

## **Expanded Community Advisory Panel (XCAP) Minutes (Verbatim)**

**January 29, 2020, 4:00 PM**

Special Meeting

Community Meeting Room

### **1. Welcome and Roll Call**

Chair Naik: We have a quorum, so we're going to start. Chantal, if you want to call the roll, then we'll start oral communications.

Ms. Cotton Gaines: Sure

Present: Gregory Brail, Phil Burton, Tony Carrasco, InYoung Cho, Megan Kanne, Larry Klein, Patricia Lau, Adina Levin, Nadia Naik, Keith Reckdahl, David Shen (said he would be a little late today), Cari Templeton

Absent: Judy Kleinberg (excused)

Ms. Cotton Gaines: You do have a quorum.

### **2. Oral Communications**

Chair Naik: Okay. So, as you guys know who have been following along, we have Caltrain presenting today, but before that, I'm going to open it up to any oral communications for items not on the agenda. Do we, a show of hands how many people want to speak on something not on the agenda. We've got one, two. Is there anybody else. Roland, I'm going to ask if you can go second, because she's working on getting your video up, so, whoever wanted to go first, yeah. Thank you. You have two minutes.

David Kennedy: You've heard from me before. This may have come up already, but if Charleston is closed or the Michael Price alternative which is the suggested name, is selected, I would encourage as a mitigation measure, some way of looking at safe turns onto Alma for people going west out of Professorville and Old Palo Alto area. Right now, the only intersection where that can be done with a signal is Church Hill between Homer and, it's really Meadow. It's the only place there is a signal, and so for people who are reluctant to take their lives in their hands and try to turn left onto Alma, I would hope there would be something else done. Obviously, that has all sorts of implications too, because I don't think any street in Old Palo Alto or Professorville wants to turn into a neighborhood alternative. One more thing for the XCAP to put on your plate. Thank you.

Chair Naik: Thank you. Okay, Roland.

Roland LeBrun: Yeah, so I had the (not understood), but anyway, let's go. I'm explaining to you why I'm showing this to you. (Not understood) Good. Alright, so this is how we did the pedestrian underpass at Santa Clara. The VTA did this. It's

not the way Caltrain did it. The other half Caltrain spent six months. We did this in three days. It was basically a closure of the track over Thanksgiving weekend. So, the first section, we're ripping the tracks up. While this is going on, let me explain to you why I'm showing this to you. So, first of all it's for you to understand what it is going to take to do what Elizabeth is suggesting at Meadow and Charleston. That is basically we can, we close the track, we rip everything out. You're going to see what's going to go in in a minute here. So, this is the underpass. You see all these blocks over there, these concrete blocks. This is how that works. But for you in Palo Alto it's actually more important than Alma and I'll explain to you why. We know we are going to have to replace the bridge. This is the fastest way to replace that bridge. But, if you bring in the right people, you can replace the bridge and grade separate Alma, both of them at the same time in a three-day closure. I'm not saying Caltrain and their consultants are capable of doing this. I can assure you I know people who can actually do this, and to it in three days both. I want you to start thinking about four tracks and the reason I do is because you're going to get somebody else to pay for this, because now this is a project of regional significance, which is going to get them (not understood), everybody else, high-speed rail authority and you're setting yourselves up for a four-track station, and there it is for your consideration.

Chair Naik: Thank you. Anybody else want to comment on something that's not on the agenda?

### **3. Presentation and Discussion with Sebastian Petty of Caltrain**

Chair Naik: Okay, so we can move on to our main item, which is a presentation and discussion with Sebastian Petty of Caltrain. Sebastian, thank you so much for coming. When I tell you, we've been waiting many months to see you, really, we're excited. So, thanks for being here.

Sebastian Petty, Caltrain: Okay, well thank you so much for having me. I am happy to be here. I hope that I don't end up disappointing you or letting your expectations down. Let me give you just a little bit of background about who I am, kind of what my role at Caltrain is and in particular, the kinds of things that I'll be fairly adept at answering questions about versus the kinds of things where I'm going to have to take it back and get back to you later. I'm the Deputy Chief of Planning. That's a newer role for me. I've been working on the Caltrain Business Plan, which is sort of a long-range planning effort for the corridor as a whole. I've now sort of taken over the larger Planning Program at Caltrain. What that means is I can speak a lot to Caltrain's future plans at a corridor-wide level and that includes thinking about how we may need to address at-grade crossings at a corridor-wide level in the future. Sort of our long-range plans for how our service may evolve over time, numbers of trains at different times, sharing the corridor with high-speed rail, things like that. I can also talk about agency policy and processes. So, when we're talking about things like design exceptions or issues there, I can provide guidance. Not, and this is where the disappointing part may come in, I'm not an engineer. I can't sort of respond to engineering concepts or construction ideas on the spot, nor will I try to. But I can talk a little bit about kind of the overall agency process in terms of how we might consider different kinds of construction methodologies or design

exceptions. My answers to some questions may be less specific than you might like them to be, and that's in part because this is very serious and impactful stuff and I don't want to tell you something one day and then come back and tell you something different another day. The presentation I've put together is, there's not a whole lot to it. Really, what it is, sorry, Chair Nadia was kind enough to provide me a number of questions in advance, and so I've kind of just put those into a power point and I'll speak through them as I go. And then in some instances where I have materials that are relevant to the question, I've sort of threaded those into the presentation to help with that. And again, just expectations, there are definitely questions in there that I'm not going to be able to answer specifically, so I may answer them more in generalities. And there are some that aren't really answerable at this point. In terms of kind of format of how you want me to proceed, should I just keep going?

Chair Naik: Just go for it, and then what we'll do is afterwards I'll take, I'll have the XCAP ask questions. We'll probably do public comment and come back for a second round of questions.

Mr. Petty: Okay. So, again, really, I've structured this presentation in terms of just responding to the questions I received, and so I've reordered a few of them. Basically, they're just in the order I've received them. So, the first couple of questions were really about Caltrain's operations today, and the questions related to is there a reason why Caltrain can't increase our current service to six or more trains per hour. Today, with the diesel fleet we operate, to alleviate crowding and why don't we run more midday service now. So, the answer to the second question is simpler. There is no technical reason why we couldn't run more midday service now. There's a financial reason. We're limited in our funding. There's also a contractual reason. We are constructing electrification on the corridor right now, so we, as part of making that project, part of the contracts that govern the delivery of that project, we've reduced our midday service to 90-minute windows. So, unfortunately, we're not able to add more midday service now. There's also a financial component to that. But all other things being equal, we could provide more midday service than we typically do. In terms of going up to six trains per hour, it's a combination of different factors. Some of it is equipment availability, some of it is really the limitations of diesel equipment. Five trains per hour per direction with kind of our current system as it exists today is a lot for the corridor, so in some cases between the limitations of the diesel trains and the signaling system that's in place today, that's really about what we can fit while still operating a service that looks roughly like what we do operate to day. So, while we're sort of in our current mode, five trains per hour per direction is pretty much the max. There were also some questions around the electrification project, so this is not an area of my direct responsibility, and so I'm going to give you some fairly canned answers to this. Is the overall electrification project on schedule? If not, what is the new estimated completion date? The estimated completion date is still 2022. So, there is sort of ongoing conversations. It's a design build contract and so there is, you know, a relationship between Caltrain, the project's sponsor, and the contractor has a responsibility for meeting that schedule. So, we as the owners of the contract have not changed the date that we're estimating completion and that's our intent to hold the contractor to that. What are the risks to the schedule? I'm not, this is

again, not really my area, but what I can say is if you go to the Caltrain website, there is a monthly report that goes through a lot of the project risks in detail, and talks about which ones are potentially on a critical path. So, for folks who really want to dive deep into this topic, I'd encourage you to go there. Before I move on, I'm not sure if there was sort of any larger question behind kind of the electrification schedule and how that relates to grade separations in Palo Alto. If there is sort of an overarching question there, I'm happy to try to address that.

Chair Naik: I think it was just mostly to understand whether electrification will be finished in the near future and what that does for operations.

Mr. Petty: Yeah, I think the assumption, and certainly the agency's assumption is that it will be completed in the near future.

XCAP Member Levin: And if I can chime in for a second. There are probably a few issues that you'll touch on that will be relevant in terms of how frequently is Palo Alto likely to see more frequent service and more gate down time and there are several different dimensions that would probably apply to that, including this one.

Mr. Petty: So, operations after electrification, now we're getting into an area where I'm a little more comfortable in. But, so according to the best information, Caltrain funding is sufficient for new EMU trainsets to replace 75 percent of the current fleet. Is this true? I think the answer is not exactly. Just to provide some context, this was when we originally planned and procured the project, this was the case that we were replacing about 75 percent of our fleet. Since that time, we were awarded another State grant to purchase additional EMUs and also to expand the EMUs we were originally buying from six-car trainsets to seven-car trainsets. So, as part of that the percentage of the fleet that is being replaced is higher now, the relative percentage. Probably more meaningful than just the fleet replacement is how those EMUs would be used. So, what percentage of them would actually be operating, and that percentage, so the percentage of the service that would be operated with electric trains is certainly higher than 75 percent. We're still kind of fine tuning where the margin is, but generally it would be a handful of trips a day, mainly during the peak and the trains that are serving down to Gilroy that would be operated by diesel trains, and the rest of the trip, so everything in the midday, evening and then most of the rest of the service would be operated with electric vehicles. So, we have purchased more EMUs when we went out and procured the contract with our car builder, Stadler, we put a series of options on those contracts, so as we get more funding and we have the ability to kind of keep their production line going and buy more trains, we've exercised a few of those options to do the fleet expansion I talked about. In the next several years, if we're able to get more funding we would look to continue to exercise some of those options. (inaudible) procurement with them

XCAP Member Reckdahl: What timeframe are you looking at to go all electric?

Mr. Petty: It's highly funding contingent. You know, ideally, we would like to be all electric on the main corridor, so the corridor between San Jose and San Francisco, really as soon as we can. You know, in terms of when that would likely occur, it would likely, you know, funding permitting, sometime in the late 2020's. It's hard

to see a path to it's happening sooner than that. How is mixing diesel and electric expected to impact schedules in the short term, and does this delay more frequent midday service until Caltrain is fully electrified? So, the impact is, when we plan our schedules, we have to make sure that at least a subset of the individual train schedules we're running are ones that could be operated by diesel trainsets. So, one of the reasons we're excited about moving to an electrified system is those trains do have better performance, they can accelerate and decelerate more quickly. While we still have diesel on the line, we can still realize a lot of those performance benefits, we just need to make sure that as we design the schedule, whatever trains we think will be operated potentially by a diesel train can meet that performance or can conform to those performance specifications. So, it's, there is an affect, but it doesn't prevent the majority of the benefits of electrification from being realized, including, it certainly doesn't delay more frequent midday service. So, we would, from a technical standpoint, certainly be able to operate more frequent midday service. Whether we have the ability to do so, it is likely more contingent on funding. How much of the current fleet of engines and coaches will be needed to cover a service increase to six trains per hour per direction? Are there any plans to get funding for additional new trainsets? So, we did get some funding of the current fleet. We're still, I would say, fine tuning that analysis, and by that I mean we've got a lot of diesel vehicles that are near the end of their useful life, and so the calculation of how many do we keep around is a little different in that instance, but generally we're talking about getting, I want to be careful quoting exact numbers, but I think less than 11 locomotives and probably less than that, certainly less than that would really be needed for revenue service on a day-to-day basis. And as I said, were we able to secure some more funding to buy more EMUs, then that's certainly something we're thinking about in terms of our future plans. So, this next one is, how will diesel-engine powered trains affect overall schedules as headways are reduced, since diesel-engine powered trains cannot accelerate or decelerate as fast as the EMU trainsets? So, it's really something we have to take into account as we design our service, and again, there's sort of a lot of materials that I can get into and I believe it may have been in some of the presentations that Nadia provided that I have provided to the Business Plan context, where we've done a lot of service planning work to essentially plan around the reality that we know that there are some trains in the peak that will be diesel. So, for example, if we have a service that has an express train in it, it would likely be the express train that would be operated as a diesel train since that doesn't need to stop and start as frequently.

(Inaudible)

Mr. Petty: In terms of years until the current MP-36 and F-40 engines reach the end of their useful life, the F-40s are pretty much there, you know, and so we're kind of keeping them alive, but they're really at the end of their useful life. The MP-36s generally could make it in terms of a defined useful life, through the end of the 2020s, and so those would remain in use as long as we need to have them in use, through the end of the 2020s. Again, I think our hope would be to replace of those with electric trainsets as soon as we're able to. I think folks here may know, but if you're not aware, the current electrification project goes from San Francisco through Tamien Station in San Jose, that's just south of Dearden Station. That's the

corridor that Caltrain owns. South of that we operate a very limited service on Union Pacific territory down to Gilroy. That territory is not being electrified, so one of the questions the agency will have to wrestle with is, as we get to a place where we fully electrified the main line fleet, how do we continue to provide service to Gilroy, and is that as a diesel shuttle of some kind or do we look into kind of longer range plans to procure some sort bimodal vehicle or in the longer term, hopefully, have a corridor that is electrified all the way. How much of the current fleet of engines and coaches will be needed to cover a service increase to six trains per hour? I think we might have touched on this one. Sorry, if that's a repeat. So, the next question is sort of a big question, and I pulled in a few slides from a couple of presentations I've given to kind of talk to this, which is really Caltrain has done a long work as part of our Business Plan process to look at sort of our big picture, long-term vision, so thinking out to 2040 and beyond. That was a lot of work that happened during 2018 and 2019 and our Board made a policy decision on that that I'll talk about a little bit. A lot of the work we're doing now is really focused on what happens before then. So, as we're electrifying the system, how will we use the electrified system, what are some of the incremental investments that would come after that and what does that mean for our service? When do we think we might start operating more trains? So, the next few slides are really pulled from Business Plan presentations, but we did a lot of work over the course of 2019 to identify a long-range service vision for Caltrain, so you'll see a few of these diagrams on the right as I present them. Let me just sort of orient what they are. Basically, what you're seeing from the top of the screen to the bottom is the corridor from north to south, San Francisco all the way down to Gilroy. And then the lines you're seeing represent one hour of one direction of service. And so, in this case what you're seeing is three lines that represent different types of trains. The blue line on the left would represent high-speed rails, future service. The red line represents an express train and the grey line represents sort of a local Caltrain train. Each of those repeats four times in an hour, and so that would get you to twelve total trains per hour per direction on the main line corridor. The little circles basically represent the number of, or the stopping pattern of those patterns of trains. So, this is the long-range service vision that the Board adopted. This is an illustrative example of that service, and I'll talk about this later as I go a well. What the Board adopted was broad policy language that describes this kind of service, but it doesn't get down to the detail of saying you know, a station-by-station level exactly how many stops per hour a station might get. So, we use a lot of illustrative analysis to support the development of that policy and that's what's pictured here. But the overall language the Board adopted is at a little bit of a higher level. So, that's where we're trying to go and that's what our Board is...

