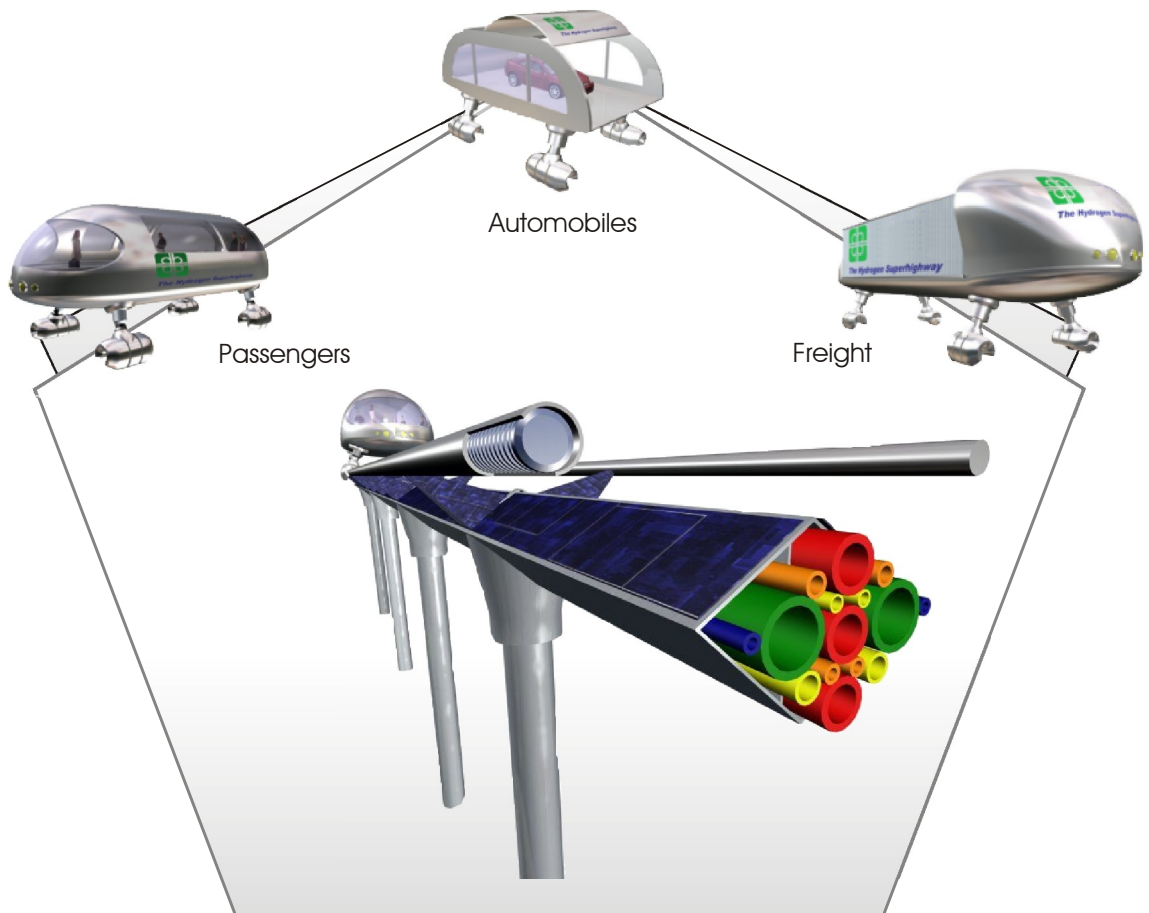




# WorldWide Hydrogen Super Highways



- [www.HyRail.us](http://www.HyRail.us) -

- [www.InterstateTraveler.us](http://www.InterstateTraveler.us) -

- [www.HydrogenSuperHighway.com](http://www.HydrogenSuperHighway.com) -

- Copyright 2002-2009 Justin Eric Sutton and Interstate Traveler Company, LLC -  
- 300 River Place - Suite 5550 - Detroit, MI - 48207 - USA - 313-393-2400 -



# *The Interstate Traveler*

Hydrogen Super Highway

Fast

Safe

Clean

Quiet

Quality

Weather Proof

Sand / Ice Proof

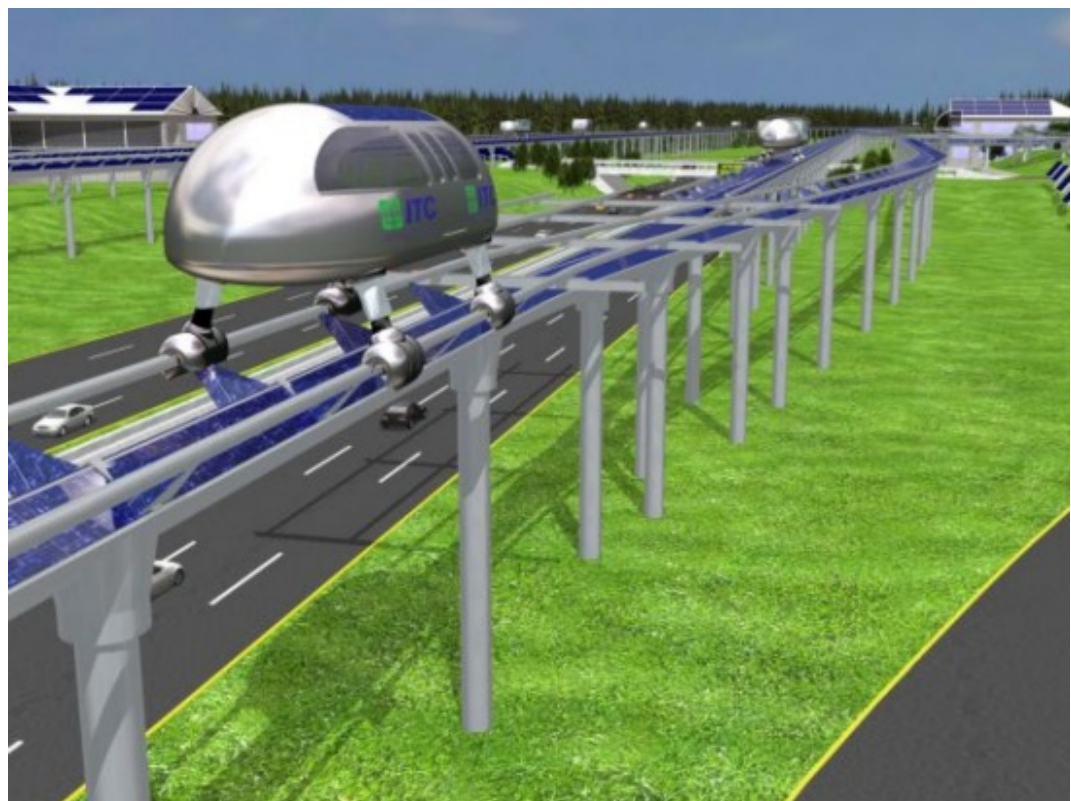
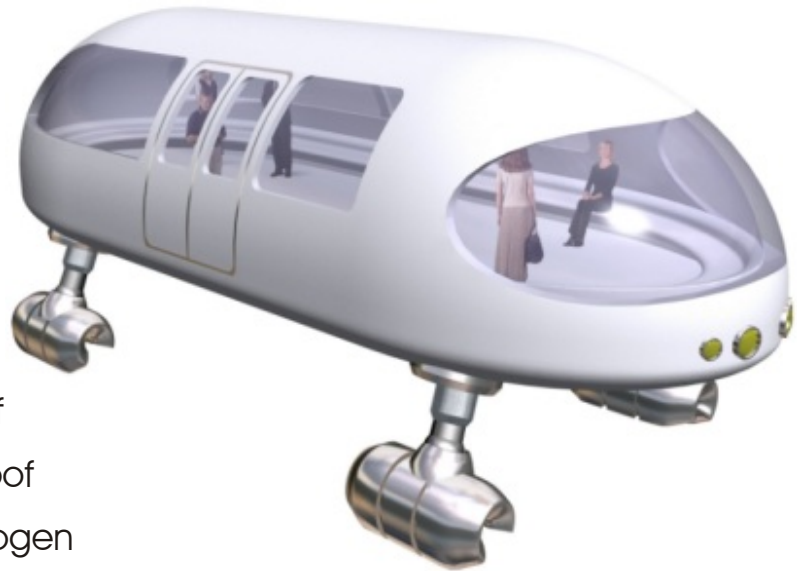
Creates Hydrogen

Creates Clean Water

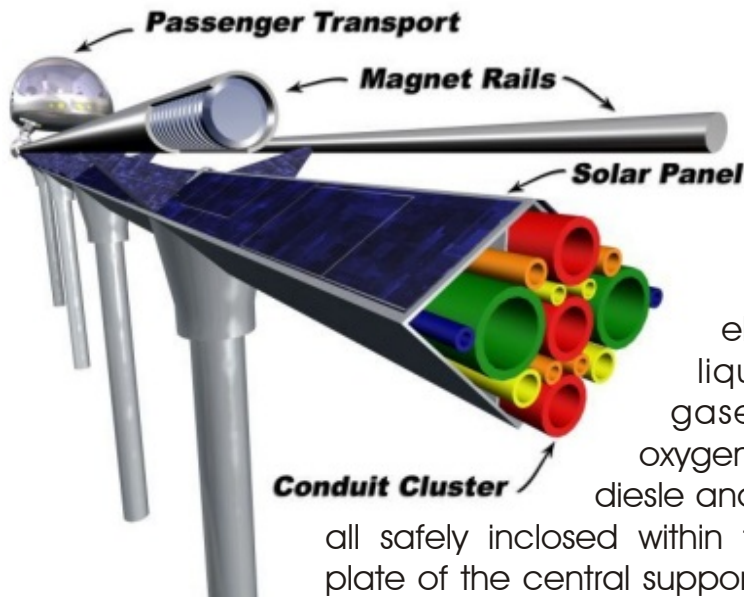
Creates & Stores Surplus Power

☎ Dial "211" for Curb to Curb Transit

Creates Millions of Good Paying Green Jobs



# The HyRail



Fully embedded municipal conduit for water, sewer, electricity, fiber optics, liquids, vapors, and gases like hydrogen, oxygen, natural gas, bio-diesel and other types of fuel, all safely inclosed within the protective steel plate of the central support. The HyRail will be able to deliver fuels of all types to all the gas

stations along the Interstate Highway saving time and money while increasing distribution and safety.

Best of all, the system will consume liquid waste and generate pure water from hydrogen.



Under development for nearly 14 years, Unanimously Endorsed by the Michigan Legislature in 2003, formally recognized by the AFL-CIO, the United Steel Workers of America and the Greater Detroit Building and Construction Trades Council. The Interstate Traveler Hydrogen Super Highway is ready to serve the growing needs of our nation and of the many nations around the world where cities have grown faster than their infrastructure.

The HyRail bridges the gap of time and distance while creating a national, solar powered, hydrogen production and distribution network. The embedded systems of the hydrogen super highway also create a national waste water management system and water purification system that will serve the public for generations to come.



