Peninsula Rail Corridor Capacity Analysis

(Caltrain and HSR Service)

Board of Directors
November 3, 2011

High Speed Rail Context

- **HSR Priority Segments**
  - Merced to Fresno
  - Fresno to Bakersfield
- **HSR Business Plan**
  - Initial Operating Segment being defined
  - Extend North? South?
- **SF to SJ Segment**
  - Design and EIR/EIS work on hold

Peninsula Vision

- **Blended System**
- **What?**
  - Support both Caltrain and HSR
  - Upgrade railroad from SJ to Transbay Terminal
  - Maximize use of existing tracks
- **Why?**
  - Minimize community impact
  - Lower project cost
  - Advance project delivery

Corridor Capacity Analysis

- **Is the "blended system" concept feasible?**
- **Multiple considerations**

→ **Operational**

  - Infrastructure
  - Funding Strategy

Scope of Work

- **LTK Engineering Services**
- **Build simulation model**
  - Main Line
  - Terminals
- **1st set of model runs / analysis**
- **Preliminary findings**
- **2nd set of model runs / analysis**
- **Draft analysis**

Model Description: System, Trains

System	Electric Advanced Signal System
Trains	Caltrain EMU trains HSR trains

Model Description: Tracks, Stations

Base	Mainline (San Francisco to Diridon)
HSR Stations	San Francisco Millbrae Diridon

Model Description: Passing Tracks

Tested	North (4-track section) Middle (4-track section)
To Be Tested	South (4-track section) Long (3-track section)

Preliminary Findings

- Blended system concept has merit
- Potential: Up to 10 trains / hour / direction

# of Trains	Without Passing Tracks	With Passing Tracks
Caltrain	**6**	**6**
HSR	**2**	**4**

Tested Service Characteristics

	Caltrain	HSR
Travel Speeds *(up to)*	79 mph, 110 mph	79 mph, 110 mph
Headways *(peak hour)*	6 trains (5 - 20 min.)	1 train (60 min.) 2 trains (30 min.) 3 trains (20 min.) 4 trains (15 min.)
Station Stops *(one-way)*	13 -14	3

Next Steps

Fall

- Capacity Analysis Part I Report

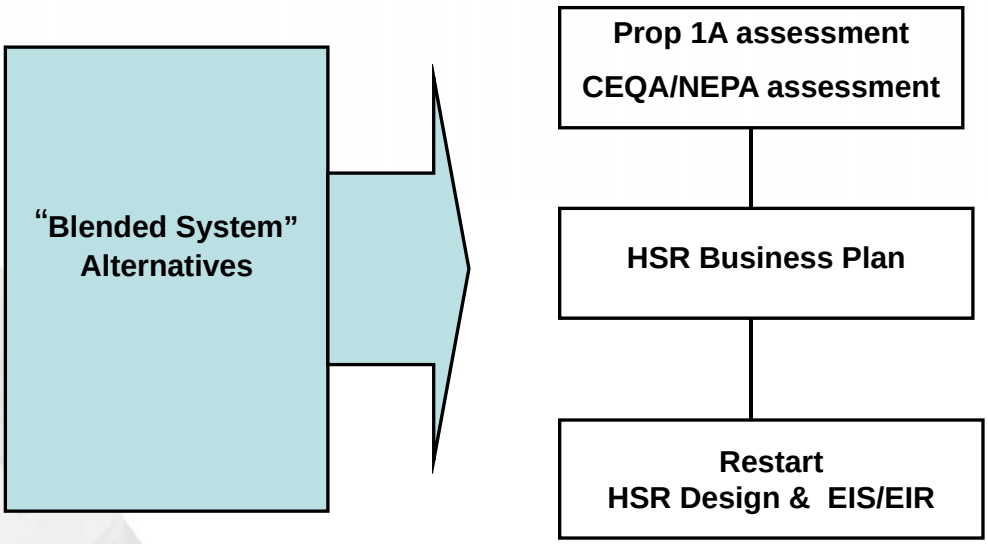
Winter

- Capacity Analysis Part II
- Conduct Grade Crossings Study

TBD

- Project Alternatives for EIR/EIS

Input to HSR



Discussion