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**TESTIMONY OF
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**BEFORE THE
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
UNITED STATES HOUSE OF REPRESENTATIVES**

*“California's High-Speed Rail Plan: Skyrocketing Costs & Project Concerns”
December 15, 2011*

Mr. Chairman, Members of the Committee,

Thank you for the opportunity to appear before you and testify about the California High Speed Rail Project.

My name is Elizabeth Alexis and I am a co-founder of Californians Advocating Responsible Rail Design (CARRD). CARRD is a non-partisan volunteer network that has been following the California High Speed Rail project since 2009. We value transparency, accountability, and oversight and believe local communities should be partners in designing transportation projects. We work to ensure that the public's interests are upheld and that all facets of the California High Speed Rail project follow both the spirit and the letter of the law. We do this by encouraging civic engagement, providing in-depth and relevant analysis, and advocating for changes in how projects are planned.

My specific work for CARRD has focused on reviewing the business plans and the ridership forecasts for the project as my background is in finance and economics. I have given invited testimony on these subjects on multiple occasions to the California State Senate and Assembly.

My undergraduate studies in Mathematics & Economics were at Yale University and my graduate work in Economics was at Stanford University. I was a vice-president at Bankers Trust Company (now Deutsche Bank) in New York in the global capital markets division and am now a partner in a Palo Alto - based investment advisory business.

We formed CARRD because we believe rail projects will be an important part of solving California's current and future transportation needs but were concerned that planning efforts in California had undergone remarkably little scrutiny and seemed to be on the wrong track.

The costs were clearly underestimated and most of the proposed funding was speculative at best. The California High Speed Rail Authority who was charged with implementing the project had been operating as a small, poorly funded organization for most of its existence, disconnected from regional transportation planning efforts. To secure the necessary support of cities and lawmakers, impacts had been downplayed. This led to critical decisions about the route being made without sufficient feedback on their feasibility.

Our biggest concerns, however, were about the project's organizational structure which seemed to be designed to fail. There were seven staff members overseeing more than 100 different consulting firms. The route was divided up into 10 different segments of about 80 miles each. A different engineering firm was hired to plan each section. Each of those firms hired their own outreach team and specialists. All of the engineering firms were overseen by another engineering firm called Parsons Brinckerhoff. Parsons Brinckerhoff's work was to be reviewed by yet another engineering firm. This created a coordination nightmare that only served to increase the billings of the firms involved who were being paid on a "cost-plus" basis. Planning work was heavy handed, reminiscent of the early days of highway development. This resulted in plans that are expensive yet poorly integrated into local planning efforts, like the massive 6 mile multi-billion dollar aerial structure planned for San Jose. The multiple layers of consultants have made communication difficult and limited flexibility.

And just as planning was starting to kick into high gear, the project was awarded ARRA funds, that came with various deadlines that presumed the existence of shovel ready projects. These deadlines drove decision-making in California and kept the existing 4-layered consulting structure in place. It was clear, even two years ago, that these deadlines could be deadly to a project that needed substantial rethinking.

In retrospect, many of these deadlines were false ones. The Authority believed that they could only use grant money on a segment that had been environmentally cleared by September 2011. This led to a focus on the Central Valley where it was believed that approvals would be relatively easy. We are now in December 2011 and it is unlikely, given some significant errors made by the Authority in the environmental planning process, that the Central Valley segments will be cleared until 2013.

The California High Speed Rail project is at a crossroads.

The Authority released their latest business plan in November. The new \$98 billion price tag is both a reason to step back and rethink the project, as well as a vivid illustration of its problems.

The California voters approved \$9 billion in bonds for a high speed train system, but it was not an open checkbook. Policy makers in California are concerned about the potential fiscal impact on state and local budgets. Recent polls verify a significant loss in support due to the higher price tag and continued missteps by the Authority.

Despite the project's flaws and flagging support, there are pressures to continue moving forward without substantive changes. Legislators are hesitant to jeopardize Federal funding and fear that any loss in momentum will be fatal for the program.