XCAP Member Brail: Just to ask a stupid question, I assume that when coming up with this schedule, like an actual rail planner calculated in dwell times and acceleration and train speed and the clock.

Mr. Petty: Yes.

XCAP Member Brail: This is not just, (crosstalk). So, this is like a schedule that might actually work, given the EMU and all that?

Mr. Petty: Yeah. There was extensive technical effort into this. This has also been fully simulated and (crosstalk) yeah. So, I mean it is, maybe proof of concept would be a better version. We've done variations of this, but there was a lot of technical work to basically support a broader policy statement, and I think the goal in doing that, which again will become important as we keep going, is that this was not to, was to acknowledge that we can't always predict exactly what's going to happen 20 or 30 years in the future. It's important to set goals, but have them be flexible enough that some variation can be accommodated.

XCAP Member Brail: Yeah. Thanks.

Mr. Petty: I guess the other thinks, before I show some astronomical price numbers, the other thing I should acknowledge is that that vision includes some pretty big projects as part of it by 2040, so you're seeing service all the way to downtown San Francisco which presumes the construction of the downtown extension. You're seeing high-speed rail as part of this, which is obviously a major statewide project. You're also seeing kind of continuous electrified Caltrain service all the way down to Gilroy, which presumes a change in ownership of the corridor that's currently UP as well as electrification. So, there's some really big investments assumed in this. The other one I'll touch on, and this is a topic we'll come back to, is the sort of shaded areas of gray you see in background are areas where, as well as, and it's a little hard to see on this screen, but I'll point them out, where you see the A, B, C and there as sort of little dotted lines. Those are areas where, if we were to fully introduce this level of service, including the high-speed rail, we would need four track segments. So, that's basically a four-track segment at Millbrae, a very short sort of overtake in San Mateo between Haywood Park and Hillsdale, a four-track station in Redwood City. And then what we identified as a four-track station somewhere out of the four stations shown, Palo Alto, California Ave, San Antonio or Mountain View. That would be a station-based overtake, so it's not a multi-mile kind of thing. It would be creating a four-track station where in this instance, for the ones that are relevant to Palo Alto, that would be specifically to facilitate the passing movement of a high-speed rail train passing a Caltrain train.

Chair Naik: Do you remember offhand if that fits in all four of the stations that are identified? Palo Alto it does, Cal Ave I don't remember.

Mr. Petty: Yeah, I think, so I want to – this was not an engineered analysis, so we did a, I would say preconceptional engineering on these to sort of understand that we wouldn't be doing something truly incredibly impossible, but it fits as a relative term, so I would not want to present that this kind of infrastructure wouldn't have impacts.

XCAP Member unidentified: Sebastian, I have a question about speed. How fast the trains will go, excuse me, in terms of electrification and then, of course, you've integrated high-speed rail into this.

Mr. Petty: So, with electrification, the project we're building now, the maximum speed on the corridor would remain 79 miles per hour. That's the maximum speed today and you know, practically up and down the corridor the trains are often going much slower than that. So, when we electrify it will remain at 79 miles per hour. At

such time as high-speed rail is introduced into the corridor, their plans called to upgrade the maximum speed to 110 miles per hour. Similar to today, that would not mean the trains were going 110 miles per hour everywhere. They have stops and starts along the line, albeit fewer and there are some curves that would remain, but that would become the new maximum speed. I don't, there are no active Caltrain plans to increase speed on the corridor in advance of that. It's not to say that it's not something we would ever think about or do, but we have not thought about it or done it outside of the long-term commitment.

XCAP Member Lau: Right, but if, for example, if you said some of these trains now travel at 79 or under that, let's say 60, so this is perhaps, you know, again, almost doubling 50 to 60 miles per hour, and then you're going up to 110.

Mr. Petty: In some parts of the corridor it would be a significant increase in the speed. So, the costs of building out that full vision are quite substantial, and to just kind of enumerate again the big infrastructure items that would be assumed in that, one of that is grade separations and so we did our best to look up and down the corridor. There are 42 at-grade crossings on the corridor Caltrain's zones. There are 33, I want to say, on the corridor that UP owns. We looked at all of the crossings that are under active consideration of some kind by a city up and down the corridor and that could be something like the process Palo Alto is going through up to. In some cases, cities have picked a preferred alternative and have advanced a project through engineering or beyond, so we incorporated, to the best of our ability kind of cost estimates for that. We also looked at crossings that haven't been thought about, so that's what got us to about a, near a \$10 million number. That's not sufficient to fully grade separate the entire corridor. It's certainly a majority of the grade separations. That also includes an assumption that some crossings might be closed. Other than including the ones that cities are actively planning, we didn't specify, make specific assumptions about other crossings. This was really an exercise to get a kind of corridor-wide sense of the magnitude of cost. Some of the other big projects that are included here are, again, terminal improvements. That includes the extension to downtown San Francisco as well as a major station and rail infrastructure rebuild that's being thought about at Dearden Station, rail infrastructure and systems, thinks like a new signal system for Caltrain, station improvements and that could include modernization of stations, improved access facilities, these platform extensions and level boarding and then fleet upgrades. So...

XCAP Member unidentified: Would that include safety measures?

Mr. Petty: Of what nature?

XCAP Member unidentified: Infrastructure.

Mr. Petty: Well, certainly the grade separations would be sort of the biggest investment in safety. To the extent there would be any at-grade crossings remaining there would be an assumption that those would have quad gates and channelization and other kinds of safety improvements.

(Inaudible)



Mr. Petty: Yeah.

XCAP Member Brail: It would be helpful to know how much of these numbers, this is like, this would be the price tag is, I think what you're saying. How much of this is already funded, by whom is helpful, but I know in the grade separation it's not nearly that much.

Mr. Petty: Yeah. The vast majority of this is not funded, and that's actually some work we're doing now. So, in the next couple of months through the Business Plan process you can expect to see sort of a discussion of funding that will talk about sources that could be used for this, sources that already exist. But in general, the vast majority of it is not funded.

XCAP Member Carrasco: I didn't get the issue of four tracks in the 2040 plan that you have with high-speed rail. Would in Palo Alto, require four tracks or is it two tracks?

Mr. Petty: So, the quick answer is four tracks, and if you'll bear with me there are some more slides where I get into that in more detail.

XCAP Member Carrasco: And the second question that I had is, working under the assumption that if one street is closed in Palo Alto and we need to mitigate those, that closure, would the money that might come from somewhere be allowed for that mitigation, or that reconfiguration of another intersection?

Mr. Petty: So, that's a question that I can't answer because it's one that really is dependent on the source of funding. I can talk about, in a few slides, I can talk about it in kind of a general sense in terms of some of the policy work that Caltrain is going to be doing. Because in a general sense I think we would like to see that kind of option be available to cities, but as of today it's very dependent on what source of funding is used in terms of whether it would be flexible to use on something like traffic mitigation rather than a grade separation itself. So, that's the big long-range vision. The question that I was sort of responding here was really what might happen in a few years, or what might happen in five years or ten years. So, to answer that we have to look at kind of the different steps on the path between where sort of the railroad would like to be in 2040, where we are today, and what the points in between are. So, what you're seeing on this slide would be the kind of steps you would see if maybe a few months ago you had gone out and looked at every agency's plan and said, when do you think they're going to be doing something. So, we have Caltrain today as a diesel operation. In 2022 we'll begin electrified operations and have six trains per hour. After that, really the next plan has been that high-speed rail would start operating on the corridor in 2029. That's the date they have published. And then in 2033 is when they have sort of said they would achieve their full build out of their system and have all their trains operating in the corridor. That was kind of it. That was what was there and so when we did our long-range visioning we said, well okay, let's look beyond that to 2040 and we'll make sure we're incorporating everything before that and then some more. The reality in what we're looking at now is that, as I mentioned, most of these projects are not funded, so there is a huge amount of uncertainty around when they may actually come to bear and what may happen first or second, and

when things may happen, and so one of the reasons we've been doing this sort of Business Plan work is to set a long-range goal for what we want this system to be, so that we can begin thinking strategically or even opportunistically about what kinds of investments we might be able to make earlier or ways that we can improve Caltrain's service earlier that are still consistent with all of the plans of the other agencies we work with, and are still consistent with the long-range vision. I hope that makes sense. It's kind of setting the long-range vision and then figuring out how to work backwards to get there and figuring out if there is a way to make certain improvements faster than other ones. There is a reason we're thinking that way and it's because of the kind of demand that we see in the corridor. We've done a lot of sort of land-use analysis throughout this process and for a variety of reasons, Caltrain carries about 60,000 riders on a weekday today. We think there is sort of ample reason to believe that by the end of the 2020s, so a decade from now, that there is pretty conservatively demand for over 90,000 passengers a day out there in the corridor. That is based on factors like latent demand, where today Caltrain doesn't provide super frequent service at many stations, but the land use characteristics around those stations suggests that if there were more frequent service there, people would probably want to ride it. There is a lot of population and employment growth occurring along the peninsula and quite a lot of it is within the typical catchment of Caltrain stations. And then in some instances, we have improved connectivity to the system. Things like the central subway that's being built up in San Francisco that will provide a very direct, pretty high capacity transit feet right into one of our major stations. So, we've done, and again this is sort of a jumbled subset of a series of larger presentations. When we've done sort of ridership modeling on that, generally what we see is electrification and the kinds of service patterns we would be able to operate with that. We anticipate we'll add about 20,000 riders to the system, assuming those riders will sort of build up over time in kind of the first half of the 2020s. Beyond that we're going to start pushing our capacity limit on the trains, again on the peak hour trains so there will be some growth, but we think it will slow. Then, what I'm about to talk about is if we were to add more service to this system, we think there would be demand there for about another 20,000 riders. So, on that last point, we do think if we're sort of running just the basic electrification schedule, we do think as we start to get towards the end of the 2020s that we're likely to begin getting pretty full during commute hours again. We're particularly, I think, concerned that if the downtown extension project to downtown San Francisco does come on line, then our service will be really overwhelmed at six trains per hour, because that will be a direct connection between the peninsula and what continues to be kind of just absolute core of jobs in the region. So, there are a variety of kind of incremental measures or smaller incremental measures that Caltrain might be able to look at to kind of increase capacity at the margin. The next really big increment and what we would do would be to go from a maximum of six trains per hour per direction to eight. So, as part of the Business Plan we've looked at kind of are there some incremental smaller investments that we could make that would get us to eight trains per hour. Not the \$23 billion kind of 2040 investment. It turns out there are some options there. They don't do everything, so it isn't quite the ideal service. There are challenges to Caltrain, the lengthening our trains which I can talk about if people are interested, but a lot of it has to do with how our maintenance facility is set up. So, essentially what we've looked at in some detail is, there does seem to be a path to, once

Caltrain is electrified, going from six trains per hours to eight trains per hour. There are some constraints on what we can do, but with a significantly expensive but much more modest than \$23 billion set of investments, there does seem to be a viable path to get us to eight trains per hour in the future.

Chair Naik: Sabastian, could you just answer the question about whether there needs to be, so Caltrain has the legal right to run more trains per hours. They don't need any additional clearance from the California Public Utilities Commission or the State or anybody else, correct? Or grade separations necessary to get to eight trains per hour.

Mr. Petty: That's correct. I think there is a conversation we would want to have with the High-Speed Rail Authority around that and our future agreements with them, but in terms of grade separations or public CPUC, no. And again, just to highlight the reason we do that beyond the capacity is that's the set of investments that starts to really increase the frequency of service to stations on the corridor. So, you can see kind of an aggregate the number of stops per hour per direction stations are getting with the existing service, where most are getting less than four trains per hour and you've got a handful that get four to five. How that in aggregate corridor wide would change with electrification, and then how it might change if we were to go to an eight train per our service plan where at that point about half of the stations are getting eight trains per hour per direction, really sort of a BART-like frequency of service and many of the rest are getting about four trains an hour. This next slide, and again I think Nadia may have provided this full presentation, but a subset of kind of what that might mean at service levels. I'm going through this fairly quickly because I know there are other questions that folks have. One thing that is important, probably, to touch on is what kinds of investments would be needed to achieve that eight train per hour level of service I think the first important thing to say is there are a whole range of programmatic investments that are part of our long-range vision that we're working on today, and we would want to continue working on. Grade separations are first on that list. Station improvements similarly, as well as some of the big mega projects on the corridor. So, the presumption was Caltrain to go this route, and that is a question, would be that we would continue working on all of those efforts. In terms of directly operating eight trains per hour per direction, really the major investments we would need to make would be an expanded EMU fleet. We're running more trains. They need to be fully electrified. We would need to provide more storage for those trains, so we think we can make it work with the existing maintenance facility, but we would need a place to store trains overnight. We would need to eliminate the hold-out rule, which is a, we've got some substandard stations.

XCAP Member unidentified: What does that mean?

Mr. Petty: Sure. So, the holdout rule refers to a sort of an older configuration of station platforms where, I'm thinking about how best to describe it, but it is essentially where you have the two-track system. You have a platform in the middle that hasn't been built up to current standards where the trains may overhang it. So, the only remaining ones in the system are at College Park, which doesn't receive regular service, and then at Atherton and Broadway. There used to

be a lot more of them in the system. We've since eliminated them. The big issue for the system as a whole is that if there is one train in the station, another train can't go through because there is a safety issue of people having to cross between platforms.

XCAP Member unidentified: I'm sorry, did you say it's an island platform?

Mr. Petty: It's like an island platform. It's in sort of the middle of the tracks.

XCAP Member unidentified: But it's too narrow to accommodate two trains in the station at the same time?

Mr. Petty: That's correct, and there's more open pedestrian access across it, so we put in an operational rule. (crosstalk) Yeah, and so there's an operational rule in effect called the holdout rule where basically a train coming from the opposing direction has to wait outside.

XCAP Member unidentified: There's not underground access, like say California Avenue?

Mr. Petty: Exactly. So, there really are basically just three stations left like this on the line, College Park, which doesn't receive regular weekday service, and then Atherton and Broadway stations,

XCAP Member Levin: When you said the station improvements, and maybe this is something that you will get to, what is the additional difference? Is the Redwood City four-track section, it's not needed for the eight trains, so what incremental difference would be made by the Redwood City four-track passing station, at such time that that's done?

Mr. Petty: Yeah, so it would allow us to – while we are with a more limited set of investments while we are able to offer eight trains per hour per direction, it's highly constrained in terms of the pattern of service we can operate. It's pretty much what you're looking at on this screen. So, in our long-range service vision, one of the things we, our Board adopted, was the idea that you would have express and local trains, you would have a coordinated transfer between those trains that could happen at a four-track, two-platform station or four-platform face station in Redwood City or somewhere in the mid-peninsula. Without having that kind of overtake infrastructure in the middle of the corridor you can't really operate a local train in the peaks. You don't get that all stop connectivity. Similarly, if we were to put eight trains per hour per direction in the corridor, you wouldn't really have exactly express trains. You would have what you're seeing here, which is sort of kind of a zone express type service. Sort of the other major really big-ticket investment we think would be needed to make this happen is level boarding to keep sort of the overall run times consistent and keep the system reliable when it's running at those levels of service. We do think that would be a pretty critical investment to making this happen. I think one of the challenges in terms of what we're looking at is it leaves a real question about what would happen to the Gilroy service, you know, at the low end that could manifest as sort of a separate diesel shuttle service with a coordinated transfer in San Jose. Like I said, there are other

options we could look into like dual mode vehicles and so there are a range of issues there, but it does create a challenge. And then some minor improvements around Dearden. I don't have cost numbers associated with this, but generally the capital expenditure cost we're talking for this kind of capital improvement program would be more than a billion dollars, but less than, significantly less than two billion dollars. So, very expensive, but quite a bit less than the \$23 billion.

