



Opportunities for Sustainable Transportation

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“Sustainable”

“Meets the needs of the present without compromising the ability of future generations to meet their own needs”

United Nations World Conference on Economic Development

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Fantasy



Reality





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Big Picture Techniques

Land use changes

Tax-free transportation allowance

Distance-based insurance

Full-cost accounting of transportation projects

Road tolls



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Practical Techniques

Transportation choices

- Transit
- Walking
- Cycling
- Carpooling

Safety

Quality of life

- Noise
- Air quality
- Travel time
- Livability



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Practical Techniques

Affordable

Feasible

Effective



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Pedestrians

Crossings

Sidewalks

Walking
schoolbus





Crossings

	Transportation choices
✓	Safety
	Quality of life
\$-\$\$\$	Cost
Easy	Feasibility
☆☆	Priority



Crossings



Crossings



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Crossings



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Crossings



Crossings



Crossings



Crossings





Walking Schoolbus

✓	Transportation choices
✓	Safety
	Quality of life
\$	Cost
Easy	Feasibility
★	Priority



Walking Schoolbus





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Walking Schoolbus



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Sidewalks

✓	Transportation choices
✓	Safety
	Quality of life
\$\$-\$\$\$	Cost
Easy	Feasibility
★	Priority

Sidewalks



Sidewalks

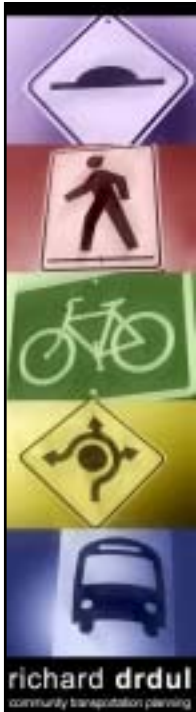




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Bicycles

- Bicycle routes
- Crossings
- Parking
- Maintenance



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Bicycle Routes

✓	Transportation choices
✓	Safety
	Quality of life
\$-\$\$\$	Cost
Moderate	Feasibility
★ ★	Priority

Bicycle Routes



Bicycle Routes



Bicycle Routes



Bicycle Routes



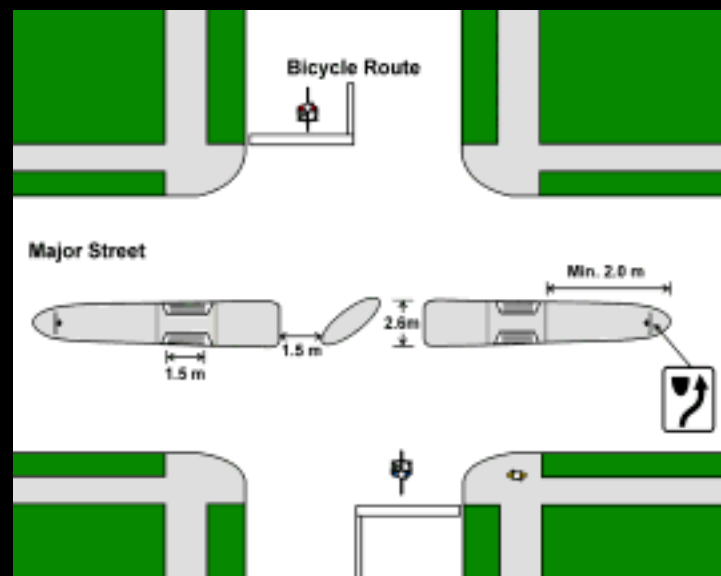


Crossings

	Transportation choices
✓	Safety
	Quality of life
\$-\$\$\$	Cost
Easy	Feasibility
☆☆	Priority



Crossings



Crossings



Crossings



Crossings



Crossings



Crossings



Parking



✓	Transportation choices
	Safety
	Quality of life
\$	Cost
Easy	Feasibility
★	Priority

Parking



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Parking



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Parking



Parking



Parking



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Parking



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Maintenance

	Transportation choices
✓	Safety
	Quality of life
\$	Cost
Easy	Feasibility
★	Priority



Maintenance



Maintenance



Maintenance





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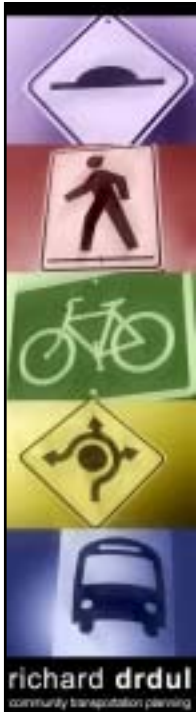
Transit