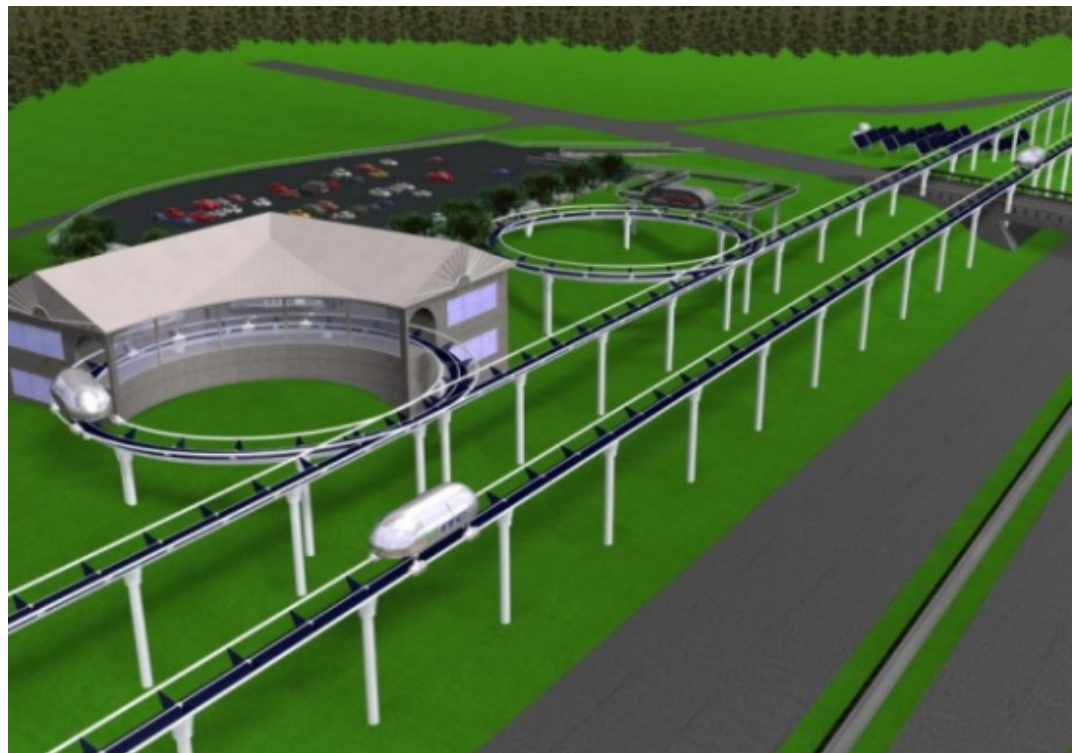
# Ride with Friends

Ride with comfort in the spacious and open cabin area. Enjoy the view out the window as the world slips by at 200 mph. Like every pilots dream, being able to fly at tree-top level and really enjoy the countryside.



No other transportation system in the world can give you such a smooth ride and such a priceless panorama of the world around you.

Fixed schedule and on-demand transports means no waiting.



Fast  
Reliable  
On Demand





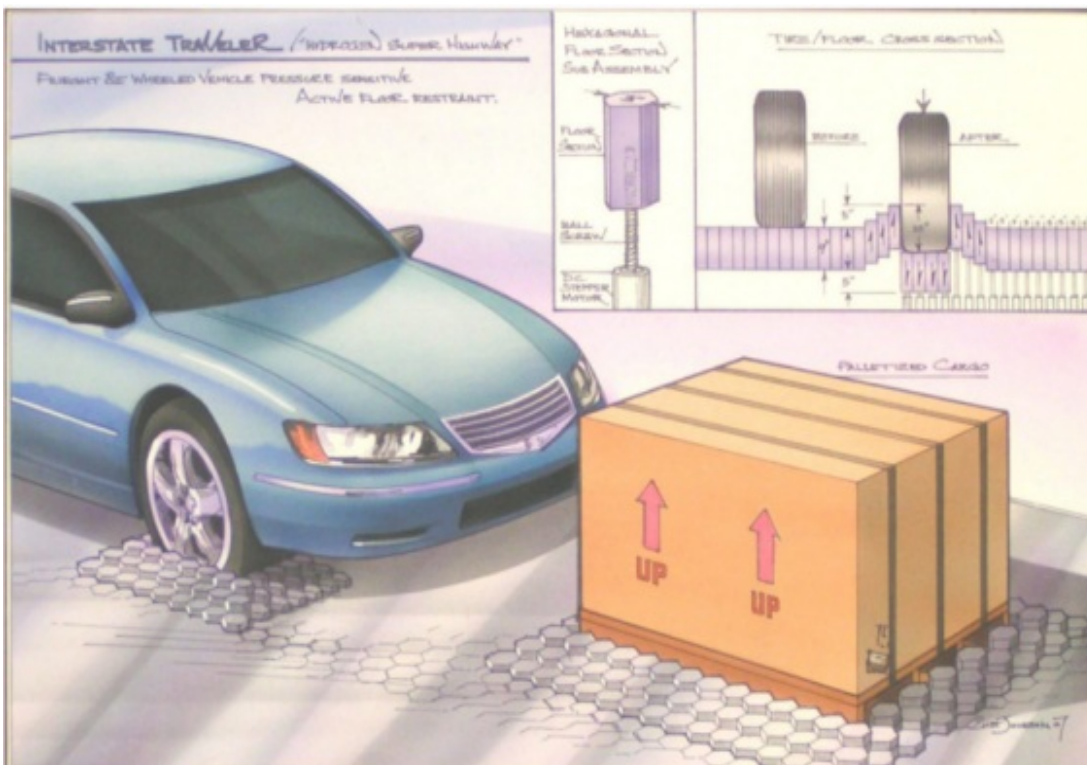
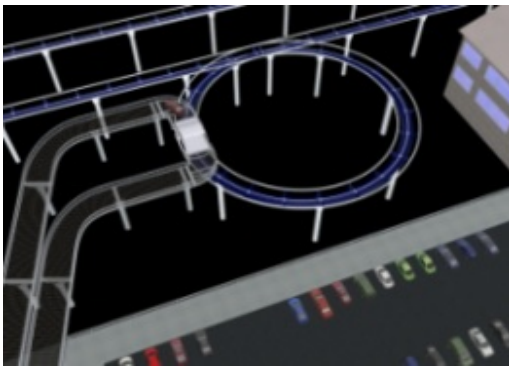
# Ride with Family



The Car Transport is perfect for Family trips over long distances.

On the HyRail you will be able to travel with your car, truck or SUV at a high rate of speed. You could even load a bunch of motor cycles for a sunset ride out West or load up the snow mobiles for an afternoon ride 200 miles north.

At 200mph on the HyRail, you will be only about an hour away ...



Private  
Versatile  
Spacious



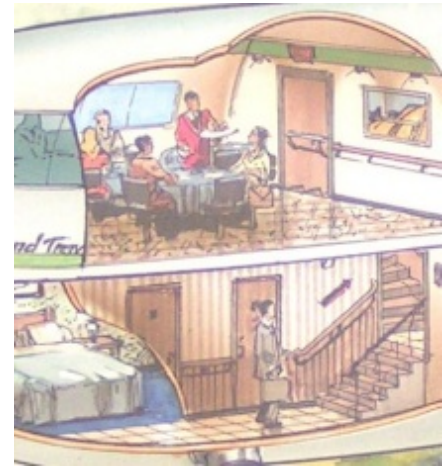


# Ride in Luxury

Office, Condominium, Private Parties

Never before could it be possible for such large, spacious, and comfortable transport vehicles be constructed and reliably operated across a national network of high speed, super efficient maglev rail.

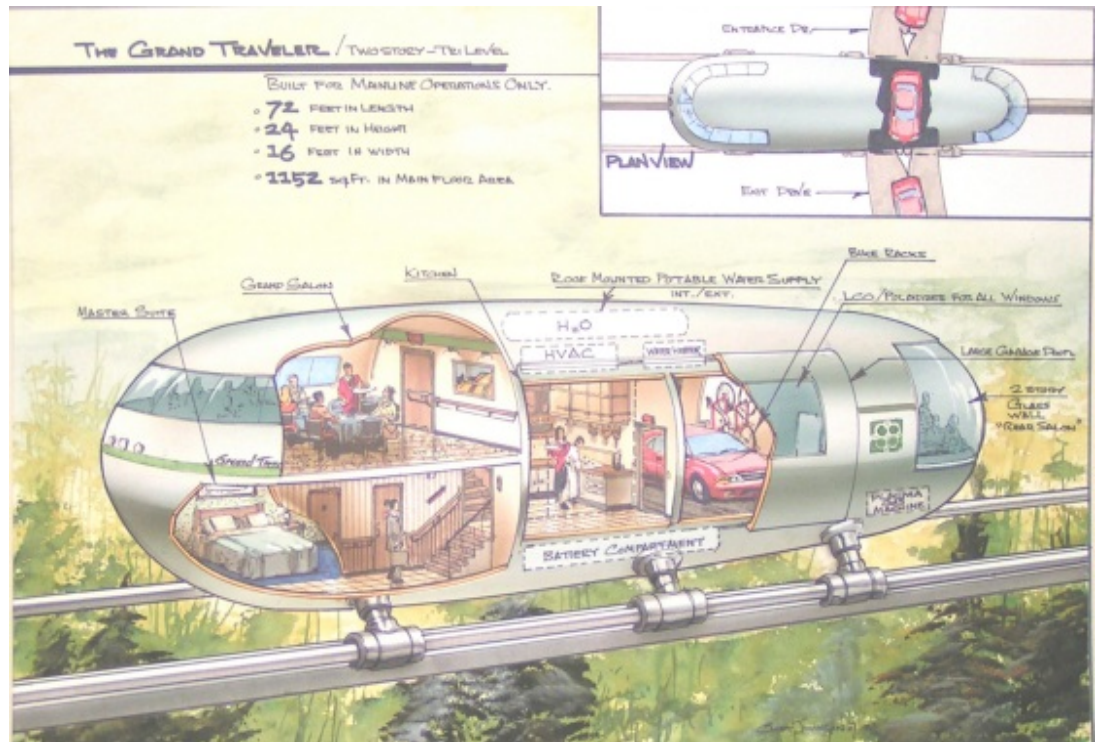
In the future, many tens of thousands of Grand Traveler Transports will glide the rails from State to State and from Country to Country, gliding quietly above the tree line.



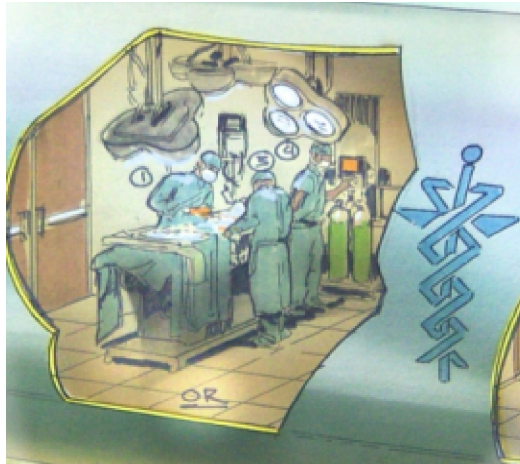
Boasting a living space of more than 2,000 square feet, the Grand Traveler will be the pallet of automotive designers for years into the future creating all manor of custom spaces.

From Sea to shining Sea, from North to South and from East to West; riding the HyRail will always be the best.

