fixed guideway	40 - 80	Diesel or Electric	Steel wheel on steel rail	4-7 miles	\$5M-\$25M per mile	Not Available
Monorail	45-55	4-6	Varies	Exclusive fixed guideway	25 -40	Electric powered, Rubber tired propulsion system	Rubber tire or elevated beam	.5-1 mile	\$80M-\$120M per mile	\$146.00
Automated Guideway Transit	80-90	1-6	30	Exclusive fixed guideway	40 -55	Electrified third rail	Steel wheel on steel rail or Rubber tired	.25-.5 mile in activity centers & between .5-1 mile in other areas	\$60M-\$100M per mile	\$492.80

October 2009