

# Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

“Solutions Is Our Middle Name”

March 18, 2013  
By E-Mail to  
electrification  
@caltrain.com

Peninsula Corridor Joint Powers Board  
Attn: Stacy Cocke, Senior Planner  
1250 San Carlos Ave.  
P .O. Box 3006  
San Carlos, CA 94070-1306

Re: Peninsula Corridor Electrification Project NOP

Dear Stacy:

The Transportation Solutions Defense and Education Fund, TRANSDEF, is a Bay Area environmental non-profit advocating the regional planning of transportation, land use and air quality. We strongly support Caltrain, but are concerned about the soundness of its current planning. We strongly support high-speed rail for California, but are convinced that the current plans for HSR are economically infeasible and will not lead to a working system. We have every expectation that the CHSRA project will fail, and are actively doing our part to assist in its demise. As a result, we seek to add a different and highly critical perspective to the electrification project. We offer the following comments on the complex issues raised by the Notice of Preparation:

## Questions

Is it even feasible to run HSR on tracks used by heavy freight trains? Would this require unreasonably frequent and costly maintenance efforts?

What is the impact of blended service on Caltrain's ability to expand service in the future? We are aware that past Caltrain long-range planning had forecast future demand requiring 10 trains per peak hour. What are the cumulative transportation impacts of Caltrain having a maximum capacity of only 6 trains per hour per direction? Will this result in unmet passenger demand?

The attached “Evaluation of Caltrain/HSR Initial Simulation” establishes the fact that blended service will result in the abandonment of Baby Bullet service. Because this service has been vital to the financial performance of Caltrain, what are the impacts of

eliminating Baby Bullet service? Will Caltrain be able to survive financially, or will it be unable to operate, thereby transferring its passengers to the auto mode and creating significant transportation impacts?

Please evaluate the transportation impacts of transferring Baby Bullet passengers to HSR service, at what is expected to be a significant increase in fare. Will so many passengers be deterred from using Caltrain/HSR that a substantial increase in auto mode occurs? We suggest that such an impact could be mitigated by a permanent fare agreement with CHSRA that accommodates current Baby Bullet passengers at commuter-level fares.

Please evaluate whether the no-interference conditions assumed in the recent Blended System memo from CHSRA will reduce Caltrain's capacity below the 6 trains per peak hour found feasible by LTK in their preliminary study of the blended approach.

Please perform a full operations simulation to determine the actual capacity for Caltrain when sharing tracks with HSR. What is the impact of the CHSRA's assumption that "Caltrain ... will allow for a high-speed express train to run unimpeded between SF and SJ" on Caltrain capacity?

What are realistic ridership projections for 2050, assuming a year-of-expenditure gas price equivalent to \$10.00/gal. in 2013? How many trains per peak hour would be needed to carry that ridership?

In evaluating the efficiency of an EMU operation, please be sure to include electrical distribution losses between the generation site and the EMU.

Please analyze how many trees would be removed or trimmed by over 30% of their canopy to accommodate the OCS.

Please evaluate the impact of the remaining at-grade crossings on local auto traffic, when the maximum projected train traffic causes the gates to go down frequently.

Please discuss the potential impacts of a Union Pacific RR veto of HSR intercity service.

Please discuss the failure of Caltrain and CHSRA to agree on a common platform height, and how this will be resolved, when sharing stations.

Please discuss how the Proposition 1A requirement for bypass tracks around stations will be accommodated. Please discuss the safety of passengers on the platforms when HSR trains pass by at full corridor speed.

Please explain why Caltrain decided to develop its own PTC system, rather than contract for an off-the-shelf system that is already in use in Europe?

We incorporate by reference our comments on the prior uncertified Electrification DEIR.

Alternatives

Caltrain needs a backup plan in case the CHSRA project does not go forward. We are involved in a lawsuit, *Tos v. CHSRA*, that seeks to block the release of Prop. 1A bond funds. If the Court grants our motion, Caltrain electrification will likely be collateral damage. We suggest the EIR carry a DMU alternative. In addition to being a pragmatic fallback strategy, using DMUs would avoid the local aesthetic impact and community character impact of extensive tree removal.

