# CALIFORNIA HIGH-SPEED RAIL NORTHERN CALIFORNIA REGION

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Southwest Chief and Front Range Passenger Rail Commission December 4, 2020



# **HOW WE GOT HERE**



#### CALIFORNIA HIGH-SPEED RAIL BACKGROUND

- Electrified statewide high-speed rail system capable of speeds over 200mph connecting 90% of the State's population
  - » Phase 1 (San Francisco to Los Angeles/Anaheim) 500 miles
- » Phase 2 (Sacramento and San Diego) 300 miles
- California High-Speed Rail Authority created in 1996
- » 9 Member Board with 2 ex-officio members of the Legislature
- » HQ in Sacramento, Regional Offices opened in 2012
- Funding approved in stages
- » Proposition 1A (\$9 billion in bonds) approved by California voters in 2008
- » Matching federal funds approved in 2009/2010, additional State funds in 2014 and 2017
- Groundbreaking in 2015 at the site of the Fresno Station



#### 1980s and 1990s: IDEA OF HIGH-SPEED RAIL

- 1980s Inspired by high-speed rail systems in Japan and France
- 1996 California High-Speed Rail Authority created

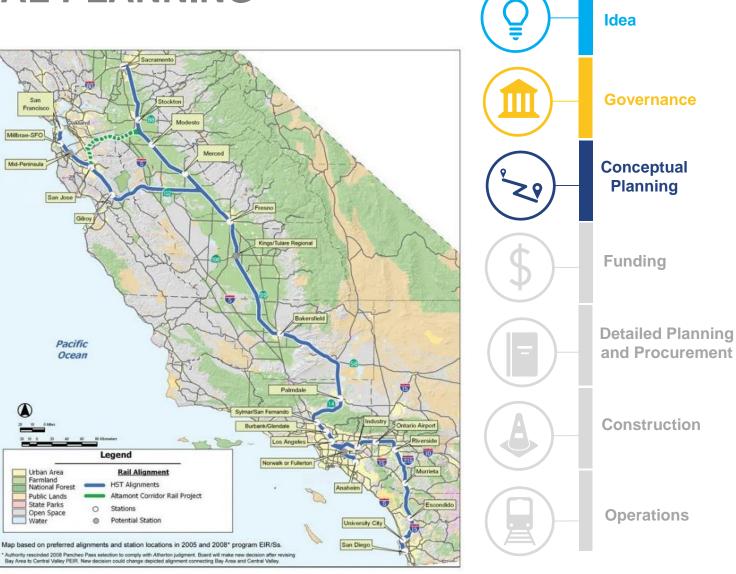






#### **EARLY 2000s: CONCEPTUAL PLANNING**

- Where should high-speed rail go?
- What technology do we pursue?
- » Steel wheel on steel rail
- » Magnetic levitation
- » Cars and airplanes
- What funding sources should be pursued?



### **CONNECTING CALIFORNIA**



**Increase Mobility** 



**Needed Alternative** 



**Better Air Quality** 



**Job Growth** 



#### **PROPOSITION 1A ELEMENTS**



#### **PROPOSITION 1A**

# New Constraints

Spending Controls and Independent Utility

50% Funding Match

Headways (Time Between Trains)

No Operating Subsidy

Follow Existing
Transportation
Corridors

Travel Times
Between Cities

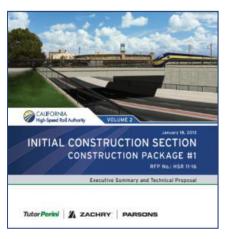
# PROPOSITION 1A PASSED IN 2008: KICKSTARTING THE PROJECT

- 1980s Inspired by high-speed rail systems in Japan and France
- 1990s Creation of High-Speed Rail Authority
- Early 2000s Route selection and environmental planning, exploration of funding sources
- 2008 2010 Ballot measure and federal funds



#### **GETTING TO CONSTRUCTION**









## **Environmental Clearance**

#### **Procurement**

- 3 Design-Build contracts for civil works (119 miles)
- Parallel activities with design, rightof-way, and utilities

