



CALIFORNIA
High-Speed Rail Authority

**CALIFORNIA HIGH-SPEED RAIL:
Rail Systems Engineering Services And
Construction Management Services For
Rail Design-Build-Maintain Contracts**

Industry Forum

October 24, 2022

WELCOME AND AGENDA

- Moderator
 - » Alice Rodriguez, Deputy Director of External Affairs
- HSR Project Overview
 - » Bruce Armistead, Acting Chief of Rail Operations
- Small Business Program Overview
 - » Ashley Mistler, Small Business Advocate
- Procurement Overview
 - » Bruce Armistead, Acting Chief of Rail Operations
- Organizational Conflicts of Interest Overview
 - » Kate Cook, Attorney IV/Acting Assistant Chief Counsel
- Questions and Resources

PROCUREMENT PROCESS DETAILS

- **Two Webpages**

- » www.hsr.ca.gov/business-opportunities/contractors/rail-systems-engineering-services

- » www.hsr.ca.gov/business-opportunities/contractors/construction-management-services-for-rail-design-build-maintain-contracts

- Or go to: www.hsr.ca.gov, then [Business Opportunities](#), then:

- [Contractors](#) or [Rail Systems Engineering Services](#) or [Construction Management Services for Rail Design-Build-Maintain Contracts](#)

These webpages will include:

- Industry Forum Video
 - PowerPoint
 - Registrant List
 - Responses to Questions
 - Request for Qualification Updates
- **Submit questions to RSES@hsr.ca.gov and/or CMRail@hsr.ca.gov**
 - **Questions due by Monday, October 31, 2022**



CALIFORNIA HIGH-SPEED RAIL: Project Overview

Bruce Armistead

Acting Chief of Rail Operations



CONNECTING CALIFORNIA

Program Highlights

- **Mission:**
 - » To initiate the construction of a high-speed train system that utilizes an alignment and technology capable of sustained speeds of 200 miles per hour or greater.
- **Phase 1**
 - » 494 Miles
 - » San Francisco to Los Angeles/Anaheim
- **Phase 2**
 - » After Phase 1 - Extends 300 Miles
 - » Connections to Sacramento and San Diego

**Travels at approximately 200 mph
Up to 24 Stations**



SUBJECT TO CHANGE - AUGUST 2021

Central Valley

Initial Operating Segment

- 171 Miles
- 100% environmentally cleared
- 119 miles under construction
- 52 miles starting advanced design (pre-construction work)
- Design for Central Valley Stations
- Track and Systems contract bids in 2022
- Train procurement in 2023

Goal: Initial operations by 2030



Bay Area Valley to Valley Segment

- 159 Miles
- 100% environmentally cleared
- Eligible to begin advanced design in 2022/2023
- Corridor electrification underway on 51 miles through Caltrain Electrification Project
- Segment construction is unfunded

Goal: Advance design work in 2023; identify “shared corridor” early capital investments; develop funding plan options

Southern California Complete Phase 1

- 164 Miles
- 92 miles (56%) environmentally cleared in 2022 (remainder in 2023/24)
- Some advanced design could begin in 2023
- LA Union Station Phase A fully funded, clearing environmental in 2022
- Segment construction is unfunded

Goal: Complete all environmental; begin advanced design in 2023; identify “shared corridor” early capital investments; develop segment funding plan options

PROGRAM UPDATE

Highlights

- **8,900+ Construction Jobs Created Since Construction Began**
 - » 1,000+ Construction Workers Dispatched to Sites Daily
 - » 34 Active Construction Sites
- **725 Small Businesses Employed (as of Aug 2022)**
 - » 233 are Disadvantaged Business Enterprises
 - » 85 Disabled Veteran Business Enterprises
- **Leading In Sustainability**
 - » Run on 100% Renewable Energy
 - » Currently Using Tier IV Equipment on Construction
 - » Will Reduce VMT by taking 400k cars off the road annually





CALIFORNIA HIGH-SPEED RAIL: Small Business Program

Ashley Mistler, Small Business Advocate
Process & Program Development Branch
sbprogram@hsr.ca.gov

SMALL BUSINESS PROGRAM



- 30% Goal for Small Business Participation
 - » 10% Disadvantaged Business Enterprises (DBE)
 - » 3% Disabled Veteran Business Enterprises (DVBE)

Commitment to Diversity

Small Business Certification Overview

Certifications That Count Toward the Overall Goal:

