

7. SHORT-TERM AND LONGER-TERM CAPITAL IMPROVEMENT PROGRAMS

The State has invested over \$536 million since 1976 to increase and improve the San Joaquins.¹ There have been more than \$303 million in San Joaquins Corridor improvements over the last 23 years. Table 7.1 shows the major capital projects that were completed along the San Joaquins Corridor between 1993 and 2015.

A key goal of SJJPA is to build upon the State's efforts to improve the performance and increase the frequency of the San Joaquins and expand ridership through increased awareness of the service and the development of new ridership markets. In coordination with the State, BNSF, and UPRR, SJJPA will continue to identify, evaluate, and implement capital improvements for the San Joaquins to enable increased frequency, reliability, and safety, and to reduce travel times and operating costs.

SJJPA will continue to work with the State to:

- Secure funding for future projects.
- Ensure that projects meet the delivery schedule.
- Minimize the construction impacts of projects.
- Maximize the benefits of projects on overall service performance.
- Coordinate with CHSRA regarding grade separations or improvements being done to the BNSF track as a result of the implementation of the initial construction of the HSR system.

SJJPA has established an annual capital program in consultation with the State and SJJPA constituents. The current SJJPA Capital Improvement Program is described below.

SJJPA Capital Improvement Program

The SJJPA Capital Improvement Program consists of all capital projects under construction or being planned for the San Joaquins Corridor. The SJJPA Capital Improvement Program is divided into "Short-Term Capital Improvements", which represent projects over the next 5 years that will provide service improvements and expansion for the San Joaquins, along with minor

¹ Caltrans, 2013 State Rail Plan, May 2013 (page 225); Caltrans, Bi-Monthly Joint Construction Meeting Notes (dated 1/17/2017).

Table 7.1: San Joaquins Capital Projects 1993 – 2015

San Joaquins Corridor Completed Capital Projects 1993 - 2015 (\$ Millions)			
Project	Cost	Track Miles	Benefits
Corridorwide Improvements	\$53.8	21.5	2 Round Trips (4 to 6)
Oakley to Pt. Chicago	\$21.5	2	Capacity, OTP (Signaling)
Shirley to Hanford	\$22.0	5	Capacity, OTP (Double-Track)
Kings Park	\$18.5	4.5	Capacity, OTP (Double-Track)
Calwa to Bowles	\$26.7	8.5	Capacity, OTP (Double-Track)
Stockton	\$10.0	6	Capacity, OTP (Double-Track)
Empire	\$11.0	8.2	Capacity, OTP (Double-Track)
Keddie Xover	\$0.8	----	Capacity, OTP
Escalon Siding Ext.	\$10.0	2.5	Capacity, OTP
Merced Xover	\$2.1	----	Capacity, OTP
Sacramento to Stockton Upgrade	\$39.0	16.6	Two Trains to Sacramento
Mococco Upgrade Oak. to Pt. Chicago	\$9.0	6.2	Two Trains to Oakland
Corridor Capital Maintenance	\$1.7	----	Ride Quality, OTP
Design and Engineering	\$14.4	----	Eng, Modeling, Environmental
Stockton ACE Station Track Extension	\$20.0	0.2	Operational Improvements
Oakley-Pt. Chicago Segment 3	\$26.5	3.5	Capacity, OTP (Double-Track)
Stockton to Escalon Segment 1	\$8.4	2.5	Capacity, OTP (Double-Track)
Merced-LeGrand Segment 1	\$28.0	8.4	Capacity, OTP
TOTAL	\$303.4	95.4	

Source: Caltrans Division of Rail

capital and safety and security projects; and “Longer-Term Capital Improvements”, which highlights possible future capital improvement projects for the San Joaquins to allow for further expansion of service.

Short-Term Capital Improvements

With improvements completed that enabled initiation of a 7th Daily Round Trip, SJJPA is now focused on implementing short-term capital improvements in four areas – Morning Express Service, 8th Daily Round Trip, 90 MPH Service, and Station Projects. Additionally, numerous minor capital projects are being implemented to improve stations, along with several safety and security projects (see Table 7.2). UPRR and BNSF are also working to complete Positive Train Control in the San Joaquins Corridor.

Morning Express Service

SJJPA is currently working to initiate improvements to allow for the implementation of the Morning Express Service to Sacramento in 2018 and then to the Bay Area in 2019. Projects that SJJPA and its partners are pursuing include:

- Temporary Layover Facility in Fresno (to allow for fast implementation);
- Permanent Layover Facility (which would also include capacity for additional trainsets, including the planned 8th Daily Round Trip);
- Expansion of Parking at Key Stations;
- Station Enhancements; and
- Stockton Wye (New Connection Track).

