

*CALTRANS PRIVATIZATION PROJECT*

# **LAX TO PALMDALE TRANSIT**

**Phase I - LAX to Santa Clarita**

**Phase II - Santa Clarita to Palmdale**

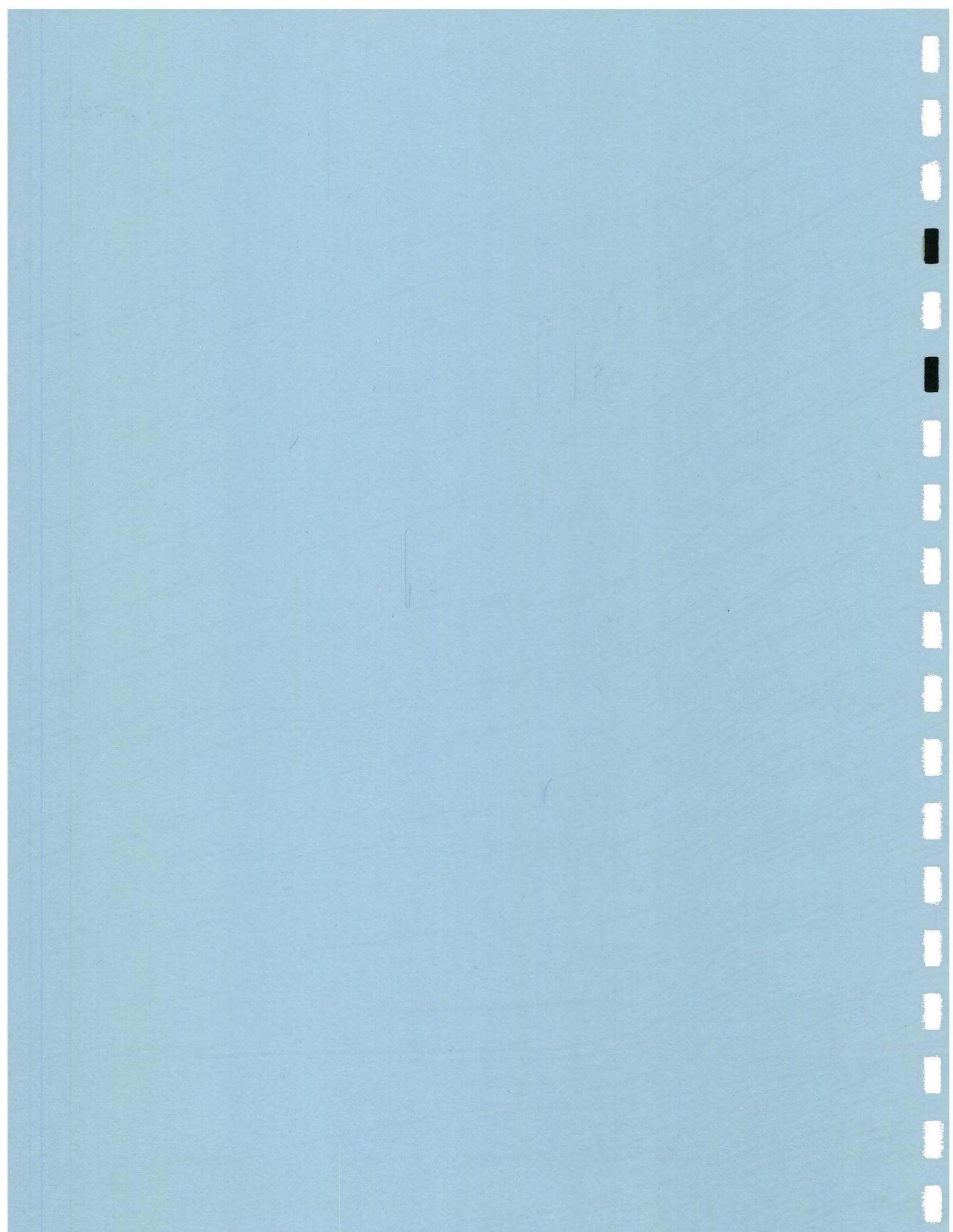
A Consortium of

**Perini Corporation**

and

**DMJM**

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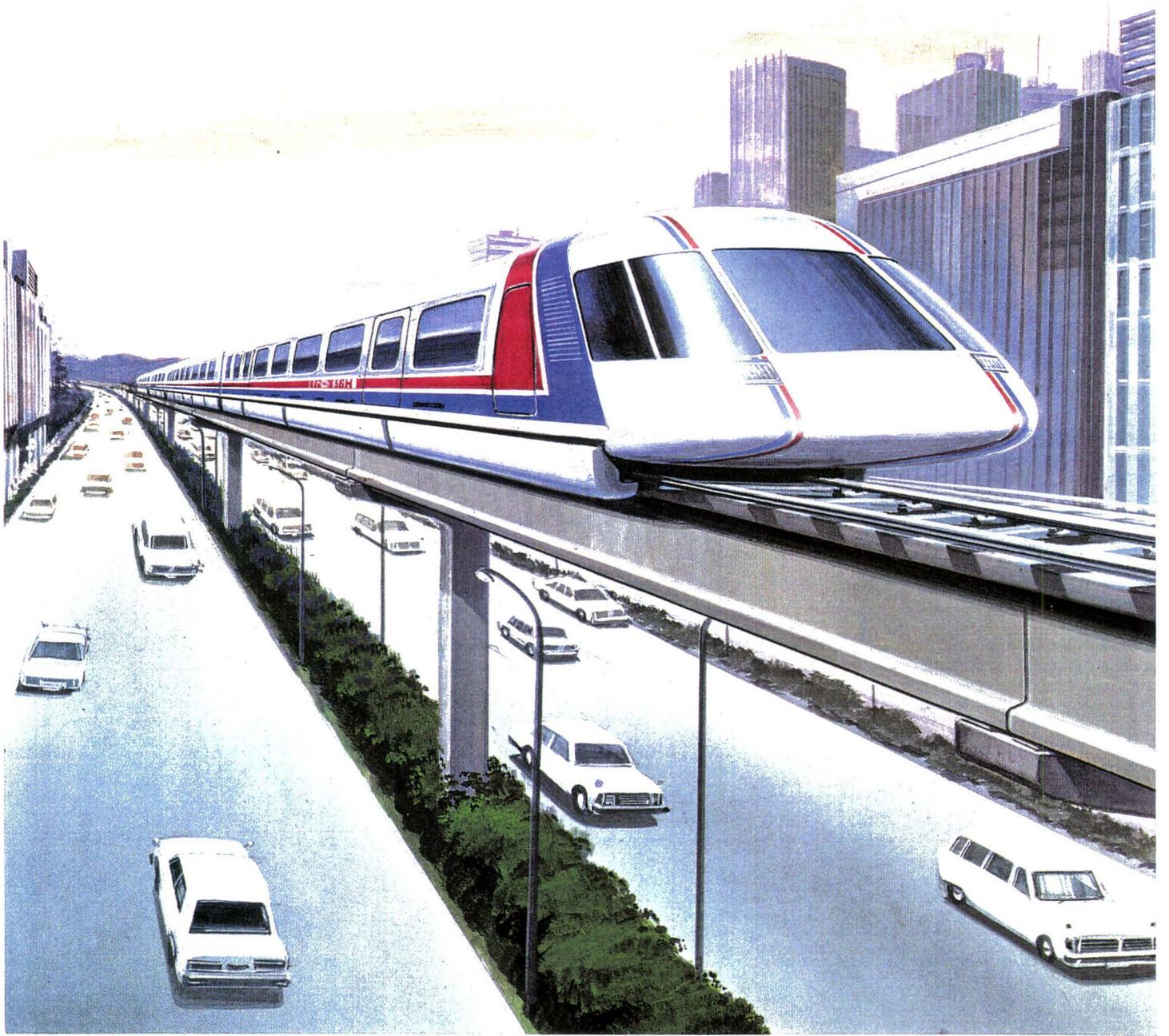
**LAX TO PALMDALE TRANSIT**

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June 1990

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## EXECUTIVE SUMMARY

Los Angeles is being given the opportunity to gain a privately financed transportation system that will provide a new - creative - unique solution to the congestion and mobility problems that exist on several of the regions's heaviest traveled corridors.

The consortium of Perini/DMJM is proposing a transit project utilizing the most advanced technology in the world today, a magnetic levitation (maglev) system, developed by the High Speed Surface Transport (HSST) Corporation.

The project will ultimately provide a physical connection between the Los Angeles International Airport (LAX) and the proposed Palmdale Regional (or possibly International) Airport. The project will be staged in two phases, with Phase I initially being built between LAX and the Santa Clarita area utilizing the Route 405, 5, and 14 Freeway corridors. Phase II will extend the project from the Santa Clarita area to Palmdale using the Route 14 Freeway corridor.

