



## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### HIGH-SPEED TRAIN PROJECT MANAGEMENT TEAM

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Over the past decade, operating with a small staff and budget, the California High-Speed Rail Authority has quietly and efficiently prepared the way for construction of the first and only contemporary, all-new high-speed train operating on dedicated right-of-way in the United States.

During that time, the Authority has cornered the market on the human capital needed to plan, construct and operate a world-class infrastructure project of this magnitude. The Authority has pulled together more than 100 of the world's most notable private firms to assist in:

- Construction management
- Economic consulting
- Energy consulting
- Environmental services
- Infrastructure design
- Program management
- Project engineering
- Right of Way and Land Use
- Specialty engineering
- Transportation planning

The participation of these firms assures that California's system is being developed by an unprecedented collection of the world's leading experts in high-speed train planning, construction and operation.

Taken together, they have guided the planning, construction and/or operation of high-speed train systems around the world, representing hundreds of billions of dollars in infrastructure development.

Among the firms working to design, build, test and put California's system into operation are:

### PROJECT DEVELOPMENT CONSULTANTS

- **Parsons Brinckerhoff** – the program manager and a leading international engineering and program management firm with direct experience in high-speed trains and other major infrastructure projects around the world.
- **AECOM** – a global technical and management support services firm specializing in transportation, environmental and energy projects.
- **AMEC Geomatrix** – worldwide environmental and geotechnical engineering.
- **ARUP** – a global firm of designers, engineers, planners and business consultants.
- **CH2M HILL** – a global leader in full-service engineering, construction, and operations for infrastructure projects.
- **Earth Tech** – a global provider of consulting, engineering and construction services.
- **Hatch Mott MacDonald** – an award winning full-service consulting engineering firm.
- **HDR** – an international architectural, engineering and consulting firm.



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- **HNTB** – a leading transportation and infrastructure design and project management firm.
- **ICF Jones & Stokes** – the nation's leading multidisciplinary environmental consulting firm.
- **Jacobs Associates** – one of the leading tunnel design and construction companies in the world.
- **Parsons Corporation** – one of the world's largest engineering and construction organizations specializing in infrastructure and transportation.
- **PBSJ Corporation** – experts in engineering, environmental science, architecture, planning, and construction.
- **PROINTEC** – a civil engineering and architecture consultancy.
- **STV** – an award-winning engineering, architectural, planning, environmental and construction management services firm.
- **SYSTRA** – an infrastructure consulting group with worldwide experience in design, construction and operation of similar high-speed train lines.
- **URS** – an international engineering and construction management company.

## FINANCIAL AND ECONOMIC CONSULTANTS

- **Cambridge Systematics (CS)** – a national leader in transportation economics and modeling with extensive experience in California.
- **Infrastructure Management Group (IMG)** – a nationally respected advisor to local, state and federal governments on infrastructure financing strategy.
- **Goldman Sachs** – a global investment banking and securities firm.

Many other widely-recognized firms are contributing to the effort. Together, the full team carries out a wide range of development tasks such as:

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|---------------------|-------------------|-----------------------|
| – Acoustics         | – Design          | – Permitting          |
| – Aerodynamics      | – Electrification | – Financial Analysis  |
| – Architecture      | – Engineering     | – Geology             |
| – Communications    | – Environmental   | – Geotechnical        |
| – Computer Modeling | – Engineering     | – Engineering         |
| – Construction      | – Train Design    | – Graphic Simulations |
| – Cost Estimating   | – Environmental   |                       |

Together, these firms represent the majority of the leading architectural and engineering firms operating in the United States today. Anyone in the country who wants to build a high-speed train must turn to many of the firms and individuals already working on California's system.

With the exception of Parsons Brinkerhoff, who is the overall program manager through to launch of revenue service, all of the other firms will be available as needed by the construction, manufacturing and operating companies as California's high-speed train project develops.