

California Rail News

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High-Speed Rail: Big Changes Afoot?

By David Schonbrunn
TRAC Vice President, Policy

The Governor’s startlingly candid admission that “Right now, there simply isn’t a path to get from Sacramento to San Diego, let alone from San Francisco to LA” has triggered what could become a major reassessment of the State’s commitment to this project. Governor Newsom’s candor was a total break from eight years of uncompromising support by Jerry Brown for a project that still has no realistic long-term funding.

The release of the California High-Speed Rail Authority’s (CHSRA) [2019 Project Update Report](#), and the Trump Administration’s cancellation of a \$929 million grant to the project, when added to the Governor’s statement, combine to create a highly dynamic situation. While the State has sued the federal government to recoup the funds, no one knows where any of this will end up.

CHSRA’s new plan calls for HSR service between Bakersfield and Merced. This \$20 billion plan would cost \$15 billion more than the \$5 billion that has already been spent. Unlike any normal rail project, that \$5 billion has not delivered any benefits to the public, especially not improved passenger service. Legislative hearings so far suggest a far higher level of skepticism than previous years that this project is worth doing.

TRAC’s Observations about the Update

The plan rests on the fundamental premise that this service will serve as “a building block” for a statewide HSR system. In fact, CHSRA has **never** had a realistic plan to fund the building of a statewide HSR system. As a result, **there simply won’t be a statewide system**, despite the intense flurry of consultant work to put together plans for one. That means the proposed



HSR system will **never be more** than a standalone Bakersfield-to-Merced line.

While transportation projects are judged on their cost/benefit ratio, the new plan completely flunks that test. No one outside of California would seriously propose to commit \$20 billion to a standalone project like this. That’s roughly the cost of London’s new Crossrail subway system, which will carry vastly more ridership. That extraordinary amount of money for a project with such modest benefits is ridiculous. For less than 5% of that amount, [Central Valley rail service could be made much faster](#). (See also, past issues of *California Rail News*.)

It’s unclear whether the primary purpose of the Project Update is to keep the consultant gravy train in motion, or merely to be able to claim that the project is going forward, to avoid having to give back billions of dollars to the Trump Administration. What **is** clear is that this is not a project being proposed on its merits.

The private sector has wanted to invest in passenger rail in California, but has been blocked by politicians promoting CHSRA’s project. CHSRA was
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Big HSR Changes? (continued from Page One)

once offered a funded plan, but rejected it. The [French National Railways](#) proposed to build an HSR line from Los Angeles to San Francisco on a different route than CHSRA had approved, with funding from an investment bank. CHSRA rejected the offer and instead launched into construction with the State taking on 100% of the risk. By keeping the French offer secret, CHSRA showed that it had priorities other than getting HSR built and that it did not want those priorities known by the public.

TRAC has long been a supporter of high-speed rail (HSR) as the low-pollution way to connect the regions of our large state. We have objected to the design of **this** HSR project from its inception, however, because it is so distorted by political compromises. The complete lack of interest from the private sector in investing in this project, while private sector entities thought an HSR system on another route would be profitable, is proof that its design is deeply flawed. Without investment from the private sector, there is no way a statewide project can be built. Federal and State funding can never be enough.

The Project Update acknowledges that Bakersfield-Merced HSR service will not earn its operating costs. That violates an explicit provision of the 2008 HSR Bond measure, which promised voters that no bond funds could be used to build HSR tracks whose operations would require subsidies.

Brian Kelly, CEO of CHSRA, stated that, “Once [the project’s] done,” he said, “it will unlock financing to tunnel beneath Pacheco Pass to reach San Jose’s Diridon Station...” Kelly’s assertion that a money-losing service will attract the \$14+ billion in private investment needed to connect the Central Valley to San Jose defies all logic.

There is no assurance that the private sector would have any interest in investing in California HSR, if this Central Valley project were ever completed. Before spending \$15 billion on this project, it would be prudent to invite the private sector to indicate what it **would** be willing to invest in.

CHSRA has been actively promoting the concept that HSR is part of the solution to Northern California’s housing crisis. The 2018 CHSRA Business Plan states that a Fresno-to-San Jose round trip ticket would cost \$132. (HSR’s primary patrons have always been expected to be business people.) Even with a monthly discount, these HSR tickets would be far too expensive for daily commuting. Any benefit of lower housing costs would be wiped out by much higher commuting costs. TRAC believes HSR’s housing benefits to be non-existent.

Now that the HSR project has been downsized to only the Central Valley, there is no legitimacy to the claim that the project will produce meaningful GHG reductions. As a result, CHSRA should no longer be eligible for Cap and Trade money. Without that money, CHSRA would have to concede it cannot build this project.

The ridership projections are based on 19 HSR trains per day, per direction. However, limited infrastructure means that only 9 of those trains could connect to trains to the Bay Area. That makes the proposed project’s ridership projections impossible to achieve within its estimated cost. Currently, the Altamont Commuter Express (ACE) can only offer a maximum of 4 round-trips a day. The

San Joaquins operate 5 trains a day to the Bay Area via a circuitous route that doesn’t go to Silicon Valley. Connecting every HSR train to a train to the Bay Area or Sacramento would require the expenditure of many more billions, which have not been included in the HSR cost estimates.

Ridership for the Valley HSR line is based on Amtrak-level fares. Every other HSR system in the world charges premium fares. The obvious implication of this assumption is that the ridership was tested using the fares proposed in the CHSRA 2018 Business Plan. Those ridership projections must have been so dismal that they were unusable. Using Amtrak fares for Valley HSR is a tacit admission that traveling at high speeds is not valued by the Central Valley travel market. If the Valley isn’t willing to pay for HSR, why should the State?

What It All Means

The new plan is mired in the sunk cost fallacy: “Because \$5 billion has already been spent, we need to finish the project.” It is foolish to spend a lot more money to make an initial decision to spend look reasonable, if the project itself isn’t worth that money. It would be far better to cut California’s losses now, when it is obvious there is no upside. Let’s not throw good money after bad.