Spacious  
Commercial  
Residential  
Club Car  
Limousine



# Ride with Safety

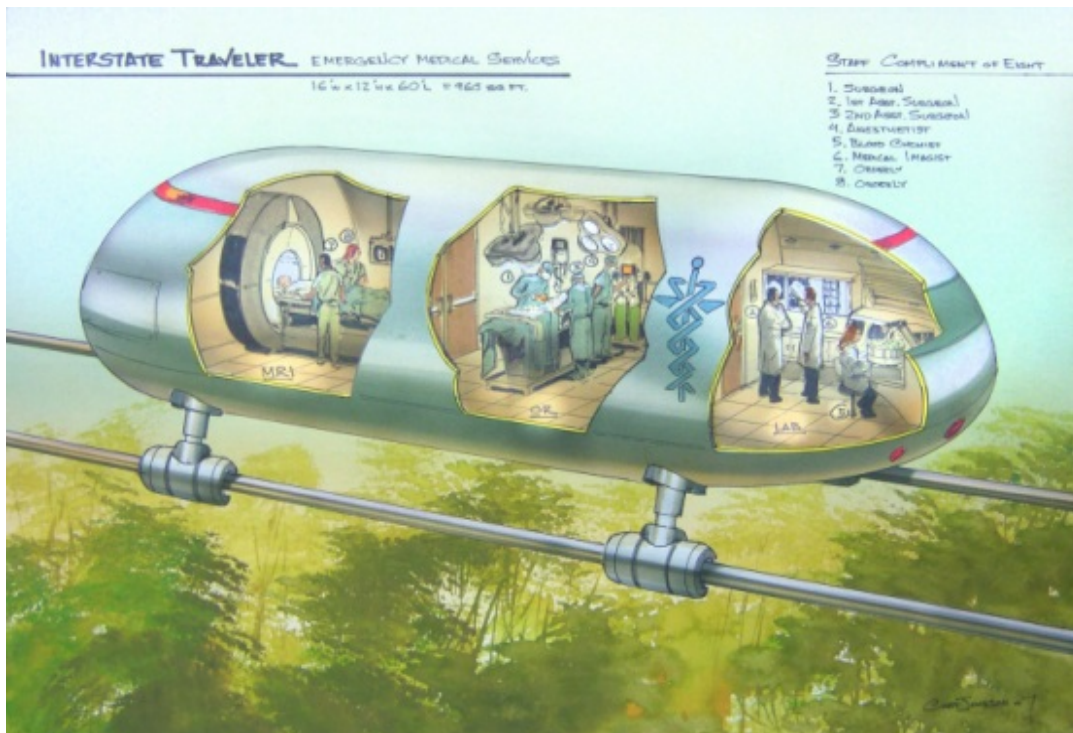


The tragic number of fatalities on American Highways is a harbinger of fate for highways all around the world.

With the Triage Traveler riding on the HyRail, we will be there to help save lives.

According to government statistics, more than 40,000 people per year perish on our Interstate Highways alone. Many of whom could have been saved if they could have gotten to a hospital within that golden hour.

We will be able to assist in more than just accidents on the highway, we will be able to bring expert specialists to any Traveler Station on the network with staff and equipment and on a regular schedule.



Triage  
Trauma  
Mass Casualty  
Haz-mat





# Containerized Freight

The integration with Port Security is clear to see with the fast and simple container transports. As the HyRail network expands, so will the access points for Containerized Freight.

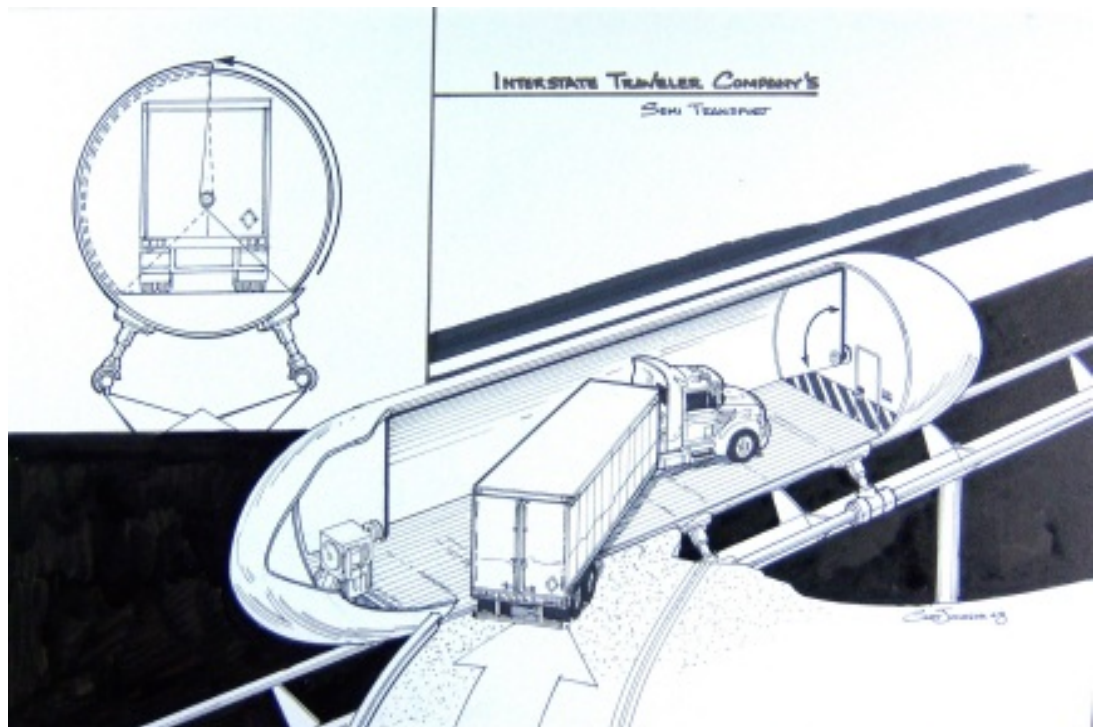


One step above containerized freight will be the closed shell flat bed, just big enough to load an 18 wheeler, Tractor and all. You will be able to send your Driver, your Truck and your Freight to any place in the Country without the worries of traffic jams or bad weather.

Traditional freight haulers, air cargo, heavy rail hubs and sea ports will all be linked together creating an even greater national distribution network from Port, to Hub, to Factory to Consumer accelerating our economy globally

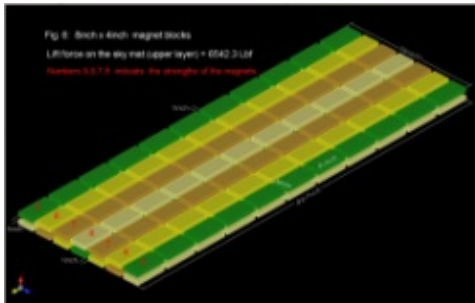
Secure  
Fast  
Easy to Use

Stable  
Reduced Risk





# Solar City Traveler

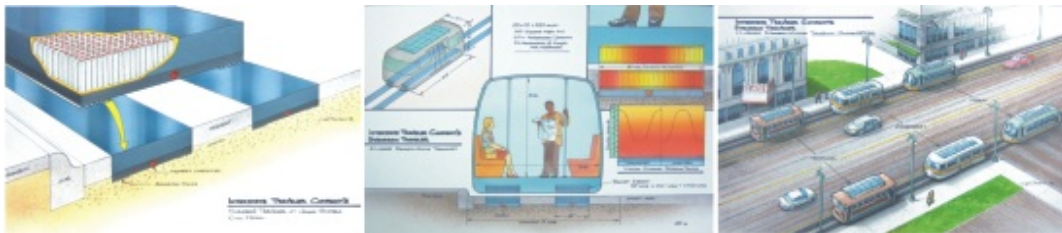


The Solar City Traveler is an ideal life-duty, 'At-Grade' maglev public transportation system.

Each Solar City Transport glides along a virtual guide way, or "Glideway", which is created using two sets of magnet arrays, one above the other, creating a virtual

guideway in the center of the lower array and creating an opposite pair of ridges from the top to guide the transport.

The Solar City Traveler can be installed into any sidewalk or roadway and extend across the country side as an ideal Inter-Urban transit system for city streets connecting to surface streets in the urban areas, and beyond.



Secure  
Reliable  
Comfortable  
Community





# Civic Centers

With the HyRail, the clear waters will flow around the clock.

Reaching back to the great architects of the Bath House, the Public Forum and concepts of a public market area of many small shops, we here have rendered an integration of the best of the best.



At the HyRail Civic Centers visitors will enjoy the greatest facilities in the world to enjoy a Clean, Healthy, Happy and Worldly experience.

The Civic Center is a perfect integration of hospitality and entertainment. With a constant flow of pure water, we will be able to support state of the art public pools, saunas, mineral baths and centers for the finest culinary arts. Each will help create jobs in the massage therapy, physical training, inspired Master Chefs of culinary arts and live entertainment.

Whether you want a hot mineral bath, or a cool lap in the pool... You are just a few minutes down the rail to paradise.



Worldly and  
Local Flavor  
Community  
Center



# Optimize Utility Corridors



It has been said for many years that no new highways will be built in America. Well, that may be true, but with the HyRail the existing electrical energy "highways" of voltage hi-tension lines can be upgraded to move more than just electricity.

Our continents are criss-crossed by thousands of miles of high-tension lines. With the HyRail the utility companies that own those lines can reap the benefits from recycling all that bulk metal and reap the benefits of building commercial roads, condos and businesses where they could not exist before...

Even Rail Roads will also be able to reap the benefits. The hundreds of thousands of miles of Rail Road rights of way can be quickly upgraded without disturbing the existing heavy rail system that is in place. With the Highways, the High-Tension line corridors, and the Rail Road rights of way all coming on-line together, the greater number of people will be employed and served for generations to come.



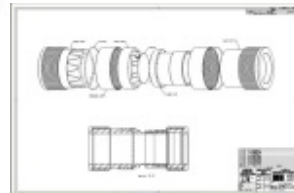
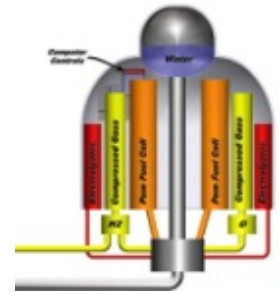
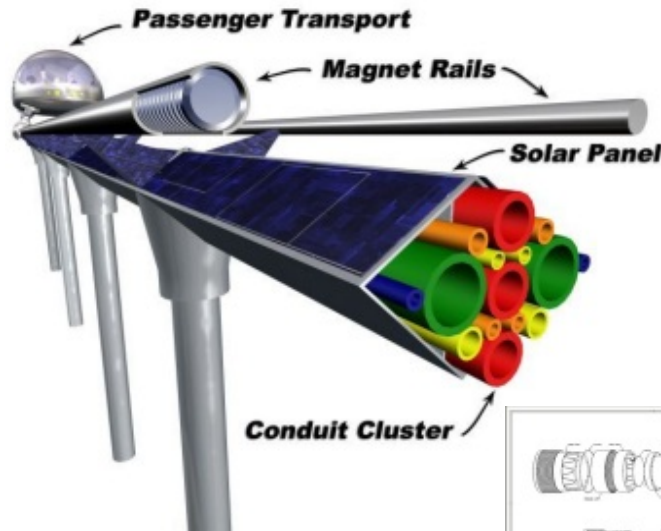
Recycle  
Reuse  
Recuperate  
Reinvigorate



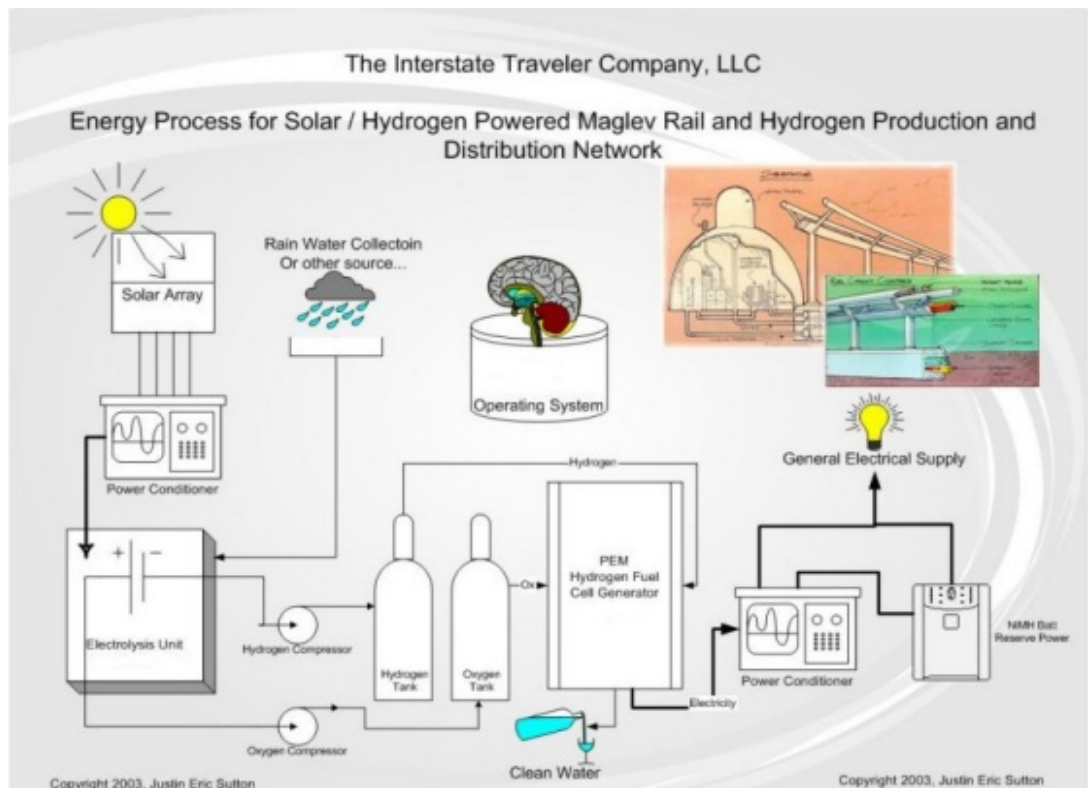


# Solar - Hydrogen Cycle

As the sun rises in the East to open and warm up the Day, so stands the Hydrogen Super Highway to receive the rays of the sun and put it to good use serving millions of travelers and local communities where ever the rail may go.