XCAP Member unidentified: That's just for the Gilroy to San Jose piece?

Mr. Petty: No, that's for all of that.

XCAP Member unidentified: All of it needed to get to eight trains an hour?

Mr. Petty: Yes.

XCAP Member Brail: So just – I'm still trying to understand all, how this works, but let's imagine that we needed to upgrade all of the stations in Palo Alto. I guess we only have two, to level boarding, who would pay for that?

Mr. Petty: That would be a – I mean Caltrain and I'm saying Caltrain in quotes because it would be a variety of (crosstalk) but it would be a Caltrain project.

XCAP Member Brail: It would not be a City of Palo Alto project, most likely?

Chair Naik: Just to be very clear, Caltrain is funded by the three counties voluntarily giving money, so it's not us but it's us.

(Crosstalk)

XCAP Member Carrasco: Sabastian, when would that train platform leveling happen? Is it in 2023?

Mr. Petty: I think if we were to move forward with this program of investments, so it's something that we've always assumed we want to get to in the long term. If we were to say we want to do this sooner, I think we would be looking at the late 2020s. So, it's not going to happen in 2023. There's a variety of work that would need to be done. If we were successful in doing that and finding funding, the late 2020s would be kind of the earliest realistic date. So, hopefully, that gives folks some sense of kind of what might be possible in the near term. So, just to put a range of numbers, these aren't in the slides but they're drawn from other sources that are out there. So, when we did the environmental document for electrification, we talked about, I've been talking about trains per peak hour, to talk about kind of total train volumes throughout the day. When we did the environmental document, we run 92 total trains a day today, when we did the initial environment document for electrification, I believe we talking about 114 trains. With the electrified system, we have the ability to operate more trains than that, so the peak would be the same. We wouldn't go above six trains per hour per direction in the peak, but we certainly would be technically capable of operating more midday service than that, and we do see there is marked demand for more midday service. So, dependent on funding, the kind of range of train numbers we could be talking about in the

relatively near future could be anywhere between probably the 114 at the low end to something more in the 160 trains a day at the higher end, and that would be if we were to put out the level of midday service that satisfies demand. So, to give you some sense of what might happen in the relatively near term, that's sort of the range that we might be talking about. If we were to go to an eight-train service, that could start to creep up towards around 200 trains a day.

XCAP Member unidentified: Do we have a passing track right now in Palo Alto?

Mr. Petty: No. So, moving on to kind of the next subject of questions, which was passing tracks in Palo Alto, what is our contingency plan if we need passing lanes in Palo Alto, how do we get some more definitive information about four-track requirements from Caltrain and can we overlay any possible feature of four-track passing sections against the current map of alternatives. So, before jumping into passing tracks, it's I think probably helpful to provide just a little background or reminder of kind of where that information about passing tracks is coming from. So, as we developed the long-range vision for Caltrain, we looked at a range of different scenarios. We called them the baseline growth, the moderate growth and the high growth, so there were again different long-range scenarios, all of which met Caltrain's sort of overall commitments to high-speed rail and other partners, but looked at basically different levels of potential future train traffic on the corridor. I won't dwell on these in detail, but there are three of them. The baseline is consistent with what is currently in high-speed rail's environmental document. So, that looked at a future where Caltrain operated basically six trains for ever and we never increase beyond that and then someday high-speed rail showed up with their trains. There are no passing tracks required in that, other than a four-track station at Millbrae. So, fewer trains overall, no substantial growth in Caltrain's service, and no passing tracks.

XCAP Member unidentified: I'm sorry, does that assume 79 miles an hour?

Mr. Petty: No, that's 110.

XCAP Member unidentified: Okay, so in that scenario there are no passing tracks, but we have 110 mile an hour high-speed rail trains, four an hour?

Mr. Petty: Right. Then we did the moderate, which is what the Board sort of adopted as the first part of the service vision, which goes up to eight Caltrain trains per hour in the long term, combined with the same high-speed rail trains. And to do that, that's where we need to start introducing some passing tracks, mainly at stations or for short distances, and I 'll talk about those in more detail subsequently. Then we looked at something we call the high-growth scenario, which looked at really maxing out the corridor and kind of really pushing the boundaries of what would primarily still a two-track corridor. So, this actually looked at operating twelve Caltrain trains per hour per direction plus the same four high-speed rail trains. To do this, the passing tracks would need to start getting longer, so we would have some pretty long segments of passing tracks at various points in the corridor, including potentially a fairly long segment in the vicinity of Palo Alto through Mountain View. I'm saying vicinity, because there is some squishiness to it. Again, this isn't engineered. There is some flexibility in terms of

speeding up a train or dropping a stop and having a track be shifted south or north or a little shorter or a little longer. There's some tradeoff, but in general we know that it would need to be somewhere in that area.

XCAP Member Brail: Would it be possible for, and we have some people who like to look at maps clearly, and design things, to find out some technical information on the lengths of the required passing track sections in these scenarios? And we could imagine where they might be able to go?

Mr. Petty: Yeah. I think, what I will say is you're seeing about as much information in terms of geography as there is, but what we can provide and is in the appendices of some of the presentations, is the exact train schedules and string lines that were used to generate these. And that will show, you can look at those and get a precise answer where they would need to go. I guess what I would emphasize is that precision is inaccuracy in this case, which is to say, as I mentioned, these are sort of illustrative train service assumptions, so you know, were we to go out and build the passing track and want it to be, you know, 2,000 feet to the north, that train schedule could be adjusted or changed in some way to accommodate that.

XCAP Member Brail: Right, but is there data that says, hey, we need a one-mile passing track section somewhere between Palo Alto and Mountain View, then someone in this room might look at a map and say, hmm, you know, this might affect us depending on exactly where that goes. But if we don't know if it's 500 meters or a mile or five miles, then we can't do that.

Mr. Petty: Yeah, we can provide that very sort of rough level of, roughly this length to achieve this kind of service, roughly this length between.

Chair Naik: And it's actually on the bottom of the slide, you see moderate growth is less, it's about five miles and then less than 15, 20, but the one in our area would be, if I recall, it's five miles somewhere in the vicinity of Palo Alto to Mountain View.

XCAP Member unidentified: Was I supposed to get these slides before the meeting?

Chair Naik: No, you didn't but it was in the other presentation, but that's okay. It's an important thing to bring up.

XCAP Member Levin: So, in terms of thinking about timelines and how to interpret what's happening in the world, is it accurate to say that the passing tracks in Palo Alto wouldn't be needed until, for high-speed rail service?

Mr. Petty: Yeah, that is wholly accurate. Regardless of the scenario we're talking about here, the passing infrastructure in this part of the corridor is to facilitate the movement of high-speed trains.

Chair Naik: And I would like to point out that in the packet that you can see that's on line one of the attachments for today, one of the things that we linked to was a letter from Caltrain responding to high-speed rail on their environmental impact report, basically saying, hey, we understand that if you come along the corridor, we're going to share tracks, but we also understand that if you high-speed rail need

to add more tracks, you will go through your own environmental process and you will pay for those tracks. So, there's a letter saying that.

XCAP Member unidentified: It was a little more diplomatic than that.

Chair Naik: Oh yeah. Read it for the diplomacy That was the short version.

XCAP Member Reckdahl: Sebastian, you're talking about passing tracks, you're always talking about four. Could you have two sets of three? Would that give you the same functionality, or do you actually need four? Because the width is so challenging for four?

Mr. Petty: Yeah, I think – I want to be careful not to give an answer that boxes me in too much, because a lot of this is really a – that answer is that there is flexibility on all of this. There are just trade-offs. So, for example, if we were in the future where we were really building out all of this, you know, and we were to look at the corridor and say there's just no way we can do it, it's too infeasible, this track can't be five miles long, it's got to be shorter. We can make that work. There would just be service compromises to it. And those could take the form of stations not getting as much service or trains having to slow down and wait as other trains pass them. So, it's not – I mean, I recognize in a world where we're talking about engineering, that can be kind of a difficult answer to swallow. But the reality is we're way out in the far future when we're talking about this stuff. Twelve trains per hour per direction is a very ambitious, long-term goal. I do want to, as I get through this, then talk about what it specifically was that the Board adopted and how that's relevant. But, were we to arrive at that future, I think there is room to have the conversation about what's feasible, what isn't and how we kind of weight that against some tradeoffs in terms of service?

XCAP Member unidentified: Sebastian, is there even a rough idea of the total time from let's do this to end of construction, how many years would elapse?

Mr. Petty: So, I mean, the answer being when we, so somewhere in the depths of this there is a capital cost model that has individual projects and shows them profiled over time. The reason I'm saying, you know, and you could do it all by 2040 using sort of reasonable construction assumptions around kind of timeframes

XCAP Member unidentified: What I had in mind was the number of years – you know, Palo Alto is going to undergo a lot of construction impact, and if we layer some four-track section in or even near Palo Alto, yet more years of traffic impact and noise impact. So, I just want to get a sense of that.

Mr. Petty: No, I couldn't give you an exact answer on that.

XCAP Member Brail: Yeah, I mean, the thing we're trying to avoid is spending many years and all of our money building grade separations that then have to be torn up in ten years and replaced with a wider grade separation.



XCAP Member unidentified: So, one just further question, has it ever come up in any discussions about achieving the passing tracks by building a viaduct, assuming the right-of-way is too narrow? Has that even ever come up at all?

Mr. Petty: No. In the sense that what you're seeing is what you're seeing, so there wasn't an assumption about (crosstalk).

XCAP Member unidentified: So, the implicit assumption is that there is enough room in the right-of-way to accommodate passing, two additional tracks?

Mr. Petty: Broadly, and in some cases I would say there likely is not enough room in the right-of-way. I think, I don't want to at all imply that this has been designed or that there wouldn't be impacts. So, again, just to highlight, we're talking about things that are in the future. We're talking about blending Caltrain service with high-speed rail service, and so one of the kind of challenging conversations we had with our Board as we made recommendations around this as really, how do you balance, you know, the need to make concrete plans and advance projects with what is really a lot of uncertainty. So, this is just to highlight, these are the, when we look at the moderate and the high growth scenarios, sort of identified and then the ones in red are the ones that area really driven by non-Caltrain or non-regional service. So, essentially the infrastructure that is associated with having the high-speed rail on the corridor is what you're seeing highlighted in red. It's a largely two-track corridor when you're introducing trains that are going fast and not making a lot of stops, it means they have to get around a lot of other trains. The more trains they have to get around, the more four-track infrastructure you would need. It's illustrated, I know no one can read it up there. The reason I'm swinging back to this is that we did all of this work to look at three different scenarios and did a whole bunch of technical analysis supporting it. What the Board ultimately adopted was a policy document that was several pages long and essentially says this is the long-range vision of Caltrain and then spells that out in text format. So, the Board did not adopt locations of passing tracks. They didn't adopt, you know, exactly how many trains per hour individual stations would get. What they adopted was a set of long-range guiding policy. So, this is not a project. It's not, again, an engineered set of plans or anything like that. And I think it's important for this group to be aware of that and I would recommend reading through that policy statement, because that actually, everything else we've been talking about is just analysis. You know, it's a lot of analysis and it's helpful and it explains things, but the actual sort of policy that the Board adopted is really what kind of guides Caltrain's disposition going forward and what starts to become pretty relevant when we're talking about Caltrain's disposition to grade separations and how those proceed. So, I would recommend folks take a look at that to help understand kind of what's illustrative and supporting analysis versus what's actual Board adopted policy. That gets particularly relevant when we're talking about how passing tracks and how that relates to grade separation, and so in a high-level there were kind of two parts to what the Board adopted. So, staff's recommendation was that the Board adopt the middle scenario, the moderate-growth scenario, the twelve total trains per hour as the recommended vision for Caltrain. There was a lot of Board and stakeholder interest in adopting the higher-growth scenario, and so the way we kind of managed that was essentially specifying the details of the moderate-growth

scenario, and then saying that Caltrain would continue to work with regional partners towards thinking about something like the high-growth scenario. And we did that, and as staff I think we took a hard line around not wanting to fully embrace the high-growth scenario because there was in some respects, a lot of data that didn't point there and there's also so much uncertainty around that level of train service. I think we had a lot of concerns about whether it was responsible to sort of go whole-hog on that level of growth, knowing that there's so much funding uncertainty. One of the things I'll just say in general as we kind of keep going in this conversation is, there is a real challenge that Caltrain has as the manager of a corridor. We do have long-term responsibilities to the State Transportation Network to manage the corridor as a system and as a regional asset. At the same time, we have very real responsibilities to our communities on the corridor and to how we're asking people to spend local money. And those things can be in tension with each other at some times. We'd like to plan for the most optimistic future possible, but if that future seems like it's very, very speculative, it starts to become pretty hard to ask someone to spend a lot of their near-term money and take near-term impacts on that basis. So, there's no answer to that, but that is the kind of needle we try to thread with some of that policy. So, one part of the policy that the Board adopted was that Caltrain's long-range service vision further directs the railroad to continue planning for a potential higher growth level of service, and so that is our Board telling us to take certain actions to think about what it would mean if we ever were in that high-growth level of service. The specific part of the policy that gets relevant to grade separation conversations is that the Board directed us to take certain specific actions to anticipate and were feasible and financially practicable facilitate a higher level of service. That includes as it relates to grade separations. So, there's a lot of wiggle words in there, but I think the Caltrain interpretation of that is, we need to think about the potential for four-track segments in the corridor, including as that relates to grade separation. So, we need to anticipate it. We can't ignore it. And then we need to look at whether there are actions. We don't need to go out and build them, but we do need to think about what whether there are actions that are feasible and financially practicable that could be taken to not preclude those kinds of investments in the future, or to help facilitate them. Again, fairly a little bit loose, but that's the guidance we have, and that's relevant to these questions here. I don't have an answer for these questions today in terms of whether there are certain kinds of alternatives that we would view as effectively precluding four tracks and that would mean Caltrain would just say no to them out of hand. I think we have work to do with the City, as the City continues to narrow down alternatives to come up with a more concrete answer to that. I think intuitively there would be concerns around any option where, if we were to build it, it would look like it would make it impossible or significantly financially more challenging to come back and build more tracks later. But at the same time, as I said, we're not asking anyone to go out and build a four-track system that is not environmentally clear, that is linked to long-term very speculative levels of service.