This is an exciting time for rail advocates to be putting forward their ideas for alternatives to CHSRA’s plans. There is a possibility of change in the air that was not present during the Brown Administration. TRAC has extensive plans for improving California Rail, which were presented to Governor Newsom’s staff. We continue to believe that cost-effective plans, tied to investment from the private sector, are the most feasible way to improve California’s long-distance mobility. Our website, [calrailnews.org](#), will soon be showcasing our plans.

Dan Walters best summarized CHSRA’s situation: “The bullet train utterly lacks a rational purpose, has been ill-managed from the onset and is a black financial hole. If the Trumpies strangle it, they would be doing California a big favor.” TRAC would add: “There’s lots to do to improve California rail. Let’s not let this bad project sour us on improving rail transportation.”

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A “Thank You” to TRAC Members

By Ronald Jones
TRAC President

As President of TRAC, I have been encouraged by the consistency of financial support from our members. Our membership renewal rate is very high. We hope that's because we are addressing in the right way the issues most important to you, our members.

This is a very important year for passenger rail funding in California: A new governor brings the possibility of a new direction. TRAC has already met with the Governor's staff, presenting our ideas on the best use of rail funds. With climate change and affordable housing being major priorities on

the political landscape, TRAC knows passenger rail can and should be an important part of the solution. It can reduce commute hardships people face.

With this in mind, TRAC officers will be conducting a survey, calling a sample of members to get feedback on how we're doing and how best to go forward with the organization. If you get one of these calls, please help by participating in this short survey. That will help our Officers and Board Members continue TRAC's role as the straight-talking voice of reason, doing our best to bring better passenger rail service to California.

Happy Travels!

SMART Studies Mini-Mega Projects

By David Schonbrunn
TRAC Vice President, Policy

The Sonoma-Marin Area Rail Transit District, SMART, has recently published a study on extending itself to Suisun to the East. The lowest-cost option would cost \$780 - 898 million. The full-boat option would cost between \$1.134 and \$1.304 billion. In addition, SMART disclosed a cost estimate of \$264 million for a 22-mile extension to Cloverdale in the North. These costs are shockingly high, especially when considered in the context of the light ridership these extensions are likely to attract.

Unlike private-sector planning, which does just enough to get the job done, these numbers reflect the creation of gold-plated new infrastructure. This is typical for consultant-driven planning. Not coincidentally, this approach results in maximizing consulting fees and construction contracts.

The fundamental problem with these studies is that they rely on a one-size-fits-all design standard: One set of specifications is imposed everywhere. This ignores the far lower population levels in these two corridors. What's missing is the recognition that lines in low-density areas need to be both cheaper to build and cheaper to operate, to be a worthy recipient of scarce State infrastructure funds. It's simply unfair to the more populous areas to spend far more per passenger in these low-density areas.

As an example of gold-plating, the study includes \$117,500,000 for installing one wayside signal per mile of track, when Positive Train Control eliminates the need for these signals (except at bridges and switches). The study calls for replacing all timber trestles with concrete bridges. Because trestle bridges have performed well on private-sector railroads, their wholesale replacement

seems uncalled-for. Similarly, the study calls for replacing nearly all the jointed rail, implying that the existence of an occasional bent rail requires replacing everything. Like trestles, trains have operated on jointed rail for the past 150 years, including at speeds exceeding 100 mph.

In the November 2017 issue of the *California Rail News*, TRAC proposed building these extensions using existing jointed rail and new crossties. We estimated the cost of both extensions to be less than \$250 million, excluding rolling stock. By keeping the cost low, it should be far more feasible to secure the funding needed to get rail service started soon, in response to the urgent need.

The Suisun extension from Novato Hamilton Station would provide a 70-80 minute trip end-to-end, beating current peak-hour auto commuting times by at least 20 minutes. As traffic continues to get worse, the train will become even more competitive. (And of course, passengers wouldn't have to contend with slow traffic.) TRAC certainly sees rail service in this corridor as both a worthy goal environmentally and a necessary strategy to address the tremendous congestion in the Highway 37 Corridor.

Elements like track and roadbed can always be upgraded, if a robust travel market develops. However, in order to reduce climate change and traffic congestion impacts, TRAC believes it is critically important to push for-ward now to develop rail transit in congested commute corridors. That will require delivering the maximum number of rail systems possible within the available funds. That requires keeping costs low. If that means sacri-ficing some degree of ride quality in the interest of near-term congestion relief, we're all for it.

Coast Observations

BEING A BILLIONAIRE CERTAINLY IS COOL, BUT that doesn't mean you have any common sense. Elon Musk recently had a Twitter war with BART, claiming that it makes more sense to operate self-driving autos underground rather than trains. Two big flaws with Musk's claim: (1) BART carries 28,000 people/hour through the Trans-bay Tube, giving BART at least 10-times the capacity of Boring Company auto tunnels; (2) Yes, while deep tunnels could technically be bored, neither Musk nor taxpayers can afford this. The costs per trip would be astronomical because of low throughput--even with very low tunneling costs... SPEAKING OF ELON MUSK, THE BORING COMPANY GOT ITS FIRST CONTRACT: TUNNELS under the Las Vegas Convention Center. This project will reportedly use automated shuttle buses based on Tesla automobiles. If actually built and operated, this project would likely become a “one of a kind” obscure technical success like the Morgantown, WV Personal Rapid Transit system...RAIL SKEPTIC RANDAL O'TOOLE OF THE LIBERTARIAN CATO INSTITUTE CLAIMS THAT PASSENGER RAIL SERVICE IS “OBSOLETE.” Well, maybe in the U.S., but go tell that to the Japanese, Chinese, Indians, South Koreans, let alone the Swiss, Italians, French, Spanish, Germans and British! Countries with population densities similar to the U.S. have comprehensive urban and intercity rail networks: Norway, Sweden and Finland--and the Russians! Even the Aussies, Canadians and New Zealanders all have excellent urban rail systems...DESPITE RAIL OPPONENTS AND HSR FOLLIES, RAIL IN CALIFORNIA CONTINUES TO MOVE FORWARD. Construction of San Diego's Midcoast Trolley has reached the halfway point. The BART extension to San Jose is complete, now waiting for rolling stock. The next phase of the Gold Line in the San Gabriel Valley is underway, and the 2nd phase of the Purple Line Wilshire Subway is in its bidding phase. L.A.'s Crenshaw Line light rail should open by mid-2020. The downtown L.A. Regional Connector will open in 2021...SPEAKING OF RAIL OPPONENTS, BEVERLY HILLS CONTINUES TO OPPOSE THE CURRENTLY ADOPTED ROUTE FOR THE PURPLE LINE (WILSHIRE) LINE EXTENSION. The City of Beverly Hills and school district claim the tunnel would pose a safety risk to students. A more likely explanation is that the tunnel would be located where they plan to construct an underground parking garage...LOS ANGELES METRO HAS RECENTLY STUDIED SEVERAL POTENTIAL RAIL ROUTES THAT COULD GENERATE MORE THAN 100,000 DAILY RIDERS, including a Crenshaw Line extension from Wilshire Blvd. to Hollywood, a Vermont Avenue subway, a new Southeast L.A. County line toward Orange County, and a Sepulveda Pass line parallel to I-405. These results suggest that many L.A. rail lines will have patronage similar to many New York subway or Tokyo lines, and that the design decision to limit light rail station lengths to 3-cars was shortsighted.

