“The exciting thing is we’re not talking about if, but how to build this.”

JEFF MORALES, California High-Speed Rail Authority

When California voters in 2008 approved Proposition 1A—nearly $10 billion in bonds to construct the first phase of a high-speed rail system for California and improve the rail services that would connect to it—it was obvious that it would take years before anyone would ride one of the 200-mph trains from the Bay Area to Los Angeles.

Even after the California High-Speed Rail Authority announced last February that San Jose would be the northern terminus for the first operating segment, the 2025 service starting date still seemed like the distant future. But the work to make that opening date a reality is under way now. Construction is under way in the Central Valley. Holes are being dug. Concrete is being poured. Bridges are being built. Port of a freeway in Fresno is being relocated.

In nine years, Diridon Station in Downtown San Jose will become the most important passenger train station being built. Part of a freeway in Fresno is being relocated. Holes are being dug. Concrete is being poured. Bridges are being built. Port of a freeway in Fresno is being relocated.

Will the new station be above ground, at grade or below grade? Where will the tracks run that carry high-speed trains north and south of the station? How will the transfer of thousands of passengers every day among seven passenger railroads be handled, and how will this transportation hub affect the city where all these passengers arrive and depart?

Some of these questions will be answered by the end of the year.

The Silicon Valley Business Journal convened a panel July 26, bringing together the major decision makers regarding high-speed rail and San Jose to answer questions developed by reporter Judy Munchak about one of California’s largest-ever infrastructure projects.

This book is the record of that discussion, moderated by Carl Guardino, head of the Silicon Valley Leadership Group and a nine-year member of the California Transportation Commission.

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Silicon Valley’s experts talk about California’s plan for high-speed rail

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From 1995 to 2014, Rod Diridon Sr. was executive director of the Mineta Transportation Institute, a transportation policy research center created in 1991 by Congress. He is known as the “father” of modern transit service in Silicon Valley and frequently provides legislative testimony on sustainable transportation issues. The region’s main train station was renamed “San Jose Diridon Station” upon his retirement from public office. Diridon received a B.S. in accounting and MBA in statistics in 1963 from San Jose State University.

View Rod Diridon’s full presentation online http://bizj.us/1nrU3vd

Nuria Fernandez, general manager and CEO of VTA, plans, organizes, directs and administers all functions of VTA, under policy direction of the board. Fernandez served as CEO for the New York State Metropolitan Transportation Authority. She has provided policy and program expertise at the U.S. Department of Transportation, and managed the design and construction of multibillion-dollar rail expansion programs in Chicago and Washington, D.C. She has a B.S. in civil engineering from Bradley University and an MBA from Roosevelt University in Illinois.

Jim Hartnett is the executive director/CEO for the San Mateo County Transit District. In addition to acting as the CEO and general manager for SamTrans, Hartnett is also executive director of Caltrain and the Transportation Authority. Hartnett has served on and chaired both the SamTrans and Caltrain boards of directors. He was appointed four years ago to the California High-Speed Rail Authority board of directors, where he served most recently as vice chair, resigning when he accepted his employment at SamTrans.

Jeff Morales is the chief executive officer of the California High-Speed Rail Authority. As the former director of the California Department of Transportation, Morales managed a $10 billion program and more than 23,000 employees working to build, maintain and operate the largest state transportation system in the U.S. His experience at the federal level includes serving as a member of President-Elect Obama’s transition team focusing on transportation and the White House Commission on Aviation Safety and Security.

Jim Ortbal managed the successful Measure B (BART) campaign that authorized a ¼-cent sales tax for 30 years to fund a 76-mile San Clara County BART extension. He received his B.A. degree in political science from San Jose State University.

Carl Guardino is president and CEO of the Silicon Valley Leadership Group. In February 2007, Gov. Arnold Schwarzenegger appointed Guardino to a four-year term on the California Transportation Commission and has reappointed twice by Gov. Jerry Brown. In 2008, Guardino managed the successful Measure B (BART) campaign that authorized a ¼-cent sales tax for 30 years to fund a 76-mile San Clara County BART extension. He received his B.A. degree in political science from San Jose State University.
High-speed rail’s coming quicker than you think

BY JODY MEACHAM

Jeff Morales, you are sitting this morning in the Earth’s center for innovation and we are used to showing an IOU. Give us, as if we were a group of venture capitalists, your 90-seconds – or less elevator pitch on the three top reasons why extending high-speed rail into San Jose and Silicon Valley is in our enlightened self-interest.