- **California Department of General Services**

- Small & Micro Businesses (SB / MB)
- Disabled Veteran Business Enterprises (DVBE)
- Small Business for Public Works (SB-PW)

state

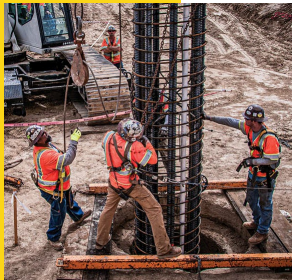
- **California Unified Certification Program**

- Disadvantaged Business Enterprises (DBE)

federal

- **US Small Business Administration**

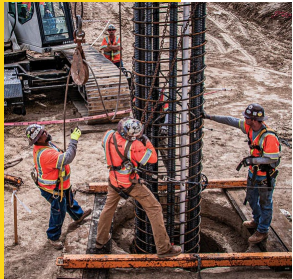
- 8(a) Disadvantaged Business Program
- Service Disabled Veteran-Owned SB (SDVSOB)



Small Business Teams

Exclusivity

- » There is no prohibition against Subconsultants/Subcontractors being exclusive to one Offeror, however, exclusivity is strongly discouraged for SB/DBE/DVBE Subconsultants/Subcontractors



CONNECT HSR

High-Speed Rail Vendor Registry

Free Online Tool to Connect with Business Opportunities

Open to All Businesses, Large & Small

- **List Your Business:**
 - Type of Business
 - Services Offered or Supplies Sold
 - Service Counties
 - Certifications
- **Learn About:**
 - Future Contracting Opportunities
 - Trainings/Workshops
- **Register At:**
 - www.connecthsr.com





CALIFORNIA HIGH-SPEED RAIL: Rail Systems Engineering Services and Construction Management Services for Rail Design-Build-Maintain Contracts

Bruce Armistead

Acting Chief of Rail Operations



BACKGROUND: REVENUE SERVICE CERTIFICATION

- HSR project will be a certified railroad that is ready for passenger service from Merced to Bakersfield
- HSR has active civil construction on the first 119-mile segment
 - » Track and Systems contractor will follow the civils, and
 - » Trainsets, Trainset Certification Facility, Heavy Maintenance Facility to follow.
- **Today's topics:** Rail Systems Engineering Services and Construction Management Services for Rail Design-Build-Maintain Contracts
 - » These contracts are critical to HSR verifying all requirements are met by the Track and Systems and Trainsets contractors, who will each have separate and distinct responsibilities.

BACKGROUND (CONT'D): EUROPEAN NORMS (EN)

European Union (EU) Regulatory Approach

- In the past, each of the 27 countries set its own railroad standards and regulations
 - » For example: A train designed and certified for operation in Germany would not necessarily be certified to operate in France
- Subsequently, the EU developed standards, regulations and a formal process that allowed for interoperability throughout the EU, including:
 - » Technical Specifications for Interoperability (TSI)
 - » EN50126 – The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)
 - » EN50128, EN50129 – Software from signaling, communications and process control

BACKGROUND (CONT'D): FEDERAL RAILROAD ADMINISTRATION (FRA) REQUIREMENTS

FRA Approach

- Rules of General Applicability (RGA) are established in the Code of Federal Regulations (CFRs). These are primarily design-based regulations and universally apply to all railroads in the U.S.
- The published rules may not adequately cover design innovations and the FRA may allow specific Rules of Particular Applicability (RPA).
- Such rules are only applicable to specifically identified application in the RPA.
- Safety cases, risk assessments, hazard assessments, and mitigations are benchmarked against these regulatory requirements.

BACKGROUND (CONT'D): TRACK AND SYSTEMS CONTRACTOR

- Design-build-maintain contract:
 - » Design and construction of trackwork, railway systems, electrification, and Operations Control Center
 - » Testing and commissioning
- 30-year term of maintenance for both underlying civil works and track and systems work
- Safety Management, including construction safety, railway operation during construction and testing, and the safety case