This could result in the use of more than \$6 billion of public funds for earthwork and concrete that will wreak havoc to local transportation grids yet still be \$25 billion short of actually being something that will run high speed rail. The proposed tracks have been described as potentially being useful for Amtrak, however there has been no real analysis of whether this is feasible or desirable.

If the project moves forward as is, there is a good chance that the State will have to devote more of its precious General Fund dollars towards trying to salvage something useful from the initial construction. This will be to the detriment of other transportation projects around the State as well as education, which has already been hit hard by continuing cutbacks.

The 2012 Draft Business Plan

The briefing report contains an excellent summary of the various changes that have occurred in the business plan. We would highlight a few of those key findings:

- **\$98 billion** - True project costs are much higher than previously acknowledged.
- **No upfront private investment** - Private investors will not participate before significant public investments prove ridership potential.
- **\$73 billion more in Federal support required** - The entire increase in cost is assumed to be paid for by the Federal government.
- **Construction will start in the middle of the route** - The funds available will be used to construct tracks in the Central Valley and work will not extend to an urban area for decades.

The \$98 billion cost figure is notable as it is the first time an honest accounting of the project costs for Phase 1 (San Francisco to Anaheim) has been done.

The dramatic change in the price tag is because the project costs now include many more miles of costly viaducts and tunnels than originally incorporated in the estimates.

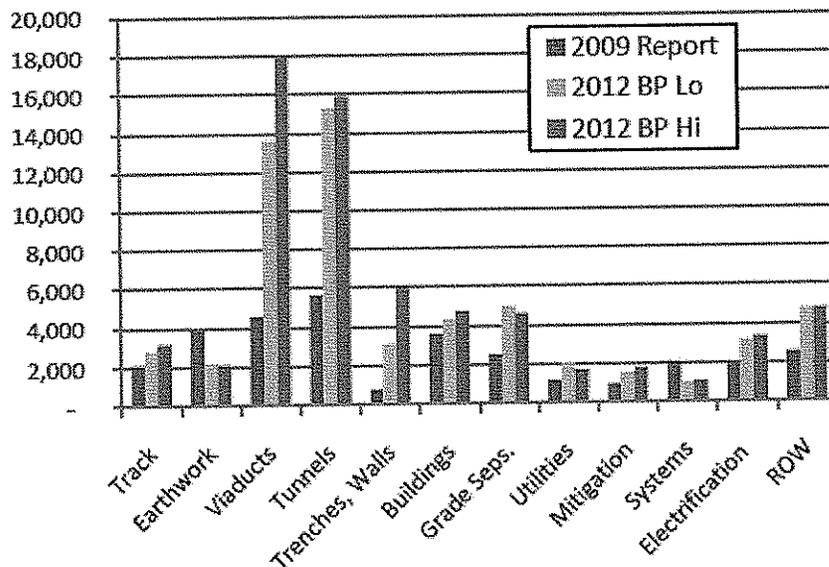


Figure 1 Source: Cost Changes from 2009 Report to 2012 Business Plan Capital Cost Estimates, Parsons Brinckerhoff October 2011

Most of these changes had either been made prior to the December 2009 estimates or should have been anticipated. For example, in prior cost estimates, the sections of the project with 4 sets of tracks on aerial structures used the cost of only two track structures. In the Central Valley, the budget simply ignored the expense of the planned viaducts altogether. CARRD gave public testimony and sent emails notifying the Authority of these omissions, but were ignored.

This is a major concern because neither the Authority, nor Parsons Brinckerhoff (PB), nor the firm hired to oversee PB (TY Lin) made these issues known or even acknowledged their existence. As a result, the State and the public feel betrayed and confidence in the project has eroded dramatically.

The costs for the project were already on the high side, compared to other projects around the world.¹ Even excluding provisions for inflation, the per mile cost is now \$127 million (2010\$) for a route where 60% of the distance is through the ultra-flat Central Valley region, which should facilitate low cost construction. By contrast, the latest TGV project in France costs \$25 million per mile or one-fifth the cost of California. In addition to the high per mile cost, the project takes a circuitous route that is 100 miles longer than the driving distance from Los Angeles to San Francisco.