Jeff Morales, CEO of the California High-Speed Rail Authority: Innovation really is here. What is happening in the state of California is another step for the country to lead the way in the world and in the world because what we’ll be building is world-leading-edge, world-class technology. Clean. And pressing the issues into San Jose and Silicon Valley is in our enlightened self-interest.

Completion of high-speed rail requires meeting numerous challenges including obtaining additional funding – which includes rebuilding cap- and trade revenue – building support in Congress and the state Legislature, winning lawsuits, defeating a fall ballot measure at the state level that could allow the public to halt the project, and reversing a public perception that the project is struggling. Jeff Morales, how would you rate the challenges from most to least significant?

Morales: You just described a typical day for us. I think one of the – and maybe the single biggest challenges for this program – is something I sometimes referred to as “stick-to-itiveness,” which is the ability to stay in something for the long haul. This is an investment on a scale that this state hasn’t seen, arguably ever, but certainly in at least the last 50 to 60 years when the state highway system was built and the state water project. And that’s a tough thing to do in this day and age of social media and other things where people want to see things happen overnight. And you just don’t do something like this overnight.

One of the interesting challenges in the program is we’re in multiple phases at the same time. In some places we’re still in the planning and environmental approval process. At the same time, we’re actually building in the Central Valley and dealing with everything from right-of-way acquisition to managing construction contracts. And dealing with the politics of infrastructure, which is an undertakent development in this country. Infrastructure used to be a non-partisan issue. People were fighting – it was very parochial – but not partisan. It’s unfortunately become partisan, and that’s not a good sign for us. Because look at how this country grew and this region grew – it grew in big, bold investments. You look at the history of what has shaped California and high-speed rail is the next step in that. But if you look historically at the domestic plan for higher education, which created the U.C. system, California State system as we know it today – San Jose State – which in turn created the world’s premiere public research institution, which helped create Silicon Valley. That passed by a single vote in the Legislature. Imagine had it not passed. That’s the same sort of situation we’re in. We passed by a single vote the first time. We got two votes the next time, so we’re on a new trajectory. But I think it’s the reality of doing something really big in this environment that is the biggest challenge.

“I think one of the – and maybe the single biggest challenges for this program – is something I sometimes referred to as “stick-to-itiveness,” which is the ability to stay in something for the long haul. This is an investment on a scale that this-state hasn’t seen, arguably ever.”

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SILICON VALLEY BUSINESS JOURNAL AUGUST 5, 2016
For Nuria Fernandez of the Valley Transportation Authority, Jim Hartnett with Caltrain and Jim Ortold of the city of San Jose, your agencies are members of the interagency team working with the California High-Speed Rail Authority on what will happen in and around Diridon Station when high-speed rail arrives in 2025.

Tell us in more detail what this team is doing and what each of your goals are for this effort.

Nuria Fernandez, general manager and CEO of the Santa Clara Valley Transportation Authority: It’s an unprecedented collaboration for transportation agencies that are responsible for moving people to come together and focus on what the benefits are for bringing in an intermodal facility to San Jose and Silicon Valley.

Regarding our interagency cooperation, the Valley Transportation Authority jumped right on it. We put together a plan and strategy that included all of our partner agencies sitting here so that we could come up with an approach that would not only look at each of our individual needs coming into the Diridon facility but creating an iconic gateway into a thriving community, a thriving region. We are very pleased we’ve taken that first step. At the VTA, we’re very interested in ensuring that both

our valley are integrated into a network that makes this a partnership with Caltrain, with the city of San Jose looking at how all of these transportation systems contribute to the economic development and prosperity, become a catalyst for development of an area that’s going to become another “here there” for San Jose.

Jim Hartnett, executive director of Caltrain: I’d like to put a little context, as well. First of all, I always agree with Nuria because she’s someone I look up to and admire tremendously. I agree with her about our joint planning efforts and our mutual interests.