XCAP Member Burton: So, to be clear, when the City submits its preferred alternatives to Caltrain, you know, through engineering, doing all that review process, will Caltrain explicitly consider four-track feasibility as one of the acceptance/rejection criteria?

Mr. Petty: I think we would consider it if there were a difference between the alternatives that were submitted, yes, and I think that's what the policy directs us to do.

XCAP Member Burton: Well, we'll probably submit one. We'll say, this is the choice for Charleston Meadow, this is the choice for Church line, and eventually this is the choice for Palo Alto Avenue.

Mr. Petty: Right.

XCAP Member Burton: So, we're not going to say, hey, pick one out of three submitted. It's hard enough to pick one.

XCAP Member Levin: And this group has been asked by City Council to make recommendations. Is there any way that Caltrain can help out and say, like, don't even consider things like X because they are incompatible with what, you know, what would preclude something that Caltrain has to keep an option open for?

XCAP Member unidentified: Or would you pay for the difference in costs?

XCAP Member unidentified: Well, those are two different questions.

(crosstalk)

Mr. Petty: I've got some slides on that one.

Chair Naik: Let's let Sebastian continue then.

Mr. Petty: So, I think it's a really difficult question, so I'm trying to be very intellectually honest about how we would approach it. If the City were to present Caltrain with an option that, let's say effectively precluded four tracks or would make it a very expensive project to come back and do it later, I think what we would generally look at would be were there other alternatives that did not do that, or was this a situation where just four tracks never would have been feasible. So, are we, you know, was there a choice between one where four tracks could have eventually happen versus not? And then if not, I mean in this instance I think it's something where we would probably do a set of technical analysis and then frame it up to our Board for a decision.

XCAP Member Burton: So, we're on a fairly tight timetable to come up with a set of recommended alternatives based on City Council criteria. I think we'd be foolish not to at least consider Caltrain's go/no go criteria. Is there any way you can work with us sooner than – by the way speaking just for myself here, but work with us to give us some guidance on this issue?

XCAP Member Levin: Otherwise this group might spend all of its time coming up and recommending something that was knowable in advance that it was going to be impossible. And that would be (crosstalk) use of human capital.

Mr. Petty: So, okay, the guidance I would provide would be, I think, it would provide less risk to the City of Caltrain rejecting an option to try to pick an option that would have some degree of compatibility.

XCAP Member unidentified: We don't know what that means.

Mr. Petty: Well, again, not being an engineer but you've got AECOM as a consulting team, and I would imagine they are largely the consultant that does a lot of our grade separation work. I imagine they could provide some guidance around...

XCAP Member Burton: Well, they'll just say, we can build anything if you spend the money. I've seen other transportation projects where there were provisions made for additional lanes or additional tracks. It may not ever get built. And so, the question is, it really comes down to do you want provision for four tracks. If we pick the trenches, and just as an example, and then the next question follows right away is, who is going to pay that delta?

Chair Naik: So, maybe one way to handle this is to have an off-line conversation with staff and we can figure out how maybe we can get more detailed information from either AECOM or from Caltrain's more technical folks, because it's really not what Sebastian does. That's why I think he's being super careful.

(crosstalk)

Mr. Petty: No, I understand the issue, and I think, you know, I mean this is a relevant issue. It's one that's going to be relevant, it is relevant in Mountain View as well, because that City advances its grade separation process. And so, I think what Caltrain likely owes the City to help with that guidance would be just at least a memo that provides some guidance around how to approach that decision, and I...

(crosstalk)

XCAP Member Klein: Can I ask some questions in regard to financing here? Thank you for your presentation. I think it was very clear and cogent and I know you may have some other things to say, but I think you're sensing that it's question time. You've got \$9 billion in hoped for money to provide for grade separations. Right now, you've got zero money for grade separations, correct?

Mr. Petty: That is directly controlled by Caltrain, yes.

XCAP Member Klein: Assume for the moment that your \$9 billion doesn't come in over the next ten years, what do you see happening with regard to grade separations between now and 2030?

Mr. Petty: I would anticipate, if there were no significant new source of funding for grade separations, I would anticipate that they will continue as they have, which is being built slowly, largely based on the availability of County funding. So, the grade separations that have been built more recently on the Caltrain corridor have largely been built in San Mateo County, because San Mateo set money aside for that purpose. VTA in Santa Clara County has now done that through Measure B and so I

would expect that some of those grade separations, whether they are in Palo Alto, Mountain View or Sunnyvale, would likely during that time period move forward.

XCAP Member Klein: Well, we know that's not near enough money.

Mr. Petty: Sure.

XCAP Member Klein: It seems to me that there is an inconsistency between having the \$9 billion in your hoped for budget and what seems to be the expectation that the local government agencies, either cities or the county, will be paying some or all of the portion, all of the costs of grade separations.

Mr. Petty: Right.

XCAP Member Klein: How do you explain that?

Mr. Petty: Well, I don't think it's an inconsistency. I mean, I think they are two different conversations. I think one is a conversation that says, we think that if we want to achieve the long-term goals of the corridor, and I'm using the work corridor advisedly to not include just the goals of the railroad, but also what we've heard to be the goals of the cities, we need to have a substantially grade-separated corridor, and that's going to take a lot of money to do that. I think as part of the work we need to do in this plan and beyond it is to look at what would be sources of funding that could be brought to bear on it, and for the grade separations, no one has that money right now. We're in the realm of needing to go out and find new public money.

XCAP Member Klein: I'm concerned about the timing of – as I'm understanding things right now, you're expecting Palo Alto and Mountain View, Sunnyvale, other places particularly in Santa Clara County, to pay some portion of the grade separations in their community, the costs in excess of whatever Measure B money we get and some other sources. Is that correct?

Mr. Petty: I think I would frame it less as an expectation as just a reality of there is no other money, and so if the project is going to move forward, money will have to be found. The railroad doesn't have it. If the counties don't have it, there are very limited state or federal sources, so...

XCAP Member Klein: Well, you have that \$9 billion figure in there. Is that assuming that the cities are going to come up with some money now and the \$9 billion would be on top of the money that the cities and the counties come up with?

Mr. Petty: No. That's a cost number, not a funding number.

XCAP Member Klein: Well, let's assume that we, in the 20s, that Palo Alto and other communities pay some amount for grade separations, and then the, but other cities don't. And then Caltrain comes in to some money, maybe all of the \$9 billion, and they pay for the communities that, grade separations in the communities that haven't come up with their own money. Is that fair? Are we going to get some money back?

Mr. Petty: No, I don't think you likely would get any money back. And I don't necessarily think that any of this is fair. Grade separations have been an issue on this corridor for nearly 100 years. It's probably not fair that there are nine at-grade crossings in the City of San Mateo. That's an historic accident of their street grid, you know, and it's probably similarly not fair that there are only a couple left in San Francisco. You know, so I'm not really sure how to answer the question. When we talk about it as though it's Caltrain money, I think, you know, there's not really a universe where Caltrain gets \$9 billion that's just for Caltrain and then kind of decides how to dole it out. To achieve the kinds of funding levels we're talking about, that is always going to need to be made up of multiple sources, including existing sources versus new sources, new sources dedicated to rail, new sources probably dedicated to the issue of grade separations. It's going to be a multi-decade sort of patchwork of funding to put that kind of money together.

XCAP Member Klein: Are you familiar with other systems around the country, where the local communities are being asked to pay the costs of grade separations, rather than the carrier itself?

Mr. Petty: I think that's typical around the U.S. for commuter rail or standard gauge rail systems. I think, because the regulations are national, and fairly or not, what the regulations are right now is that in most situations, unless you're going over a certain speed or grade separations are not required, there is a California requirement through the CPUC that if you go sort of four track or more across, then you're likely triggering a grade separation. But, and again this is what it is. I'm not suggesting it's fair necessarily, but the standard of when a grade separation is required in the U.S. is quite high.

XCAP Member Klein: If I understood what you said earlier, if a community decides not to come up with whatever money is necessary for grade separations, that won't affect going forward with Caltrain's Business Plan?

Mr. Petty: I think it would not necessarily directly affect us being able to increase service on the corridor, that's correct. I think in adopting a long-range vision, and again, I would really recommend that people look at the language the Board adopted, one of the statements is that if we're going to achieve the buildout of the system that we hope for, it's the desire of Caltrain as expressed through policy language the Board adopted, that that be through a corridor that is substantially grade separated.

XCAP Member Klein: I wasn't totally clear as to when you would anticipate the seven-train option going into effect.

Mr. Petty: Well, there's a six-train option that would go in effect in the early 2020s. The earliest an eight-train option might go into effect would be in the late 2020s, if we were, if Caltrain decided to move forward with that.

XCAP Member Levin: I think you may be mixing the number of cars and it would be seven cars when electrification goes live versus frequency, where I think there is a six and an eight, but not a seven?

XCAP Member Klein: That's what I'm getting at. Is that right?

Mr. Petty: There is a six train per hour service and a potential eight train per hour service.

XCAP Member Klein: Thank you Adina. One last question before I stop dominating things here. High-speed rail, a lot of what you have written here, and I understand why, is based on the assumption that sooner or later high-speed rail is coming through here.

Mr. Petty: Sure.

XCAP Member Klein: Well, two questions. One, are you still looking for any high-speed rail money for any of this?

Mr. Petty: So, no not, well, how would I frame that? I think we are expecting that the High-Speed Rail Authority would pay a fair share of their contribution to the total infrastructure demands that we're putting on the corridor. So, I don't think we're not looking for high-speed rail money to pay for improvements to Caltrain, but to the extent that their presence on the corridor requires new infrastructure or places an incremental burden on the operating costs of the system. We would expect them to pay for that at such time as was appropriate.

XCAP Member Klein: How much of what you've reported and put into your Business Plan would have to be changed if high-speed rail finally recognizes political reality and folds its tent?

Mr. Petty: I think if you, again, a lot of the analysis would look very different, but if you look at the actual policy language the Board adopted, a lot of that would be quite consistent regardless of whether high-speed rail was there or not. There are some pieces of it that would need to change, and I think if that decision were ever made in a very formal way, and I think it's important to say Caltrain has deep, legal policy and financial commitments to high-speed rail and we take those seriously. If something were to happen that were to end those, we would revisit our long-range vision and that would be a major, major change to the long-range plan of the system. But, largely the kind of Caltrain service we're talking about would be, I think, of benefit to the corridor in terms of serving the markets and the demand we see regardless of whether high-speed rail was there or not.

XCAP Member Klein: Thank you.

Chair Naik: So, in the interest of time, Sebastian, I want to let you finish your presentation and then we'll try to think of questions, because we do also have to take public comment. I knew this was going to run long, so Chantal and I are already whisper, whisper about how we're going to alter the agenda, but I do want to let Sebastian at least finish the presentation. (crosstalk) Yes, go for it, Sebastian.

Mr. Petty: So, if passing tracks are required as part of a grade crossing, separation, design, will Caltrain pay for the incremental costs of designing, construction and ongoing maintenance? Will Caltrain share costs for a four-track alternative in

advance of when Caltrain would actually need to use the passing tracks? So, a tricky question. So, let me kind of frame how we would approach this. A grade separation is required in California when you have four or more tracks. So, again, this is just sort of the legal framework around it. If you have a two-track corridor, in many situations from a railroad perspective a grade separation is not required there. It may be desired, the railroad may agree with it, the community may want it, but it doesn't affect the railroad's ability to run trains, so there isn't necessarily direct railroad funding that would be applied.

XCAP Member Brail: Can I just double confirm that? So, even with 110 mile an hour speed limits, with two tracks, still there is no FRA requirement for grade separation.

Mr. Petty: The FRA requirement is 125.

XCAP Member Brail: Okay. That's surprising. Thank you.

XCAP Member unidentified: Do you have the width of right-of-way in Palo Alto for four lanes, four tracks?

Mr. Petty: I mean, we do have right-of-way and standard widths. I don't have those.

Chair Naik: Yes, in South Palo Alto there's enough room for four tracks, 100 feet, there's enough room.

XCAP Member unidentified: Thank you.

XCAP Member unidentified: But there's no room on the north.

Chair Naik: Not at Churchill, but that's not where the passing tracks would be, they would be south. It's Cal Ave south.

XCAP Member unidentified: And then four tracks, you can build tracks on Churchill?

Chair Naik: No, it would be south, so the Cal Ave. There are no four tracks required or contemplated at Churchill at all.

XCAP Member unidentified: But the way that he explained...

Chair Naik: No, it's from Cal Ave south. So, this presentation is a little more muddled, but there is a previous presentation that has a little more specificity that it has to be from California Avenue, from the Cal Ave station further south.

XCAP Member unidentified: But this presentation...

(crosstalk)j

Chair Naik: So alright, let Sebastian keep going, and then – sorry guys.

Mr. Petty: So, if you have four tracks across the CPUC, the California Public Utilities Commission, their guidance is that it needs to be grade separated at that point, so



then it starts to become more of the railroad's problem, to kind of put it in those terms. I think the tricky question here is, at what point does Caltrain say, okay this is our problem and we're going to pay for it, and I think that starts to get to the issue of right now the four tracks we're talking about are pretty speculative. They're not kind of part of the hard plan. They're in the section of division we adopted that says, you know, let's aim for this but in a way that's feasible and financially practicable. So, that's a long way of saying I don't have a clear answer to this. If you ask Caltrain to turn around and pay for a four-track overtake segment and grade separations today, we would tell you that we don't have the money to do it. But in a longer, more general way what I would say is, were a four-track grade separation to move forward, that would have a level of railroad utility that's different from just a two-track one, and so there would be a different kind of funding interest potentially in play there.

XCAP Member Levin: There is a version of this question that's a little different based on what the, you know, likely sequences and scenarios are, because right now a four-track section in Palo Alto is only required at such time as there is upcoming high-speed rail service. So, if Palo Alto right now is saying, you know, what grade separation is warranted, then planning for a four-track version may be, you know – so the question is, does it make sense to plan for a two-track that would be expanded if that is at all possible, and then at such time as high-speed rail were showing up, who would pay for the legal expansion to four tracks?

XCAP Member Brail: So, it doesn't say in here under the moderate growth scenario whether or not four tracks are required. There's no moderate growth minus HSR scenario.

XCAP Member Levin: Correct. Is Caltrain working on scenarios before or after high-speed rail?

Mr. Petty: Well, I mean I think that sort of initial interim eight train plan is showed as an example of that. I think, you know, in the case of the Palo Alto, Mountain View area in the moderate growth, that four-track station need is associated to high-speed rail. Were it just to be Caltrain alone on this system, you would not need the four tracks?

XCAP Member Levin: And the other thing that we're hearing from Caltrain is that there's a possibility for an eight-train frequency Caltrain service by 2030, and the most recent published schedule for high-speed rail getting here is 2029 with no evidence that things are going that fast. And so, from the perspective of Palo Alto it seems like a reasonable thing to be planning for grade separation in anticipation of more frequent trains, and then the question is, who would pay if that would need to be either changed or done differently later. That's a different way of phrasing a similar question, but based on different scenarios or what might happen in what order.