#### Right of Way

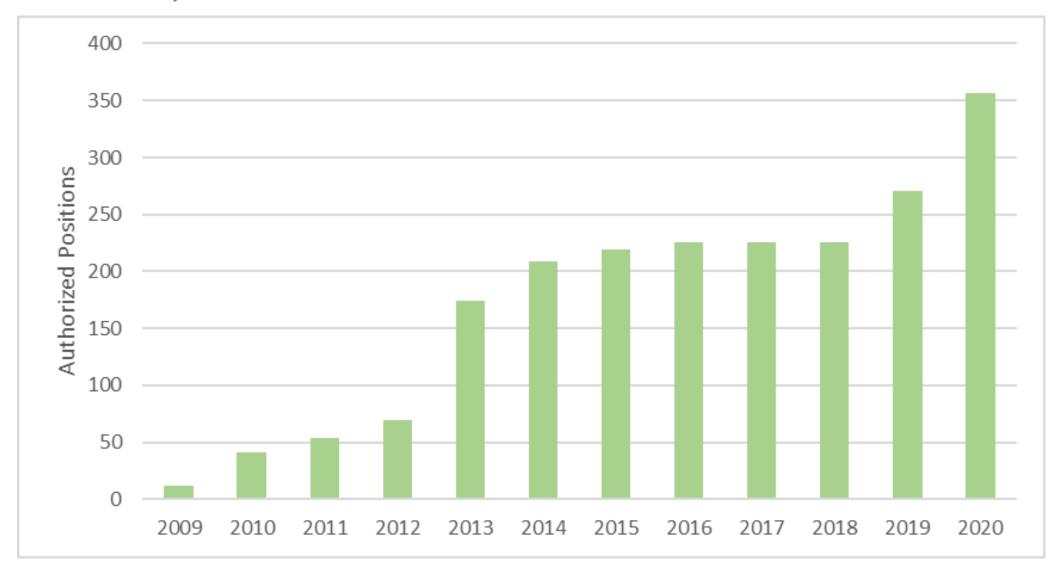
- Must acquire over 2,000 parcels of land
- Strict rules and processes

#### **Utility Relocation**

- Have to move utilities out of the way of construction
- Often even the utilities don't know exactly what they have where

#### **AGENCY STAFFING LEVELS**

Authorized Positions by Fiscal Year

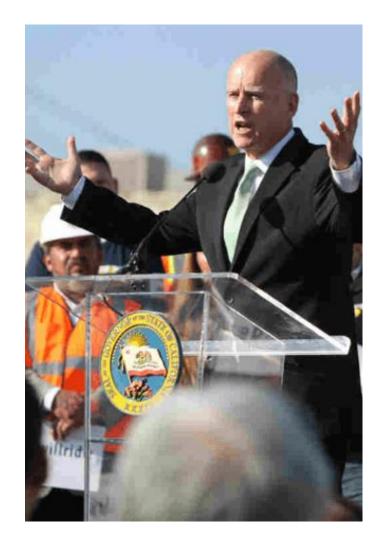


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- 2012 2014 Detailed planning, environmental clearance, procurement



#### WE BROKE GROUND IN 2015 AND BEGAN CONSTRUCTION

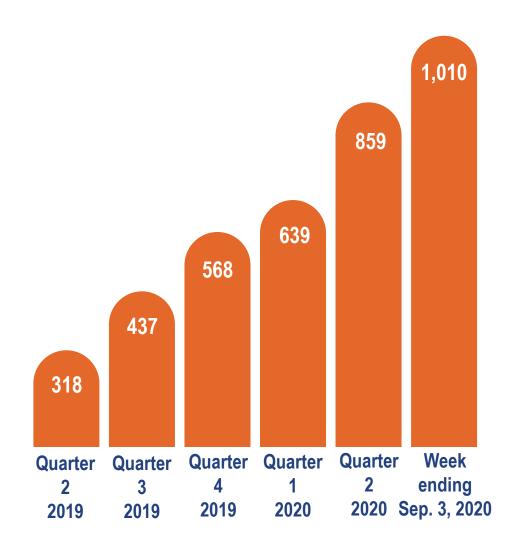


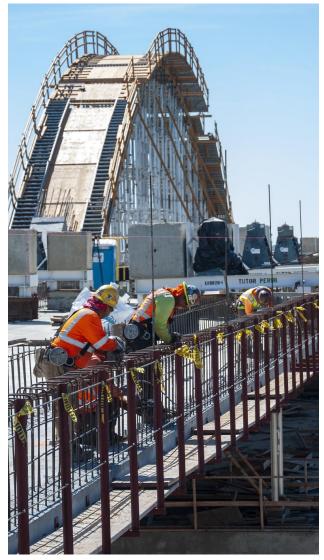




### MOMENTUM PICKING UP IN THE FIELD

WEEKLY AVERAGE WORKERS DISPATCHED











#### **LOOKING AHEAD**

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- 2012 2014 Detailed planning, environmental clearance, procurement
- 2015 2020 Groundbreaking and construction