I’d like to put a little bit in context for us in San Jose. Where we are, where we’d like to be, and how important high-speed rail is to all of us. Caltrain is now providing about 19 million riders a year. We take about 450 million road miles off the road every year and that’s growing due to the length of the trips on Caltrain.

We have an interconnectedness to the region that is only going to grow because of high-speed rail and coming into and through San Jose.

At Diridon Station, we have not just Caltrain but Capital Corridor, we have ACE, we have Amtrak and we have Union Pacific. It’s a very busy station, and it’s very important to all of us. With the connection with high-speed rail, the opportunities for all of us are going to be nothing but greater and we have to plan for that station to accommodate all of us, including BART, which is going to be a tremendous addition. We are going to be connected not just regionally, but statewide because of this. This is part of a great statewide rail system.

So this couldn’t be more important for all of us and the partnership that we have with high-speed rail, the blended system that will be coming, and this great statewide rail network that is going to be put together in our generation. It’s really important to the quality of life for everyone in this state so I couldn’t be more excited about all of it.

What I think I heard, to follow up, is that this multimodal station, the Diridon Station, would be a classic case of something greater than its individual parts. Is that true?

Hartnett: Absolutely. It’s already our third-largest ridership station and it’s been growing. And that’s without all of the things that we’re looking for to come. We have riders coming from across the region to jump on at Diridon Station to take our service and others and that’s only going to grow as we work together with BART and high-speed rail.

Jim Ortold, director of the city of San Jose Department of Transportation: Our city has planned for this type of transformation for many years. Our general plan really save the vision of our downtown and our Diridon Station and these types of major transformative projects coming into our city, connecting in our city and our downtown. Our general plan is clearing the way for this type of investment, this type of growth, and then we have the Diridon Station area plan that our City Council environmentally cleared in 2014 that really enables development to happen around the station and contemplates a major transformation of the Diridon Station.

So environmental processes can really slow things down and be a challenge, but we’re already environmentally cleared in the Diridon area for the maximum amount of development possible. And with this type of investment, this type of integration, we just see great opportunity here in downtown San Jose and really look forward to continue to work the partnership with all of these agencies to really bring these projects to fruition by 2025.

Fernandez: I just wanted to add that with the help of a grant from high-speed rail we are in the process right now of issuing requests for proposals to get a qualified firm that would help us think through what the physical constraints of the facility would be, the level of operations that would take place within that facility and provide us with some guidance that would help inform all of our partners as to what we need to take into consideration from an operating requirement perspective.

When we’re thinking about public-private development, we’re also looking to get input from that firm on how we need to be informing the funding plan for the actual reconstruction of the Diridon Station, which we’re calling the Diridon Transportation Center. And most importantly also is looking at what some of the requirements would be to attract businesses, like I said before, it’s really going to be the next “there.”

And the station itself is going to become a critical building block, the cornerstone for that area. It’s going to attract development — Commercial, residential development and, of course, other types of amenities that would lead and continue to invigorate the city of San Jose and the region. Forty million people living in Northern California are going to benefit from this massive network.

Fernandez: “Fourteen million people living in Northern California are going to benefit from this massive network.”

Nuria Fernandez, Santa Clara Valley Transportation Authority

The most contentious issue in San Jose is the route that high-speed rail will use to reach Diridon Station from the south because the impact of this decision will have on nearby residents and the businesses. The High-Speed Rail Authority has said it will choose from among three options: At grade, aerial or in a tunnel. What are the strengths and weaknesses of each of these three alternatives?
“Once the blended system is fully implemented, I think the sky is the limit.”
— Jim Hartnett, executive director of Caltrain

Morales: The existing thing we’re not talking about it, but how to build this. That’s a huge transition in the phase of this program. We said there are three options and in looking at it, it’s really striking the right balance of looking at the cost of building, looking at the impacts of building on businesses, on neighborhoods, on residences, looking at the discrimination, looking at the interactions with the existing rail services—all these things have to come together in a way to optimize the situation. At grade would in many ways would be ideal in terms of just keeping everything at the same level, trying to stay within the existing right of way as much as possible, minimizing the impact. But it creates complications operationally with the existing Caltrain oper- on an alignment with BART (Bay Area Rapid Transit) and AC Transit (Alameda County Transit). All of these things have to be dealt with at grade within a right-of-way envelope, but we’re looking at that.

