CALIFORNIA High-Speed Rail Authority

California High-Speed Rail
BRIEFING: May 1, 2025 Board Meeting
Agenda Item #2

TO: **Chairman Richards and Board Members**

FROM: Margaret Cederoth, Director of Planning and Sustainability

DATE: May 1, 2025

RE: Consider Approving Notice to Proceed 2 for Central Valley Stations Final Design - Fresno Station

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Summary

Staff is recommending that the California High-Speed Rail Authority (Authority) Board of Directors (Board) authorize the issuance of Notice to Proceed 2 (NTP 2) to the contract with F+P Arup JV, F+P Architects New York Inc., and Arup US, Inc. (F+P Arup JV), HSR 21-07, for design services for the Fresno Station on the Merced to Bakersfield operating segment.

The Authority has been advancing design work for the four central valley stations since execution of the contract in March 2023 and subsequent issuance of NTP 1.

Pre-design and concept design work was completed (Activities 1 and 2: Contract Administration and Pre-Design Services) for the four stations and the contractor submitted a package of deliverables to the Authority in November 2023. The contractor then completed Schematic Design work (Activity 3, Task 1: Schematic Design Services) for the four stations and submitted a package of deliverables in November 2024.

Background

Stations have been included in the business model for the high-speed rail system since its inception. Stations are the access point for customers to the high-speed rail system. Requirements as to number and provisions regarding station locations are specified in the Streets and Highways Code [Division 3, Chapter 20, 2704.09]. The Federal Grant Agreement (California High-Speed Train Program ARRA Grant) also includes the provision that the Authority should treat stations “as a new city gateway – consider the station’s form and spaces, both primary and secondary (backside, underside); the station’s place-making effects and iconic and readily identifiable design.”

On September 23, 2024, a grant agreement (Federal State Partnership) with the Federal Railroad Administration that included funding for the design and construction of the Fresno station was fully obligated.

Prior Board Action

On April 27, 2022, the Board approved the issuance of a Request for Qualifications (RFQ) for design services for the Central Valley stations to procure an architectural and engineering (A&E) design services on or after September 2022, through Resolution #HSRA 22-08. Both the 2020 Business Plan, 2022 Business Plan, and 2024 Business Plan state that advancing design on the Central Valley Stations is a key activity to advancing toward electrified high-speed rail passenger service by the end of the decade. The 2020 Business Plan was adopted by the Authority Board of Directors on Thursday, March 25, 2021, and submitted to the state legislature on Monday, April 12, 2021. The station procurement continues to be consistent with the 2020 Business Plan priority of expanding the 119-mile segment in the Central Valley to develop 171 miles of electrified high-speed rail service by advancing design of the four stations. The 2022 Business Plan includes the same priority and notes: "Advancing station designs will clarify a number of issues with local stakeholders including station site boundaries and station access projects across all modes—bikes, pedestrian and transit." The 2024 Business Plan noted that the design was on track to achieve the schematic design threshold in 2024.

On October 19, 2022, the Board authorized staff to enter into negotiations with the F+P Arup JV.

On February 19, 2024, staff provided an informational update to the Board on the progress of the four central valley station designs, prior to the start of Schematic Design.

Discussion

Stations are a critical element of the high-speed rail system, enabling passenger access to the system. The Authority has long-established performance criteria for the passenger stations, including that they be:

- durable;
- easy to maintain;
- universally accessible;
- seamlessly integrate a range of transportation modes (including buses, bicycles, pedestrian pathways, other rail systems, and automobiles); and
- feature design characteristics that make them readily identifiable as high-speed rail stations.

Their sustainability performance is a requirement and critical to minimizing operations costs through design that maximizes natural ventilation, achieves zero-net energy performance through onsite energy generation, and maximizes the efficient use and reuse of water resources.

The first section of the station delivery contract (NTP 1) comprises the design work necessary to confirm the existing configuration footprint for each station site and complete 30% design drawings for all station and station site elements necessary for passenger service (schematic design). The configuration footprint comprises the physical extent of the station footprint to serve as a baseline for any right-of-way acquisition beyond the footprint identified in the Record of Decision (ROD), as well as utility requirements and relocation, the selection and refinement of materials for station components, and additional work on select components.

NTP 2 comprises the remaining design services through post-occupancy commissioning and project close out. Key design milestones within NTP include Design Development, Final Design, Permitting, Ready for Bid design documents. Key tasks after final design include Bid Support, Construction Administration Support, and Commissioning Support.

The Authority determined a design-bid-build (DBB) delivery method for the Central Valley stations. The DBB method was selected because it provides the Authority with a process and tools to directly manage design quality and certainty, cost control, stakeholder relationships, and mitigate cost uncertainty.

Pre-Design and Schematic Design Work

In November 2024, 6 months ahead of schedule, F+P Arup JV submitted drawings, analyses, reports, plans, and renderings comprising the deliverables for Activity 3, Schematic Design. The schematic design drawings and deliverables illustrate the components of the station required for it to function as part of the high-speed rail system.