XCAP Member Burton: Which goes back to the discussion we had about 15 minutes ago.

Chair Naik: Yeah. Let's let Sebastian finish, guys.

Mr. Petty: Okay. So, this one is a little easier to deal with.

(off mic)

Mr. Petty: Yeah. Does Caltrain intend to develop – the answers are a little different. Does Caltrain intend to develop a comprehensive plan for replacement of all grade crossings between San Francisco and San Jose? Does Caltrain intend to develop a funding mechanism to support such a comprehensive plan? Are there state and local agencies that we can work with better, so that we're planning a regional solution? I think the answer is, hopefully yes. As part of the work we've done in the Business Plan, one of the things we've said is that we really do need to do a corridor-wide grade separation strategy, and this slide here just kind of outlines what we've talked about that being. The things, so, this is going to happen. We have funding to do this study now. I anticipate that it should start relatively soon. I need to hire staff to lead it and I also anticipate that the, really the first section of this work would be a lot of scoping work and figuring out how a kind of a study of this magnitude that really has such a direct impact on cities would even be organized and governed. What I will say about doing this kind of analysis is that it's not the intent of Caltrain to go through and say, you know, here's our alternative for what should happen at a particular crossing. We know that there are a lot of communities that are doing a lot of work to think about that and that that's really a community-based decision. I think where we believe that there is a need for the, sort of a corridor-wide look is around a number of different issues. One is starting to look at things like standards on a corridor-wide basis. I know there has been a lot of conversation through this group around design exemptions. That's a challenging conversation for the railroad to have on a project-by-project basis, but we do think that it might be time to at least think about it a little bit more on a corridor-wide scale. Similarly, construction issues on a corridor-wide scale, we have a particular way that we've constructed these projects in the past, and that's sort of reflected in our standards, and I think your consultant, AECOM is pretty well versed in those. Were we to ever think about what it would look like to do them differently or if we had to do a bunch of them at once or how we might get some economies of scale out of it in a scenario where there were more funding available, that's really a corridor-wide question that we'd want to approach here. There, I think, are a range of policy issues that we've been asked that are also corridor wide in nature. People ask us to prioritize the at-grade crossings, and that's not really an exercise that we felt at all comfortable doing. Or some of the questions that the gentleman raised earlier around if you were to close a crossing, would there be a way to get money for other kinds of mitigations that aren't necessarily a grade separation, but might be just as effective and more cost effective. So, addressing those kinds of considerations. And then the big one is funding. We know that the need for grade separation in the corridor far outstrips any available source of funding, and so there is, I think, really a question about how if we as a corridor are serious about implementing this scale of projects up and down the corridor, how are we going to pay for that. What kinds of sources might be available? Are there new sources that need to be created? And kind of getting to a place where we're ready to have that conversation. So, at a very high level, that's the scope of that effort. It's, I think, going to be a really significant undertaking for Caltrain. Again, it is funded. We have to bring on the staff to do it and figure out how that study would be organized. It

would likely be an effort that would play out over the next two to three years. In the absence of a comprehensive plan, does Caltrain intend to provide assistance to crossing elimination projects city by city? The answer is now. Caltrain has no funding to do that. The kind of assistance, you know, generally we work with the counties who have, for the last many decades been the major source of grade separation funding, and we will provide technical assistance to cities, but it's generally the way the world is today, they are viewed as local projects that the railroad implements or are implemented on the railroad and our role has been more limited on them. And then on average, what percentage of funding have cities contributed to grade separations in the past? Cities have, I don't have the exact percentage. Cities have contributed to grade separation funding before. It's generally been a minority percentage. The vast majority is county funded. There are also little bits that come from the state. There is a state fund for grade separation. It's quite small in terms of relative to the total cost of these. High-speed rail did participate financially on the grade separation at 25<sup>th</sup> Avenue that's being built in San Mateo. They did that because they view that as a location where passing track may be. So, that's been the general landscape. The vast majority has been county-based sources for the last few of these that have been done. This is a tricky one. Are there any legal requirements to continue to include a Stanford stop? I'll just talk about this generally. So, there is a Stanford station. It's only used a handful of times a year, basically to service football games. Our Business Plan is basically silent on the future of this station, which is to say it's not a station that we ever imagine would get sort of regular weekday peak hour service, so that's certainly not there. That said, there is nothing in the Business Plan that would preclude us from continuing to serve it irregularly on weekends to support sporting events. I don't have an answer in terms of if Palo Alto were to come up with a concept that required that that station go away, I think we'd have to figure out how to confront that. If we got to it, and I think that would be a conversation with the City and Stanford and probably our Board in terms of how to weight that tradeoff and what kinds of mitigations could be provided. A couple of questions in terms of if a viaduct or tunnel was built, what could be possible on kind of the right-of-way. Again, this is sort of probably a very unsatisfying answer. It's we'd have to negotiate it. I think, you know, certainly those kinds of spaces have been used for things like bike paths and in other places, including over on the east bay with BART. So, you know, theirs is clearly a precedent there. It would just be kind of a conversation or negotiation we would have to have with the City around the use of that land and what could be possible there. I think the railroad's primary lens for looking at this stuff is always safety first, and then after that, you know, considerations around maintenance and upkeep and those kinds of things.

XCAP Member Brail: There is a question there about maintenance, about graffiti and stuff like that. So, even if it's not turned over, who sprays the graffiti and you know, mows the lawn?

Mr. Petty: So, generally if it remains as Caltrain right-of-way and Caltrain property, we would retain the maintenance responsibility for it. Typically, when these kinds of projects get built and if there is a city interest in the project, part of the project would be a long-term maintenance agreement. So, like many of our stations, there is an agreement that governs which entity is responsible for what aspects of

maintenance. Is there anything that regulates how long a of a stretch between crossover switches? I don't have the answer for this. I think there is, certainly there are places that switches will be needed based on the operation of the railroad. If there is a specific technical question here behind this that's being driven by a specific alternative that's being looked at, I'm happy to get that to the right people. There were a series of questions that I think basically get to the issue of standards and exemptions and freight use of the corridor. Rather than answer those specifically, because some of them I can't, here's what I'll generally say. There are long-term commitments to freight's use of the corridor that is not something that is envisioned as changing in Caltrain's plan. There is a discussion about a short line operator that could replace U's direct operation on the corridor that is all still to be negotiated, and those negotiations are not moving particularly quickly right now. I think UP has gone through a series of corporate restructurings and some of this kind of work has not been on their front burner for a while. So, for now, 1 percent remains the standard. We have looked at exemptions to that in the past and there's a process we can go through on a case-by-case basis to analyze an exemption. It's important, I think, as I mentioned, at a corridor-wide level and through the right process, we're not adverse to considering comprehensively how the standards change. I think what we don't want to do as a railroad is kind of iteratively back into new standards, and so if we are looking at an exemption, it's important that it be kind of grounded in enough analysis to understand very specifically why that exemption is being requested and that there is enough there that we can do a pretty serious analysis to understand if it's something we can live with or not. So, that process of granting exemptions is one we've gone through, but we do take it pretty seriously and need to make sure there is enough of a design there and it takes some work on our part to do that.

Ed Shikada, City Manager: And to that point, Sebastian, just for clarification and for XCAP's understanding, it is Caltrain's practice that the analysis required is done at the cost of the City, correct?

Mr. Petty: That's correct. Because, you know, there's a lot of time spent by engineers. Usually we're running a dynamic simulation of the railroad to understand what the impacts to freight trains and other operations might be which, at this point, is something that's typically done for a consultant. So, it is, you know, generally I think our approach has been, if we're making that request, we want it to be a pretty serious request that's around a focused issue, not kind of an open-ended conversation.

XCAP Member unidentified: I'm kind of surprised though. You're running conceivably hundreds of trains a day and with these three freight trains, it really complicates your life. I'm kind of surprised that you tolerate that any more. Is there not an appetite to get rid of that?

Mr. Petty: I think it's a very legally complicated and long-term conversation. I think when we look to the future, what we would assume is that freight is confined to a fairly narrow window at night. So, it's not that they're intermixing with the service throughout the day. I think these are kind of more in that same vein of issues

around the grade and I know that there are other standards that are of interest that many of which have to do with the presence of freight on the corridor.

XCAP Member unidentified: You could address that second question though, because I think there has been some confusion.

Mr. Petty: Oh yeah, that one I can. It's with us. So, it wouldn't be a direct negotiation with you. Caltrain owns the corridor, so we're both an operator, but we're also the corridor manager. We are the ones who hold the agreements with UP and so, you know. Negotiation, I don't know if that would be the exact word. It's more is there a circumstance where we would be willing to grant an exemption to our standards. That process would run through Caltrain. We are the ones who would then have to have that conversation with UP and make sure that was an exemption that we were actually able to grant.

XCAP Member unidentified: So, if part of the grade separation solution was the viaduct in any city, do you foresee that Caltrain is going to build that viaduct, or do you think each city is responsible for building that viaduct?

Mr. Petty: So, in terms of the actual construction? Generally, it is Caltrain's strong preference at this time, so absent again, absent a larger corridor-wide conversation or, you know, long-term discussion about construction authorities or things like that, it is Caltrain's strong preference that we deliver grade separation projects ourselves. That the ultimate contracts be with us, and that we're the ones building them, and that's, doing construction on an active railroad is very challenging. Our railroad is getting more complicated. We have positive train control systems in place now. We're going to have an electrified railroad. You know, that's including ongoing conversations with VTA around the use of funding. I think there is a strong preference on Caltrain's part to control the actual construction activities. Again, that doesn't preclude a longer term or broader conversation around kind of a bigger picture construction and whether you would ever make sense to have a Construction Authority or a grade separation district or something like that. But in terms of, if you're asking today on a project-by-project basis, it's our strong preference, and in some cases our requirement that we would be the ones constructing.

XCAP Member unidentified: Thank you.

Chair Naik: Okay XCAPers, if it's okay with you guys, I'm going to take public comment, so that it gives you guys a chance to kind of think through what other questions you might have, and then we can come back to XCAP for any final questions before Sebastian leaves us. So, if we have folks who would like to comment on this item, if you could please line up and raise your hand actually for me, so I get a sense of how many people want to speak on this item. I see one, two, three. Anybody else want to speak on this item? Okay, you each get two minutes please. Neva, go ahead.

Neva Yarkin: So, Neva Yarkin. I live on Churchill. I was just wondering if you could talk about eminent domain and what Caltrain procedures are for this? Thanks.

Chair Naik: He's not going to be able to answer specific questions, but we're going to be talking about eminent domain next week, so that's...

Ms. Yarkin: No, I get that. But I just wanted to know what Caltrain's feel is for eminent domain.

Mr. Petty: I'm happy to answer that on a very general sense, which is...

Chair Naik: Can you turn to the mic.

Mr. Petty: I think there are two things I would say. One, Caltrain is currently constituted, has the power of eminent domain through our partner agencies, and so to the extent that we've had to use that as part of the electrification project, have little slivers of land that comes to us through the partners. It's not inherent in the JPB. Beyond that, we follow the same procedures that any public agency does, which projects have to go through environmental clearance. We would make fair market value valuations and offers, and if there wasn't a willing seller, the last resort would be to go to an eminent domain route where there would be fair market compensation. So, it would be the exact same procedure that any other public entity would follow.

Chair Naik: Thank you Sebastian.

XCAP Member unidentified: So, I have a following question. (crosstalk).

Chair Naik: But if you could just hold it, then maybe he might answer it.

Roland LeBrun: Thank you and hopefully I will have time to get to these slides and explain to you what's going on with Measure B. Thank you for the presentation Sebastian. On the video presentation I showed you I forgot to mention that the cost for the three days' work was \$4.7 million. The total cost of the project was fourteen, \$1.4 million. Capacity, the six 7-car EMUs will actually have less capacity, less than 10 percent increase in capacity over five 6-car Bombardiers. And last week's bomb shell from Sebastian is that the reason we cannot have 8-car EMUs is because they just cannot handle it. Passing tracks, the biggest problem is that we're not using the current infrastructure property. When they bought the right-of-way from Union Pacific, we had passing tracks at Redwood Junction. The reason we're not using them is that there is no station. The reason we are going to have the station is four ways. First of all, Redwood City is moving north, Atherton is getting closed, we need a connection to Dunbarton Rail and you can trust Stanford to go and expand Stanford a half a mile from Redwood Junction. There is no need for passing tracks in (not understood) if every train stops there. That's why (not understood) passing tracks, because the train stops. In regards to speeds, the first EMU will be tested (not understood) ten miles an hour (not understood) testing facility in Colorado. The others will be tested at 90 miles an hour on the Caltrain right-of-way, probably between (not understood) and Lawrence. And the FRA could allow 90 miles an hour after (not understood) PTC is installed, as long as they improved the tracks. On high-speed rail, Deutchbon (phonetic) has a pretty good business plan which shows how we could actually have, as part of the Caltrain fleet,

eight real high-speed trains. Real baby bullets, real bullets. No bikes. They will have more capacity because we would have a hundred seats more. And my time's up.

Chair Naik: Thank you. Last comment, next person.

Mr. LeBrun: Yeah, I have one last one.

Chair Naik: No, no, Roland. I'm saying the next person has to go. Thank you.

(no mic)

Chair Naik: You can always email us.

Unidentified male: A very simple question. Will the freight trains be able to be upgraded to electric?

Mr. Petty: I couldn't tell you the answer to that.

Chair Naik: Sorry. We'll just take the questions and then will have to answer them at a different time. Sorry, because I don't want to set up this dynamic where everyone is just asking Sebastian questions or we'll never get through the rest of the agenda. But thank you for the question. Next.

Unidentified female: Hi. I would like to urge XCAP and Caltrain to please adopt a more long-term vision and for regional planning. So, for example, getting to collaborations and alliances between cities and communities to keep pedestrians and cars and landscaped usable areas which are usable by city folks at grade and move everything else below grade. So, if you can actually create those collaborations and alliances between cities all along San Francisco and San Jose. I know it's easier said than done, but that's what I would really urge you to adopt for two main reasons. Number one, cities become more usable. Number two, get economies to scale by actually having collaborations between different communities and different cities. And number three, all the emissions which are going to happen because of cars and vehicles actually jammed up against each other, if you don't separate the grade can be avoided. So, I don't know if we have done actually a cost benefit analysis between electrification and actually having emissions with cars being jammed up and all those long wait times, it would be worth doing that as well. So, both for scale and environment and feasibility of the city, I would really urge for you to do that. Thank you.

Unidentified female: I just have a really simple question. Can we get your presentation on line? I mean, will it be posted somewhere where we can get it.

Chair Naik: It will be posted by Chantal. Okay. We're going to bring it back to XCAP now. InYoung, you had an outstanding question.

XCAP Member Cho: So, I know you said there is no room to build, you know, there is the four track – it seems to me the four track is chosen parts of the region, not whole through of the corridor. Where can I get that information?