Underground, tunnelling is not in and of itself a problem. The issue is there’s an aquifer right under the station and the question of having a very large underground structure in an aquifer is a challenge. We’re looking at that.

And then aerial is the other option and that has some cost implications, but it also could get us out of the way of the existing operations. All of those things will be looked at and our target is to make a preliminary selection right around the end of this year and then make a final determination by the end of next year in order to get final environmental clearance and move to the construction phase.

Hartnett: I’d like to build on what Jeff said. It is really exciting to look at the potential of the station and what it could be part of a statewide rail system. We already have in Caltrain 92 trains that stop at the Diridon Station. It is a busy station. With electrification, that should get us up to 124. Our tenants have 30 trains that there are growth opportunities there as well. And so it’s a very busy station. It is a very busy part of our corridor and I think what Jeff said was exactly right, is as we plan we have to balance the operational needs with the physical availability and see what works best for everyone.

And at the same time for the station we have to make sure that people can get there. And one of the issues of getting there are the hows—there is walking, biking, public transit or by car. All of these things—whether with the economic development in the area where people are going to be coming there not just to take the public transit but because it’s a destination itself—that actually is going to be really, really exciting.

Jim, what’s the city’s perspective on the route options?

Ortbal: We’re looking at it in a couple of different respects. One, when we look at the valley, Silicon Valley, the Silicon Valley segment, this first operating segment that high-speed rail is moving forward with, is really a long segment in the city of San Jose. So it’s the longest segment of any city on this initial operating segment. It’s a major decision point for us in San Jose. We’ll do it in collaboration with high-speed rail. Clearly we want to do it in an area where both we see the same way and really this is the best way to do high-speed rail through San Jose.

The one good thing we have going is really the alignment through San Jose is really largely set from the standpoint that we have the UP corridor—the Monterey corridor—coming out of the south. That’s largely set. And as you approach downtown past the Tamron Station and then into downtown San Jose, the Caltrain or the aerial alignment roughly follows that same alignment.

We’re fortunate that we kind of have that right of way generally set aside. We planned for it in our general plans so we should have no surprises there. We largely know where we’re going with high-speed rail. There isn’t going to be a huge amount of land acquisition, so from that standpoint we feel very fortunate.

I was down in Fresno a couple months ago visiting colleagues in the city of Fresno and they have a very different situation where they’re doing a significant amount of land acquisition. They didn’t quite have the corridor lined up like we do through San Jose, so from that standpoint we know where it’s coming into San Jose, where it’s going through.

Obviously we have the aerial, at grade, underground decision to make, and that’s work to be done in terms of the blended sys- tem and seeing how at grade works. We’re awaiting the result of that analysis that we’ll see that this fall. Based upon that and other information and technical work that high-speed rail is doing, we’ll be working with high-speed rail in bringing that in front of our council to make the best decision possible.

For Santa Clara County, the Valley Transportation Authority is also in charge of the BART extension, which is scheduled to reach downtown and the Diridon Station in 2025. The November Traffic Relief and Road Repairs ballot measure passed. How will adding high-speed rail to what will be your most important South Bay BART station, not to mention a hub for your light rail and bus service, impact the VTA? Fernandez: When the November ballot measure passes, there is going to be tremendous opportunity for this region. High-speed rail is a game-changer. We’re talking about a new transportation service that’s very different. BART is an extension of an exist- ing system, a different type of service that we have, Caltrain, which currently provides service to Diridon as well as the underground commuter rails. But high-speed rail truly is going to be something that not only is going to be bringing a different type of service, but it’s going to exponentially increase the attractiveness of coming to Diridon not only use that service but transfer from that service onto the other modes.

