

HSH vs ETT

Brief Comparative Analysis between HSH MagLev Rail and Evacuated Tube Transport

HSH: Hydrogen Super Highway Elevated Maglev Rail transportation guideway (Network System)

ETT: Evacuated Tube Transport transportation guideway (Point to Point Only)

Premise: The movement of a transportation vehicle from one place to another can be accomplished in a vast array of means, yet, when consideration is focused on the needs of a growing population world wide mostly emerging in sprawling dense city, urban, suburban and industrial regions with vast unpopulated regions to cross between these population centers; it is wise to build a system that will serve the existing needs of the population (via bio-mimicry) patterned after a branching and interconnecting network methodology that serves the local micro-economic as well as the regional macro-economic market demands with flexibility, adaptability and equality of service yielding seamless access by the rich and poor alike.

Rational Basis: How then to fashion a system that will mimic the growth of the populations of humanity? The most ideal means is to fashion a system that will upgrade and make more safe and efficient the vast network of existing roadways that are already the primary arteries of the movement of people and commerce in general. The HSH is created to match in scale and the existing network topology of the local road and continental scale highway / railway networks as well as create new overland networks where no roads yet exist. The HSH is designed to accomplish this without having a need for a ground level service road of any kind by being installed with rail mounted machines and to exceed the speeds of all practical rail transportation systems.

The HSH is designed to be installed without any boots on the ground. ETT is not.

The HSH is optimized for mass production of plug and play rail components. ETT is not.

The HSH installation crane is expected to install one prefabricated section per hour. Each section is 88 feet, therefore the average rate of installation for each installation crane is $(24/\text{day} * 88\text{ft} = 2112 \text{ feet per day/crane})$

The HSH rail production facility is expected to produce 200 sections per day with 8 installation cranes servicing each production facility enabling the installation of 196 sections per day or 17,600 feet / day / factory.

The HSH is a switchable and interconnectable network topology that can be easily installed and reconfigured and is the only system to publish a fully TCP/IP modeled transportation system in 2002. ETT is not.

The HSH embedded pipeline technology enables a fully self-sustaining system providing secure transportation for volatile commercial hydrocarbon products until such time as the demand for liquid and gaseous hydrocarbons is phased out increasing environmental safety with reduced insurance costs. ETT does not.

The HSH provides three dimensional movement of all transports mounted to individual slotted linear motors which enables the near complete mitigation of lateral g-forces normally experienced on linear actuated systems like cars, trucks and trains; the HSH transports tilts in real time to accommodate acceleration, deceleration and banking at any speed and on any curvature of the guideway with high precision. ETT does not.

The HSH maglev system provides a guideway for vehicles of almost any size and shape and mass exceeding 144,000 lbs (72 Tons). ETT does not.

The HSH provides emergency medical response to respond to accident on adjacent roads. ETT does not.

The HSH maglev system provides full hub/spoke round-about topology for network integration. ETT does not.

The HSH provides a proprietary store and forward loop buffer system that provides unobstructed access to rail and stations that allow transports to access stations and rail on-demand enabling transports to operate unique time tables and destinations while sharing the same mainline rail system. ETT does not.

The HSH maglev system is scalable and interconnectable. ETT is not.

The HSH maglev system provide for immediate evacuation of a transport at any location. ETT does not.

Conventional Maglev / ETT / HSR	Interstate Traveler Company's HSH MagLev
Construction cost: \$12 - \$150 million per mile	Construction cost: \$10 - \$32 million per mile
Burns fossil fuel for electricity to run system	Environmentally perfect, uses solar and hydrogen
Requires subsidies from Fed, State, and Local	Provides Revenue to Fed, State, and local Governments
50+ year return on investment (not profitable)	< 3 year return on investment (immediately profitable)
2,300+ foot turning radius	< 60 feet turning radius
Relies on old technology	New State-of-the-art linear motor technology
Ground level issues (traffic/animals, etc.)	Operates above traffic, bridges, kids, and homes
Requires service road for construction	No service road for construction and maintenance
Single revenue source	Multiple revenue sources (electricity, hydrogen, water, freight, passengers, advertising, conduit cluster, rental income, TCP/IP, and energy storage)
Passengers only	Passenger, Freight, Medical and vehicle transport
Limited Point to Point option for stops/stations	Connects local and regional to national system
Rider fare \$20+/ride	Rider fare set to the same or less than cars today
Concrete construction (40 year life span)	Stainless steel construction (100s of years life span)
Interferes with existing traffic for construction	No traffic interruption during construction
No additional services provided	Provides conduit cluster for: cable, fiber optics, telephone, water, hydrogen/oxygen, electricity, sewage, and other gases and fluids

Features	HSH	ETT
Fully Self Sustaining	Yes	No
Solar / Hydrogen Base Power System	Yes	No
Embedded Hydrogen Production/Distribution	Yes	No
Embedded Commercial Pipelines	Yes	No
Embedded Utilities	Yes	No
Solid Waste Processing	Yes	No
Embedded Commercial / Government Terabit Data Network	Yes	No
Production of Massive Amounts of Pure Water	Yes	No
Production of Massive Amounts of Hydroponic Agri-Water	Yes	No
Transports of any size / shape / Mass	Yes	No
Public & Private Transport Ownership	Yes	No
Macro/Micro Network Topology	Yes	No
Net Revenue Producer for Government	Yes	No
Optimized for Interstate Highway Civil Engineering	Yes	No
Has Very Short Turning Radius Less than 60 feet	Yes	No
Has Massive Turning Radius More than 2,300 feet	No	Yes
Requires Deadly/Dangerous Decompression to Operate	No	Yes
Has Zero Scalability/Flexibility	No	Yes
Requires New Dedicated Right of Way	No	Yes