Endless  
Water  
Endless  
Hydrogen



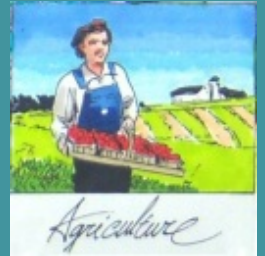
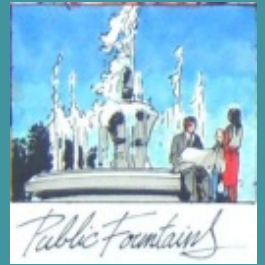
# The Desert Blooms

Here is the story:

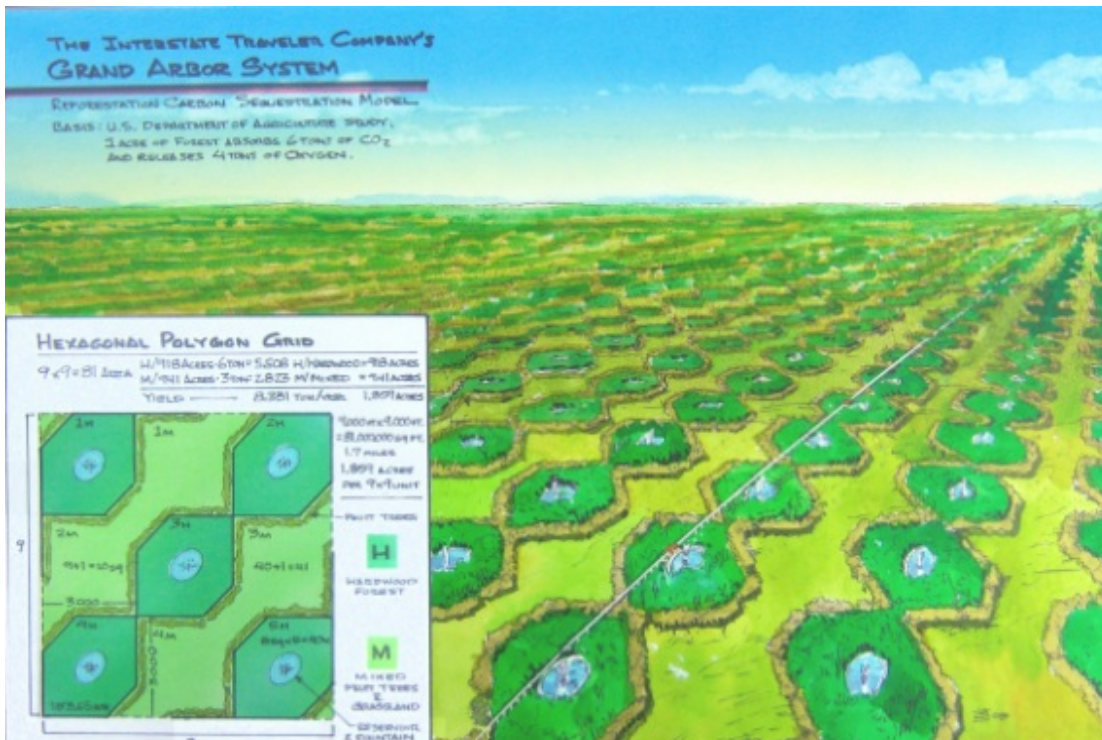
Carbon Offset

Feed the hungry

Grow stuff anywhere...



## Sustainable Agriculture



Water  
 Agriculture  
 Sanitation

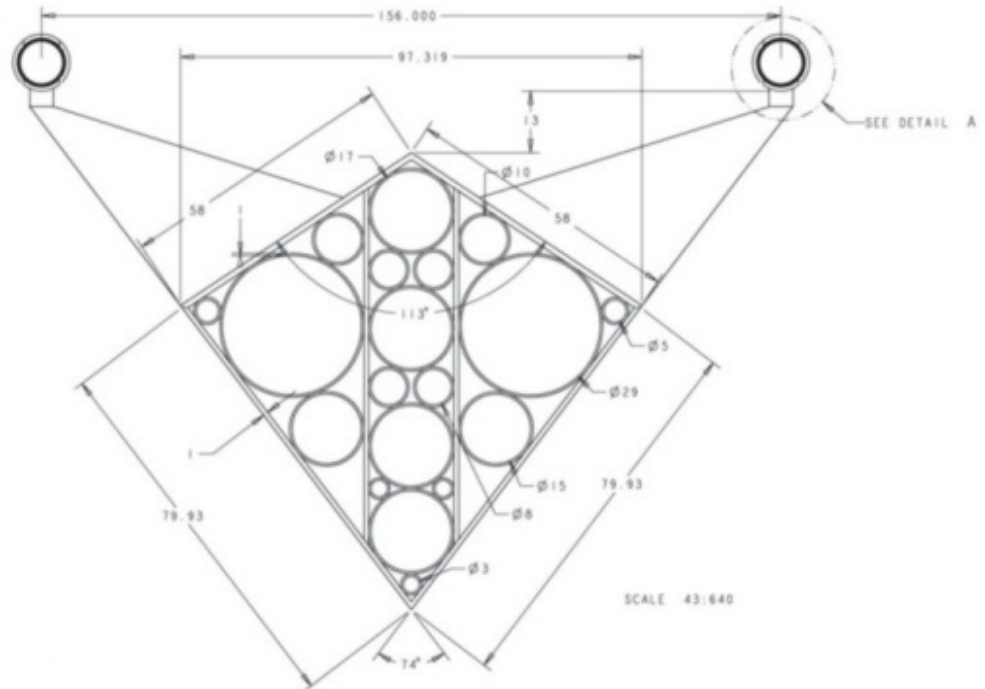




# Structural Rail Geometry

Using traditional Finite Element Analysis we have completed our preliminary engineering on multiple rail geometries.

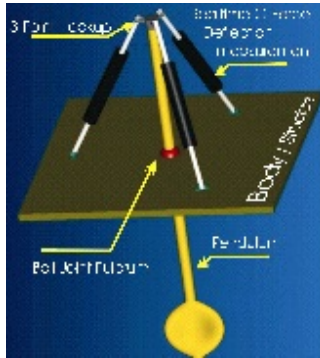
The basic design of the HyRail enables the fastest assembly of the strongest rail with the least amount of materials to guarantee efficiency every step of the way.



CAD  
CAM  
FEA  
FMA

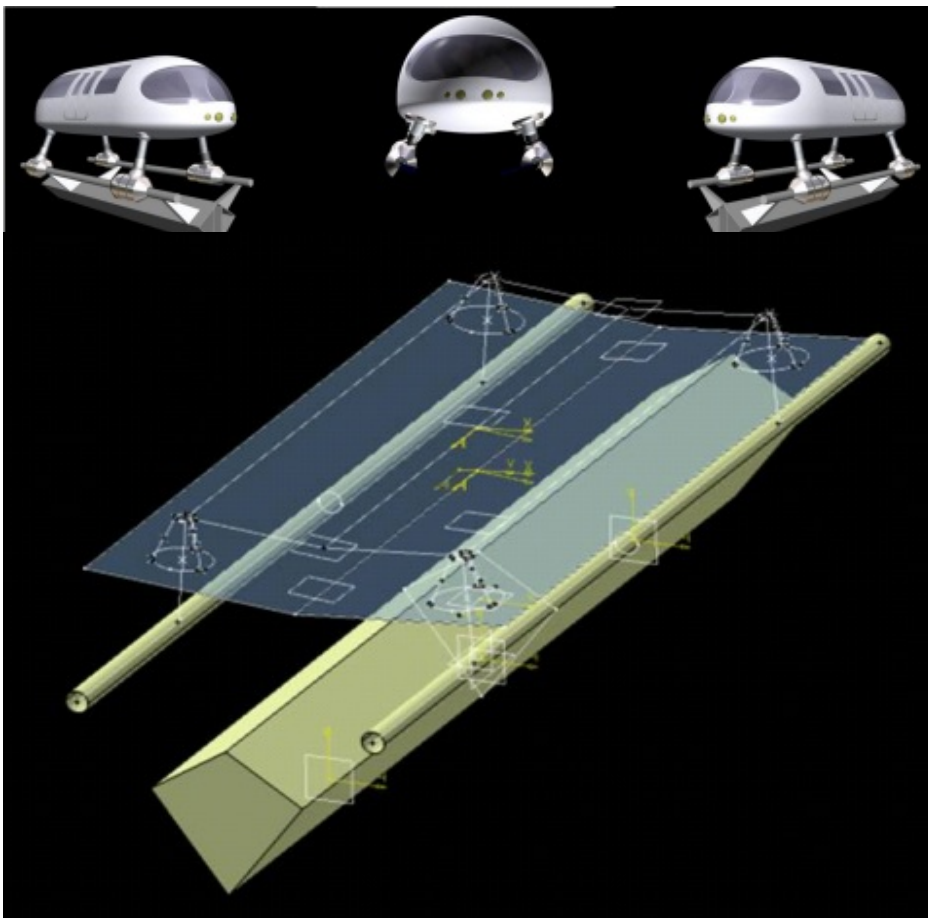


# Dynamic Suspension

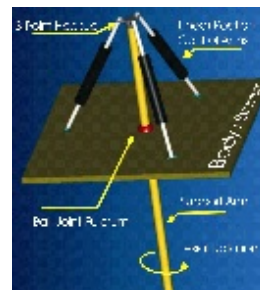
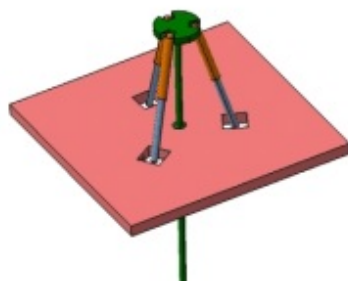
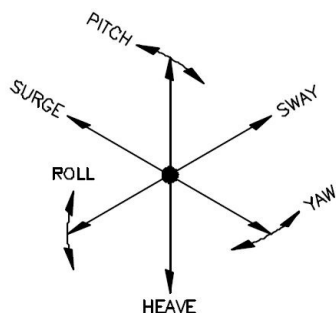


The great and uniquely successful attribute of the HyRail is the G-Force mitigation made possible only by the HyRail's unique suspension system.