So clearly, we have a responsibility as not only as a transportation management authority but as the public transit system to look at our infrastructure and start to modify our infrastructure to accept all of these new activi- ties, these new services coming on. And we’re starting now 2025 is going to be an important year. Not only is that the year that the goal for completing high-speed rail through San Jose, but it’s also when we’re going to be completing the second phase of BART service into San Jose. So with that convergence of two new services into that one location, a number of infrastruc- ture changes to our existing rail light (must be made) so that we can accommodate that move- ment as I mentioned before.

It’s all a part of the network and for high-speed rail to be successful, for BART to be suc- cessful, we need to improve our existing net- work and we’re doing that right now. We’re going through a process right now where we are re-engineering our transit service. We’re tak- ing a look at our bus network and making sure that we are not only looking at coverage but we’re also looking at improving speed. For high-speed rail to be successful, and BART, we want to make sure that all of the other feeder systems that are going to be either feeding from or to the Diridon Station are on par. That requires investment, and that’s why it’s so important that in November everyone who is registered to vote on this.

The rail corridor the Caltrain currently owns and operates—which we call Market Street to Market Street—will change in terms of trains, speed, capacity and overall usefulness with the addition of blended service with high-speed rail. What infrastructure changes will be needed?

Hartnett: Some of it we don’t know for sure yet. We know with full electrification—it’s what we have budget for now and what we need to work on in the future—that we can almost double the capacity of Caltrain from Market Street to Market Street. We do that without specific consideration of the blended system, which is going to itself, expand capacity beyond that from my perspective. High-speed rail’s investment in electrification is to the key to being able to do electrification. We have put together a variety of sources of funds but we couldn’t do this without high-speed rail.

Once the blended system is fully impl- mented, I think the sky is the limit. I can’t tell you what the mileage figure will be, but I can tell you that they will be better than what we have projected in terms of doubling our capacity. The infrastructure improvements I don’t think are going to be that great over time. There are things that will need to be done to fully implement the blended system but I think in the broad scheme of things they’re actually minor investments in what will be a world-class rail.

What are the local business community’s questions and concerns about San Jose would expect high-speed rail to create? At least what about the Valley?

Ortbal: Our city economic team is very much trying to position the Diridon Station area for the opportunities that are going to come with high-speed rail, BART investment and Caltrain electrification. The area’s ready to go. It’s environmentally cleared, we’re actively kind of marketing the area to really try and attract business and community into the area. So that’s one of the things that our team is doing. As part of our overall economic development and what we’ve mentioned, we will be issuing some type of request for service for master developers. We’ve got to figure out the right timing of that. We’re working with that partner with us building a public station, the public infra- structure, along with private development. Our registered stations all over the world have a unique blend of public transportation services along with private, commercial ventures and other opportunities there. Our economic development team is really kind of leading that planning with the interagency team to really...
market that opportunity. We really see it as a great one.

In terms of the second part of your question, kind of the challenges we see in the area, there are so many things going on. We recognize that in 2019, with the successful measure in the full and high-speed rail moving forward, that we’re going to have a tremendous number of projects happening in that area and we really need to prepare for that.

We need to make sure that people can still access the area because we’re going to have a functioning station. It’s going to be carrying thousands of passengers a day. We need to keep that running and keep kind of the economy humming so people can circulate and move about our area.

So it’s really setting up the area, being ready for construction so the area can still function well during that period of construction, keep the economy going, and then in 2025 really have a transformed area. That’s one of the most focused challenges we’re looking at now.

Q: That’s one of the most focused challenges we’re looking at now.

A: 尤拉・弗内瑟

尤拉・弗内瑟，圣克拉拉县交通管理局

The current high-speed rail business plan says that the authority hopes to obtain an additional $2.9 billion so that the initial operating segment would run San Francisco to Bakersfield by 2025, which would add more than 50 percent to expected passenger loads and revenue. What is your strategy for getting this extra money and how important is the longer initial operating segment to the initial financial success of the system?

Morales: There are two sides to that question, the cost side and the funding side, and we’re working on both.

We’re constantly looking at doing something which is kind of shocking in the world of infrastructure, which is bring down the cost of building stuff. We’ve had very good success in our first contract. So in the Central Valley where we’re building – I’d point out that in my involvement in our big infrastructure projects around the state and around the country, I’ve never been around one where you have $3 billion worth of work underway nobody thinks this is happening yet – that those contracts were significantly below our estimates.