Over the course of completing pre-design and schematic design work, F+P Arup JV collected and analyzed information about the four station sites and reviewed the space program and station information requirements to understand the site, room, and space requirements of the passenger facilities to understand all existing site conditions and how they affect station operations and the layout of the station facilities. F+P Arup JV also completed planning studies and engaged in regular coordination with associated design and construction projects to understand the facility needs over time and what critical interfaces are required to be incorporated into the design. Throughout the schematic design phase, the Authority, in coordination with F+P Arup JV consulted with stakeholders in each of the four station communities. This included discussions with local and regional transit providers, city and county staff, elected officials, Caltrans, regional planning bodies, and community-based organizations. Schematic design work was completed ahead of schedule.

Building out the stations in a phased manner: Building Blocks and Typologies

The Authority is focused on building out the stations in a phased manner, discussed in previous Board memos and briefings as Building Blocks.

Station Building Blocks are scaled to system phases, the physical extent of high-speed rail service, and comprise the physical scope required for passenger facilities in a given station to accommodate that operating phase. Building Block 1 includes those elements required for the Initial Operating Segment, both landside and trackside, and represents the minimum necessary for a functional passenger station. The Authority has now identified station typologies, with recognizable analogs at existing California rail stations, that correspond to the building blocks.

F+P Arup JV completed schematic design work for what had been initially defined as the first building block of the stations in November 2024. Given that some components of the stations must be scaled to accommodate future ridership levels, the design team has also advanced analysis on Building Blocks 2 and 3 for the purposes of future proofing the Building Block 1 final design. The objective was to assure the design did not preclude future expansion and to avoid rework, throw-away costs and to further inform cost estimates.

Building Blocks (Previously Discussed)

Building Block 1	Building Block 2	Building Block 3
Elements required for safe, comfortable passenger service that present risk if built later	**Additional** elements to accommodate ridership increases with system extension	Any additional space

1. Platforms 2. Canopies 3. Vertical Circulation & Concourse 4. Functional and operations spaces, including crew space 5. Site: Parking (ADA, Bike, Automobile) 6. Site: Transit facilities (bus stops) 7. Site: Pick-up and drop-off 8. Station access, particularly roadways	1. Station Headhouse additions 2. Functional spaces (crew space, other) 3. Structured parking 4. Transit facilities 5. Additional roadway access	Additional spaces to accommodate Phase 1 ridership

Typology D: New Authority Station Baseline and Building Block 1

This station typology includes parking and multimodal connection, minimum spaces for station operations, a conditioned waiting area and passenger facilities in compliance with code.

Merced to Bakersfield Alignment Optimization and Project Efficiencies

During Schematic Design the station designs were based on the Authority's Design Criteria Manual 5.0, California Building Code, business plan ridership projections, and stakeholder feedback, per the Authority Leadership's direction at the time.

In November 2024 the Authority, per direction of new leadership, undertook a thorough cross-functional analysis of the system, including a detailed review of the Merced to Bakersfield segment. The objective was to identify any civil infrastructure scope that could be eliminated or deferred until future phases. The result of this collaborative work was a significant and dramatic change to the configuration of two of the central valley stations (Merced and Bakersfield). The Authority also reviewed its concept of operations to identify further reductions for Building Block 1, the elements required for safe, comfortable passenger service that would present risk to business operations if built later.

This optimization and project efficiency work identified new pieces of station program that could be deferred to subsequent phases, or which could be delivered through partnerships with local jurisdictions or the private sector.

The significant reconfiguration and more efficient operating strategy will be incorporated into the design through work in NTP 2. This process allows the Authority to realize significant optimization without revising and reissuing previous drawing sets, though rework of design is required.

Legal Approval

The RFQ process qualified F+P Arup JV for the NTP 2 design services that are set forth in the Agreement, and the Agreement includes the optional NTP 2 work. The Agreement provides for amendments upon mutual agreement of the parties. The Legal Office has reviewed the Agreement and the relevant laws, regulations, and policies, and has determined that it is legally appropriate to amend the Agreement to add the NTP 2 work provided that the Chief Financial Officer has verified availability of the necessary funding, and the Board approves this request.

Budget and Fiscal Impact

This request is to issue NTP 2, as described above, for $14 million.

The funding for this request is supported by federal funds from the FSP grant and the matching funds will come from the Authority's Cap and Trade funds. The Program Baseline scope and budget for this work was authorized by the Board in January 2024 (Agenda Item #2).

Request	Funding Decription	Funding Source(s)	Amount	Match % Requirement
Fresno Station Final Design NTP2	Federal - FSP Grant	Federal FSP Grant	$ 11,200,000	80%
	State - FSP State Match	Cap and Trade	$ 2,800,000	20%
		Federal	$ 11,200,000	
		State	$ 2,800,000	
		Total	$ 14,000,000	

REVIEWER INFORMATION	SIGNATURE
Reviewer Name and Title: Jamey Matalka Chief Financial Officer	Signature verifying budget analysis: **Original signed 4/24/25**
Reviewer Name and Title: Tom Fellenz Acting Chief Counsel	Signature verifying legal analysis: **Original signed on 4/23/25**

Recommendations

Staff hereby recommends Board approval to award NTP-2 to F+P Arup to advance designs of the central valley stations, and authorize the CEO, or designee of the CEO, to execute the NTP-2 contract amendment with F+P Arup JV under the Design Services for the Central Valley Stations contract (HSR21-07) for an initial amount of $14,000,000 for Fresno Station and kit of parts (standard components, specifications, and drawings) design work. Additional funding will be requested, when the baseline is adjusted, to complete the design work under NTP-2.

Attachments

- Central Valley Stations Board Presentation, February 2025.