Mr. Petty: So, I think generally the information that you would see on it is in the presentation. So, it's not, you're correct, it's not throughout the corridor and, in fact, Caltrain is legally prohibited as part of the original blended system agreement. I'm happy to follow back up with Chantal and Nadia to kind of point to the best information that we have, but again, it's not a project that has been engineered or designed, so it's not. And I would emphasize there is long-range flexibility around exactly where those tracks are located

XCAP Member Cho: Okay, so if you look – so you kind of know where it's going to be four tracks. Was there a case that you have to take the houses around surroundings?

Mr. Petty: So, again, I think we looked at a very high level at areas of the corridor where right-of-way was sort of broadly larger, but I think you would need to do a lot more engineering and design to really understand the extent of whether and the extent to which there might be property impacts. And like I said, this hasn't been engineered so I don't want to in any way represent that there would not be impacts.

XCAP Member Cho: Okay, thank you.

Chair Naik: Megan, and then Tony.

XCAP Member Kanne: I had two questions. The first one was about encroachment of any of the alternatives onto the Caltrain right-of-way. Obviously, a lot of them would be under or anything like that, but sort of taking space for Alma in our case, which is next to the right-of-way, taking some of the right-of-way space for those local streets. How would Caltrain approach that sort of request?

Mr. Petty: So, I think we would want to look at it comprehensively in the sense of if it's being proposed as part of a grade separation project...

XCAP Member Kanne: Specifically, as part of a grade separation.

Mr. Petty: Yeah. It would be part of sort of a comprehensive analysis of, you know, if the City were to advance with this, then us partnering with the City to look at how that project would be delivered. So, in that instance I don't think it's, you know, I can't say yes, but I don't know, it wouldn't be a no. It wouldn't be the same reaction as if the City were to just independently want to take a piece of the right-of-way to use for something. So, I think if that's – I wouldn't discourage the City from thinking about that, if that's something that makes sense as part of an option. I think if it's part of delivering the project, we would certainly be open to at least having that conversation.

XCAP Member Kanne: Okay. And my second question was about these exceptional cases where there has been an incident or something on the tracks. What is sort of the maximum number of trains that we could ever expect to be – like if we had trains queued up for example, because there was an accident in San Mateo, or something like that, is there sort of a maximum, like there will never be any more than 20 trains passing a crossing?



Mr. Petty: In a certain amount of time?

XCAP Member Kanne: Yes.

Mr. Petty: Yeah. I'm trying to kind of do the math in my head. I mean, I think at some point, you know, trains come from one end of the system to the other and then they go back down, so there's only so many that are going to queue in one direction. I can't give you a precise answer on that, but I don't think it would be 20.

XCAP Member unidentified: There's not a policy that prevents anything?

Mr. Petty: No. In terms of if we were recovering from sort of an extreme incident or something like that, sure, you might have trains that were operated more closely together and there might be a span of time where there were more of them running through.

Chair Naik: Okay, Tony and then Greg.

XCAP Member Carrasco: So, I'm still trying to figure out whether we should plan for four trains or two trains.

Chair Naik: Four tracks or two tracks, you mean?

XCAP Member Carrasco: Oh, tracks, sorry. But it seems like, if I read through the tea leaves here that you tend to be talking more about the high-growth one rather than the low growth one. You're talking about more moderate to high, and the question is mainly for Adina and for you, Sebastian, to ask is the Board tending to go in the direction of high-growth, or moderate to high or? Which tells us what we should.

XCAP Member Levin: I work for an independent nonprofit organization where we are knowledgeable about Caltrain, but do not in any way represent the agency.

Mr. Petty: So, I'll try to put a slightly sharper bend on the answer I provided before, which is what the Board adopted as policy was to plan affirmatively for the middle, the moderate-growth scenario, while continuing to think about and anticipate and take certain actions to facilitate the high. If I were advising the City of Palo Alto in terms of thinking about how to narrow down options, I would consider whether an option could potentially accommodate four tracks as likely an important criteria in part to reduce the risk that Caltrain or its Board might say, we don't want to do this because we're worried it's going to impede the future growth. And I recognize that I think Caltrain owes the City a little more specificity about how to consider that choice. I can't give you a precise answer. The language is a little vague and I think if we ended up in a situation where something that seemed like it really precluded four tracks was being proposed, we would likely need to write up an analysis and probably take that to our Board to make a decision. Because I think that sort of rises to the level of decision where we'd really want to make sure that we have their guidance. So, that's, if we were to be in that situation where we couldn't, from a technical perspective say this could work with four tracks but the City is asking us to do this, you know, I think we'd kind of push it as far as we could, have staff say

here's the technical facts and then probably have to go to our Board for a decision, if that situation were to arise.

XCAP Member Levin: Can I, it sounds like I was asked for an opinion, so can I share it?

Chair Naik: Yeah.

XCAP Member Levin: So, I don't think that it would be wise for the City of Palo Alto to propose something that would preclude four tracks, because the Caltrain Board would likely say no, which is a more direct way of saying what Sebastian said. But planning for something to require four tracks has a lot of uncertainty, because that depends on high-speed rail, which might show up, you know, like years in the future. So, like designing for four tracks seems maybe excessive and designing for something that was, depending on when it was expected to happen, but if we're thinking that Caltrain's more increased service for local use might happen sooner, then planning for something that was two tracks but didn't preclude something else requiring like state money to expand, that would seem like a reasonable middle path in the middle there.

Chair Naik: I did want to add, because I pointed this out in a conversation I had off line with Sebastian, but I'm similarly – so besides the four track discussion we're having, I'm similarly concerned, as you guys know, because I've raised it before, about, I can't remember if it's the viaduct or the hybrid right now where they proposed that the track swing out closer to Alma and away from the homes, because despite the fact that they – yeah, the viaduct – despite the fact that they followed the design criteria, I know from an operational perspective with my work with CARRD, that Caltrain is actually looking to straighten the right-of-way. So, Sebastian, one other potential thing that we might ask for is more guidance along whether that kind of shift which would still fall within the existing design guidelines, but would not necessarily be great for operations, is something that we should be considering or not. Because I'm afraid that there is a segment of the community who might be more excited about one elevated alternative over the other, especially if their homes directly back up against that where they're like, oh, in that version the train moves slightly further away from me. And I don't know that that's really an option that we have, and I'm concerned that there have been videos that show that as a potential thing even though, of course, all of this is conceptual and it would have to go through review. But I just wanted to make sure I get that out there.

XCAP Member Brail: Can I ask? Now Adina is gone, so that was opinion, but we clarified that the moderate-growth scenario, if there were no HSR, and by the way, I'm not – it's very popular to assume that HSR will never happen, but I'm not in that camp. But if HSR was not an option for a long time, it sounded like in the moderate growth scenario, we don't require four tracks in Palo Alto, but in the high-growth scenario even with no HSR, do we still need passing tracks? No, okay. My second question is about safety. We mentioned, Megan mentioned extreme events, which we have a lot of on Caltrain. We have a lot of them in Palo Alto, and is there any source of funding or history of source of funding from anywhere in the world that could be applied to safety, especially since we're considering more trains,

faster trains, maybe not immediately but you know, Roland mentioned 90 miles an hour. EMUs accelerate quicker, so they're faster when they get to the grade. Is there any history of communities saying, hey, you know, getting some grade separation funding out of the state or federal government strictly based on safety?

Mr. Petty: Not that I am – for grade separations in particular, not that I am specifically aware of. I don't have the data base of every grade separation that's been funded, you know, in my head, and I think, you know, I'm kind of punting on the questions, but I think as part of the corridor work one of the things we really do intend to do is really look hard at funding. What I would call the surface level and then even the secondary kinds of sources that are available for grade separations today are pretty limited. There is a lot of categories where it's small dollars relative to the cost of the projects. There are very few kinds of big dollar categories, and that's why the counties have shouldered the burden of them in the past.

XCAP Member Reckdahl: Kind of a follow up, we've had some suicides in Palo Alto and they have always accessed at the grade crossings, but if we now have grade separations, you can't access that. The weak point would be the stations. At the stations you still would have access to the tracks. Is Caltrain considering any type of gates or fences or something to, when passing, trains passing through, to prevent pedestrians from accessing the tracks?

Mr. Petty: At this time, we haven't. I think, you know within \$23 billion there is a lot of kind of conceptual money that was set aside in there for station improvements, and so I think that's an ongoing conversation about kind of various types of treatments or mitigations that can be used to kind of make stations safer than they are today. I don't know...

XCAP Member Reckdahl: But you have done some investigation in what might work and not work?

Mr. Petty: Yeah. I don't want to overplay what we've done. I think it's a conversation that's out there. It's been a conversation with the High-Speed Rail Authority too, and I think as we look at levels of train traffic increasing, it will continue to be something that we look at.

XCAP Member Brail: So, I'm going to be a pain in the butt. We had five grade crossing accidents in Palo Alto in 2017, and three in 2018. None of them were intentional. They were all vehicles that were stopped on the tracks accidentally, and at least in one case there were injuries and \$40,000 in damage to a car. So, it's not just that, it's...

(off mic)

XCAP Member Reckdahl: But those vehicle accidents will not happen at the station once grade separation occurs.

(off mic)

XCAP Member unidentified: I have a question about those stations, you were saying the platform and boarding, there are some issues about safety as well as far as that design is concerned. That design is really important too when people board, if there's a gap. So, that's one concern. And the other concern would be public education. If you're going to have this many trains, the frequency as well as the speed. Will Caltrain be involved with a public education campaign?

Mr. Petty: Sure. I mean, I think we would do that as these kinds of changes were closer to actually being implemented, but yes.

Chair Naik: Sebastian: I did want to – I think we had someone from the audience whether there are plans for freight to be electrified. I wanted to give you a chance to answer that.

Mr. Petty: No, not plans that I'm aware of, and I think particularly not while the freight operation continues to be a UP operation. You know, I think were a transition to a short line operator to be effective, there might be more flexibility to negotiate things, but there are no concrete plans.

Chair Naik: And one other question. I heard you say very clearly that Caltrain has no intention, and none of the schedules that you've contemplated in the 2040 vision plan have discussed going beyond 79 miles an hour, which is the maximum operating speed today. Is that correct?

Mr. Petty: Yeah, so let me be very clear. Once high-speed rail is introduced to the corridor, there is, really, it's a max speed for the corridor as a whole.

Chair Naik: Right, but not for Caltrain's own trains, is what I'm saying.

Mr. Petty: Yeah, we're high-speed, well some of the Caltrain trains might be going, if they're having to keep us with or move around a high-speed rail train, at that point then they are also going up to that speed at times. But, in absence of high-speed rail, there are no defined plans for Caltrain to operate over 79 miles per hour.

Chair Naik: But I just wanted to clarify that even if you went 110 miles an hour for whatever reason, there is no additional legal requirements to build grade separations because of the way the FRA's rules work and CPUC's rules. In other words, just because you went from 79 to 100 doesn't trip off the need to have grade separation, correct?

Mr. Petty: That's correct.

XCAP Member Burton: Let me just point out that if you're doing stop-to-stop local service, trains probably couldn't accelerate and then decelerate much past 79 miles per hour.

Chair Naik: This is a different issue. (crosstalk) Someone come up repeatedly and try to say, oh, well if you increase from 79 beyond that you need them, and we do not.

XCAP Member Burton: It's probably most relevant for baby bullet limited-stop type trains.

XCAP Member Kanne: Is there anything to consider if the type of grade separation that we are proposing is not for cars, but is simply for bikes and pedestrians? Are there any differences, anything specific to consider in that case?

Mr. Petty: I think there are different design standards and construction approaches you might take, but from the railroad's perspective I don't think so. I think in general those have tended to be cheaper projects that are less invasive to construct and there are different approaches to doing them. I wouldn't think so particularly, beyond what you would need to do to just conform to standards generally.

XCAP Member unidentified: So, if we decide to build a bike pass under Caltrain, do you think Caltrain will build that or the City will build this?

Mr. Petty: So, again, the general preference of Caltrain is to control construction, especially invasive construction that is happening in our right-of-way, and that preference is moving towards becoming more of a requirement than a preference. That has not always been the case in the past, and so I know that in the past Palo Alto constructed a bike/pedestrian path and in the past, we've had cities construct grade separations before. That was pre-electrification. It was pre-positive train control and so the stance of the railroad now is that for those kinds of projects we really have a strong preference, in some cases a requirement. If we're the ones doing the contract and constructing.

Chair Naik: I want to draw a distinction between who manages the construction and who is paying for it. So, Caltrain would construct it but that does not mean Caltrain would pay for it. Yeah, okay.

XCAP Member Carrasco: So, Sebastian, I have a question about the delivery system. Caltrain prefers to construct it themselves because of all the complications. It turns out that costs are pretty high in the public sector and Caltrain's costs. Is there an openness to another kind of delivery system, if we can save say 30 percent?

Mr. Petty: I think there is an openness to having that conversation, and I realize this is sort of a challenging way to frame it. I think there is an openness to having a broader corridor-wide conversation about how we approach the delivery of these projects but if you were to come to Caltrain tomorrow and say, this is what I want to build, the answer would be, we're going to build it. So, I recognize that is kind of a hard answer, but it's one where, you know, when our corridor is, the corridor we manage is 50 miles long, there are grade separation and construction projects all up and down it and so the way we are set up to manage construction is a particular way. Our standards are set up corridor-wide as a particular way, so it's challenging for us and introduces a lot of risk potentially to kind of, in one-off cases, do something that's very different. But, where I'm trying to kind of open the door a little bit is, I think in a kind of a more comprehensive corridor-wide way, I think there is an openness to having that conversation, but if, and I didn't say this before, but I think it's sort of what I would emphasize, I think at a stage of design

where things are very conceptual and the City is looking at a lot of alternatives, the way to mitigate risk is to sort of assume the default. You know, and I think if you're assuming something different than that, there is a lot of risk that you're introducing into the decision you're making.

XCAP Member unidentified: So, you know, when cities manage these projects, they have a public bidding and all, you know, like you would follow the same practice?

Mr. Petty: Yes.

XCAP Member unidentified: Okay. So, Nadia, it sounds like we're paying for it, they are managing the project. We are not managing the project. Okay, thank you.

Chair Naik: I did want to ask, so for the XCAPers, we had page 89 to 94 of the Caltrain organizational assessment, which Sebastian, to remind you is the part that talks about the two different potential structures that would be, deliver grade separation projects on a broad scale. Could you give us just an update on where that has been in terms of the Board process and how that's going. I know it relates to the grade separation project.