The most appropriate DMU technology would be dual-mode with regenerative storage. This would allow the DMUs to operate from catenary wherever it exists, such as in tunnels. Energy stored from braking, when added to the diesel generator output, would allow acceleration equivalent to that expected from EMUs. Catenary erected in the proximity of stations might be able to serve as a cost-effective alternative to energy storage, for enhanced acceleration from stations. We would be pleased to discuss such an alternative with your engineers.

We appreciate this opportunity to comment on the electrification project's NOP. Because we fully recognize that the decisions made on this project are make-or-break for Caltrain, we want to ensure that a full range of issues is considered.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,  
President

Attachment

Evaluation of Caltrain/HSR Initial Simulation

## Evaluation of Caltrain/HSR Initial Simulation

Anthony E. Waller, Railroad Operations Consultant

The initial simulation of joint operations of the Caltrain corridor carried out by LTK was deliberately couched in somewhat ambiguous language. It stated that blended operations were “conceptually” possible dependent on other factors that are yet to be determined. This will include more detailed engineering, the layout of the passing sidings and operating and scheduling tactics.

One factor that stands out is that at this phase of the blended operations study, a decision/recommendation/sketch plan/trial balloon has been put forth to eliminate, without actually saying so, the “Baby Bullet” schedules. The operations concepts put forth in the document tout the positive changes proposed for Caltrain service that are said to be byproducts of electrification and blended operations. These include six trains per peak hour in each direction instead of the present five; most (but not all) stations receiving more numerous train stops during the peak; and restoration of weekday service to Broadway and Atherton. It also includes a claim that is directly contradicted elsewhere in the text that overall SF-SJ travel time will be reduced by the more frequently stopping peak period trains.

There are sample peak period schedules for both peak directions: positive peak direction (toward San Francisco in the AM) and reverse (Silicon valley/San Jose oriented). All trains are proposed to stop more often than present Baby Bullet services. These new patterns were instigated directly by the need to slow down and bunch up Caltrain operations to keep HSR moving by allowing multiple overtakes in the passing sidings under planning. In addition, the only mentioned overtakes of trains at passing sidings is of Caltrain service by HSR. Baby Bullets presently overtake slower Caltrain schedules in these locations. Hence, if there are no Caltrain schedules overtaking others, there can be no Baby Bullets.

The following tables compare the different peak period schedules for both AM peak directions:

## Present AM Peak Schedules

<u>Train Class</u>	<u># of Stops</u> <u>San Jose-San Francisco</u>	<u>Train #s</u>	<u>Runtime</u> <u>SJ-SF</u>
Baby Bullet I	4	305, 313, 323	57 min.
Baby Bullet II	5 (also serves Tamien)	309, 319, 329	59 min.
“Skip Stop” express	9	215, 225	67 min.
Outer Zone trains	12 (some from Gilroy)	207, 217, 227	82 min.
Inner Zone trains	17 or 18 (one from Gilroy)	211, 221, 231	88 min.

## Proposed AM Peak Schedules

<u>Train Class</u>	<u># of Stops</u> <u>San Jose-San Francisco</u>	<u>Runtime SJ-SF</u>
A	11 (this type operates twice per hour)	64 min.
B	11 (also twice hourly, serves Tamien)	64 min.
C	11 or 12 (each subtype operating once per hour)	62 or 63 min.

### Present AM Peak Reverse Commute Schedules

<u>Train Class</u>	<u># of Stops</u> <u>San Jose-San Francisco</u>	<u>Train #s</u>	<u>Runtime</u> <u>SJ-SF</u>
Baby Bullet I	5	314, 324	59 min.
Baby Bullet II	6	312, 322, 332	61 min.
“Skip Stop” express	9 or 11	206 (11 stops) 216, 226	83 (11)/ 69 min.
Outer Zone trains	13 (plus Tamien)	210, 220, 230	82 min.
Inner Zone trains	14 (plus Tamien)	208, 218, 228	79 min.

### Proposed AM Peak Reverse Commute Schedules

<u>Train Class</u>	<u># of Stops</u> <u>San Jose-San Francisco</u>	<u>Runtime SJ-SF</u>
A	10	67 min.
B	12	68 min.
C	10	69 min.
D	11	68 min.
E	11	67 min.
F	11	70 min.