The kinematic feed back from a pendulum or via solid state accelerometers, the suspension system will feel the G-Forces and automatically adjust the Transport, keeping the forces perpendicular to the floor.



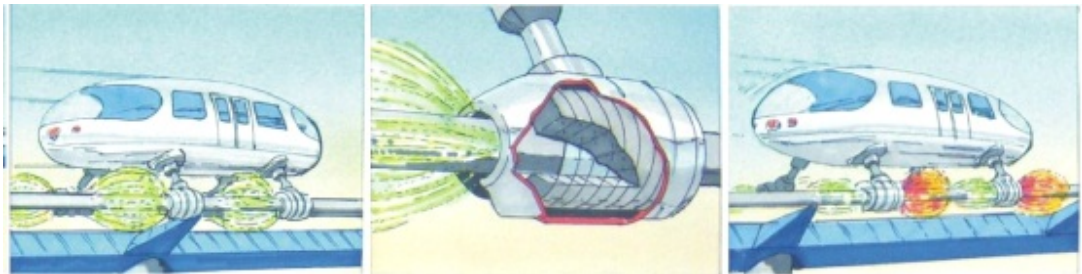
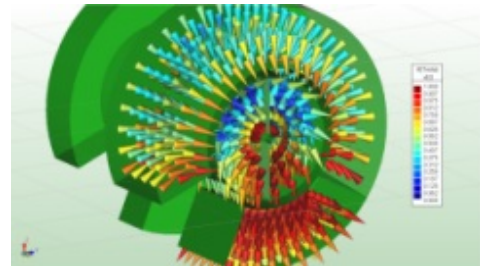
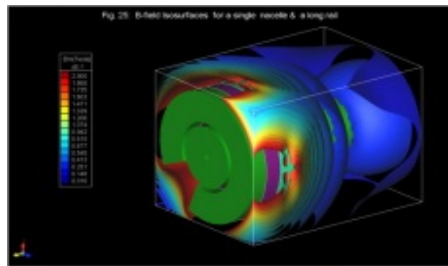
G-Force Mitigation





# Magnetic Levitation

The unique and practical application of radially arranged magnetic fields enables the most versatile maglev transportation system possible hosting motors of almost any size and combination. So, whether your transport has two motors, six motors or even twelve, the rail will work perfectly.



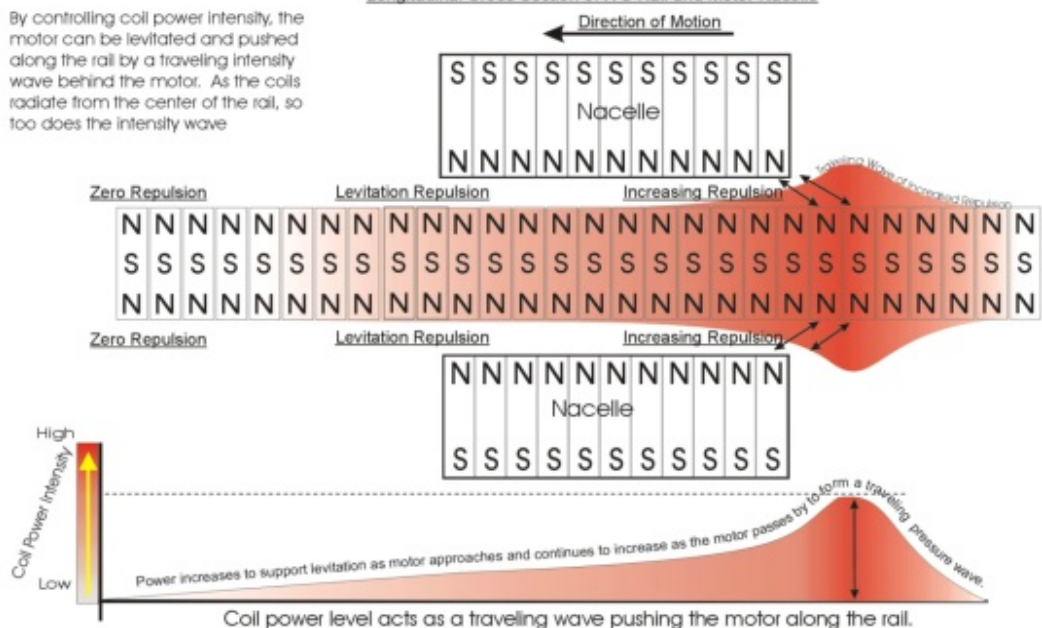
## Interstate Traveler Linear Motor and Levitation Coil Arrangement

### Traveling Wave Linear Propulsion

(One of several methods to employ the ITC Rail Coil Arrangement to provide levitation and position control)

By controlling coil power intensity, the motor can be levitated and pushed along the rail by a traveling intensity wave behind the motor. As the coils radiate from the center of the rail, so too does the intensity wave

Longitudinal Cross Section of ITC Rail and Motor Nacelle



Efficient  
Powerful  
Quiet





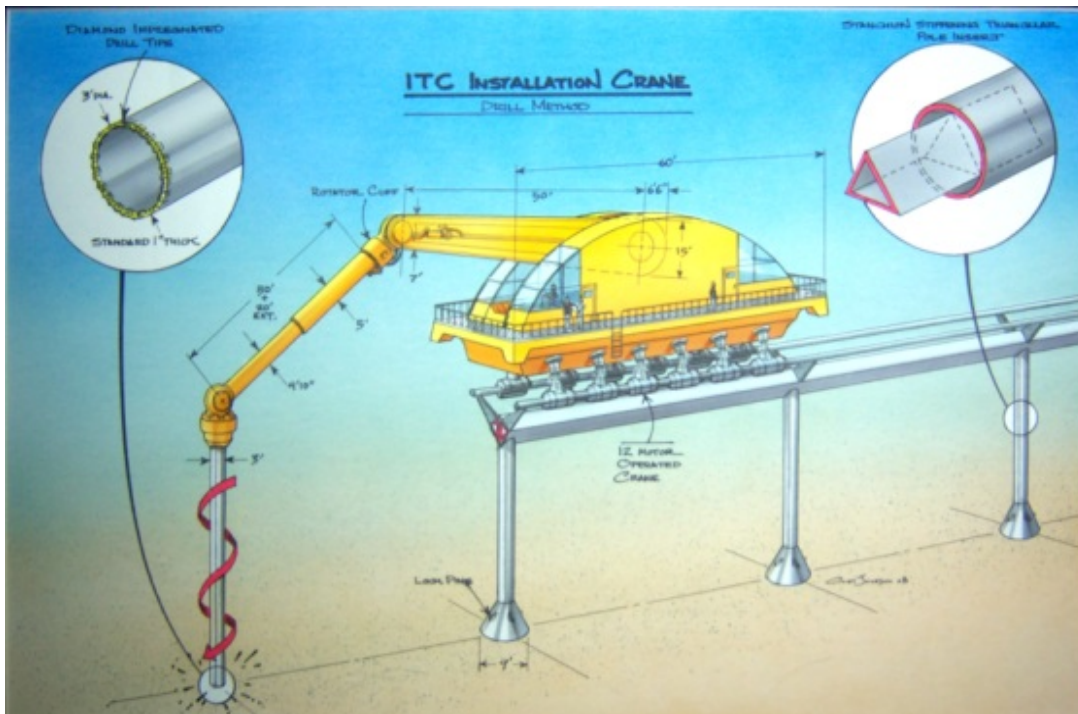
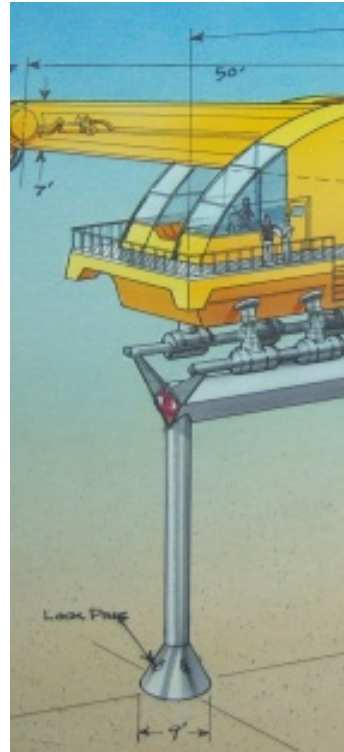


# Rapid Installation

From bedrock to soft soil, the HyRail Installation Crane can set up stanchions fast. Using the stanchion poles themselves as giant drill bits we literally can drill our supports directly into bedrock.

With our logistics predicting a combined output of more than 2,000 sections of rail per day when considering the production of 12 factories working together in America, we will need to work fast to get the system installed and operational.

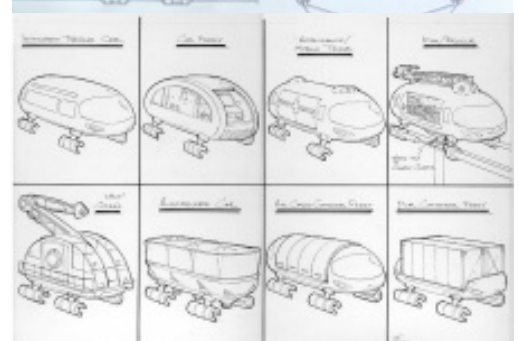
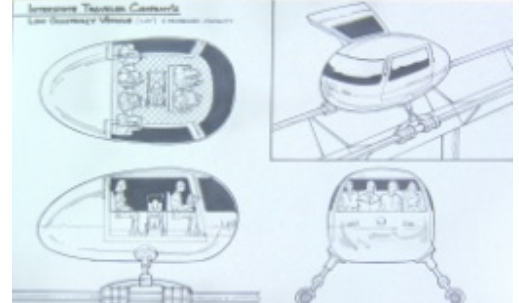
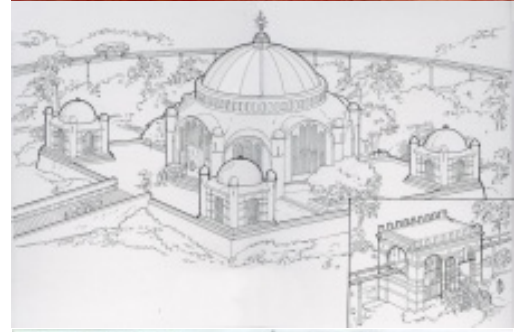
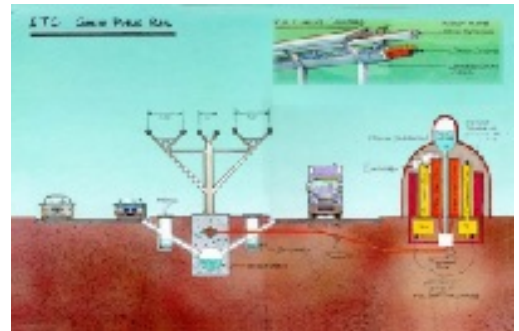
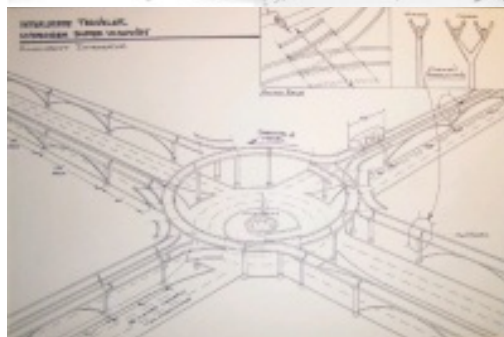
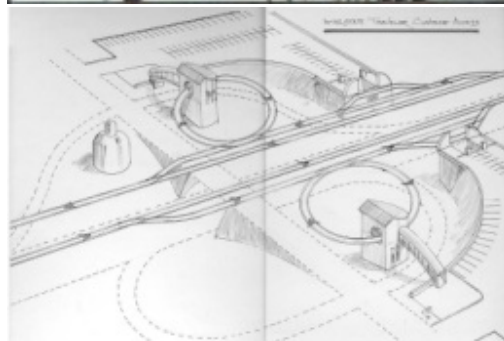
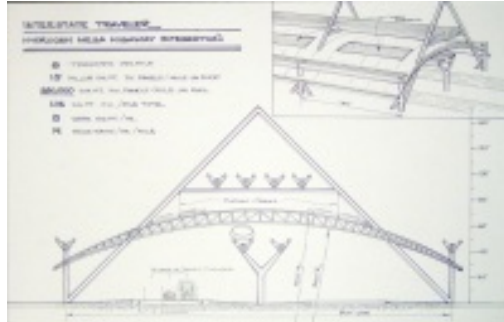
With a set of eight HyRail Cranes working for each production center, we'll have 96 Cranes with installation teams working simultaneously. Working in sets of two in parallel down each right of way you can. Imagine the pace of installation when there are 96 sections of rail being installed at any one





