35W Mitigation

It costs less to move less

Solar Powered Mobility

Networking the economic community.

Local Solution

Foundation of JPods: It Costs Less to Move Less

This map illustrates options for networking to mitigate congestion while the 35W bridge is being rebuilt.

Parking at the Arden Hills Arsenal, State Fair Grounds and East River area could be connected to Minneapolis to substantially reduce traffic loads in the downtown area.

With rights of way, emergency funding or a contract with loan guarentees it is possible to have part of this network operating by Dec 1, 2007.

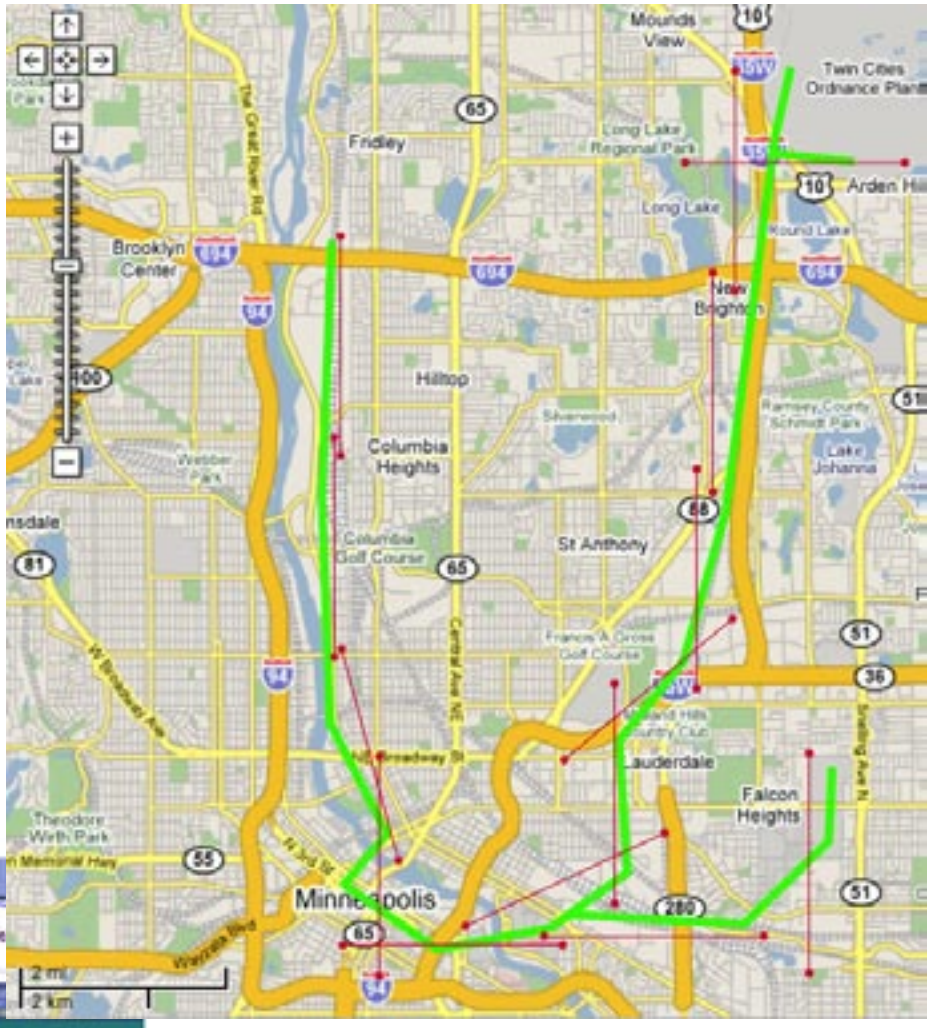
Deployment can be scaled as needed.

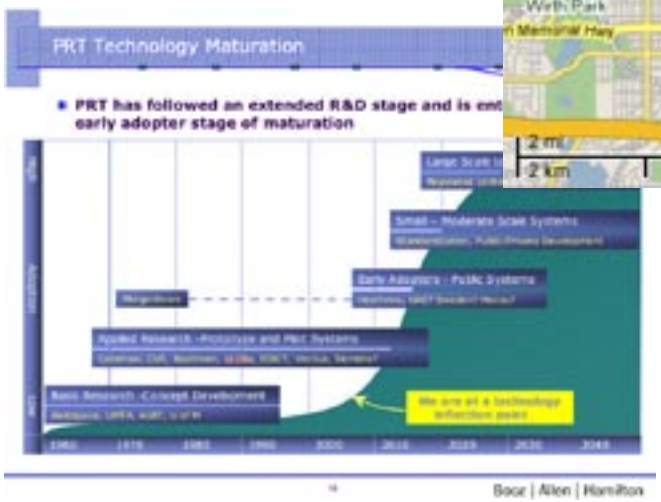
The complete network could be operational within a year.