We’re taking advantage of what we’re learning in the design-build process there to apply cost-saving techniques to the rest of the infrastructure. So we’ve actually brought down costs over the last few years. And we’re going to continue to look to reduce the cost as we build.

At the same time, we are looking on the finance side. We’ve got a strong, strong commitment from the state, the governor and the Legislature for not only the initial bond funds, but for an ongoing source of cap-and-trade revenues. That’s really the basis for moving forward. But we’re going to continue to explore other things like development rights around stations and how that can contribute to the funding, as well.

And while we’re not counting on it right now, I also believe over the long run there will be additional federal funding for this, as well. Historically, the federal government has paid for at least 50 percent of the major infrastructure investments. The Interstate Highway System was built with 90 percent federal money. Right now if we built a full system as we’re planning without any new federal money, that Federal share would be about 5 percent. That doesn’t make sense when you’re talking about what California means to the national economy. This is an investment the federal government wants to be involved in.

Hartnett: The state is so clearly committed to high-speed rail and I want to acknowledge the state’s commitment to the electrification program, as well.

We had worked very closely with Secretary (Brian) Kelly and his office and they provided tremendous support, as has the federal government. We have great federal support, and we know it’s not just because of electrification. It’s because of the context within which we’re doing it.

Electrification on its own has tremendous merit, but as we’ve discussed today, what happens with Diridon Station with high-speed rail creates a tremendous dynamic as part of a statewide rail system.

And for our part, rail electrification will take far longer than 2020. It’ll be a while after that before we get 143 trains. Our first revenue service for electric trains will probably be in 2021, though we’ll have electric cars before then. But everything that’s going on here at Diridon Station and on our corridor just presents a tremendous opportunity for the entire state and as a model for the country.
For Caltrain, what is the connection between electrification and expanded capacity?

Hartnett: The connection between electrification and expanding capacity is that we will ride a lot faster quickly. Not faster, but more quickly because it will stop and start much faster, which means we can run many more trains and more often. And we hope to add additional train set in, as well as more platforms. And then with the electrification and with the additional infrastructure and improvements we'll be able to add cars and we'll ultimately have to lengthen our platforms so we can support those cars. But overall, it's the quickness that really helps and then ultimately being able to add cars and additional services.

Morales: Just to amplify Jim's point, if you've ever driven an electric car, you know how quickly you take off. It's the same phenomenon with an electric train. It's the acceleration and it's acceleration. It has an astounding impact on operations.

But another thing I wanted to mention, which we haven't talked about in this, is the benefit of the partnership that we have between high-speed rail and Caltrain are the safety improvements that we'll see on the corridor.

This corridor, unfortunately, every year has far too many incidents of people being hit on the right-of-way getting stuck and fatalities. And one of the positive, combined efforts on this corridor is going to be a dramatic safety improvement with quad gates to prevent people from getting onto the tracks and fencing for the entire system. Something that we just want to make sure people know that that's another very important element running trains up and down here, especially as we run more of them, that we also pay attention to dealing with safety issues.

Fernandez: I just wanted to add on the safety aspect that in the November ballot we are asking the voters to approve a bond of $30 billion dollars that's another very important element run to prevent people from getting onto the tracks. It's going to be a dramatic safety improvement with quad gates on this corridor is going to be a part of that bond.

Morales: I think it's an important part because stations can't just be turnstiles and platforms. They have to be a statement about what the city, what the region is about. It's about the safety of the Bay. It's not just hard to even conceive of that as controversial as that is.

That's true of almost any big investment. And it's something that I'm absolutely convinced, 25, 30 years from now people will look back and find it hard to imagine that high-speed rail didn't exist and they wondered why it took so long getting it done as opposed to what we're dealing with today. It's a challenge.

As we go forward with the program and as we're building, we are very aggressive. If you look at our website, you'll see we're getting, we've got all sorts of things to show the progress and what it means in the near term for people with construction opportunities, jobs, economic activities so that they feel the benefits of the progress as we go along.