# Urban Efficiency

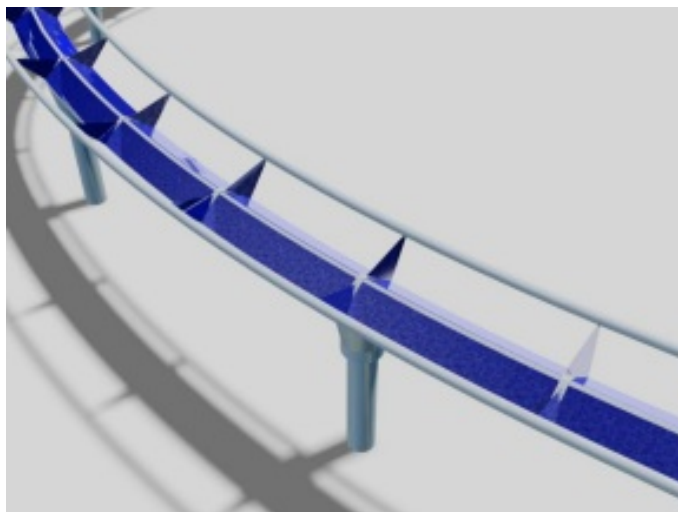
Large  
Small  
Local  
Continental





# Appendices

20. The Ten Primary Deliverables
21. Per Capita Public Share
22. One Page Executive Summary
23. Installation Analysis
24. Return on Investment
25. Basic Green Jobs Projections
26. National Energy Calculator
27. Nested Domain Addressing
28. Mag-lev Comparison Chart
29. Michigan House Resolution
30. Michigan Senate Resolution
31. Magazine Ready Art (i)
32. Magazine Ready Art (ii)





## *Ten Deliverables*

Rapid Transit	= \$ /minute
Advertising	= \$ /sign
Hydrogen	= \$ /kilogram
Electricity	= \$ /kilowatt
Energy Storage	= \$ /kilowatt
Fiberoptics	= \$ /bandwidth
Fuel pipelines	= \$ /gallon or Ft <sup>3</sup>
Liquid waste	= \$ /barrel
Brand New Water	= \$ /liter
Internet / Telecom	= \$ /minute





# *Per Capita Revenue Share*



In the United States, the Interstate Traveler Company, LLC has established a Per Capita Revenue Share proposal where half of the revenue gathered from operations on public rights of way will be shared with all four levels of government in the following manner:

- 25% is paid to the Federal Treasury
- 25% is paid to the State Treasury
- 25% is paid Per Capita to each County
- 25% is paid Per Capita to each City, Township, Village, Native Territory and Port Authority.

For Private Rights of Way, such as existing Toll Roads, Rail Roads and utility rights of way will also receive a 50% revenue share.





# Executive Summary

One Page Interstate Traveler Operational Summary

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The Interstate Traveler Hydrogen Super Highway is a modular maglev rail system that is laminated with solar-panels which create enough power to operate all the basic systems for transportation, communications, security, water and sewer, etc., facilitated by the large cluster of conduits contained within the central support beam of the rail. The conduit cluster can be used for virtually any liquid and vapor based materials. Multiple conduits will also be dedicated to fiber optic cables for communication and super conducting electrical cables for power distribution.

The unique integration of components described above creates a self sustaining solar powered energy production and distribution system that is used to propel thousands of transport vehicles on the rail, and produce hydrogen and raw electrical energy to power traditional wheeled vehicles on the road ways, and supply hydrogen as a fuel to the growing aerospace industry in the coming decades.

The benefits of a clustered network of conduits include flexibility to enable regional networks where the larger main conduits may be dedicated to the transport of completely different liquids or gases. As an example, a network of Interstate Traveler Rail in a geographic region that is rich in crude oil resources can dedicate the largest conduits for the movement of crude oil from the field to the refinery. In other areas, the larger conduits can move agricultural methane or electrolytic hydrogen into general distribution.

The suspension system of the magnetically levitated Traveler Transports have the ability to adapt to g-forces on the fly so that the passengers will feel a greatly reduced sense of lateral movement that is felt when accelerating, decelerating and banking. Also, the suspension system enables the optimization of aerodynamics to employ the fuselage as a wing to generate lift and reduce the energy required to levitate the Transports and increase the available power for propulsion. The expected performance of the system should allow a full champagne flute to stand on a table virtually undisturbed during all normal operations.

The goals and expectations for national security include transportation reliability and safety along with resilient municipal infrastructure that is not easily damaged by typical annual weather systems and earth quakes. The Traveler meets all of these attributes, providing also a means with which to organize and optimize hundreds if not thousands of transports for emergency relief operations such as the evacuation of large districts of people in harms way from hurricanes and flood waters.

The transportation diversity opportunity created by the Traveler Rail enables an open platform where virtually any type of transport can be devised for virtually any purpose. Starting with public transit transports, freight transports and personal automobile transports for you in your car, there will also be mobile hospitals with a full compliment of emergency medical response services along with private and commercial transports for mobile restaurants, corporate / executive transports for business meetings, trade schools, universities, resorts, national park lands, and cathedrals of worship. Fleet services for large public venues crafted to promote the home-team professional sports organizations will be early adopters of this system to help "Pack the House" with public transportation.

Finally, the new national network of Traveler Stations will lay the foundation for thousands of new lease-hold franchise businesses that will serve the Travelers, provide the best public restroom facilities anywhere in the world and gainfully employ thousands of people for generations to come.





A	B	C	D	E	F	
1	<b>ITC Rail Installation Analysis</b>			#Cost per Mile lock stock and barrel		
2				1 mile = 5,280 feet 1 Kilometer = 3276 feet		
3	<b>Interstate Traveler Rail Costs/Kilometer</b>					
4	Qty	Units	Description	Cost	Amount	Notes
5	2	Kilometer	AMSC HTS Super Conductor Wire	\$120,000.00	\$240,000.00	
6	2	Kilometer	Solar Panel 72" wide x 1 Kilometer long	\$871,948.00	\$1,743,896.00	8' x 1' section of panel at \$266.00/foot
7	2	Kilometer	Concrete 3x3' x 12' concrete Piers	\$17,462.67	\$34,965.33	
8	1	Kilometer	Steel for Rail Tubing / Stanchion / Central Support	\$1,336,112.80	\$1,336,112.80	19.7300524530094 % of total cost / kilometer
9	27	Kilometer	Supplemental Conduit	\$3,278.00	\$88,506.00	\$1/ per foot
10	8	Kilometer	Fiber Optics	\$16,000.00	\$128,000.00	figured at \$5/ft get maybe purchase at \$.35/ft
11	0.25	Units/Kilometer	Full Function Utility Substation	\$1,500,000.00	\$375,000.00	One every FOUR kilometers (2.5 Miles)
12	1	Labor/Kilometer	100 people working simultaneously / 1 week	\$100,000.00	\$100,000.00	\$52k / Annual Salary equivalent or \$1k / week
13	1	Kilometer	Sitework / demolition / adjustment to overhead line	\$100,000.00	\$100,000.00	
14	4	Kilometer / pair of rail	Solid-state Magnets	\$655,600.00	\$2,622,400.00	\$200 / foot * 3276 for Pair or Rails
15	<b>Total cost of the Interstate Traveler Kilometers</b>			<b>\$6,768,880.13</b>		
16	Section Length (Feet)			60		
17	Cost per foot			\$2,064.94		
18	Cost per Section			\$136,286.18		
19	<b>Terminal Stations</b>					
20	Qty	Units	Description	Cost	Amount	Notes
21	0	Each	Grand Terminal Stations	\$8,000,000.00	\$0.00	
22	0	Each	Cloverleaf Stations "Traveler Station"	\$3,000,000.00	\$0.00	
23	0	Each	Car Ramp for Car Ferry w/ Parking Structure	\$2,000,000.00	\$0.00	
24	0	Kilometer	Sidetrack to Local Public Station (1Kilometer)	\$6,768,880.13	\$0.00	
25	0	Each	Remote Public Station, and parking (Private Land)	\$1,000,000.00	\$0.00	
26				\$0.00		
27						
28	<b>Interstate Traveler Public Cars</b>					
29	Qty	Units	Description	Cost	Amount	Notes
30	0	Each	Grand Public Car	\$1,000,000.00	\$0.00	
31	0	Each	Commuter Public Car	\$500,000.00	\$0.00	
32	0	Each	Car Ferry	\$300,000.00	\$0.00	
33						
34						
35						
36	<b>ITC Rail Installation Check List</b>					
37	Qty	Units	Description	Cost	Amount	Notes
38	108	Kilometer	Detroit to Ann Arbor	\$6,768,880.13	\$731,039,054.40	
39	-	Kilometer		\$6,768,880.13		
40	-	Kilometer		\$6,768,880.13		
41	4	Each	Grand Terminal Stations	\$8,000,000.00	\$32,000,000.00	
42	88	Each	Cloverleaf Stations "Traveler Station"	\$3,000,000.00	\$264,000,000.00	
43	34	Kilometer	Sidetrack to Local Public Station (1Kilometer)	\$6,768,880.13	\$230,141,924.53	
44	88	Each	Car Ramp for Car Ferry w/ Parking Structure	\$2,000,000.00	\$176,000,000.00	
45	-	Each	Remote Public Station, and parking (Private Land)	\$1,000,000.00	\$0.00	
46	2	Each	Grand Public Car (GPC)	\$1,000,000.00	\$2,000,000.00	
47	50	Each	Commuter Public Car (60 Passenger)	\$500,000.00	\$25,000,000.00	
48	44	Each	Freight Car	\$300,000.00	\$13,200,000.00	
49	110	Each	Car Ferry	\$300,000.00	\$33,000,000.00	
50	52	Total Commute Cars	<b>Total Cost for Interstate Traveler Installation</b>		<b>\$1,506,380,978.93</b>	
51	110	Total Car Ferry	Cost of Steel at 1200 dollars per ton at 30 tons per section		<b>\$279,360,576.00</b>	23%
52	180	Total Stations	<b>Balance</b>		<b>\$1,227,020,402.93</b>	81%
53	142.0	Total Kilometers				
54	88.2	Total Miles				
55	1.021	Pairs of Stations/Mile				
56	2.34	Cars/mile				
57	204	Total Cars				
58	<b>Cost per Kilometer Complete System</b>			<b>\$10,608,316.75</b>		
59	<b>Cost per Mile Complete System</b>			<b>\$17,082,635.67</b>		
60	<b>Convert Miles to Kilometers, Kilometers to Miles</b>					
61	Description	QTY	Amount	Units		
62	Enter Miles	2.50	4.0225	Kilometers		
63	Enter Kilometers	4.00	2.484	Miles		
64						
65				#Cost per Mile lock stock and barrel		
66						
67						