A Strategy for Rail Development in the Sacramento Region

By Michael D. Setty
Editor, California Rail News

Greater Sacramento, located about 90 miles northeast of the San Francisco Bay Area, consists of six counties housing almost 2.4 million people and nearly one million jobs. Both jobs and housing are highly dispersed, giving rise to the region's increasingly congested freeways and arterial roads.

Sacramento County is arguably the most important of the six counties, with 1.4 million residents and more than 600,000 jobs. However, only half of those jobs are located within the City of Sacramento. Downtown Sacramento, the destination of most transit routes, accounts for only 11 percent of regional jobs.

The Sacramento Area Council of Governments (SACOG) forecasts nearly 40% growth by the mid-2030s. Most of this growth is planned in the post-World War II auto-oriented sprawl style, although at higher densities: larger houses on smaller lots and a greater number of apartment buildings. Building in Sierra foothills and other open country around the northern and eastern edges of the built-up metropolitan area will exacerbate dispersion and auto dependency. This development pattern is very difficult to serve with transit.

Overall transit service in the Sacramento metropolitan area is very limited, even by U.S. standards. The largest provider is Sacramento Regional Transit (RT), a state-created district that surprisingly serves only parts of Sacramento County. Each of the other five counties provides their own transit bus services, which are typically sparse local service, along with rush-hour express buses to downtown Sacramento. RT's roughly 25 million annual riders account for most of the region's transit users. RT's ridership is split evenly between their bus service and their two major light rail lines. Most of this travel is to and from downtown Sacramento, though the rail lines also carry heavy suburb-to-suburb riding.

The Sacramento region connects to other regions by rail, via the Sacramento Valley Station in downtown Sacramento. It hosts 15 weekday Capitol Corridor trains between the Sacramento region and the San Francisco Bay Area. Two daily round trips by the San Joaquins connect the region to the San Joaquin Valley. Amtrak buses connect to Stockton, Marysville/ Yuba City, Chico and Redding. The Coast Starlight departs daily for Los Angeles, Portland and Seattle, while the San Francisco Zephyr heads to Salt Lake City, Denver, Omaha and Chicago.

There is No Coherent Regional Rail Plan for the Sacramento Region

To accommodate the expected auto-oriented growth, the region is planning

to construct freeways between Roseville and Sacramento International Airport and between Folsom and Elk Grove. Regional rail could be used instead to focus future growth in a more transit-oriented, less auto-dependent pattern. This direction would be consistent with the State's policies for reducing greenhouse gases in response to the climate crisis. Current rail plans include:

- The San Joaquin Regional Rail Commission is funded to extend several Altamont Commuter Express (ACE) trains north from Stockton to Sacramento.
- The San Joaquin JPA (SJJPA) is funded to add several San Joaquin Sacramento trains.
- The SJJPA is planning to extend some Sacramento San Joaquins north to Marysville/Yuba City and possibly Oroville.
- The Capitol Corridor Joint Powers Authority (CCJPA) has unfunded plans to spend more than \$200 million to add a third track alongside the existing Union Pacific (UP) Railroad tracks in order to provide 10 round trips per day to Roseville.
- The CCJPA wants to have a branch line going to Natomas, along with its line to Auburn. Presumably, west-bound trains would originate from both of those locations, spaced out so as to double the frequency to the Bay Area.

To coordinate all these plans, former Sacramento councilman and CCJPA member Steve Cohn has convened the Sacramento Regional Rail Working Group, including representatives from the rail JPAs, SACOG, the Sacramento Transportation Authority (STA), City of Sacramento, mayors of Roseville and Elk Grove, and Regional Transit (RT).

On the surface, these plans seem reasonable. However, TRAC believes more could be accomplished. Specifically, TRAC believes there is potential for creating a Sacramento regional rail system from these building blocks--one that is distinct from the intercity services linking the Sacramento region with the Bay Area, South Bay, and San Joaquin Valleys. Fifteen years ago, the region produced the Dixon-Auburn Regional Rail Service Implementation Study, which has remained on a shelf. TRAC believes that now would be a good time to construct a Regional Rail System.

TRAC's Proposed Regional Rail Strategy for Greater Sacramento

TRAC has developed a vision for regional rail, starting from a couple of observations: First the current rail proposals were created in the absence of planning from either a regional or state perspective. The lion's share of northern Sacramento Valley intercity travel beyond the Sacramento region proper is to/from the San Francisco Bay Area, not the San Joaquin Valley:

There is a mismatch between plans and demand. However, the Altamont Corridor Vision (see article on Page 7) could correct that mismatch by providing fast, frequent trips between the Sacramento Valley Station and the Bay Area.