SJJPA is utilizing safety and security funds from the Governor’s Office of Emergency Services (Cal OES) awarded to SJJPA for FY 2015/16 to construct a Temporary Layover Facility in Fresno. For parking expansion and station enhancement projects, SJJPA has also assembled a funding package that includes local matching funds (both direct funding and in-kind contributions such as land), as well as SJJPA minor capital funds, Cal OES safety and security funds, and potential costs savings from FY 2015/16 and FY 2016/17. A federal FASTLANE grant has also been submitted for the Stockton Wye project.

8th Daily Round Trip

Due to increasing demand for better service in the Central Valley, SJJPA is pursuing the initiation of an

8th Daily Round Trip in FY 18/19 as a mid-corridor start/end from Fresno to Sacramento (previously it was programmed to run the entire length of the San Joaquins Corridor from Bakersfield to Oakland). Two major capital projects currently under construction that support the 8th Daily Round Trip are the “Merced-LeGrand Segment 2” and “Stockton-Escalon Segment 3” double-track projects. SJJPA is working with Caltrans and the host railroads to complete construction of these projects. Caltrans expects construction of these projects to be completed within the next two years. An additional double-track project being pursued between Fresno and Stockton needed for the 8th Daily Round Trip is “Stockton to Escalon Segment 4.” Funding has been allocated for this project with construction to begin in the near-term. Track improvements and the addition of a second platform at the Merced Station is also funded with construction to commence shortly.

With the Fresno to Stockton track work progressing toward completion, SJJPA is now working with CalSTA, Caltrans, Amtrak, and the host railroads to determine a plan for improvements between Stockton and Sacramento. This work is expected to be completed by June 2017. Specific projects have not yet been identified for this segment, since the planning work is still being conducted to determine if the Fresno Subdivision or Sacramento Subdivision would be utilized to achieve expanded service to Sacramento. In



response to funding made available from SB 1, SJJPA expects to prepare and submit a Transit and Intercity Rail Capital Program (TIRCP) application for the necessary funding to implement the additional improvements needed to deploy the 8th Daily Round Trip.

90 MPH Service

In coordination with BNSF, UPRR, and Caltrans, SJJPA has identified several potential locations where the maximum speed for the San Joaquins could be increased to 90 mph. To allow for the increased speed in these areas, an ongoing capitalized maintenance program is required that would resurface the tracks more frequently. SJJPA will work with BNSF, UPRR, and Caltrans to establish a plan for this work and expects to seek funding for implementation.

Station Projects

SJJPA is currently coordinating with CHSRA on the re-design and reconstruction of the Amtrak Wasco Station, as the HSR alignment is planned to go right through the existing station site. SJJPA is working to ensure that high-quality access to the station is preserved during and after construction (which will be performed by the CHSRA).

SJJPA is also working with Madera County Transportation Commission and the City of Madera on relocating the Madera Amtrak station to a location that is more optimal than the current location of the Madera Amtrak Station.

Minor Capital Projects

SJJPA is currently working to implement \$1,500,000 of minor capital projects from funds provided by the State for FY 2015/16 and FY 2016/17, as well as forthcoming funds from FY 2017/18. Projects include various improvements at stations, including signage, lighting, sidewalks, landscaping, parking expansions, and safety and security projects that support the Morning Express Service to Sacramento and the Bay Area, along with other needed improvements throughout the San Joaquins Corridor.

Safety and Security Projects

Funds for safety and security projects were included in Proposition 1B. This program is run through Cal OES. SJJPA has secured a total of \$3,855,095 in Cal OES funds from FY 15/16 and FY 16/17 grant awards. These funds will be utilized for the Temporary Layover Facility, improvements at the Antioch Station, as well as improving lighting and security camera infrastructure at both stations and platforms, walkways, parking lots, and other station improvements.

Another high priority for SJJPA is to discourage trespassing along the corridor. SJJPA is exploring the best approaches to achieving this.

Positive Train Control

Federal law requires that a Positive Train Control (PTC) system be implemented by 2018. Caltrans Division



of Rail and Amtrak have completed work for the on-board installation of the PTC equipment on the cab control cars and locomotives. The UPRR and BNSF are working to complete installation of the wayside PTC equipment. The entire PTC system will be tested and initiated to meet the 2018 federal deadline.

Onboard Information System

Amtrak is currently developing a more robust information display system for all trains nationally. This is called “Onboard Information System” (OBIS). OBIS will be implemented first in California on all three state-supported services, include the San Joaquins. Staff is currently working with Amtrak and CCJPA to provide input as OBIS is developed. Initiation of OBIS scheduled for late 2018 to early 2019.

Longer-Term Capital Improvements

SJJPA will develop a comprehensive program of improvements to increase the frequency of trains, reduce travel time, increase ridership, and improve service reliability of the San Joaquins. Longer-term improvements previously identified by Caltrans are identified below. The development of these projects will require further review by SJJPA and are subject to approval from the State, Union Pacific, BNSF, local and regional agencies, and other interested parties.