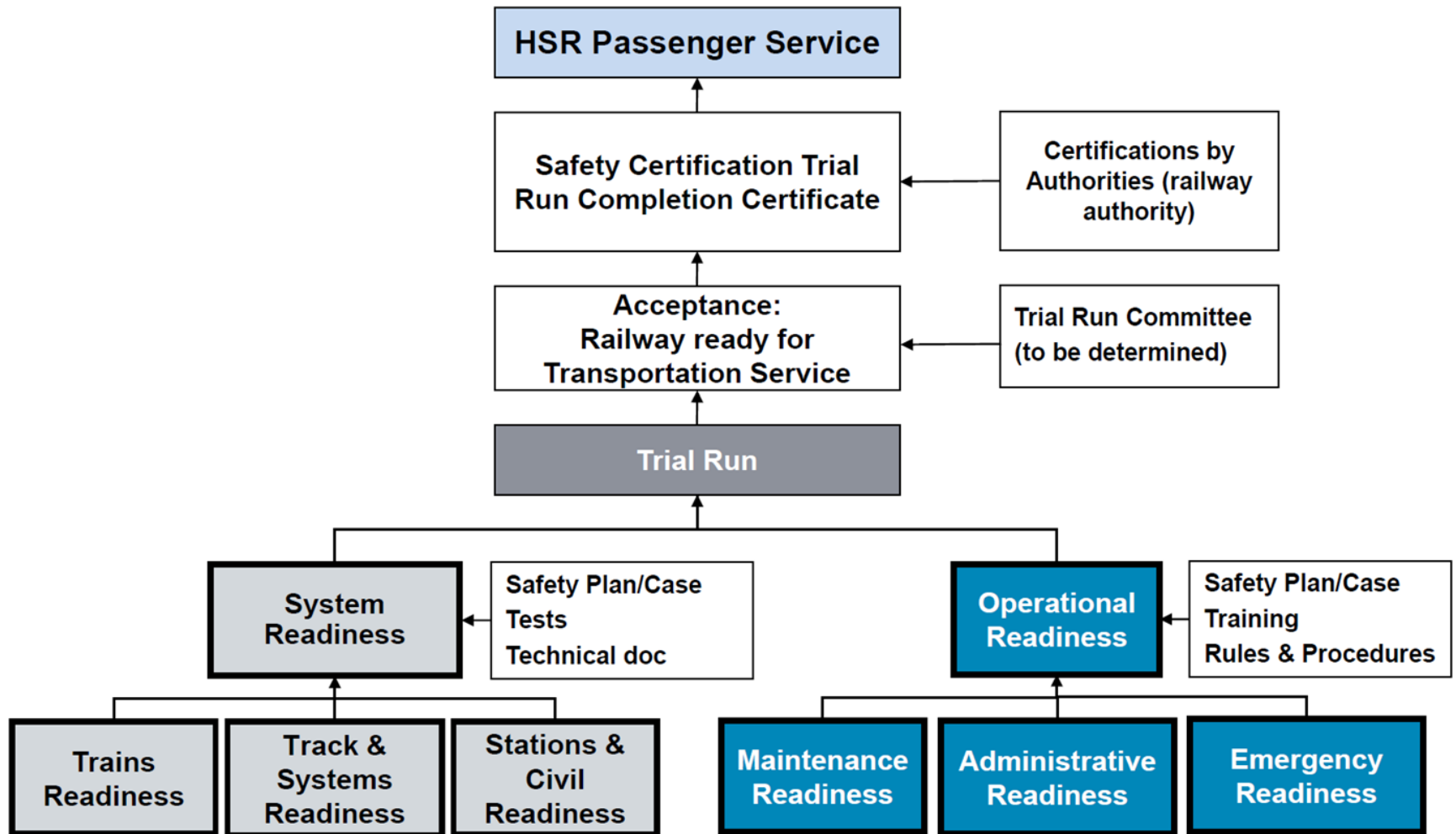
BACKGROUND (CONT'D): TRAINSETS CONTRACTOR

- Provides design, manufacturing, construction, testing, commissioning, operation and 30 years maintenance for the following:
 - » All trainsets; Light Maintenance Facility and Heavy Maintenance Facility
 - » Safety Management, including construction safety, operation during construction and testing, and the safety case.