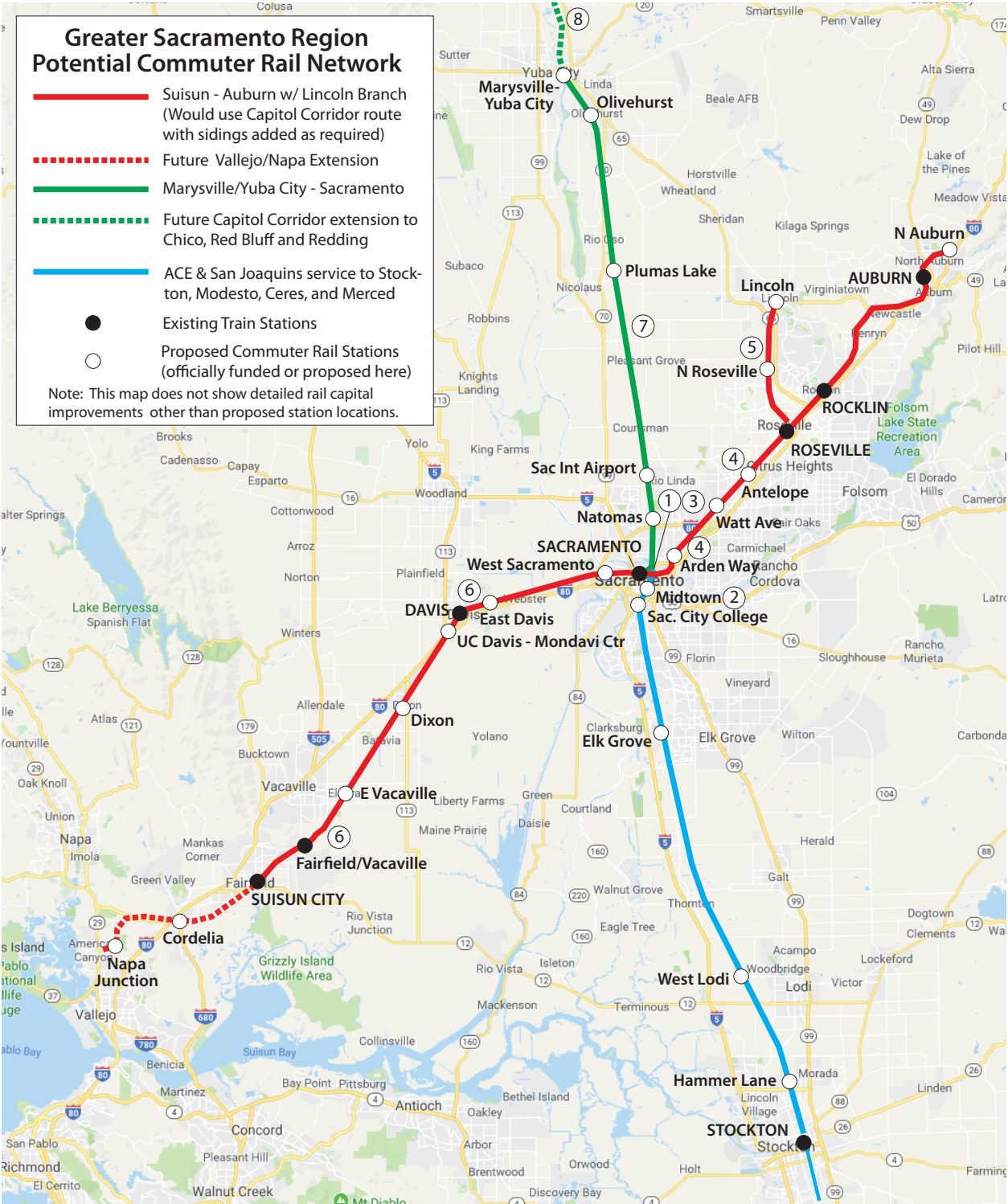
Second, as currently planned, the additional ACE and San Joaquin trains will operate on the former Western Pacific (WP) mainline through Midtown Sacramento, rather than the current line that hosts the two existing San Joaquin round trips serving Sacramento. While both lines are owned by the UP, the railroad is unwilling to allow any more passenger trains to congest the freight traffic on the existing route.

Despite having invested more than \$70 million in state and federal funds to rebuild the Sacramento Valley Station, current plans for more rail passenger service from the south would not use it. The proposed WP route does not serve the Sacramento Valley Station and slices through bustling Midtown Sacramento, crossing almost every east-west street at grade.

The most important change to the current, uncoordinated plans of the CCJPA, ACE and SJJPA is to ensure that connections between east-west and north-south services are made at Sacramento Valley Station. Bypassing one another 1.5 miles east of downtown Sacramento is unacceptable transit practice. Here is TRAC's Regional Rail Vision, starting with the easiest to implement:

Sacramento Regional Rail Project 1: a "Northeast Downtown Rail Loop" connecting the east-west rail line currently used by the Capitol Corridor with the north-south WP line to Sacramento that will be used by ACE and San Joaquins trains. This loop will allow direct connections to Sacramento Valley Station while still serving Midtown Sacramento with a new station. An alternative to the loop currently being considered would require condemning the Blue Diamond almond plant. TRAC believes this alternative to be infeasible, due to the combination of high land acquisition costs and difficult politics. The San Joaquin's travel market is from Sacramento south, so we recommend it not be extended to Natomas, north of Sacramento.

Project 2: The new Midtown station on the WP line should be located at R Street, to provide direct connections to Regional Transit's east-west Rancho Cordova/Folsom Gold LRT line. This would enable ACE and San Joaquin riders to easily access the large employment district near the State Capitol, Sacramento State University, employment centers near Folsom Boulevard, and the large employment district in Rancho Cordova. The station would include platforms along the WP line and elevated platforms on the Gold



Line viaduct, connected by elevators.

Project 3: Develop a new commuter rail service that makes many more stops than the Capitol Corridor and San Joaquins. These latter intercity services would then offer much higher speeds than commuter trains, with corresponding premium fares. Commuter trains would operate initially at 30-minute headways during peak periods, as well as all-day, using the CCJPA-planned third track between downtown Sacramento and Roseville, with added passing sidings (i.e., a 4th track in some locations).

The existing UP right-of-way is sufficiently wide the entire length north of the American River for at least four tracks, and is wide enough for even more tracks in some stretches. Overnight, when the trackage is not needed for passenger trains, these new tracks can serve to stage freight trains entering and leaving UP’s Roseville yard. This separate passenger track arrangement is found in Utah, for example: Commuter trains between Provo, Salt Lake City and Ogden operate on exclusive passenger tracks side-by-side UP’s mainline freight trackage.

