



### Quick Facts

- Operating speeds from 0 to 310 mph (0 to 500 km/h)
- Operates in all weather conditions - ice, snow and high winds
- Attractive magnetic forces levitate the vehicle
- Utilizes conventional electromagnetics
- No super conductors or cryogenic cooling
- Small levitation air gap (~3/8 inch) 6" clearance between vehicle to top of guideway
- The Maglev system proposed to be built is approximately a 50-mile long linear motor
- Accelerates and brakes four times faster than high speed rail
- No seat belts required - system controlled braking and acceleration
- A safe transportation system
- Elevated guideway - no ground level road crossings
- Vehicle climbs grades of up to 10% (rail 3-4%, typical highways 5-6%)
- Entire system designed for passenger comfort
- Very low electromagnetic fields - comparable to fields from the earth
- Environmentally friendly - low power consumption, small installation footprint, no emissions
- Operational control from centralized command center
- Low maintenance costs

# THE PENNSYLVANIA HIGH-SPEED MAGLEV PROJECT

## An Introduction to Maglev Technology

The maglev technology system developed by Transrapid International is the high-speed technology proposed for the Pennsylvania High-Speed Maglev Project. *Maglev* is short for *magnetic levitation* and is a new and proven mode of high-speed guided ground transportation in which magnetic forces are used to suspend, guide and propel the vehicles on the guideway. With the Transrapid system there are no wheels, no moving parts and no physical contact with the guideway. Therefore, there is no friction and wear on moving parts. The absence of contact results in an exceptional ride quality for the passenger, quiet operation and reduced maintenance costs.