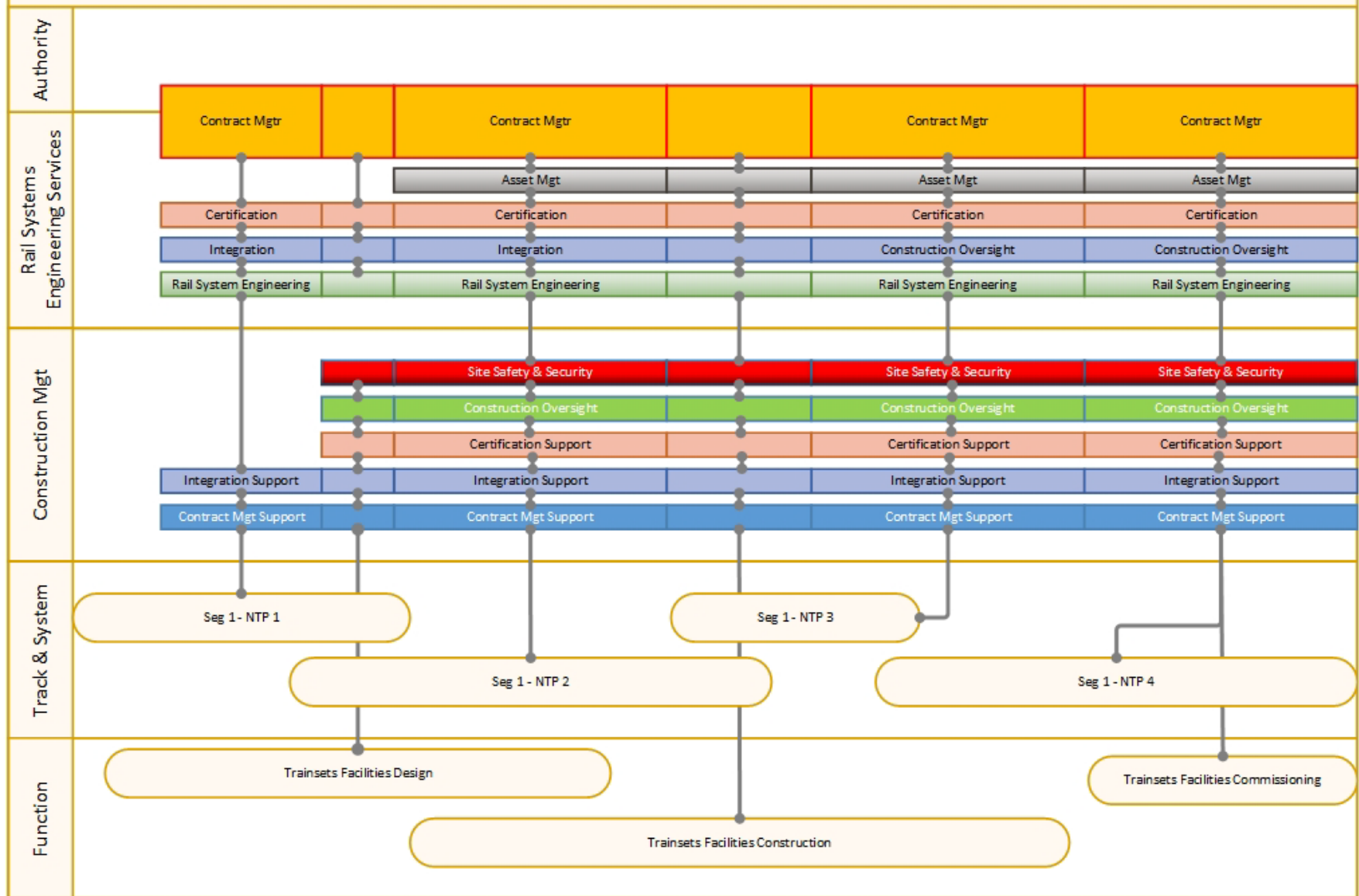
BACKGROUND (CONT'D): STATIONS CONTRACTOR(S)

- The Authority intends to design and construct four stations along the initial operating segment of its high-speed rail system (delivered on a design-bid-build basis).
- Provide the station safety case.

ENTRY INTO PASSENGER SERVICE



Rail Contracts Cross-Functional Flowchart



TS1 5 segments: 1) Madera to Poplar; 2) Poplar to Bakersfield Station; 3) Madera to Merced; 4) Gilroy to Central Valley Wye 5) CP Link to Gilroy

TS1 NTPs for Segment 1: 1) Mobilization and Design; 2) Work at Fresno MWF and OCC building; 3) Access to system sites and Long Lead Materials; 4) Guideway work up to Commissioning

RAIL SYSTEMS ENGINEERING SERVICES CONTRACT

The Rail Systems Engineering Services consultant will:

- Provide a core group of rail engineers with expertise in traction power/catenary, signal/train control and communications, high-voltage, track, stations and station integration, rail equipment and operations to develop rail-related scope, engineering and plans.
- Review all civil designs to ensure:
 - » Compliance with the Authority's Design Criteria Manual (DCM),
 - » Track and Systems requirements are met, and
 - » That no elements would interfere with rail construction, rail maintenance and/or rail operations.
- Respond to all special requests and technical evaluations which arise beyond construction and plan reviews.
- Support the Authority in the integration of elements of the rail system and in the management of these interfaces.
- Requirements oversight support for Track and Systems, Trainsets, and Stations.
- Manage risk register and system safety of all safety cases related to Track and Systems, Trainsets, and Stations.