The Capitol Corridor Roseville extension should have one additional station at Watt Avenue, serving both Capitol Corridor intercity trains as well as commuter trains. Both Roseville and Watt Avenue should have large park &

ride lots to serve commuters as well as travelers to/from the Bay Area.

Project 4: A commuter rail-only station should be constructed immediately adjacent to the existing LRT Swanston station to serve the Arden Fair Mall and surrounding employment centers. A second commuter rail-only stop should be constructed at Antelope Avenue.

Project 5: Construct additional track for commuter rail services (1) north from Roseville to Lincoln, with stops within walking distance of the Thunder Valley Casino and adjacent employment centers in north Roseville; and (2) a second track and/or long passing sidings, allowing extension of frequent commuter rail service to Rocklin, Loomis and Auburn. These extensions would add major bedroom communities beyond Roseville, with nearly 200,000 residents, to the regional rail service area.

Project 6: Construct third and fourth tracks as needed to support frequent commuter rail service from Sacramento Valley Station west to Fairfield/Suisun City. Construct commuter stations in West Sacramento, East Davis at Mace Boulevard, at UC Davis’ Mondavi Center, downtown Dixon, and Elmira (Vacaville East). When required by increased passenger train volumes, construct a third track across the Yolo Bypass.

As demand develops, trains could be extended west to Novato, southwest to Vallejo and northwest to Napa from Suisun City.

Project 7: Extend rail service to Sutter and Yuba Counties north of Sacramento via the WP route. Commuter rail-only stops should be constructed in Natomas at Del Paso Boulevard, in Plumas Lakes at Feather River Boulevard, in Olivehurst south of Marysville, and at the former WP passenger station in Marysville.

The Plumas Lake and Olivehurst stations are in areas where extensive suburban development has already been approved, and should help acclimate new residents to using rail rather than the increasingly congested Highway 70/99 and I-5.

Amtrak’s long distance Coast Starlight train should also be rerouted via the WP line between Marysville and Sacramento, with a new Amtrak stop at the previous Maryville WP depot. This change would reduce travel times by at least 30 minutes in each direction.

Project 8: Extend a branch of the Capitol Corridor to Marysville/Yuba City over the line used by commuter trains, and later to Chico and Redding.

Proposed Rail Service Levels

ACE needs to run a minimum of three peak-period trains to Sacramento in order to offer a service that is attractive to commuters. ACE should pursue an incremental strategy of expanding services to 30-minute headways during peak periods, and hourly service during the midday, evenings and weekends. These lower-demand periods typically average only 100 and 200 persons per train, requiring a cost-effective service strategy.

In our view, the locomotive-hauled trains now operated by ACE, the San Joaquins and Capitol Corridor are far too expensive to operate off-peak. For these lighter loads, we recommend diesel-electric multiple units (DEMUs), as used by TexRail in Fort Worth. See illustration. TexRail DEMUs get about 1.5-1.6 miles per gallon, versus the 2-4 gallons per mile typically consumed by locomotive-hauled trains. Maintenance costs per mile are also much less.

A first phase of east-west commuter rail service should initially operate between Fairfield/Suisun City and Roseville, with peak service every 30 minutes and every 60 minutes during the off-peak, evenings and weekends. Intercity corridor trains operated by the Capitol Corridor should stop only at one station of the two in Fairfield/Suisun City, and in Davis.

Once new track capacity has been expanded beyond Roseville, operate commuter trains every 60 minutes on the Lincoln branch, and every 60 minutes east to Auburn. These routes would result in 30-minute frequencies between Roseville and Sacramento Valley Station.

TRAC's Improvement Plans for Sacramento RT Light Rail

By Michael D. Setty
Editor, California Rail News

Sacramento’s Regional Tranist (RT) has begun the process of replacing its current aging high-floor fleet with new low-floor cars, and converting existing stations to accommodate the new low-floor fleet. It has the following expansion plans:

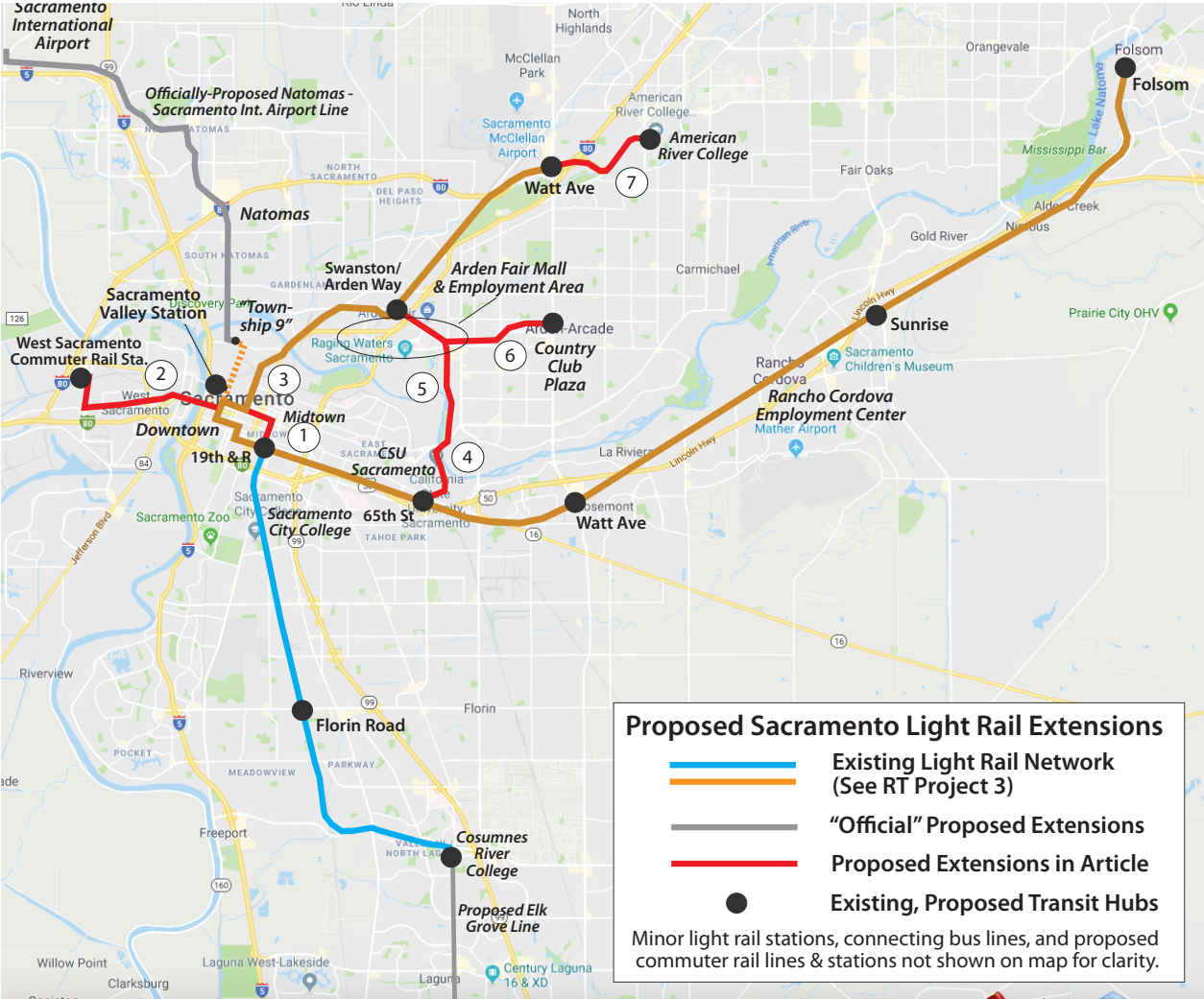
- A downtown Sacramento streetcar, with two West Sacramento branches serving Riverfront Street and Civic Center.
- A new light rail line between downtown Sacramento and the Airport via Natomas.
- Double-tracking the entire Folsom Line.
- Rerouting the LRT from the downtown core via K Street via new H Street tracks.