This project proposal being prepared by the Perini/DMJM consortium for submittal to Caltrans is an outgrowth of recently passed legislation, Assembly Bill No. 680. This legislation directs Caltrans to solicit and enter into privatization partnerships with private entities to design, build and operate four privately financed transportation demonstration projects. Of these, AB 680 requires one project to be in Northern California, one in the South, and two at large.

The Perini/DMJM consortium is one of the nine that has been qualified by Caltrans to submit project proposals, from which the four projects will be chosen.

If this project is selected by Caltrans for implementation, it will be subject to a thorough environmental and community review. Every effort will be made to enhance the quality of life in the areas to be served by the project. This privately funded project will provide a much needed increase in public transportation service and capacity that is otherwise years away from realization. It will provide a high quality service, relieving heavy travel corridors plus be non-disruptive to the environment. The proposed maglev system will provide Southern California with the most advanced transportation technology in existence, superior in virtually all respects to conventional modes. It will complement, and be integrated with, the LACTC rail network. The HSST maglev system has carried over 2 million passengers safely, and has a proven operational record. The maglev vehicles are: - fast - non-polluting - quiet - safe - comfortable - economical.

The purpose of this briefing paper is to introduce to you the project being proposed by the Perini/DMJM consortium under the Caltrans privatization project.

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## BACKGROUND

Recent legislation, Assembly Bill No. 680, authorizes Caltrans to enter into partnerships with private entities to design, build, transfer, and operate four transportation demonstration projects. At least one of these is to be in Northern California, and one in Southern California.

Projects may include all types of transportation facilities, such as highways, bridges, transit systems, exclusive truck lanes and freight ways. Projects must be supplemental to existing state-owned transportation facilities and must increase or improve transportation service.

Nine project sponsors have been qualified to submit conceptual project proposals by August 1, 1990 to Caltrans for their evaluation and selection of the four most desirable demonstration projects. The consortium of Perini Corporation and DMJM (Pg.5) is one of the qualified sponsors.

Each proposal will be evaluated based on a series of criteria, including: transportation services provided; environmental evaluation; financial plan; and documentation of local support.

Upon project selection, expected in about mid-September '90, the project sponsor will execute agreements with Caltrans and begin the project development process through environmental clearance.

The sponsor will then complete final design, acquire any needed right of way, obtain necessary permits, and construct the project.

Upon completion of construction, the project sponsor will transfer ownership of the facility to Caltrans who will lease back the facility to the project sponsor to operate and maintain.

The projects may include land development on state-owned property and immediately adjacent private property, but must satisfy state and local laws, including environmental and land use regulations.

The projects are to be funded by private sources without financial involvement of state or federal funds. Local entities may contribute funding and/or project support by giving it high priority for regulatory approvals and permit processing.

Project investors will be allowed to recoup their investment and a profit through fares or tolls and land development revenues during the lease period. The transportation facility will revert to the state at the expiration of the lease.

## PROJECT DESCRIPTION

The privatization project that PERINI/DMJM are proposing consists of a transit system using state-of-the-art magnetic levitation (maglev), ultimately connecting Los Angeles International Airport (LAX) with the proposed Palmdale Regional (or possibly International) Airport.

The project will be staged in two phases, with Phase I initially being built between LAX and the Santa Clarita area. The alignment will generally follow within the freeway rights of way of the San Diego Freeway (I-405), Golden State Freeway (I-5) and the Antelope Valley Freeway (Rte. 14), with a length of about 36 miles.

The project's southerly terminus is proposed in the vicinity of LAX's parking Lot 'C' where the Norwalk-El Segundo Light Rail (Green Line) will interface with LAX's Transportation Center. Currently an LAX multimodal study is investigating a series of alternatives including a people mover system that would connect the Lot 'C' Transportation Center with the roadway loop within the center of the airport (World Way). The possibility of extending the proposed maglev system into the airport terminal will be investigated.

The northerly terminus of Phase I is proposed in the Santa Clarita area at either the intersection of the Antelope Valley Freeway (Rte. 14) and the future connection of the Rte. 126 Freeway or at the intersection of the Rte. 14 Freeway and San Fernando Rd.

Within Phase I there are proposed stations and/or transportation centers at most freeway-to-freeway interchanges, at some major street interchanges, and at transit connections such as the Metro Rail System (Red Line) and the Norwalk-El Segundo Light Rail System (Green Line).