RAIL SYSTEMS ENGINEERING SERVICES CONTRACT

BACKGROUND AND DRAFT CONTRACT TERMS

- Current Rail Systems Engineering Services (RSES) are provided by the Rail Delivery Partner (RDP)
 - » RSES scope not included in Program Delivery Support (PDS) Contract (successor to the RDP Contract)
 - » Management of RSES Contract will be under HSR's Rail and Operations Delivery Branch
- Contract term will be 5-years 4-months with option to extend
- Estimated Cost: \$73.2M for the 5-year 4-month term

CONSTRUCTION MANAGEMENT SERVICES FOR RAIL DESIGN-BUILD-MAINTAIN CONTRACTS

The Construction Management Services for Rail Design-Build-Maintain Contracts consultant will:

- Provide expertise to oversee and assist in managing the Track and Systems and Trainsets Design-Build-Maintain contracts under the direction of the Authority.
- Provide field services including site inspections, field coordination, change order, certifications, testing and accepting support.
- Perform audits of the Design-Build-Maintain contractors' work processes and report its findings to the Authority.
- Support the verification and validation that design, manufacturing, construction, and testing are accomplished in compliance with the Design-Build-Maintain contracts, documents, quality plans, system development life cycle plans and system safety and security plan.
- Program controls and verification of progress schedule reporting and payments.
- Responsible for all project records from Track and Systems and Trainsets.

CONSTRUCTION MANAGEMENT SERVICES FOR RAIL DESIGN-BUILD-MAINTAIN CONTRACTS

BACKGROUND AND DRAFT CONTRACT TERMS

- The timing of this contract for Construction Management Services for Rail Design-Build-Maintain Contracts is related to the award of the Track and Systems contract (and Trainsets contract).
- Contract term of 6 years and estimated \$174.7M
- The consultant will perform design oversight and construction management services under four Notices to Proceed (NTP):
 - » NTP 1: Track and Systems between the city of Madera and Poplar Avenue in Kern County
 - » NTP 2: Trainsets and trainset facilities construction
 - » NTP 3: Track and Systems between Poplar Avenue in Kern County and the city of Bakersfield
 - » NTP 4: Track and Systems between cities of Merced and Madera



CALIFORNIA HIGH-SPEED RAIL: Organizational Conflicts of Interest Overview

Kate Cook

Attorney IV/Acting Assistant Chief Counsel

ORGANIZATIONAL CONFLICTS OF INTEREST

- All entities desiring to enter into an Authority contract must comply with its Organizational Conflict of Interest (OCOI) Policy.
- Why is the OCOI Policy necessary?
 - » Our federal grants require it;
 - » Ensures compliance with state and federal procurement laws and regs; and
 - » Ensures a fair and transparent procurement process, maximizing competition and minimizing exposure to bid protests
- U.S. Supreme Court recognizes that such policies are "...directed not only at dishonor, but also at conduct that tempts dishonor. This broad prescription embodies a recognition of the fact that an impairment or impartial judgment can occur in even the most well-meaning men when their personal economic interests are affected by the business they transact on behalf of the Government." (*United States v. Mississippi Valley Co.* (1961) 364 U.S. 520, 549, 81 S.Ct. 294, 5 L.Ed.2d 268, emphasis added)

OCOI POLICY DEFINITION

An “Organizational Conflict of Interest” is defined as:

“...a circumstance arising out of a Contractor’s existing or past activities, business or financial interests, familial relationships, contractual relationships, and/or organizational structure (i.e., parent entities, subsidiaries, Affiliates, etc.) that results or would result in:

- **impairment or potential impairment of a Contractor’s ability to render impartial assistance or advice to the Authority or of its objectivity in performing work for Authority**
- **an unfair competitive advantage for any Contractor bidding or proposing on an Authority procurement, or**
- a perception or appearance of impropriety with respect to any of the Authority’s procurements or contracts or a perception or appearance of unfair competitive advantage with respect to a procurement by the Authority (regardless of whether any such perception is accurate).”