Local sources in Sacramento say that the whole purpose of the proposed downtown/West Sacramento streetcar line was to create “bling” for new projects downtown. It would have offered nothing to transit users. Its 20-30 minute headways would have been much too long to attract significant ridership on a short shuttle line, and its speed would have no faster than a vigorous pedestrian. Now that a court has invalidated the tax that would have supported the streetcar, civic leaders are considering changing the project into light rail. The \$20 million that Sacramento Area Council of Governments (SACOG) dedicated to this project would be better used for LRT fleet replacement.

The Airport line appears to be aimed mainly at future development, since the potential ridership is unlikely to be worth the projected costs of \$1-\$2 billion. Transit and taxpayer activists are opposed since there appear to be more productive potential extensions.

We strongly oppose rerouting the downtown LRT, since this would greatly inconvenience current riders. Other plans for LRT extensions in addition to the Natomas/Airport proposal exist, but are low priority in our estimation. For example, Elk Grove desires a 5-6 mile LRT extension south from the current Blue Line terminal at Cosumnes River College, but the area would require significantly higher densities than currently planned to justify the \$400-\$500 million price tag. Similarly, a 4 mile+/- extension of the lightly used 0.5 mile Riverfront Street light rail branch line paralleling Jefferson Boulevard would not be worthwhile until there is doubling of the population in the portion of West Sacramento south of the Ship Channel.

As U.S. LRT systems go, RT’s light rail network is not heavily used. With appropriate promotion, it should be possible to move far more passengers to destinations throughout the metro area, starting with the Gold Line serving Rancho Cordova and Folsom. In the suburbs, the LRT passes close to more jobs than exist in the downtown. A focused effort is needed to link light rail to those suburban jobs, and then to promote those linkages. That must start with dialog between RT and suburban employers.



Extend Regional Transit's Light Rail Where Justified

In the interest of initiating a hope-fully useful dialogue in Sacramento, TRAC recommends the following, rather than proceeding with RT's current plans:

RT Project 1 would extend the Blue line north along the UP line on 19th Street from the new transfer station at R Street (See page 4, Sacramento Regional Rail Project 2), connecting to the K Street Mall via a new station built inside the Convention Center. In a system reconfiguration described below as RT Project 3, trains would split at 8th Street, with half the train going to the Sacramento Valley Station, and the other half going out Capitol Avenue to West Sacramento (See RT Project 2, below). This new entry into downtown would directly serve 20,000+ jobs in Midtown by light rail, and double available capacity from the south. It would also connect the Gold and Blue Lines to the new ACE and San Joaquin services.

RT Project 2 would extend the LRT west into West Sacramento about 3 miles to Civic Center. This design would provide far more transport capacity than the now-dead streetcar plan. It would also serve the large retail developments surrounding the Ikea store. While there is little demand today, this woefully underdeveloped part of West Sacramento has the potential for becoming a dense, vibrant center of growth for the entire region.

RT Project 3 would rationalize and simplify the downtown loop by restoring RT’s initial service pattern: the North segment of the Blue line connected to the East segment of the Gold line. Both of the resulting lines would then serve the K Street Transit Mall. Only the Gold line would serve the O Street and R Street stations. The Gold line would no longer serve Sacramento Valley Station. One Northbound Gold Line car would split off the train and go (driven by a second operator) to Township 9. On the return trip, the car would join onto an

Eastbound Gold line and head to Folsom. This would save operating costs.

RT Project 4 would build a 1.5 mile LRT spur from the 65th Street station to directly serve the core area of Sacramento State University (CSUS) along State University Drive.

RT Project 5 would be a later extension of the University LRT line. It would cross the American River on a new bridge, go north on a levee to Ethan Way adjacent to Cal Expo, then northwest to serve Arden Fair Mall directly, terminating at the Swanston LRT and commuter rail station. This line would provide cross-town connections between large established activity centers, as part of RT’s move towards a frequent service network. Arden Fair is the biggest mall in the region, surrounded by 40,000 jobs. This proposed line would connect the I-80 corridor, including NE Sacramento and Placer Counties, to Sacramento State University and to the Highway 50-Rancho Cordova Gold Line corridor, enabling large numbers of suburb-to-suburb commuters to avoid downtown congestion.