Demand-responsive paratransit

Park-and-ride

Shared-ride taxis

Fare incentives



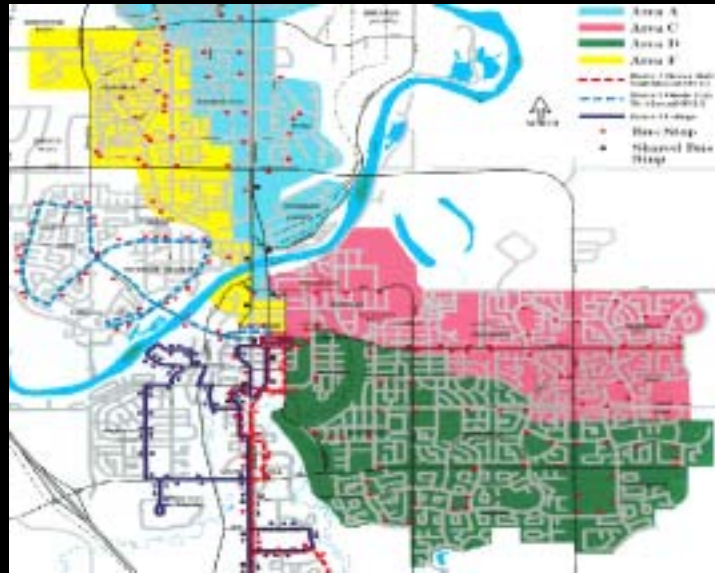
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Paratransit

✓	Transportation choices
	Safety
	Quality of life

\$	Cost
Moderate	Feasibility
☆☆	Priority

Paratransit



Paratransit



Paratransit



Park-and-Ride



✓	Transportation choices
	Safety
	Quality of life
\$	Cost
Easy	Feasibility
★	Priority

Park-and-Ride



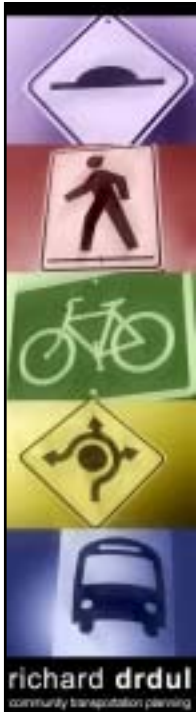
Shared-Ride Taxis



✓	Transportation choices
	Safety
	Quality of life
0	Cost
Moderate	Feasibility
★	Priority



Shared-Ride Taxis



Fare Incentives

✓	Transportation choices
	Safety
	Quality of life
\$	Cost
Easy	Feasibility
★	Priority



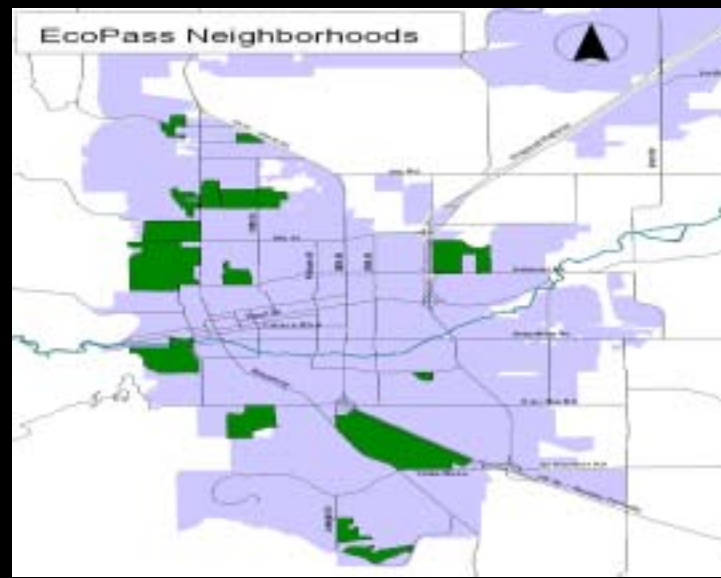
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Fare Incentives



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Fare Incentives





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Roads

- Narrower streets
- Fewer lanes
- Roundabouts
- Traffic calming
- Back-in angle parking



Narrower Streets



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	Transportation choices
✓	Safety
✓	Quality of life
0-\$\$	Cost
Easy	Feasibility
★	Priority

Narrower Streets



Narrower Streets





Narrower Streets



Fewer Lanes

	Transportation choices
	Safety
✓	Quality of life
0-\$\$	Cost
Easy	Feasibility
☆☆	Priority