	A	B	C	D
1	<b>ITC Rail Return On Investment</b>			
2	via Fairbox Collections, Rent, Advertising			
3	Change values in yellow to see all figures update			
4	<b>The Interstate Traveler Project</b>			
5	Grow budget by x percent		0%	
6				
7	<b>Steps:</b>	<b>88 Miles from Detroit to Ann Arbor</b>	<b>88.18</b>	total Miles of track for this estimate
8	1	Passenger Fee / Minute	\$0.05	
9	2	Car Transport Fee / Minute	\$1.00	
10	3	Number of Commuter Cars:	50	
11	4	Number of Car Ferries	110	
12	5	Passengers Per Car	10	People
13	6	Average Time of Trip for Pedestrian	8	Minutes
14	7	Average Distance of Trip for Car Transport	20	Minutes
15		Total Simultaneous Capacity (Passengers Only)	500	
16		Total Number of 8 Minute Time Blocks / Day	180	
17		Total Daily Capacity (Average Time * Total Capacity)	90,000	
18	Pedestrian	Projected Use as an Average over 24 hours	100%	Percent of Capacity
19	Car Trans	Projected Use as an Average over 24 hours	100%	Percent of Capacity
20	Pedestrian	Total Projected Use <b>Daily</b>	90,000	Rides
21	Pedestrian	Total Projected Revenue <b>Daily</b>	\$36,000.00	
22	Pedestrian	Total Projected Use <b>Annually</b>	32,850,000	Rides
23	Pedestrian	Total Projected Revenue <b>Annually</b>	\$13,140,000.00	
24	Car Trans	Total Projected Use <b>Daily</b>	19,800	Rides
25	Car Trans	Total Projected Revenue <b>Daily</b>	\$19,800.00	
26	Car Trans	Total Projected Use <b>Annually</b>	7,227,000	Rides
27	Car Trans	Total Projected Revenue <b>Annually</b>	\$144,540,000.00	
28	Pedestrian	Revenue / Trip / Single Pedestrian at \$0.05 /minute for 8 minutes	\$0.400	Consumer Fee For Use on a Trip
29	Car Trans	Revenue / Trip / Single Car Transport at \$1 /minute for 20 minutes	\$20.000	Consumer Fee For Use on a Trip
30	Efficiency	Average Speed Traveled	120	Miles per hour
31	Efficiency	Possible Distance Covered Traveling at 120mph for 8 minutes	16	Miles
32	Car/Pedest	Revenue <b>All Transports/</b> Annually at xx% of Capacity	\$157,680,000.00	(freight is NOT included in this figure)
33		Advertising Revenue Calculations	\$1,405,824,000.00	
34		Rent Revenue Calculations	\$36,672,000.00	
35		<b>Total Annual Revenue for All Transports / Advertising / Rent</b>	<b>\$1,600,176,000.00</b>	
36				
37		<b>Budget&gt;&gt; Cost for Installation for 88.19 miles</b>	\$1,506,380,978.93	
38		<b>Total Annual Revenue</b>	\$1,600,176,000.00	
39		<b>Return on Investment at 100% of Revenue</b>	0.94138456	Years
40		<b>Dept Service Fund</b>	50%	
41		<b>Total Annual Dept Service Fund (P/IP Partnership)</b>	\$800,088,000.00	
42		<b>Return on Investment using Dept Service Fund</b>	1.883	Years
43				
44		Time to tool up manufacturing in Months	9.00	
45		Unforeseen Delays for Installation in Months	3.00	
46		Time to make and all parts in Months	24.27	
47		Total Months Until Fully Operational	36.27	
48		Total Years Until Operational	3.02	
49		Return on Investment in <b>Months</b> after made Operational	47.56	
50		Return on Investment <b>Years Including Startup time</b>	3.96	
51		Michigan Population	10,079,985	
52		PerCapita Revenue for State of Michigan	\$20	
53		Detroit Population	900,000	
54		<b>Detroit Annual Revenue Per Capita for 88.19 miles</b>	<b>\$17,859,134</b>	
55				
56				





	A	B	C	D	E
1	<b>Interstate Traveler Company, LLC</b>				
2	<b>Job Creation Estimates</b>				
3	Does Not include Construction Jobs for Rail, Traveler Stations, Etc. or Maintenance				
4	<b>Detroit to Ann Arbor</b>				
5	88	Miles of Rail			
6	84	Traveler Stations			
7	3	Lease Hold Businesses / Stations			
8	252	Total Businesses			
9	10	Employees / Business			
10	2,520	Total Employees in Traveler Stations			
11	264	Transports on System			
12	5	Concierge / Transport			
13	1,320	Concierge Employees			
14	<b>3,840</b>	<b>Total Employees (estimated)</b>			
15					
16	<b>Michigan Eisenhower System</b>				
17	1,400	Miles of Rail			
18	560	Traveler Stations (est)			
19	3	Lease Hold Business / Station			
20	1,680	Total Business			
21	10	Employees / Business			
22	16,800	Total Employees in Traveler Stations			
23	4,200	Transports on System			
24	5	Concierge / Transport			
25	21,000	Concierge Employees			
26	<b>37,800</b>	<b>Total Employees (estimated)</b>			
27					
28					
29	<b>Eisenhower Interstate Highway System</b>				
30	54,000	Miles of Rail			
31	20,000	Traveler Stations (est)			
32	3	Lease Hold Business / Station			
33	60,000	Total Business			
34	10	Employees / Business			
35	600,000	Total Employees in Traveler Stations			
36	162,000	Transports on System			
37	5	Concierge / Transport			
38	810,000	Concierge Employees			
39	<b>1,410,000</b>	<b>Total Employees (estimated)</b>			
40					





	A	B	C	D	E	F
1	<b>Interstate Traveler Energy Calculator</b>					
2	1 watt-hour = 3.4121415 Btu					
3	<i>Enter Values in fields marked in Yellow</i>					
4	<b>ITC Rail Combined Wattage Output of Two Parallel Tracks Combined</b>					
5	Mile		5,280	ft		
6	Width (two parallel tracks combined)		16	ft		
7	Area		84,480	SqFt/mile		
8	Watts/SqFt ( set at 12 )		8	watts/SqFt	( should be 12 )	
9	Total Watts		675,840	Watts/mile/hour		
10	Total Solar Hours/day		6	Solar Hours/day		
11	Total Watts/day/mile		4,055,040	watts/day/mile		
12	Total Miles ( set at 54,000 )		54,000	miles	( should be 54,000 )	
13	Total watts/day/all miles		218,972,160,000	Total watts/day/all miles		
14	Total Watts/year		79,924,838,400,000	Total watts/year		
15	<b>Traveler Stations Combined Wattage Output of Total Roof Mounted PV Grid</b>					
16	Traveler Station Frequency		2	Every 5 Miles	( should be 2 every 5 )	
17	Total Traveler Stations		21,600			
18	Average Roof Size (PV)		8,000	SqFt Roof-mounted PV Grid		
19	Minimum watts/SqFt		12			
20	Total Watts/hr/station		96,000			
21	Total Watts/hr/all stations		2,073,600,000			
22	Total Watts/day/all stations		12,441,600,000			
23	Total Watts/year/all stations		4,541,184,000,000			
24	<b>Transports Combined Wattage Output of Total Roof-Mounted PV Grid</b>					
25	Total Number of Transports/m		3	Transports/Mile ( should be 3 per mile)		
26	Total Transports on System		162,000			
27	Total SqFt or roof area		160	SqFt of PV on Roof		
28	Total SqFt all Transports		25,920,000	Total SqFt PV		
29	Minimum watts/SqFt		22			
30	Total Solar Hours / Day		8			
31	Total Watts/hr/Transport		3,520			
32	Total Watts/hr/all Transports		570,240,000			
33	Total Watts/day/all Transports		4,561,920,000			
34	Total Watts/year/all Transports		1,665,100,800,000			
35	<b>The Roof (symetrical arch)</b>					
36	Diameter		500			
37	Radius		250			
38	Circumference		1571.428571			
39	Pi		3.142857143			
40	Highway ROW Width		300			
41	Percent of Circumference for r		20.35%			
42	Roof Width		320			
43	Length		5,280			
44	Area		1,688,469			
45	Percent dedicated to PV		80%			
46	Total Surface area of PV Mile		1,350,775			
47	Watts/SqFt		5			
48	Total Watts/Mile/hour		6,753,874			
49	Total Solar Hours / Day		6	Solar Day (Hours)		
50	Total Watts/Mile/Day		40,523,246			
51	Total Number of Miles		5,000	100 miles / state		
52	Total Watts/Solar Day / all mile		202,616,228,571			
53	Total Watts/year		73,954,923,428,571			
54	Total Kilowatts/year		73,954,923,429			
55	Total Megawatts/year		73,954,923			
56	Total Gigawatts/year		73,955			
57	Total Terawatts/year		73.95			
58	Total BTU / year		21,674,049,399,350			
59	Total Quad /year		0.0216740			
60	<b>Grand Totals of Rail + Stations + Transports + Roof PV Grid Combined</b>					
61	Total Watts/year		160,086,046,628,571			
62	Total Kilowatts/year		160,086,046,629			
63	Total Megawatts/year		160,086,047			
64	Total GigaWatts/year		160,086			
65	Total Terawatts/year		160			
66	Value of a Kilowatt		\$0.10			
67	Total Electrical Output Value		\$16,008,604,662.86			
68	Total BTU/year		546,236,243,272,284.000			
69	Total Quadrillion BTU/year		0.546	A unit called the <u>quad</u> (short for <u>quadrillion</u> ) is		
70	Total watts/ncmh		4,200	watts/normal cubic meter of Hydrogen		
71	Total Cu Meter Hydrogen/year		38,115,725,388	Total ncmh / year		
72	Gasoline Equivalent Units		3,811,572,539	Gasoline Equivalent Units 10ncmh/1 Gal Gas		
73	Number of Cars Sustained/yea		3,970,388.061	Same as 960 gals/year/car		
74	Total number of automobiles		500,000,000			
75	Percent of All Cars in America		0.79%	Percent sustained equivalent		





	A	B	C	D	E	F	G
1	<b>Nested Domain Addressing System</b>						
2	Top Level	USA					
3	Second	State					
4	Third	County					
5	Fourth	Township / City / Villiage					
6	Fifth	Private Network					
7	Sixth	Private Terminal					
8							
9	Example of Addressing Method					Marker:	.
10	<b>Ordinate Value / Position</b>						
11	USA	1					
12	Michigan		14				
13	Wayne County			1			
14	Redford				8		
15	Shopping Center					2	
16	Stop Number						6
17		1	14	1	8	2	6
18	<b>Departure ID 1.14.1.8.2.6</b>						
19							
20	<b>Ordinate Value / Position</b>						
21	USA	1					
22	Illinois		17				
23	Cook County			14			
24	Chicago				1		
25	Shopping Center					16	
26	Stop Number						5
27		1	17	14	1	16	5
28	<b>Destination ID 1.17.14.1.16.5</b>						
29							



# Comparisons of Services

## Conventional Mag/Lev Rail

Construction cost: \$36 million per mile  
Requires subsidies from Fed, State, and local  
50+ Year return on investment  
700 feet turning radius  
Relies on old technology  
Ground level issues (traffc/animals, etc.)  
Need to acquire additional land to build  
Single revenue source  
  
Foreign designed and built  
Built and functioning in 12 years  
Transportation district owned vehicles  
Requires service road for construction and maintenance  
Passengers only  
Minimal choices in lines/stops/stations  
Rider fare \$20+/ride  
Requires driver/conductor  
Isolated systems (regional, point-to-point)  
97 thousand jobs created (CA)  
Concrete construction (60 year life span)  
Interferes with existing traffic for construction  
Burns fossil fuel for electricity to run system  
No additional services provided  
  