The only river crossings within 10 miles of CSUS are Howe Avenue, Watt Avenue and Sunrise. The closest, Howe Avenue, has saturation-level traffic. All have slow and unreliable buses due to severe congestion. Collectively there are 250k+ trips per day across the river between Business 80 and Howe Avenue, close to the Bay Bridge. This area clearly needs transit on its own right-of-way.

RT Project 6 would be a 4-mile extension east from Arden Fair to the Country Club Mall area, in order to serve the core of the Arden-Arcade District, e.g., the highest density portion of Sacramento County not directly served by light rail.

RT Project 7 would extend the Blue Line from Watt Avenue to American River College, which has more than 25,000 students and is a significant, established transfer hub.

A \$6 Billion Plan to Upgrade the Altamont Corridor

By Michael D. Setty
Editor, California Rail News

A \$6 billion plan to dramatically upgrade the Altamont Corridor between San Joaquin County and the San Francisco Bay Area was presented in May 2019 to the [Altamont Corridor Express \(ACE\)](#) and the [San Joaquin Joint Powers Authority \(SJJPA\)](#) Boards of Directors.

The “Altamont Corridor Vision” proposed by joint ACE/SJJPA staff for the 65-70 mile rail corridor between Lathrop and Newark focuses on several key objectives, including:

- Connecting the Central Valley and East Bay
- Allowing connecting services to operate over the Altamont Corridor on shared facilities at 125+ mph (improved alignments would allow higher speeds later)
- Providing one-seat rides from the Central Valley, including Sacramento, to San Jose, the San Francisco Peninsula, and San Francisco
- Dramatically improve travel times and service frequencies
- Extending electrification beyond the Caltrain corridor and separating freight traffic from passenger service, ensuring more reliable service for both passengers and freight

Several key projects would implement this vision between Lathrop and Newark. These are:

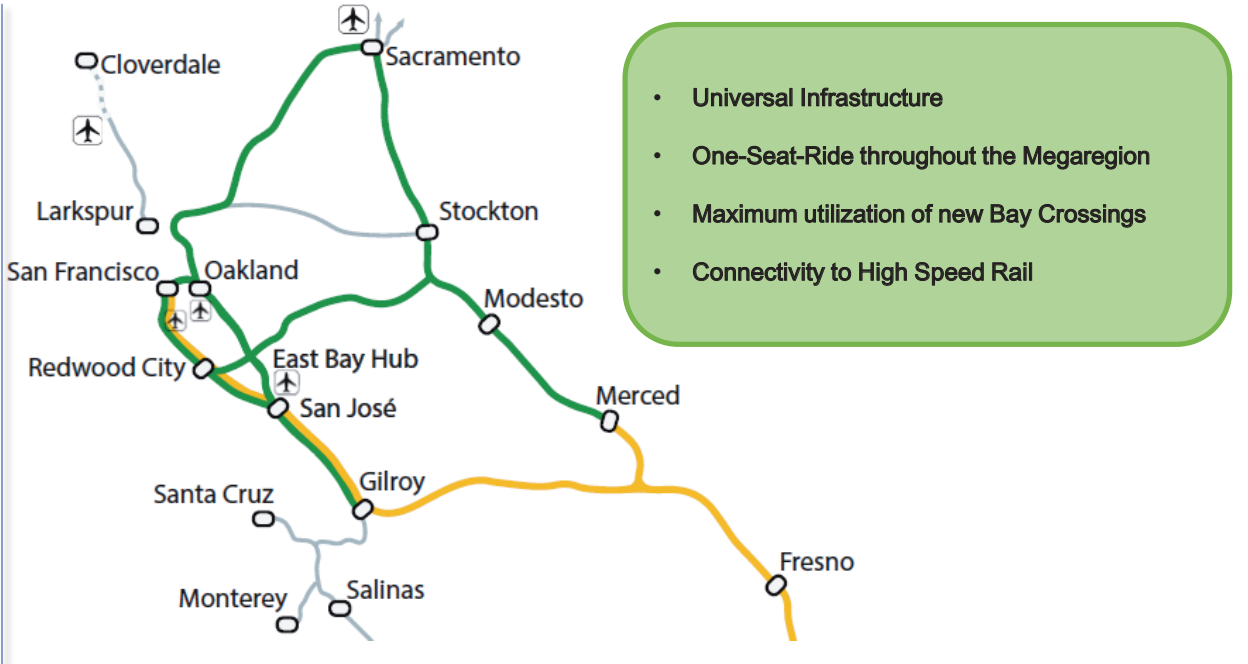
- An Altamont Pass tunnel to bypass the current winding, slow alignment
- A Niles Canyon tunnel bypassing the current winding, environmental-sensitive alignment, plus alignment improvements in Fremont
- Alignment improvements in Tracy (most likely through downtown), Livermore, and Pleasanton

The vision for the Altamont Corridor assumes build-out of the 170-mile, \$20 billion high-speed rail project proposed between Bakersfield and Merced, as shown in the “Megaregional Network Integration” graphic. However, the Altamont Vision would provide great value whether it connects to that high-speed rail project or to other options described below.

The Altamont Corridor would offer connections to Redwood City, San Francisco International Airport (SFO), and San Francisco via a rebuilt Dumbarton Bridge and Caltrain. The Vision would make it possible to operate through-trains from the Sacramento region, San Joaquin County, Modesto, Fresno, Bakersfield and other points directly to SFO, the San Francisco Peninsula and San Francisco as well as San Jose.

For the San Joaquins, using an upgraded Altamont Corridor would generate substantially higher patronage than the current roundabout route via Stockton, Antioch and Martinez, thanks to a shorter route, a bigger job market, and much faster travel times.

Megaregional Network Integration



Altamont Corridor Vision

How the Altamont Vision Ties into TRAC's Vision

Private sector investors have long been interested in an upgraded Altamont Corridor, which they see as a profitable proposition, due to its potentially very high patronage. This makes this Vision achievable.

ACE is currently funded to extend its trains over the Union Pacific (UP) Fresno Subdivision to serve downtown Manteca, Modesto, Ceres, and eventually Turlock, Atwater and Merced. TRAC has proposed rerouting San Joaquin trains to this line, to enable them to also serve downtowns.