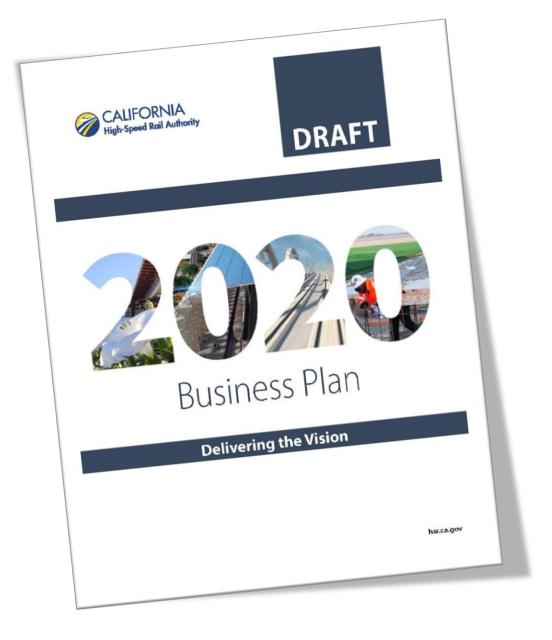
#### **2020 BUSINESS PLAN**

#### Principles of the Business Plan

- » Plan shaped and informed by public comment
- » Presents the program's status at this point in time
- » Summarizes our approach to implementing the system

#### Key aspects:

- » Initiate HSR service as soon as possible
- Make strategic and concurrent investments that will be linked over time and provide mobility, economic and environmental benefits
- » Position ourselves to construct additional segments as funding becomes available



#### WHERE WE ARE IN 2020

- 350 miles of electrified high-speed rail on the way to or under construction
- » 171 miles between Merced and Bakersfield
- » 51 miles of the Caltrain Corridor being electrified
- » 130 miles connecting Las Vegas to Southern California
- Remainder of Phase 1 (San Francisco to Los Angeles/Anaheim) environmental clearance underway
- » 2 Final EIR/EIS sections completed in last year
- » 4 Draft EIR/EIS documents released in 2020



# **LESSONS LEARNED**



#### **LESSON 1: MANAGE THE BRAND**

- Committed political champions are essential
- The brand will be strongest at the vision stage
  - » Consider long-term implications and promises
  - » Set realistic expectations and be transparent
  - » Admit what you know and don't know
- Engagement needs to be two-way, local, and consistent
- Risk management is an ethos and continuous process









## **LESSON 2: ENVIRONMENTAL ≠ PLANNING**

- Environmental clearance is not how you plan projects
- Develop a business case
- » What are the goals/benefits you are aiming to provide?
- » What will be the "product"?
- » What is the strategy for program development and delivery?
- » What are the costs and funding options?
- » What are the risks?
- Clearly articulate the process, where you will seek input, and from whom
- Consider how the business case gets updated and at what interval
  - » Every two years is too short!

#### **LESSON 3: "ORGANISATION VOR ELEKTRONIK VOR BETON"**

Organization before electronics before concrete

- Getting the governance and organization right is critically important
  - » Governance, decision-making structures, oversight, and "superpowers" come early
- » Management and processes must be set up before key project development phases
- » Building the organization is a dedicated function that requires attention
- Consider solutions short of civil construction (e.g. signaling upgrades)
- » Example: Caltrain Electrification
- Megaprojects require specialized resources



### **LESSON 4: CONSIDER PROJECT SEGMENTS AND PHASING**

(At the right time)

- 175 miles is a big corridor
- Consider breaking the project apart for:
  - » Environmental Can you have two or more "project sections"?
  - » Pre-construction Must be completed properly in order to not delay construction
  - » Project Delivery (construction) How do you break construction into deliverable chunks?
- Consider phasing to fit within available funding/resources
- » Balance of construction funding for one phase vs. project development funding for another phase

#### PROJECT DEVELOPMENT STAGES

**Planning** 

**Environmental** 

**Pre-Construction** 

Construction

**Operations** 





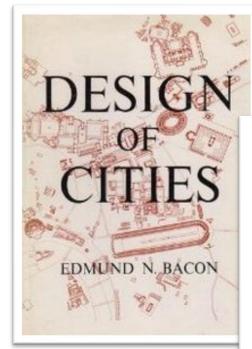






#### **LESSON 5: BALLOT MEASURES SET IDENTITY**

- Ballot measures enshrine commitments into law
- » Can create discipline and identity for the long-term
- » Might include unanticipated side effects or unknown tradeoffs
- Must balance the short-term project pressures with long-term project interests
- Consider the "Principle of the Second Man" (Edmund Bacon, The Design of Cities)





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