Even with healthy ridership numbers, it is difficult to justify the \$98 billion cost. If the system attracts 30 million passengers per year, the \$86 billion of public funding assumed equates to **a subsidy of almost \$100 per passenger for the first 30 years of operation.**

In order to rationalize the \$98 billion dollar investment in high speed rail, the Business Plan provided an analysis claiming savings of \$170 billion by avoiding highway and airport construction.

The study overstates savings and fails to provide detailed information critical to prioritizing projects to meet California's transportation needs.

The analysis looks at the cost of replicating the maximum capacity of the high speed rail project using highways and airports, not the realistic usage of the system. It does not include other, less expensive capacity enhancements that will likely occur. For example, the Bay Area airports have devised a plan that would accommodate all expected growth in demand by making better use of the infrastructure that already exists.² High Occupancy Travel (HOT) lanes in Los Angeles are a promising, revenue generating way to combat congestion, along with the expansion of local transit options. Overall, the decision-making for prioritizing transportation projects in California is fragmented and even if the high speed rail project moves forward, it is unrealistic to assume that an investment in high speed rail will result in the cancellation of planned highway and airport expansions.

Role of private investors

The project had always been envisioned as a partnership between the public and private sector. Lawmakers felt that private sector involvement was crucial for reasons beyond the money it would bring to the table. Anyone investing would do their own ridership projections, which would provide a truly independent assessment of the demand for high speed rail and validate project forecasts.

¹ UIC http://www.uic.org/IMG/pdf/20101124_uic_brochure_high_speed.pdf Multiply by 1.6 (KM to miles) and again by 1.3 (EUR to USD) to get the \$24 to \$60M per mile.

² Regional Airport Planning Analysis, 2011 Update. <http://cahighspeedrail.ca.gov/assets/0/152/302/312/646d29d7-2946-458b-ae64-04c990f11975.pdf>

Beginning in 2008, the private sector began to express reluctance to invest in the project without some kind of public revenue or ridership guarantee.³ It was not until the 2009 Business Plan that the Authority formally acknowledged the need for such a guarantee - a guarantee which would likely violate the state bond measure's prohibition on operating subsidies.

In the 2012 Draft Plan, it is no longer assumed that private investment will occur prior to revenue service. Future investment is seen as contingent upon the success of an Initial Operating Segment which will either be San Jose to Bakersfield or Merced to San Fernando Valley. The Authority has used their highly flawed ridership model which has not been updated since 2007 to project that these corridors will be successful high speed rail routes.

High speed rail relies on attracting business travelers willing to pay steep fares for fast and reliable service. The airline market has not been able to support a single daily flight in either of these corridors, so the chances of a profitable service are low.

Without a private investor and their independent ridership model, the California State Legislature and the Federal government must continue to rely on the flawed model.

The decision on who will operate the trains will also not be made for years to come. Unlike the successful high speed rail systems in Europe, this means key decisions about routing and capacity requirements are being made consultants who will not operate the trains, nor have ever done so.

Role of the Federal government

The plan looks entirely to the Federal government to plug the enormous funding gap. While the Authority has not assumed any additional awards for the next couple of years, Congress is presumed to make large sums available for the project after that. Most of this would be through traditional grants and some is assumed to come from \$19 billion in direct-pay Qualified Tax Credit Bonds (QTCBs). QTCBs are not free money and require substantial Federal appropriations that we have calculated to be worth about \$13 billion. It should be noted that the California State Treasurer's office found several concerns about the feasibility of QTCBs to provide as much financing as assumed in the plan so is just safer to assume that the entire Federal contribution would be made with grant funding.⁴

According to the previous plan, the project would need about **\$15 billion** in Federal support beyond the grants already received to complete the entire Phase 1 San Francisco to Anaheim project. The 2012 plan would require another **\$20 billion** just to finish constructing a route from San Jose to Bakersfield. To complete the entire project would require **\$73 billion** in additional monies⁵. This would require annual awards of more than \$3 billion for the next 20 plus years, similar to the amount California receives from the Federal government in highway funds.