In order to provide sufficient capacity for passenger trains without delaying UP freights, TRAC has proposed an accompanying major upgrade to the West Side Subdivision between Tracy, Los Banos and Fresno for through-freight trains. This upgrade would require restoring some abandoned trackage between Los Banos and Firebaugh. By providing a frictionless route for through-freights, this route would eliminate most of the conflicts between freight and passenger trains between Lathrop and Merced. This is important since Union Pacific is moving towards “Precision Scheduled Railroading,” which means more efficient, but longer and slower trains, and inevitably, growing conflicts on lines that mix passengers and freight.

TRAC proposes rerouting present San Joaquins passenger services between Merced and Fresno via UP's Fresno Subdivision. This would eliminate increasing conflicts between passenger trains and Burlington Northern Santa Fe (BNSF) freights on the existing route of the San Joaquins. While the following package would clearly cost at least a few billion dollars, it would result in higher-speed Central Valley service that can be accomplished with available funds. This would be an order of magnitude cheaper than CHSRA's current plan for “completing” high-speed rail between Bakersfield and Merced:

- Rerouting UP through-freights via the West Side line,
- Fully double-tracking UP's 140-mile Fresno Subdivision between Lathrop and Fresno, with additional sidings where needed,
- Improving track, to support passenger train speeds of 110 and 125 mph,
- Fully double-tracking the BNSF line between Fresno and Bakersfield, with additional sidings where needed.

While this proposal might use some structures and portions of alignments originally meant for high-speed rail, the TRAC plan is not intended to whitewash the reality that the current HSR project was a bad idea.

Moreover, replacing the current plan for Merced-Bakersfield high-speed rail with 100-125 mph San Joaquins service would free up billions of dollars for statewide passenger rail improvements, such as badly needed improvements to the Capitol Corridor, Surfliners, and possibly new intercity services between Los Angeles, the Inland Empire, and Palm Springs/Coachella Valley.

Since a statewide HSR system has been declared out-of-reach by the Governor, the private sector might be interested in building a new 125-155 mph line connecting Los Angeles to the current San Joaquin line in Bakersfield via Santa Clarita, the Grapevine and I-5. This shorter, lower-speed line would be dramatically less expensive to build than the proposed HSR route between Bakersfield, Palmdale and Los Angeles, which would require much more expensive longer tunnels.

With an Altamont line on the north and Grapevine line on the south, the private sector may also be interested in building a new 200+ mph line paralleling I-5. Such a line—which was never seriously studied by CHSRA—could meet the original objective of Los Angeles - San Francisco high-speed rail service with an under-3-hour travel time, at a fraction of the \$100+ billion CHSRA approach.

Texas Central vs. California: Imported vs. Homegrown

By Nick Zaiac
Special to California Rail News,
Courtesy of Railway Age

Passenger rail in the United States has fallen a long way since it was the dominant mode of long-distance transportation. In a world of competition among cars, planes and trains, the point-to-point functionality of automobiles and the speed of planes means that most trains with existing technologies cannot compete.

U.S. passenger trains (with the exception of tourist services) do not run without federal or state operating and capital assistance. Yet in other countries, unsubsidized rail travel between cities continues to flourish. And as transportation technology moves forward, analysts studying these models are starting to understand the preconditions for building passenger railways that add to, rather than drain, resources from other government services.

California's failing high-speed rail project is a study in how not to build a passenger railroad. The problems began with the project's conception. Rather than focusing on the most important city pair—San Francisco and Los Angeles—public managers designed the system as a statewide network that would benefit the mid-size cities of the Central Valley in addition to the Bay Area and Southern California. It was a network, not a corridor, and building its multi-branched system added layers of complication to what could have been a simple project.

The fact that the project was state-run and therefore funded by state taxpayers compounded these complications. Representatives of the communities through which the rails were supposed to run made clear that even the simplest route would never pass political muster. Worse, billions in federal funds added a layer of political input for the project that complicated it further, at the cost of making the core San Francisco-Los Angeles trip longer than it needed to be.

Beyond flawed routing decisions, political railway management comes with other costs. Federal grant timelines and poor internal management, for instance, meant that California was pushed to lay track before it selected its trains. The track was built to handle some of the heaviest equipment in the world in order to maximize the number of options the state would have when it later bought locomotives and cars



Mockup of Texas Central high-speed rail parallel to a Texas freeway. Source: Texas Central

to begin service. This overbuilding cost money, making the project less viable than it would have been if those planning the project had picked the rail technology from the outset.

State-run projects built around the assumption of taxpayer subsidies, like the California HSR network, also tend to miss details that matter to trip times—think parking lots that require long shuttle rides to the airport or large train stations that require long walks to the platforms. Long connecting rides and walks push riders to other modes of transportation, which benefits services that lose money on every trip but can destroy the viability of transportation services that hope to earn a return for investors. In contrast, the market disciplines airport and station design in ways that public managers with competing political priorities cannot even hope to emulate.

Texas Central has taken the opposite approach in building its high-speed rail. The company began the project by selecting the equipment technology—namely Japan Railways' Shinkansen trains, which are used by the longest-running profitable passenger railroads in the world—before laying any track. Picking well-tested technology of successful peers from the outset means that Texas Central will avoid having to reinvent the wheel midway through the project. It also chose a city pair to serve—Dallas and Houston—without committing to building a statewide network that would require hundreds of miles of extra track.

Focusing on a single-corridor train line between two world-class

cities, rather than a network of lines connecting large and mid-sized cities, simplifies the business model. And like Florida's Brightline, Texas Central plans to prioritize quick station access, nearby parking and space for rideshare drop-off and pickup. The company's consideration of the full, door-to-door customer experience gives investors a complete picture of the business case for a new railroad in a way California politicians can only dream of.

This strategy echoes that of many of the world's most successful rail companies, whose core business focuses on connecting major cities that are too far from one another for driving to be convenient and too close to one another to make the fixed-cost hassle of the airport worthwhile. The London-Paris, Madrid-Barcelona and Berlin-Hamburg corridors all fit the bill.

By importing the successful model from other countries, the Texas Central may have found a path to constructing and operating a profitable passenger railroad in America.

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He is a contributor to the American Institute for Economic Research and his work has been featured in numerous national publications including The Detroit News and Crain's New York.