Mr. Petty: Yeah. So, the Caltrain organizational assessment looked at a whole range of organizational issues for Caltrain, including sort of the overall governance of the Caltrain system. One big picture issue that's kind of parallel to governance is around big, expensive construction projects, and whether Caltrain builds those themselves or who does build them. And so a couple of models that were looked at, not in a ton of depth, but were talked about were a grade separation district, which is sort of a legal entity that is allowable under California law, which could have a range of responsibilities and powers from raising funding to doing things like issuing contracts and managing construction. Another option that would pertain to more than just grade separations, it could pertain to other kinds of projects, would be something like a regional or a sub-regional construction authority. So, more of a single purpose entity that really just existed to build projects. I will say, we had a major workshop with our Board to talk about governance. Those kinds of vehicles were not the focus of what they were focused on. They're kind of very interested in talking about the core governance of the Caltrain system. There continues to be a lot of discussion at a regional level about the possibility of a regional construction authority. That's something that's relevant to projects all over the Bay Area. Things like the downtown extension to San Francisco or how some other major projects may be built. So, it is an active conversation. I think that's some analysis we as Caltrain would want to get back into as we look at a comprehensive corridor-wide study. Like I've said, right now because these projects are so hard to fund, we haven't had to deal with a whole bunch of them at the same time. They've kind of been one every few years that happens, so we've had an approach to managing them. Were there a circumstance where there were quite a few needing to be built on the corridor, I think it would be prudent for us to think about whether there are structures that would allow us to better manage those, or allow the public to better manage those projects or deliver them more efficiently going forward. So, again, not a project-by-project conversation, but kind of a big picture, long-term one that we're open to having.

XCAP Member Reckdahl: I was very interested in Roland's video that showed that undercrossing being built. We're considering building underpasses and would love to do that without having to do shoe-fly tracks. What's your attitude towards something like that for a vehicle underpass?

Mr. Petty: So, I am not a good person to answer that question, in that I don't have the engineering background to tell you if there is a reason you could do it or why it would be fatally flawed. It's not how we have typically constructed grade separations to date, so I think we're not adverse to having a conversation about potential different construction options. We kind of go back to the statement I made at this state of the analysis. I would assume something other than the standard approach kind of at your own peril. Because that is introducing a lot of questions of risk. That's not a now, but it's just, you know, something that I could sort of say on the fly, oh yeah, that could work. Sure, go ahead based on that.

XCAP Member Reckdahl: But we're able to do that for the bike underpass. So, what would be different? Apart from size, what would be different being that bike underpass and what we would want to do?

Mr. Petty: Again, I really don't want to speculate into the engineering area, because I'm going to say something that's probably wrong.

XCAP Member Reckdahl: Okay. Thank you.

Chair Naik: I will say I have turned into Caltrain information about the Long Island Railroad, so that when they look at scoping their future set of projects, because I actually had sent, when Sebastian was developing the Business Plan, I sent him the research I did about how grade separations used to be paid for and how it's changed over the years. So, historically they were built mostly for traffic reasons, no train reasons. And in some ways, as you're hearing, we may need to build grade separations not because it's going to help us run more trains, but more because we want them because we will have traffic otherwise. But it's important to note that they are now going to be thinking about, well how do you build 41 at the same time, and do we have to do things a little bit differently. So, he has been, he has received more than one person. All of the Melbourne Australia examples, right? I've sent him the Long Island Railroad, so rest assured stuff that you guys are being distributed, Sebastian gets a copy from me or Elizabeth at least.

XCAP Member Reckdahl: From a business plan point of view, your slides showed a lot of high-speed rail, which is kind of outside of your control, right? So, how do you deal with, you're trying to plan something when you make your own business plan, how to you plan your own business when you have this big variable in it?

Mr. Petty: I mean, it's one of the things that is challenging to deal with. And I think we have to treat them not as a variable, again, because we've got long-standing commitments to them, but it does make doing the work more complicated. It would be a much simpler plan if we were the only operator who is every going to run on the corridor. So, yeah, they are reflected in all of our long-range plans. Now that we're kind of looking at what's happening more in the next decade, I think that's where there are conversations that are more along the lines of, well, they may not

be here in ten years and we might need to plan for that eventuality, but maybe they are, and we may need to come up with a plan for what that looks like. So, it's a real challenge.

XCAP Member Reckdahl: So, if high-speed rail is kind of slow rolled, then will you accelerate your trains and have more express trains to replace?

Mr. Petty: That's one potential option. I think, you know, if we got to that place, we would need to look at whether that made sense from a market standpoint and a business standpoint. I think generally what we're trying to do, and what the overall philosophy has been in terms of setting a long-range vision, one of the reasons it costs that much money is because we really went up and down the corridor and said we would need to make sure this reflects everyone else's plans and visions in it. And that allows us to work backwards and sort of see a path where we can say, hey, you know, these four things aren't ready, but we are ready to make these investments and then we can demonstrate they're compatible with the long term. We're not building something that we need to rip out later. It's part of the puzzle. We're just putting it together in a different way.

XCAP Member Reckdahl: Thank you.

Chair Naik: Sebastian, what would it take officially for Caltrain to remove high-speed rail from their plans? In other words, my understanding is that until there was an official discussion somewhere where high-speed rail came out at a Board meeting and had to admit that they're not going to be running trains and then, therefore, the letter would get sent to Caltrain and that would get sent to the Board. In other words, there's a number of steps that would have to happen publicly before Caltrain could change any of their plans because my understanding is that all of your long-range planning simply has to include whatever has been approved and has not thus been rescinded. Is that accurate?

Mr. Petty: That's correct. I mean, the blended system is enshrined in State law, and we have any number of funding agreements and other agreements with high-speed rail. So, undoing that would be a very serious process that would involve probably also State law.

Chair Naik: Okay, XCAPers, are there any other burning questions that you would need to know from Sebastian to be able to deliberate in the coming weeks, because now is your last shot before we let him go?

XCAP Member Burton: I would like to ask you how you stay sane in the face of all this huge uncertainty?

Mr. Petty: It's a running challenge.

(Off mic)

XCAP Member Burton: Thank you. You have my sympathies.

Chair Naik: Sebastian, thank you so much. We really appreciate you coming.



(off mic)

Chair Naik: Yes. Thanks again.

#### **4. XCAP Recommendation to the Traffic Consultant – Requests for Additional Analysis to Help with Decision**

Okay, so time check. We have 45 minutes left and way more than that on our agenda. So, I believe the thing we most need to prioritize, Chantal, tell me if I'm wrong, is the questions for the traffic consultant, since we agreed that we had to give him enough time to answer, since Gary Block will become the week of February 12<sup>th</sup>. Yeah, estimated, okay. So, for that item, XCAPers, we have, Megan pulled together (crosstalk) with help from InYoung, thank you, the proposed traffic questions, which is kind of the amalgamation of what we sent. So, Megan, I'll let you take the lead here and let us know what you thought.

XCAP Member Kanne: Sure, so I just removed duplicates and rearranged the questions into three parts. So, the first part is just the list of things that were straight-up questions or that at least I thought were straight-up questions. My proposal would be to just send those to Gary and get answers. Then there were questions about work feasibility, which I kind of separated out into a different section, but are also just, we need an answer from him about whether or not certain types of work can be done. And then there is a list of ten work requests. I took all the questions that people had that sort of were, can we have this and can we have that and I tried to distill them into a list of requests for new work from the traffic consultants, with footnotes looking into those questions as you can see there. So, my proposal would be that we read through those ten work requests and then vote on which ones we want to actually want to spend the money on.

(off mic)

XCAP Member Kanne: I have no idea. These were all questions for staff. I mean, we kind of also need to prioritize them, right? Like they're vaguely prioritized in what they seemed to be importance order to me, based on like the number of footnotes, but that is what the discussion is for.

Chair Naik: I see Ed with a finger on the button.

Mr. Shikada: Well, I was just going to, perhaps, verbalize what I'm thinking, which is these – well to the question, is there a limit. And perhaps the answer to that question is, well, we don't know how much these will cost. I do suspect that the question of whether to proceed with these would be informed by conversation with Gary, and some discussion of, so what's the goal of number one? You know, what is it that XCAP is hoping to achieve by getting an answer to that question. And have a discussion of that relative to the other alternatives that are being evaluated by Gary and Hexagon. So, again, I think you may not be able to prioritize these tonight until you have that conversation. And ultimately, we don't know how much these will cost either. I can't tell you tonight whether I would recommend we spend more money on these questions until we have that discussion.

XCAP Member Kanne: Okay. To kind of use the words that Nadia has been using, is there anything like, I think, for me it would be helpful to know whether the group thinks that there is any of these ten items that you absolutely would need in order to make a decision.

(off mic)

XCAP Member Kanne: We are looking at the work requests, page two.

XCAP Member unidentified: Number two seems to be really on point, really critical.

Chair Naik: Actually, if I could – so, no, no what I was going to say was I have a list of the Council criteria which, unfortunately, I didn't print for everybody, but I can read them off. But actually, they're lettered A through J are the ones that the Council gave us, and by my count there's four of them that relate very specifically to traffic, so I can read those out loud and I think we ought to keep those in mind when we're looking at what are the things that we need to answer that we will have criteria that specifically speak to those. So, the first one is: facilitate movement across the corridor for all modes of transportation. It's kind of a more generic one. Second is: reduce delay and congestion for vehicular traffic at rail crossings. Again, somewhat nebulous. Three: provide clear, safe routes for pedestrians and cyclists crossing the rail corridor separate from vehicles. And four, which is letter H, so the first ones are A, B and C: maintain access to neighborhoods, parks, schools along the corridor while reducing regional traffic on neighborhood streets. So, the rest of them are related to kind of construction things, but those were all the most traffic related, and as you can see, they're also again no super specific. I mean, in my mind, reduce delay and congestion for vehicular traffic at rail crossings, if we are now creating grade separations, we will no longer have rail crossings where cars are waiting, so we will have achieved that. So, that's sort of not necessarily going to change. Facilitate movement across the corridor for all modes of transportation. All of the alternatives we're looking at will have a bike and a ped and a car mode to cross. So, again, not necessarily super specific. But I did want to read those out before we go through this work thing, so you can hear those. So, in my mind for the first one, impact of eight trains per hour per direction at peak hour. I guess my biggest question, and I don't know if Hexagon can actually model this is, whether running eight trains an hour all day long would create new peak hours that we just don't have now. That may be a dumb question. I just don't know enough about traffic to understand what that is.

XCAP Member Brail: So, I've been the one insisting on this question and sort of my motivation was, you know, marketing which is to counter the we don't need to do anything argument. So, if we all, unless we have significant people on this committee who are for the we don't need to do anything argument, we don't need this question.

XCAP Member Burton: I'll just observe that the peak traffic volumes occur probably what we classically call the rush hours. So, even if Caltrain ran eight trains an hour other hours, we'd have delays, but not the same length. So, really the long pole of the tent will always be the rush hours.

Chair Naik: I think, so I'm not proposing, I wasn't proposing, Greg, I think it's a good question. I'm just adding, does it have an impact all day. And the only reason I'm – I hear you that there's sort of always the rush hour is kind of the longest, but there is this funky thing that happens. So, in the morning the rush hour and the school rush hour are the same. That's not true in the afternoon, and I don't understand what happens in the afternoon. If you shutdown Churchill and now everyone is at Embarcadero, and it just so happens that Embarcadero is also the entrance to Paly, so that also – how would that change things? Yeah, and I'm also not clear, by the way, whether the models are sophisticated enough to put all those things into it and spit out something that useful, but...

XCAP Member Burton: I think the real issue is going to be, do we have the traffic data to do – do we have reasonably good traffic data to model as opposed to just turning the crank for some sake. I have no idea what the answer is.

XCAP Member Klein: Well, I like question number one as is and I don't have any trouble with one A, though it may be more difficult to ascertain. But I hope question number one stays, for the reason that Gary raised, marketing, but marketing to a different group, our general public. And I thought Gary indicated that he could do number one pretty easily.

XCAP Member Cho: I just want to make a comment. So, the traffic at Churchill in the afternoon, when school is finished is not bad as 4 o'clock or 5 o'clock. That's where they line up all the cars all the way to El Camino to Alma. So, I don't know if that helps. Because when school finishes, I don't think that's like really peak hours. Even train doesn't go through at 3 o'clock.

Chair Naik: Well, another thing is that it's about all modes of transportation, so another thing that I've been thinking about is that, for example, some of the bike/ped options that we've seen for the closure of Churchill involve the kids queuing at one side, waiting for a light, having to cross the street in front of cars and then go down a ramp and then there's the other one where it's kind of a constant flow under the underpass. So, my question is about, you know, if you now have eight trains an hour at rush hour when those kids are going through at the same time, does that create a new bike rush hour that means that you need to change the design of the tunnel to be able to accommodate those number of bikes. I just don't know. I see you shaking your head. I'm just saying there is a reasonable question and, to be honest, I don't know whether we can get an answer, but I think it's interesting. I'm good with number one. Does anyone want to take that off or are we all good with keeping it? Okay. Moving on to the next one then. Megan did you have a comment?

XCAP Member Kanne: No.

XCAP Member Cho: I have a comment. So, this one, when I read it like it's, I mean, so we have options, right? So, these questions are diverting from our questions, right? So, you have Embarcadero mitigation with the Churchill closure. That's one option, but this is like branching out more, so it's asking more options and I don't know why.

XCAP Member Shen: That was my question, but I actually was not referring to the Churchill closure in these. I just meant, when we do the price full study of it, that we...

XCAP Member Cho: Yeah, that's an expense time three, because we have a closure, viaduct and Mike Price (phonetic) right?

XCAP Member Shen: Yes, but I'm just saying that when we do the price option study, that we study the traffic with and without the Embarcadero mitigations. That's all.

Chair Naik: Well, maybe Ed can clarify for us, is there, with the new alternatives that have been added, is there new traffic analysis that's been assumed by the City, or what?

Mr. Shikada: We've asked for a cost estimate and scope of work for two A. So, that would be, again, with the additional alternatives in this particular case related to the, what's it been called, the ditch or whatever.

Chair Naik: Mike Price.

Mr. Shikada: I think we're also trying to depersonalize the alternatives, right, so not, yes. Partial underpass, okay. So, the partial underpass to get a traffic impact analysis of that. And that is two A, so I think two B would be the underpass but also the additional work at Embarcadero, and that's not currently what we've asked.

(off mic)

(crosstalk)

Mr. Shikada: No, we've asked for a cost estimate. We haven't received it yet.

XCAP Kanne: Have you currently asked for cost estimates on any traffic analysis for the South Palo Alto options?

Mr. Shikada: Yes, so all of the above. I mean all above, below, what have you. So, all of the options.

XCAP Member Shen: And just to be clear, I did not ask for any Embarcadero options with the Alexis version. So, it's a little bit incorrectly written there.

XCAP Kanne: Yeah, sorry. I said Price plan with, Price plan without. It's just kind of confusing, yeah.

Chair Naik: And I just want to echo what Ed is saying. I think it's really important that we kind of depersonalize them and so sort of refer to them as the partial underpass going forward, and the constant flow underpass. So, we've got some, yeah, or the Churchill partial underpass and the Meadow Charleston, you know, constant flow underpass. Just we that – constant flow is what we put in there. I don't know if it's the best name, but...

Mr. Shikada: I'm not sure, yeah, I would go with that.

Chair Naik: Underpass, well yeah.