Fewer Lanes



Fewer Lanes



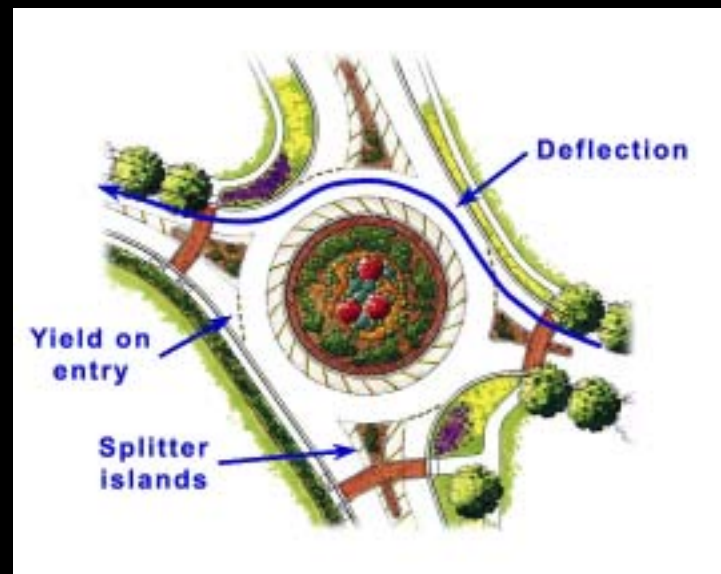


Roundabouts

	Transportation choices
✓	Safety
✓	Quality of life
0-\$\$	Cost
Easy	Feasibility
☆☆	Priority



Roundabouts



Roundabouts



Roundabouts





Roundabouts

Safety benefits:

- Reduced speeds:
 - 20 km/h to 35 km/h
- Reduced numbers of crashes:
 - 40% to 50% fewer crashes
- Reduced severity of crashes:
 - 50% to 80% fewer injury crashes
 - 90% fewer fatal crashes



Roundabouts

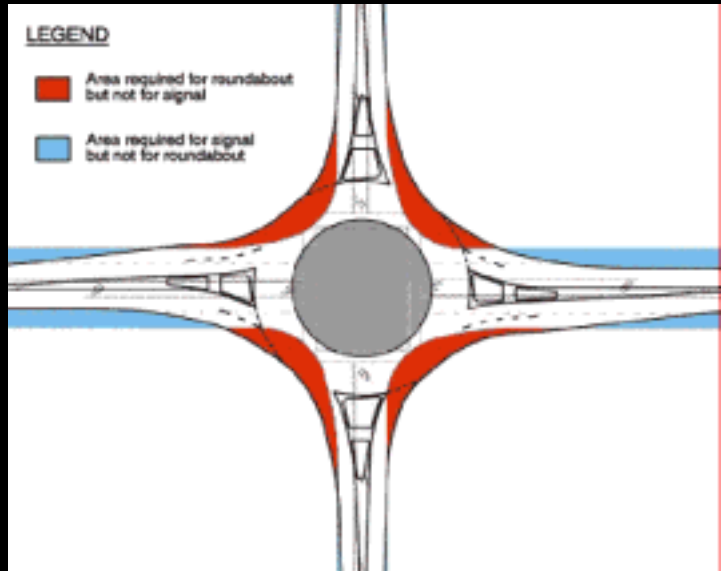
Other benefits:

- Reduced delays to pedestrians
- Reduced delays, queues for traffic
- Increased capacity vs. stop control
- Simplify complex, awkward intersections
- Minimum number of road lanes
- Reduced noise, vehicle emissions
- Enhanced aesthetics

Roundabouts



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Traffic Calming



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✓	Safety
✓	Quality of life
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Traffic Calming



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Traffic Calming



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Traffic Calming



Traffic Calming





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Traffic Calming



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Back-In Angle Parking



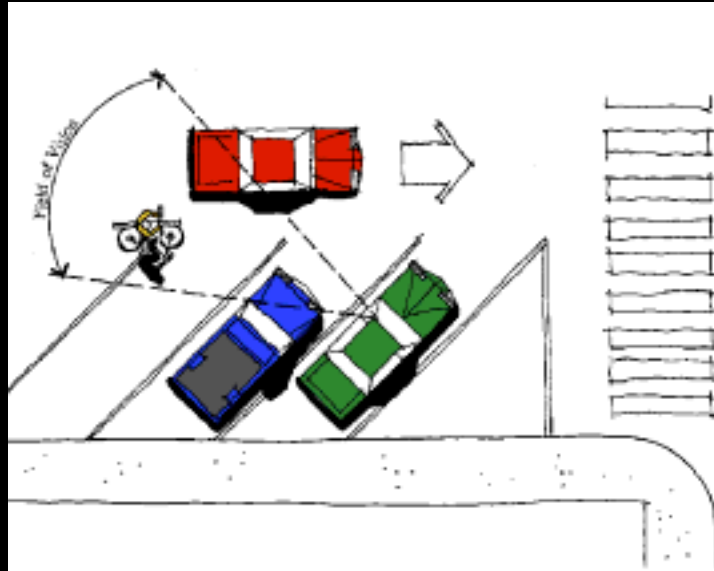
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Back-In Angle Parking



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Back-In Angle Parking





Back-In Angle Parking



Back-In Angle Parking





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What Can You Do?

Pursue projects that:

- Provide choices
- Increase safety
- Improve quality of life
- Are affordable and feasible
- Make a difference

Lead by example



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Opportunities for Sustainable Transportation

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