³ "Report of Responses to the Request for Expressions of Interest for Private Participation in the Development of a High-Speed Train System in California," October 2008. Report was presented to the Board on June 11, 2008.
<http://cahighspeedrail.ca.gov/WorkArea/DownloadAsset.aspx?id=7184>

⁴ LAO Report on The Draft 2012 Business Plan and Funding Plan
http://lao.ca.gov/handouts/transportation/2011/HSRA_Business_Funding_plan_11_29_11.pdf

⁵ Please see Exhibit 1 at the end of this testimony.

Initial Construction Segment (ICS) vs. Initial Operating Segment (IOS)

The plan proposes using the \$6 billion in available funds to construct up to 130 miles of tracks largely parallel to the existing BNSF freight tracks used by the San Joaquin Amtrak service in the Central Valley. This segment, known as **the Initial Construction Segment (ICS), would not be electrified or be ready for high speed rail.** There is no plan to actually run high speed rail trains on these tracks until an additional \$25 billion is available to complete an Initial Operating Segment (IOS) to either San Jose or the San Fernando Valley.

One of the motivations for the selection of the Central Valley, beyond meeting federal requirements, was a desire to create construction jobs in the economically depressed region; the project purports to create 100,000 jobs.⁶

However, the detailed analysis in the Environmental Review documents reveals that at the peak of construction, there will be about 3,000 - 4,000 direct, indirect and induced jobs in the Central Valley as a result of the project.⁷ The documents also show that there could be an offsetting number of job losses. The current plans have a high impact on businesses along the route. Construction will require the acquisition of 1100 parcels of land, including farmland and commercial properties. The farmland and dairies will be permanently impacted and the track record for successfully relocating the types of businesses that will be impacted by the project is not good.⁸ The city of Fresno has expressed significant concerns about their ability to simply process all the necessary permits.

One of the proposed benefits of the high speed rail project is to improve the air quality of California and particularly the Central Valley. However, by beginning in the Central Valley, the construction will cause a significant degradation to air quality that is unmitigated on the premise that one day, decades from now, a statewide system will lower emissions. There is no contingency plan for how to handle these air quality issues in the short term.

Under the terms of the funding contract with the Federal Railroad Administration (FRA), the tracks would be made available to Amtrak if additional funds to complete the project are not forthcoming. This would fulfill the statutory requirement for "independent utility" by potentially improving travel times between Fresno and Bakersfield by 45 minutes for the 350,000 passengers per year whose trips include this leg and attracting new riders.

The impact on the San Joaquin Amtrak service is still unknown. The new tracks use a different route than the existing one. The station in Fresno would move from its current location adjacent to the major government buildings and all cities between Fresno and Bakersfield will be bypassed. It is not clear if the three cities impacted, which account for 25% of the existing route's ridership, will still have service. If they do, new stations would need to be built in farmland.

Amtrak would also become responsible for maintenance of the tracks at a cost we have estimated at \$10 million per year, a significant sum that would likely offset additional revenues from the improved

⁶ Press release November 22, 2011 CHSRA "This initial construction segment, spanning up to 130-miles, will put 100,000 people to work over the next five years."

⁷ Draft EIR/EIS Fresno to Bakersfield and Draft EIR/EIS Merced to Fresno

⁸ FHWA Study from 2002 of California projects showed only 31 of 75 businesses successfully relocated.
http://www.fhwa.dot.gov/realestate/nbrs2002_8.htm

service. In addition, the environmental impacts of running diesel Amtrak trains on the tracks designed for high speed rail have not been studied.

It is debatable whether the Central Valley would come out ahead with this construction project. What is certain is there are projects that could achieve similar transportation enhancements at a fraction of the cost. For example, the St. Louis to Chicago project will result in greater time savings, at a cost of \$1.1 billion. What is also certain is that there are many other transportation projects in California that could make better use of the \$6 billion.

Recommendations

The problems of the California High Speed Rail project are many years in the making and it will not be easy to reverse course. The need, however, for improved transportation systems and judicious use of taxpayer funds dictates that we try. Our key recommendations:

Independent ridership model

There should be an independent ridership model that is developed in a transparent manner for the Federal government and California. Even if a private operator is brought on board, the importance of ridership to all aspects of the planning makes this a worthwhile investment.