- Construction of a double-track at Figarden.
- Construction of a double-track from Gregg to Madera (Segments 1 and 2).
- Construction of a new maintenance facility to accommodate several additional daily round-trips.
- Construction of signal, double-tracking, and at-grade crossings improvements from Oakley to Port Chicago (Segments 1, 2, and 4).
- Additional trainsets to accommodate several additional daily round-trips.
- Working with the Capitol Corridor to identify improvements to increase service, speed, and safety between Oakland and Port Chicago.

SJJPA, in conjunction with CalSTA and host railroads, is currently exploring other approaches to creating needed additional capacity for future service increases, such as capital access fees to host railroads, and schedule optimization.



Table 7.2: San Joaquins Corridor – Short-Term and Longer-Term Capital Projects

San Joaquins Corridor - Short-Term and Longer-Term Capital Projects (\$ Millions)						
Short-Term Capital Projects (0-5 Years)	Segment	Milepost	Miles	Cost	Status	Funding
Morning Express Service						
Temporary Fresno Layover Facility ¹	----	----	----	\$1.7	RR ROW	\$1.7
Stockton Wye ²	----	----	----	\$8.4	RR ROW	----
Parking Expansions ³	----	----	----	\$3.2	Planning	\$3.2
Station Enhancements ³	----	----	----	\$3.4	Planning	\$3.4
8th Daily Round Trip						
Merced-LeGrand Double Tracking	1	1041.9 - 1050.4	8.4	\$28.0	Complete	\$28.0
Merced-LeGrand Double Tracking	2	1050.2 - 1055.0	4.1	\$12.7	Construction	\$12.7
Stockton-Escalon Double Tracking	3	1106.8 - 1110.6	3.8	\$20.5	Construction	\$20.5
Stockton-Escalon Double Tracking	4	1110.6 - 1116.3	5.7	\$21.5	CEQA	\$21.5
Merced Station Track/Platform Improvements		----	----	\$10.3	Construction	\$10.3
Permanent Fresno Layover Facility ⁴	----	----	----	\$5.5	RR ROW	----
Stockton - Sacramento Improvements - Projects Under Development				TBD	Planning	----
90 MPH Service						
Ongoing Track Resurfacing	----	----	----	\$5.0/yr	RR ROW	----
Stations/Other						
Wasco Station Redesign	----	----	----	TBD	Planning	----
Madera Station Relocation/Expansion	----	----	----	\$10.0	Planning	----
Ongoing Minor Capital Program	----	----	----	\$0.5/yr	Planning/Const.	\$0.5/yr
Positive Train Control (PTC) - Amtrak	----	----	----	\$10.0	Complete	\$10.0
Positive Train Control - Host Railroads	----	----	----	----	Construction	----
Onboard Information System (OBIS)	----	----	----	----	Design/Const.	----
Longer-Term Capital Projects	Segment	Milepost	Miles	Cost	Status	Funding
Service and Capacity Improvements						
Figarden Double Track	----	1004.1 - 1008.6	4.5	\$27.0	PEIR ⁶	----
Gregg to Madera Double Track	1	1008.9 - 1013.8	5	\$23.4	CEQA	----
Gregg to Madera Double Track	2	1013.8 - 1020.5	6.6	\$40.0	PEIR ⁶	----
Future Maintenance Facility	----	----	----	\$30.0	Planning	----
Oakley-Port Chicago (Track, Signal, Civil)	2	1152.7 - 1155.8	3.1	\$55.0	CEQA	----
Oakley-Port Chicago (Track, Signal, Civil) 1 & 4		1157.9 - 1163.8	3.5	\$37.6	CEQA	----
Additional Trainsets	----	----	----	TBD	Planning	----
¹ Funding for the Temporary Layover Facility is utilizing unspent FY 15/16 Cal OES Safety and Security funds. ² A Federal FASTLANE Grant application for this project was submitted by Caltrans in December 2016. ³ Funding for parking and station enhancements could include cost savings from FY 2015/16 and FY 2016/17, as well as cost savings realized by running the Morning Express Service. ⁴ The Permanent Layover Facility would accommodate additional trainsets for service expansion beyond the two required for the Morning Express Service, including the trainset for the 8th Daily Round Trip. ⁵ Many of the longer-term capital projects were previously identified by Caltrans. SJJPA, in conjunction with the CalSTA and host railroads, is currently exploring other approaches to creating needed additional capacity for future service increases. ⁶ Project identified in SJ Corridor PEIR - 7/2014 Release.						
Source: Caltrans Division of Rail and Mass Transportation and SJJPA, 2017						