Fernandez: Let me just say that in my experience with large infrastructure projects, it is very difficult not only to convince people that it's going to happen, but being as minimally disruptive as possible while it's happening.

I like to say that there are three phases to every major project. The ground-breaking — that attracts a lot of folks and everyone's happy, and then you have that intervening period where things can go wrong and everyone wants to disassociate themselves from the project; and then you have the opening and everyone wants to once again embrace it. So if we can just come together, coalesce and understand that there is a cycle and that there is light at the end of the tunnel, we will be much more supportive. The infrastructure needs to be improved, infrastructure needs to be added to a network so that we can provide that mobility that is so essential for the economic prosperity and vitality of our community.

What is being done to assure that the multimodal station at Diridon will or will not be only functional but iconic?

Ortbal: I think the Diridon Station — it has so much history to it, but it has so much potential as well. And we're approaching this kind of inter-agency approach to Diridon both to make it the most functional station possible, really analyzing what a great opportunity we have to pull off the private-sector, all of our partners, and really looking to do something world-class.

I think we will really search out the best architects, the best designers, and the best for the community. I think our community can play a major role in helping us really identify what our station to be and how it will really it will really recognize San Jose and Silicon Valley as a premier area of our country.

History shows that large infrastructure projects are much more successful if there is a positive versus conception, planning and construction. How does high-speed rail rise above that trend? Or, if it cannot, how does it cope?

Morales: That reality is how it gets through an environment that is very, very true, though. History shows that big things like this are very controversial at the time, it always point to the Golden Gate Bridge, which in many ways is the symbol of California. People don't remember that there were 2,000 lawsuits filed against the bridge when it was being built. None other than Adam Smith opposed the bridge for what he thought it would do to the beauty of the Bay. It's not just hard to even conceive of that as controversial as that is.

How supportive have other local jurisdictions been outside San Jose?

Ortbal: I don't want to speak for cities too much. We see the way we approach these types of projects is really from a partnership standpoint. You can fight it, but we recognize the last time we were in a fighting mode, high-speed rail made a decision to head toward the L.A. Basin. We don't want that type of situation.

These projects have to be done well, they have to consider what local communities, local residents need and how they can be done well, minimizing disruption. But they have to be done in a partnership way and we really encourage other cities in the area to work closely and collaboratively. I can see high-speed rail, VTA are absolutely trying to do that with the local cities.

Fernandez: I just want to add very quickly that every project has an influence that goes beyond just the area where it's built. And recognizing that high-speed rail, even if it's not in your backyard, is going to create such great benefits for those of you who live several miles away. And that benefit is in providing more choices for mobility throughout the region. You're opening up other channels of opportunity for those who prefer to drive.

Morales: This whole area of cooperation is really critical to the success of the program and it's why we have entered into planning grants with each of the cities where it will have stations.

That's important that we understand what our community wants and needs in this area and we need to deliver on that.

The audience listens as the Q&A session begins. The current street and highway layout was created to facilitate the larger number of people, cars, bikes, etc. that will eventually see the Diridon Station. What is the city doing to plan for this demand? What are the new street layouts, for instance?

Ortbal: The planning grant that high-speed rail funded for us as an infrastructure component is to go. So as part of that planning grant we're looking at having access to the station, the walkways, the streets, and I think equally as important, the kind of transit connections that we expect to see. We want to get that into that station through connections, whether it be from BART, light rail, the bus system, the bus to stations. And the station ultimately, as well.

We are in the planning phase now, really identifying how we can get people through the station, how all of that is going to happen so that we have today — will have in the future — we don't have problems with the stations. We have to always get back to, however, is doesn't work operationally, it doesn't work for customer experience, it doesn't work for the community. To me, I always keep coming back to that.

That being said, a grand station, to me, is like a grand downtown. It makes people feel good whether or not they use it. And I think that that's an important element of planning, as well.

What do you see as impacts to the mobility evolution such as self-driving cars, Uber, Lyft, ride-sharing in the plan in the Diridon Station and the surrounding area?