The transportation function of Phase I is to serve as a feeder to LAX and its nearby employment centers and to the regional rapid transit system now under development. The system will also relieve automobile traffic, diverting riders and vehicles off of the crowded freeway corridors in the service area. It will also interface with local bus and van services, providing the maximum possible range of opportunity for travellers to utilize it on their journeys. Stations will be provided with automobile parking and with bus, van, and automobile drop-off facilities.

Phase II of the project will extend from the Santa Clarita area to the proposed Palmdale Airport, a distance of about 33 miles.

The alignment will be located within the Rte. 14 Freeway until reaching Palmdale, where it will veer east until reaching its terminus at the future Palmdale Airport. Proposed at this

## PROJECT DESCRIPTION - Cont'd.

terminus is a major transportation center which will also provide an interface with the high speed train connecting Las Vegas with Southern California.

The transportation function of Phase II includes that of Phase I, but incorporates the additional features of expanded service area, linkage of the LAX and Palmdale airport facilities, and linkage to the proposed high speed train to Las Vegas.

Current planning of the high speed train between Las Vegas and Southern California include terminating in Anaheim, but with consideration of a spur line running to Palmdale provided there is a complementary connection from Palmdale into the L.A. Basin. The Perini/DMJM project provides this connection.

Phase I and Phase II will allow the existing transportation infrastructure in the service area to accommodate a substantially greater volume of travelers with minimal impact on its surroundings. The project allows for the projected greater future travel volumes to occur, while keeping the increased person flows generally isolated from the neighboring communities.

### PROPOSED TRANSIT SYSTEM

A maglev system, considered by many people in the public transportation field as the technology of the future, is proposed for this project. Perini/DMJM chose this technology for its project because of its following advantages:

- o Comfortable ride
- o Free of air and noise pollution and vibration
- o Aesthetically attractive
- o Economical
- o Reliable
- o Safe
- o Range of speed applicability
- o Less energy consumption

The maglev vehicle is propelled by a linear motor along a track over which it magnetically floats. As there is no rail-wheel contact between the vehicle and guideway, the problems of noise and vibration associated with conventional rail systems are essentially eliminated. Due to the system's simplicity and the vehicle's light weight, a comparatively light track structure is required. Maglev also occupies less physical land space, standing on slimline, easily constructed columns. This facilitates implementation in the available space, with minimal land encroachment problems, and also reduces the problems of visual obtrusion.

The 'no-friction, no-moving parts' features of maglev allow it to operate on only a fraction of the power required by wheeled

PROPOSED TRANSIT SYSTEM - Cont'd.

systems. Using electric power, it contributes to substantial reductions in automobile pollutants.

The maglev vehicle straddles and surrounds the guideway structure, eliminating the possibility of derailment or toppling.

A central automated control system controls the vehicle operations at a level of safety higher than that possible with human operators, and ensures that collisions are a virtual impossibility.

The automated control, coupled with the high performance capabilities of maglev technology, allows the system proposed here to operate efficiently at a high frequency of service and at high average speeds. The intended speeds of the maglev vehicles for this project are generally in the range of 70 to 80 mph between stations with speeds in excess of 100 mph where there is sufficient distance for acceleration and deceleration. The resulting service level is substantially superior to that achieved by conventional transit technology. Considering the state of Southern California's freeways and arterials, the system will also be substantially superior to automobile travel.



## CONSORTIUM

- o PERINI CORPORATION  
Construction management

The Perini Corporation provides diversified construction and construction management services for public and private clients throughout the world.

- o DMJM  
Traffic and environmental studies, preliminary and final design

DMJM is a multidisciplinary firm providing engineering, architecture, program management, management planning, feasibility and economic studies, environmental assessment, systems design, construction management, and construction inspection services to public, military, and private clients worldwide.

- o In Association With:

- HIGH SPEED SURFACE TRANSPORT (HSST)  
Magnetic Levitation Technology

HSST Corporation is a developer of maglev transportation technology for implementation in urban areas. Identified by the Wall Street Journal as one of the top 100 companies of the future, the HSST Corporation has been responsible for the operation of maglev systems in Japanese and North American cities, carrying over 2 million revenue passengers.

- BANK OF AMERICA  
Financial Advisor

Bank of America and its affiliates provide diverse financial products and services to customers throughout the world. Its parent, Bank America Corporation, has assets near \$100 billion.

- LOCKHEED AIR TERMINAL (LAT)  
Operations and Maintenance

LAT is a wholly owned subsidiary of Lockheed Corporation, which provides operation and maintenance services for transportation facilities throughout the world.

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