Institutional reform

In other countries, the primary project planner is the existing rail operator in close cooperation with the local jurisdictions and the national government who is generally the primary funder. The California project suffers because it relies heavily on the private sector without properly aligning incentives and local communities have been viewed as problems, not partners.

The Authority and its program manager, Parsons Brinckerhoff (PB), are so intertwined that there is no accountability on the part of anyone. PB's role is so crucial on the project that it has a status akin to banks who are too big to fail. PB may be too involved to be fired. Checks and balances that should exist do not. For example, Consultant A oversees Consultant B on one part of the project and Consultant B oversees Consultant A on another part.

There have been some proposals in California to reform the California High Speed Rail Authority but none adopted for fear of losing project momentum. The FRA should insist on substantive institutional changes.

Flexibility

The California High Speed Rail Authority has told the California Legislature that the Federal Railroad Administration and the Department of Transportation are requiring them to begin construction in the Central Valley. However, at last week's Congressional hearing, Secretary Ray La Hood was asked whether there was any flexibility in where to put the money. He said, "We're in the Central Valley, we made a commitment there, that's where people want us to be – and until somebody tells us differently, until they have a different plan, that's where we're going to be."

If there was some flexibility in where the money was spent, it would allow stakeholders to devise an alternative use for the funds that would almost certainly result in much greater public benefit than the current plan.

EXHIBIT 1: CA-High Speed Rail Construction Costs

CA High-Speed Rail Construction Costs						
Source of funds	ICS	IOS-N	Bay To Basin	Blended Phase 1	Full Phase 1	Total (billions)
State*	\$2.68	\$4.94	\$0.37			\$8.00
Fed grants	\$3.32	\$7.42	\$17.46	\$19.12	\$15.89	\$63.20
QTCB loans		\$17.30	\$1.30			\$18.61
Use of Fed loans to buy state bonds		-\$4.94	-\$0.37			-\$5.32
Other (Local, Private, Operating Profits)			\$5.27	\$4.78	\$3.97	\$14.02
Total	\$6.00	\$24.72	\$24.03	\$23.90	\$19.86	\$98.51

Additional Federal subsidies required for construction	
Outright grants	\$63.20
Value of interest payments on QTCB loans**	\$13.29
Grants already obligated	-\$3.32
Additional subsidies required	\$73.17

* Does not total to \$9 billion as \$1 billion is assumed to be used for planning and other non-construction expenses.

**The actual costs to the Federal government would depend on the term and interest rate and other assumptions.

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
Truth in Testimony Disclosure

Pursuant to clause 2(g)(5) of House Rule XI, in the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include: (1) a curriculum vitae; and (2) a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by an entity represented by the witness. Such statements, with appropriate redaction to protect the privacy of the witness, shall be made publicly available in electronic form not later than one day after the witness appears.

(1) Name: Elizabeth Goldstein Alexis

(2) Other than yourself, name of entity you are representing:

Californians Advocating Responsible Rail Design (CARRD)

(3) Are you testifying on behalf of an entity other than a Government (federal, state, local) entity?

YES

If yes, please provide the information requested below and attach your curriculum vitae.

NO

(4) Please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by you or by the entity you are representing:

None

Signature

12/13/2011
Date

Elizabeth Goldstein Alexis is a Co-founder of CARRD, Californians Advocating Responsible Rail Design along with Rita Wespi, Sara Armstrong and Nadia Naik.

CARRD is a volunteer, grassroots group advocating for transparency, accountability and effective community involvement with transportation projects. The organization has largely focused on the California High Speed Rail project and has played a significant role by providing analysis of the project's financial plans, ridership projections, as well as obtaining a library of documents through public records requests that are housed on their extensive website.

Elizabeth was a vice-president at Bankers Trust Company (now Deutsche Bank) in New York, working in the global capital markets division. She also worked at E*TRADE Financial and several Silicon Valley startups. She is currently a partner in a Palo Alto-based investment advisory business.

Elizabeth earned a B.A. in Mathematics & Economics and History from Yale University and has completed coursework for the Ph.D. in Economics program at Stanford University, with a focus on Applied Microeconomics and Econometrics.#