Requires an electrical grid to plug into  
Quiet operation

## Interstate Traveler

Construction cost: \$10 million per mile  
Subsidizes Fed, State, and local Governments  
<2year return on investment  
60 feet turning radius  
State-of-the-art technology  
Operates above traffic, bridges, kids, and homes  
Uses existing interstate highway rights of way  
Multiple revenue sources (electricity, hydrogen, water, freight, Passengers, advertising, conduit cluster, rental income, TCP/IP, and energy storage)  
USA designed and built  
Built and functioning in 3 years  
Public and privately owned vehicles  
No service road for construction and maintenance (built from upon itself)  
Passenger, freight, and vehicle transport  
Unlimited destination options  
Rider fare \$0.05/Minute  
Driver-less TCP/IP operation  
Would connect to national system  
Over 1 million new jobs created (CA)  
Stainless steel construction (100+ year life span)  
No traffic interruption during construction  
Environmentally perfect, uses solar and hydrogen  
Provides conduit cluster for: cable, fber optics, telephone, water, hydrogen/oxygen, electricity, sewage, and other gases and fluids  
No grid needed, produces own power  
Quiet operation and environmentally perfect  
Creates fresh water from salt water, rivers, and contaminated water (highway run-off)  
Dedicated system for Homeland Security  
Moves the US to a hydrogen economy in 15 years



# STATE OF MICHIGAN



## HOUSE OF REPRESENTATIVES

### House Resolution No. 23

Offered by Representatives DeRossett, Adamini, Anderson, Brown, Ehardt, Elkins, Gielegem, Gillard, Jamnick, Koetje, Lipsey, Meyer, Sheltroun, Woodward, Zelenko, Amos, Bradstreet, Gleason, Hager, Howell, Murphy, Nofs, Pastor, Shackleton, Stakoe, Tobocman, Vander Veen, Voorhees, Ward and Paletko

**A RESOLUTION TO MEMORIALIZE CONGRESS TO ENACT LEGISLATION TO SUPPORT RESEARCH, DEVELOPMENT, AND CONSTRUCTION OF THE INTERSTATE TRAVELER PROJECT THROUGH THE REAUTHORIZATION OF THE TRANSPORTATION EQUITY ACT OF THE 21ST CENTURY (TEA-21) AND/OR OTHER RELATED FEDERAL PROGRAMS**

WHEREAS, The Interstate Traveler Project is an elevated maglev (magnetic levitation) rail mass transit system that is based upon a conduit cluster concept powered by hydrogen and solar power. The project promises to provide travelers with a clean, quiet, safe, reliable mode of transportation. The intent of the project is to create the world's first switchable maglev rail network that will provide inter-urban/inter-city pedestrian, automobile, and light freight transit services. The project will simultaneously produce, store, and distribute hydrogen, which will not only serve as an alternative energy resource, but also will give Michigan's automakers the incentive to produce hydrogen internal combustion engines, fuel cell cars, and the manufacturing opportunity to build maglev rail cars; and

WHEREAS, By fully integrating with the interstate highway system, existing transportation infrastructure, and mass transit systems, the Interstate Traveler Project seeks to reduce traffic congestion and air pollution while improving traffic safety and efficiency. The Interstate Traveler Project substations will utilize the existing interstate highway system's entrances and exits, providing a seamless link of private automobiles, pedestrian traffic, existing municipal bus routes, and taxi services. These substations will also support the hydrogen distribution system, as well as fiber optics, water, electricity, and other utilities. Although the Interstate Traveler Project is ideally suited for the interstate highway system, it may also be integrated with existing and abandoned railroad right-of-ways or along other appropriate lands; and

WHEREAS, The Interstate Traveler Project is consistent with the 2003 State-of-the-Union address which called on Congress to appropriate \$1.2 billion for hydrogen fuel cell technology; now, therefore, be it

RESOLVED by the House of Representatives, That we memorialize Congress to enact legislation to support research, development, and construction of the Interstate Traveler Project through the reauthorization of the Transportation Equity Act of the 21st Century (TEA-21) and/or other related federal programs; and be it further

RESOLVED, That copies of this resolution be transmitted to the President of the United States Senate, the Speaker of the United States House of Representatives, and the members of the Michigan congressional delegation.

Adopted by the House of Representatives, April 10, 2003.



*Jay E. Randall*  
CLERK OF THE HOUSE OF REPRESENTATIVES

# STATE OF MICHIGAN



## MICHIGAN SENATE

### Senate Resolution No. 89

Offered by Senators Allen, Kuipers, Jelinek, Prusi, Cropsey, Cassis, Goschka, Gilbert and Clarke

A RESOLUTION TO MEMORIALIZE CONGRESS TO ENACT LEGISLATION TO SUPPORT RESEARCH, DEVELOPMENT, AND CONSTRUCTION OF THE INTERSTATE TRAVELER PROJECT THROUGH THE REAUTHORIZATION OF THE TRANSPORTATION EQUITY ACT OF THE 21ST CENTURY (TEA-21) AND/OR OTHER RELATED FEDERAL PROGRAMS

WHEREAS, The Interstate Traveler Project is an elevated maglev (magnetic levitation) rail mass transit system that is based upon a conduit cluster concept powered by hydrogen and solar power. The project promises to provide travelers with a clean, quiet, safe, reliable mode of transportation. The intent of the project is to create the world's first switchable maglev rail network that will provide interurban/intercity pedestrian, automobile, and light freight transit services. The project will simultaneously produce, store, and distribute hydrogen, which will not only serve as an alternative energy source, but also give Michigan's automakers the incentive to produce hydrogen internal combustion engines, fuel cell cars, and the manufacturing opportunity to build maglev rail cars; and

WHEREAS, By fully integrating with the interstate highway system, existing transportation infrastructure, and mass transit systems, the Interstate Traveler Project seeks to reduce traffic congestion and air pollution while improving traffic safety and efficiency. The Interstate Traveler Project substations will utilize the existing interstate highway system's entrances and exits, providing a seamless link of private automobiles, pedestrian traffic, existing municipal bus routes, and taxi services. These substations will also support the hydrogen distribution system, as well as fiber optics, water, electricity, and other utilities. Although the Interstate Traveler Project is ideally suited for the interstate highway system, it may also be integrated with existing and abandoned railroad right-of-ways or along other appropriate lands; and

WHEREAS, The Interstate Traveler Project is consistent with the 2003 State of the Union address, which called on Congress to appropriate \$1.2 billion for hydrogen fuel cell technology; now, therefore, be it

RESOLVED BY THE SENATE, That we memorialize Congress to enact legislation to support research, development, and construction of the Interstate Traveler Project through the reauthorization of the Transportation Equity Act of the 21st Century (TEA-21) and/or other related federal programs; and be it further

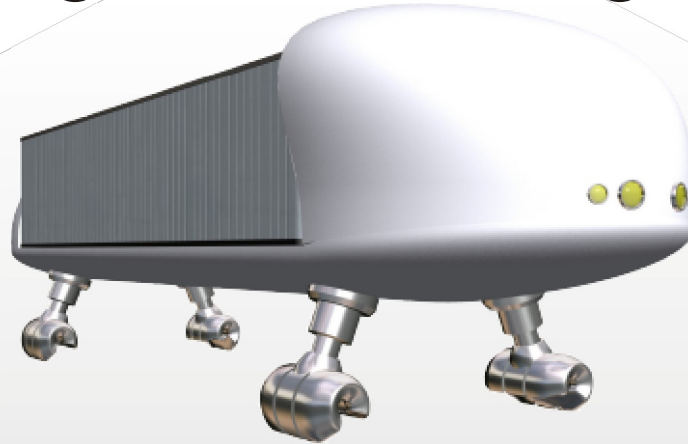
RESOLVED, That a copy of this resolution be transmitted to the President of the United States Senate, the Speaker of the United States House of Representatives, and the members of the Michigan congressional delegation.

Adopted by the Senate, May 28, 2003.

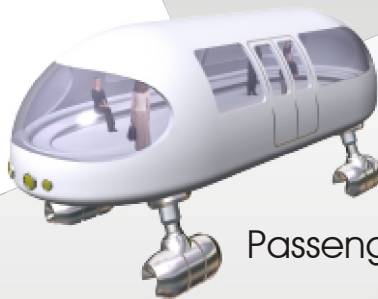




# WorldWide Hydrogen Super Highways



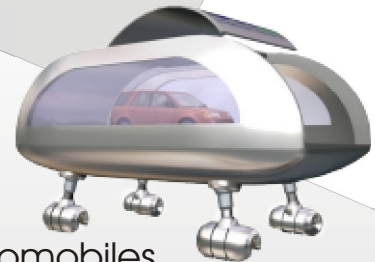
High Speed Containerized Shipping



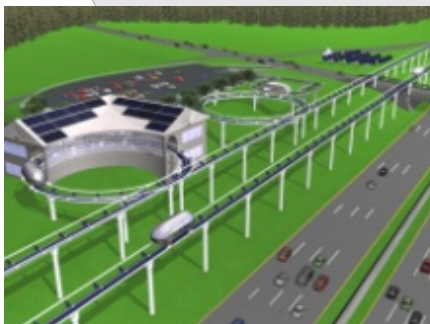
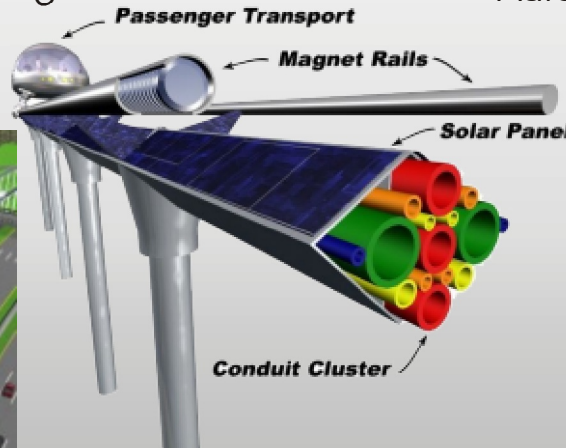
Passengers



Freight



Automobiles



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Magazine Ready Art



WorldWide

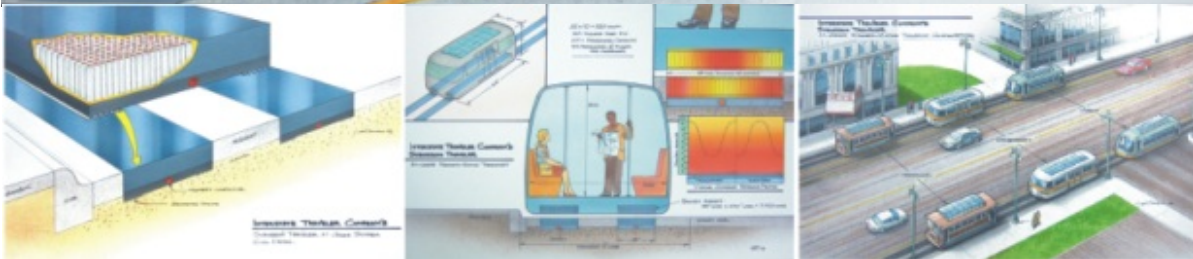
Hydrogen Super Highways

# Solar City Traveler

At-grade Public Transit For City Streets



**TRANSPORT PASSENGER CANOPY**  
CANOPY IS TWO PANELS OF 24'x19' x 152 sqft.  
400 sqft of SOLAR PANELS



Solar Powered Public Transportation - Safe - Clean - Quiet

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< [www.HydrogenSuperHighway.com](http://www.HydrogenSuperHighway.com) >

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