ORGANIZATIONAL CONFLICTS OF INTEREST

- Two general situations in which an organizational conflict of interest will be found to exist for a contractor:
 - » 1. A contractor has an unfair competitive advantage
 - *Example: A contractor has inside or non-public information about a procurement*
 - *Example: A contractor provides services related to a procurement and then bids on it*
 - » 2. A contractor's objectivity in performing its contractual obligations for the Authority would be compromised such that it could not provide impartial assistance
 - *Example: A contractor on Contract A is in a position to oversee its own work on Contract B and mitigation is not possible*
- Courts are very deferential to public agency decisions on OCOs unless the agency acted in an arbitrary or capricious manner, abused its discretion, or acted illegally

OCOI POLICY FLEXIBILITY

- The Policy states that “the Authority recognizes that its goals must be balanced against the need to not unnecessarily restrict the pool of potential proposers or bidders available to participate in Authority procurements and contracts.”
- If a potential conflict is recognized, the Policy requires consideration of numerous factors to determine whether the contractor may participate in the contract and whether mitigation or safeguards may be implemented to permit participation.
- Such safeguards are commonly applied to allow participation and include measures like ethical walls and release of work product.
- Contractors are generally not “conflicted” out simply because they’ve done prior work on the Project.
- The vast majority of OCOI determinations find that a contractor may participate in the desired procurement and/or contract.

HOW TO REQUEST AN OCOI DETERMINATION

- Requests for Organizational Conflict of Interest determinations should be submitted to the Authority's Chief Counsel, Alicia Fowler, at Legal@hsr.ca.gov, referencing the RFQ(s) of interest
- The Authority's OCOI determination process includes the following steps:
 - » After the request is received, an investigation and analysis, including potential mitigation options, is performed by the attorneys
 - » The requestor will often be asked for additional information and/or documents necessary for the OCOI determination
 - » The Chief Counsel makes the final determination and informs the requestor by letter, which discusses the relevant facts and applicable Policy provisions
 - » A requestor who does not agree with an OCOI determination may contact the Chief Counsel to raise additional relevant facts and information

CALIFORNIA HIGH-SPEED RAIL: Rail Systems Engineering Services and Construction Management Services for Rail Design-Build-Maintain Contracts

Questions and Response



QUESTIONS AND RESOURCES

- Questions regarding these procurements can be emailed to:
 - » RSES: RSES@hsr.ca.gov
 - » CM: CMRail@hsr.ca.gov
- Responses to questions, Registrant List, Industry Forum Video and PowerPoint, and Request for Qualifications updates will be posted to each webpage.



Business Opportunities

California's high-speed rail program offers numerous contracting opportunities across a broad spectrum of services and materials. The Authority also maintains a 30 percent small business participation goal, and those businesses are playing a major role in building the program.



GENERAL INFO

[Community Benefits Agreement](#)
[Cal eProcure](#)
[National Competitive Bid Recovery Act Reporting](#)
[Organizational Conflict Of Interest Policy](#)
[Unsolicited Proposal Procedures](#)



SMALL BUSINESS PROGRAM

[Overview](#)
[Get Connected](#)
[ConnectHSR – Vendor Registration](#)
[ConnectHSR – Vendor Search](#)
[Policy & Program Plan](#)
[Business Advisory Council](#)
[Info Center](#)
[Newsletter](#)
[Small Business Assistance Form](#)



CONTRACTORS

[Contracts Out for Bid](#)
[Construction Management Services for Rail Design-Build-Maintain Contracts](#)
[Design-Build Construction Packages](#)
[Design Services for Central Valley Stations](#)
[Design Services for Locally Generated Alternative](#)
[Design Services for Merced to Madera](#)
[Environmental Services for Merced to Fresno](#)
[Program Delivery Support](#)
[Rail Systems Engineering Services](#)
[Track & Systems](#)

[» www.hsr.ca.gov/business-opportunities/contractors/rail-systems-engineering-services](http://www.hsr.ca.gov/business-opportunities/contractors/rail-systems-engineering-services)

[» www.hsr.ca.gov/business-opportunities/contractors/construction-management-services-for-rail-design-build-maintain-contracts](http://www.hsr.ca.gov/business-opportunities/contractors/construction-management-services-for-rail-design-build-maintain-contracts)