Fernandez: I think the on-demand services that are available today — ride-sharing services — are just a complement to things in the larger mobility network. We at the Valley Transportation Authority believe they are also great opportunities for first and last mile connections. But when we look at the broader context of all of those mobility options coming in an added component at Diridon, it's a very methodical approach to planning how the access and exit and from what is a key area that is surrounded by residential and some commercial layouts, for instance? What's the vision to look like in the future. But there is an opportunity for all of us to coexist within the footprint of the Diridon area, and I think the more options that people have for mobility — other than their current eco-friendly vehicles — the better.

Morales: In building on Santa's first point, we're still in the early stages of planning, but what we envision in the corridor is really picking and tapping into what companies do here. So, if you're going to the airport, isn't being a ticket in the future the way you traditionally bought a ticket. You will use your phone or whatever device to do it and that ticket will be covered in that. So it could be the Uber ride from the airport to the station then you get on the train. It could be the connection to the airport in San Francisco. All of those things will be interconnected. And so we absolutely are looking at all of those things and how they fit together and how we can really make travel as simple and easy for people as possible.
Ortbal: We see a kind of automated transit, or automated vehicles in the future, as well. Connections between Diridon Station and Mineta San Jose International is an important thing. That connection is essential and, you know, as ride-sharing, the sharing economy and automated transit networks and automated vehicles – that is in our early planning stage as well.

How do we prepare for that and account for that? So with the VTA and partners, we’re looking at that as well. Airports will still be a key part of transportation and connecting all these different systems and ports, so that’s something we’re looking very closely at as well.

Hartnett: I think one of the things we always have to remember when we’re talking about the ride-sharing and other physical modes of transit is they still take up space. And even if they’re not parked at the station, they’re on a roadway, generally speaking, to get there. And so our planning has to consider, as Nuria said, how does that happen?

If people could hitch a ride on a drone, it’d be a lot easier. We could free up more space and maybe someday that will be the case and that will solve a number of planning problems. But, it’s tough no matter whether you’re talking a ride-sharing or a private bus, the planning aspect of that is difficult.

That being said, they’re already providing a great complement to our service that we can’t provide at the public cost. There is a tremendous amount of first-mile, last-mile service being provided by these services, by these transit providers, their ride-sharing. And it’s actually tremendous for our Caltrain system.

Why is the alleged aquifer under the Diridon Station a challenge for high-speed rail and not for BART?

Morales: We face any number of challenges. And challenge doesn’t mean it’s insurmountable. It just means you have to deal with it and think about whether it makes sense to face that challenge or look for another.

I mean, a challenge is getting through the mountains in Southern California and tunneling. It doesn’t mean we’re not going to do it, we just have to look at what those challenges are, whether it’s the most economical, most practical to go this way or that way and take all those things into account. So I mentioned that only as a factor in just the way it impacts on the neighborhood or a factor if you’re going at grade.

Fernandez: I just wanted to say that I agree with Jeff. When you’re looking at what the best route to bring a rail line into a dense area should be, you look at multiple options: At grade, above grade and underground.

And the cost is a significant factor. So if you’re trying to serve a larger area, you’re trying to serve a larger community or larger region, you need to take into consideration how you can get from point A to point B and what the cost effectiveness of the different construction methodology should be. So I think in reference to the high water table and what the cost of trying to deal with that versus these other options is really a legitimate one.

The Valley Transportation Authority Board of Directors made a determination that we will be coming in under the ground to downtown San Jose. So we have already factored that into our decision-making process and our construction approach. I think high-speed rail has options that they’re still evaluating.

Is there a point where the high-speed rail project will be at the point of no return, where killing it would mean a net loss to taxpayers in California?

Morales: You’ve got to keep in mind when you talk about the cost of building a system like this – and this is a substantial cost – the needs don’t go away.

The population is going to continue to grow, congestion on the roads is going to continue to grow. We need to deal with air quality is going to continue to grow. So we’re going to get to this solution at some point. The next 12 to 18 months, really. I think we’re truly the tipping point because that’s when we will be so far under construction and but we will also be looking at entering the long-term contracts for the completed construction and getting to operation.

We will reach the point where the people see you as real and understand what’s happening and now they can support it going forward. And that this is a good investment for the state and a good investment for the community.