Over the next 10 years, paid for by profits, this network can expand to be within walking distance of everywhere.

Convenience and service is improved while costs, congestion and pollution prevented.

Routes may vary depending on how the members of the economic community wish to be connected.





Studies for this technoloy are listed at http://www.jpods.com/Tech.html

Expected growth curve for this type of transportation (left) is from a Booz, Allen, Hamiton study for the State of New Jersey.

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It Costs Less to Move Less:
Profitable Business Enterprise

I-35W Congestion Mitigation Business Case

Objective:
It costs less to move less. Instead of moving a ton to move a person, approach moving only the person at a great cost savings.

There is a profit in saving people time and money. Automating repetitive travel creates a Physical-Internet; tell the computer where you want to go and it takes you there.

Given a franchise such networks can be built with private capital or in public private collaboration.

Summary	
Initial System Cost with Placement Fees	$230,587,637
Number of Stations	42
Rail Path Length (mi)	28
Number of Vehicles Required	1,453
Maximum Capacity per Hour (seats)	9,600
Fare paying Vehicle Trips/day	30,000
Operating Cost per Paying Mile (not including initial system cost)	$0.11
Average Fare	$7.20
Pre-Tax Profit	$74,100,733
Pre-Tax Profit as % of Initial Cost with Loading Station Placement Fees	32.1%

System Basics	
Rail Path Length (mi)	28
Average trip length (mi.)	6
Fare paying Vehicle Trips/day	30,000
Deadhead Factor, Non-paying / Paying	33%
Vehicle Trips per day, paying + non-paying	40,000
Peak Hour Percentage	15%
Max trips per hour	6,000
Number of Stations	42
Number of Vehicles Required	1,453
Vehicles out for Maintenance, %	6%
Vehicles out for Maintenance	88
Average Speed, mph	30
Average Travel Time, minutes	12.00
Average Unloading + Loading Time, minutes	0.75
Average JPod Trip Cycle Time, minutes	12.75
Max trips per JPod per hour	4.7
Average Passenger Load	1.3
Fare Vehicle Miles traveled/day	180,000
Carbon Incentives, per day	$2,858.82
Advertising Revenues per day	$3,600.00
Capital Costs	
Initial System Cost	$288,234,546
Investment by Others (Placement fees)	$57,646,909
Initial System Cost less Placement Fees	$230,587,637
Revenue Calculations	
Fare per Vehicle Mile	$1.20
Average Fare	$7.20
Average daily fare receipts ($)	$216,000
Fare days per year	365
Annual Operation & Maintenance Rate @ % capital	2%
Annual Operation & Maintenance	$5,764,691
JPod motor Power duty (fraction time on)	25%
Average power use, each vehicle, kW	0.55
Average power use, all vehicles, kW	799
Annual power use, all vehicles, kW-hr	7,004,385
Annual Power Use of Stations, kW-hr	736,344
Annual Power Use of Switches, kW-hr	1,139,580
Annual Power Cost @ $.15/kW-hr	$1,332,046
Fare Receipts/year	$78,840,000
Power and Operating Costs	$7,096,737
Pre-Tax Profit	$74,100,733
Pre-Tax Profit as % of Initial Cost with Loading Station Placement Fees	32.1%

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It Costs Less to Move Less: Solar Powered Mobility

Moving a ton to move a person requires high density power sources.

Moving massive vehicles requires high density power sources.

Parasitic Mass requires far move power to move than is required to move the people in the vehicles.

There is no energy shortage; ingenuity can create a harmony and synergy between the distributed nature of the transportation grid and distributed energy in sunshine.

"I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait 'til oil and coal run out before we tackle that."
Thomas Edison, 1847-1931

Driving Parasitic Mass towards zero makes low density power sources, such as solar and wind, viable.

Solar collectors 3-6 feet wider per running foot of rail collects more power than is required by the transportation network.

Instead of paybacks against traditionaly generated electricity of 15-20 years, solar powered transportation pays back in 1-7 years against the cost of gas and congestion.

Savings are about 27 cents and 1.7 pounds of Carbon Credits per passenger mile.