(crosstalk)

Chair Naik: Okay, I'm hearing Charleston Meadow underpass. You know, that's fine. Okay, so two A is already being done. Two B would be something that we would need to understand if it's worth doing and C sounds like we're going to get at least a price about A, two C A, and we would have to know about two C B. Thanks to my English teacher. She was about outlines. Okay.

XCAP Member Kanne: For part three, for number three, the way I was approaching that was really, like I kind of listed them all out, but basically from the perspective that for the measurable criteria subgroup, we have a bunch of things that are measurable for the Churchill closure because we know what the traffic impacts are, because we have numbers. But for every other option we currently have no numbers, so we have to way to say, we're going to spend \$300 million on this and it's going to improve delay times by this amount of average time. So, that is what I was trying to get at. I know there's like G a through g, but basically just, can we get an understanding of what the improvement is numerically for all of the other options?

XCAP Member unidentified: And it's not very accurate to fully predict.

Chair Naik: It's true.

(off mic)

Chair Naik: So, one of the criteria is maintain access to neighborhood parks and schools along the corridor while reducing regional traffic on neighborhood streets. So, we do have to have some metrics to show us what doing these things will do. In some cases, it's just, well I don't know. Ed did you, I saw that you...

Mr. Shikada: Well, yeah. Let me just add, again, as I was suggesting earlier, I think it's actually best to have a conversation with Gary because I believe we are getting the level of service. I'm not sure that it will be delayed. So, there's different methods used in calculating levels of service. So, it would be important to get Gary in the conversation to be able to describe how far we're going to be able to define the responses to these questions.

XCAP Member Kanne: And the only reason I bring it up for the South is because we now have options, the, what are we calling it, the Charleston Meadow underpass, which might have a different traffic impact than the other four options that are on the table, so that's why before it was like we can just assume these are all equivalent, but now perhaps we cannot.

Mr. Shikada: Agreed, yup.

XCAP Member Kanne: So, that was my concern.

Mr. Shikada: Agreed. So, I do think that Gary should be able to illuminate what we can expect from that analysis.

XCAP Member Burton: Is there any specific way that we could have a discussion, is it – sorry, I'm not saying this right. How could we have that discussion with him in short order?

Mr. Shikada: Well, he'll be here in, what, two weeks.

XCAP Member Burton: Do we want to have a discussion with him before that?

Chair Naik: I don't think we have time in the schedule, because we have the eminent domain attorney coming to the next meeting. So, yeah. What I hear you saying is, we'll have to have that conversation then potentially then a third have Gary back or... What are we thinking based on what you're saying?

Mr. Shikada: Well, I think the conversation should be helpful at multiple levels. In two weeks, I don't think the analysis will be done anyway, so you know, it may be a way to check in on, again, both expectations of what will come out of it, as well as how far they have gotten.

Chair Naik: I'm just going to remind people that we may have all these questions, but we as a group are going to still have to figure out okay, well, what is it that, you know, how are we going to be able to make a decision knowing that we may not get some of these answers. And that's kind of an ongoing, and I know you guys are going to be sick of me saying that, that that's kind of where we're going to be.

XCAP Member unidentified: I think it's a question of how soon till we – we may have to make a decision before we might have the answers available.

Chair Naik: Hopefully, it will come in before then. Do we have a time estimate for when we are getting any of the other analysis regarding the AECOM new options? Just trying to think about how that weaves into future traffic and the rest of the schedule.

Mr. Shikada: We do not.

Chair Naik: Okay. So, number four was just a question of how many cars fit in that piece of Kingsley. So, hopefully, that one we can get an answer to, because I think it's just a distance number.

XCAP Member unidentified: I wanted to actually look at that during the school time. That's where the kids are dropped off, is that correct? Children are dropped off and then they supposedly walk from there?

Chair Naik: I think I understood that they get dropped off on Embarcadero Road, not on the Kingsley strip, but that was just the one speaker that I remember hearing, because I remember I made a note about that. But this is different. This related to one of the mitigations is not allowing the cars to queue there, and there being a traffic light at Kingsley and Alma, and you could now turn left or right, and

the question was, how many cars can queue in that spot without it spilling over into Embarcadero itself. So, that was really what the question was about.

XCAP Member Lau: So, I eliminate the question about asking Polly about the drop off locations, Nadia. I've asked because I doubt that they can answer that, and also when these kids get dropped off, depending on the traffic, if traffic is really bad, they get dropped before, so it's a lot of different variables. So, I think it's a really hard question, so I said just drop it, because I don't think anybody could answer it.

XCAP Member Kanne: I moved it down into the last section.

Chair Naik: Okay, so then number five is traffic impacts of closure. So, this relates to the Park Boulevard piece, and then the local streets piece, and I guess the question is, has the City thought about adding that in, given that it's come up a few times?

Mr. Shikada: We have not. So, again, this is reopening, what's the reopening? Is it the...?

Chair Naik: So, when Southgate, if you close off Churchill, then the only way that Southgate can "get out" of their neighborhood is to either go out to El Camino or turn onto the west side of Churchill, and then go the El Camino. But there is Park Boulevard back there is closed off to bikes.

Mr. Shikada: Bikes only.

Chair Naik: It's a bike only, sorry. It's closed off to cars and so the question of, could you open it back up so the Southgate folks could get out onto Page Mill and Oregon Expressway in that sort of area.

XCAP Member Shen: It's Castilleja that connects to Park Boulevard, I think. It's the end of Castilleja.

(off mic)

XCAP Member Shen: Yeah, but right now there's a barrier. You can't...

XCAP Member unidentified: (off mic) If Park Boulevard reopened, then it's really easy for Southgate people to access Oregon Expressway from Alma, not going all the way to El Camino.

Mr. Shikada: Well, so at this point, I guess, I may be wrong here, but I would venture that there has not been an identified traffic impact in that area based on the closure, and so I think we might be conflating things if we talk about the Park reopening as a means of improving circulation within the neighborhood with any impacts from the Churchill closure itself. You know, I certainly think that the question of closure of neighborhood streets, especially related to bike boulevards is this is an ongoing conversation, multigenerational conversation. So, that will always be a possibility. I just wouldn't conflate it with the grade separation discussion, quite frankly.

XCAP Member Cho: Well, I understand that it is a very historical piece, but you know, it's part of traffic improvement, closing Churchill. I think you can add that.

Mr. Shikada: So, let's just go down the road a little bit. Help me understand this. Is the suggestion that it should be, if Churchill is closed, under that scenario, that Park should be reopened and that it needs to be reopened?

XCAP Member Cho: The reason is that College Terrace, not (crosstalk)

Mr. Shikada: I don't want to argue the point. Again, I think that's always a possibility. I guess the question is whether it's a necessity in order to make a decision on the Churchill closure or not.

(off mic)

XCAP Member unidentified: Opening up another can of worms and separate cans.

(crosstalk)

XCAP Member Cho: Especially if you have bike paths on the seal, also.

Mr. Shikada: Well, another can of worms. So, you know, quite frankly, so direct answer to the original question is no, we're not suggesting that as a part of the alternative's analysis for the grade separation. I think there can always be a discussion separate, but I wouldn't suggest you add that to this as another camp.

Chair Naik: Megan, can you speak to five B.

XCAP Kanne: Yeah, that's just Dave's question, footnote 12, about, sorry, 13 I guess, about whether there is any additional modeling that can be one of Professorville streets, assuming mitigations that, Gary's mitigations were implemented.

Chair Naik: So, Ed, I don't know if you caught that. This is five B, which relates to footnote number 13, which is, if there was a closure and there were mitigations at Embarcadero, could we model the affects of local streets in Professorville? Would your response be the models were already looked at and there isn't anything further, other than the mitigations we've proposed that would be needed?

Mr. Shikada: Once again, it could be informed just by getting Gary's perspective on this. I suspect he would say what you just said, you know, that the impacts are at a level below significant. But, again, that doesn't preclude other changes that might be desirable within the context of neighborhood traffic calming or what have you.

Chair Naik: So, what I'm hearing from you is, there's must haves and nice-to-haves that complement each of these.

Mr. Shikada: I think I'm acknowledging that sort of spectrum of situations, and then actions caused by, or potential actions based on those situations. I'm trying to



avoid actually giving you an opinion as to whether we can or not to defer to our expert that we've brought in.

Chair Naik: I think the additional counts, so at least six B which I know, I think I might have asked for both of these. I think we have the numbers, it's just a matter of making sure the map includes those numbers when we discuss them, because there's been some questions about that. And the bike and pedestrian routes question was about, I spoke to somebody who does traffic things, and they were noting that we don't have, we have very robust understanding of what are all the movements of the cars, but we don't have such a well-developed understanding of what happens to bikes and pedestrians. So, in order to be able to answer the Council's criteria of, for all modes we need to at least have some drawing that shows that the impact would be for bikes/peds, and I don't know what that looks like, but that was just the feedback that I got back from folks. So, that's what that relates to.

XCAP Member Cho: So, I looked at this question and actually, I didn't go in there but I looked at Google. My husband rides bikes, so I did route it. There is a route that you can go from east and west and the other side, but I think it's not very clear when you're looking at the drawings, because the drawings don't show you can cross.

Chair Naik: I think there are residents who are going to be comfortable looking at the maps that we have of what happens to cars and there are going to be those who are like, well where is the bike one. So, we're going to need this.

XCAP Member Cho: Yeah, so we need to put the bike routes in.

XCAP Member Carrasco: And I would add to that suggestion that we shift it a little bit more to the priority of caring about bikes and ped a little bit more than we have before.

XCAP Member unidentified: Yes, and I'd like to add to that too, Tony, we don't really have accurate numbers of how many people ride bikes. We actually had a number, and it seemed really low.

Chair Naik: Yea, that was the one question mark in the presentation, when they gave us the bike number, everyone was like, it was like 200 bikes which did not match. Yeah, it was very low.

(off mic)

Chair Naik: So, on number seven, we've had this conversation before, and Gary mentioned it in his last presentation to us. It's about the unclearable queues. So, we have it here at Churchill, but just a question of, is that something that we're looking at doing to make the case for, you know, potentially eight trains an hour and 27 and what that queuing looks like and what that network delay looks like.

XCAP Member Burton: I would like to add, I would like to question, I would like to contrast this with the animations of the different grade crossing options where we

could see clearly there is a viaduct or trench or whatever. It's hard to imagine, aside from sort of an Uber map, an Uber application like map of showing cars moving across streets, what do we gain by this?

Chair Naik: So, I think you personally, from the discussions I have had with you, have already bought into the idea that we need grade separations. I think there are many in the community who do not understand that if you do not make grade separations, that the traffic will get worse. So, the point of these, my understanding from what Gary said at the last meeting, and correct me if I'm wrong, but he said there is something that looks like dots or whatever, where they could show cars waiting and how long that waiting is.

XCAP Member Burton: I guess what I'm saying is, no I'm not, yes, I've obviously bought into the idea of grade separations. But I don't know how much more convincing power an animation would have as opposed to simple slides to say, this is without the grade separation, this is with. Here you've got a queue this long, here you've got a queue that much longer. And maybe one or two bullets that say, six traffic cycles. I don't know how much more intellectual or even emotional impact animation would have.

Chair Naik: I just want to understand

XCAP Member Burton: That's my only question. (crosstalk) And it would cost money to do these.

Chair Naik: Right, but this has been brought up many times also by Council Members, so I'm just trying to understand. We might be asking about it, but it might already be in the plans. So, I'm kind of looking at them saying, are we already doing this and we don't need to worry about it.

Mr. Shikada: Not that I'm aware of, but I think, again, this is a conversation we can have. In terms of prioritizing where money needs to be spent, further discussion is certainly possible. And I think at this point there is enough work that's been done on this particular issue that it's, time will be the concern. It's really a question, really as Phil points out, is it worthwhile, once we get a price tag.

Chair Naik: So, for the collision history data.

XCAP Member Brail: So, can I, I have done – Berkley maintains an excellent on-line resource where you can get the collision history for all of California. It only seems to include collisions that included accidents or maybe injury accidents actually. Because all the ones I found had injuries. But if you want to know what the most dangerous intersections are in Palo Alto in terms of injuries, that data is available for free. I know where to get it and Churchill is nowhere near the worst part of Palo Alto. Yes, for all of California, but yeah. If we want more detailed information, I don't know where to go for that, but some of this information is available for free. We don't have to ask any consultants.

Chair Naik: I think it would also be useful, just from understanding where mitigations are necessary, if the City has, collects collision history on, for bikes and

peds and cars. That would be helpful, because there may be something that when we look at the data, we're like, oh yeah, on this one corner that we didn't think about, as long as we have to make improvements in that area, we should also add that block. I don't know what that is.

XCAP Member Brail: Well, I'll see if I can export the data from this site, but it's not very good in that part, so I'll see. I'll do some work on it over the weekend.

XCAP Member unidentified: Ed, wouldn't the Police Department have this?

Mr. Shikada: Yes, and in fact, Philip, do you want to weight in on, I'm not exactly sure what the question is, but certainly you're familiar with the status of our collision data collection and reporting. I think what Greg is referring to is the SWITRS Data that's reported. As you know, there's significant – yeah, transportation injury mapping system, but it's based on what's called SWITRS, the Statewide Integrated Traffic Records System, which is notoriously, yeah, like years out of date, in terms of the collision data.

Philip Kamhi, Chief Transportation Official: Yeah, just jumping in. We experience about a two-year delay in the SWITRS Data. Currently VTA is trying to work on getting that upgraded so it's more instant, but there's also a component of that that involves our own PD and you know, getting that data out. So, it's a kind of collaboration and something that I'm planning to discuss with Chief Johnson and, of course, we want to support VTA in their effort to get us the data faster, because it's helpful in making decisions.

Chair Naik: So, the last two are just, again, whatever information we have that's available. I think he mentioned that they had done some calibrations. Just that they should note those in whatever report so that it's part of the appendix. And then provide network delay diagrams. That relates specifically to the Council thing about looking at the regional, well, reducing regional traffic. We can't really know if we're reducing regional traffic if we don't have any numbers about regional traffic, and my understanding is there is some kind of network map delay thing that you could do that we've never seen. So, that's what that relates to, because it's very specifically Council criteria.

XCAP Member Cho: So, the network delay and the queue. What is the difference?

Chair Naik: Yeah, I think it's per street versus the entire network, the grid citywide, end-to-end, what does it do.

XCAP Member Cho: So, when they give you a network delay information, they give you each street, how many the delay is, or the network delay overall?

Chair Naik: Ed, can you describe a network delay map.

Mr. Shikada: I think you're looking at, if you think of WAZE, the app, it would look like that, the red streets, the yellow streets and the ones without colors. I think this number seven on the animations is more of an actual simulation of what happens at an individual street.

Chair Naik: Okay, XCAPers, I have to take public comment and then we'll bring it back to us, if that's okay, so we can read over things while... It looks like I have two speakers. Anybody else who wants to speak on this item? Three, okay. Roland, make it fast, and Susan. You've got one minute. I'm sorry to push you

Susan: I've been very, very fast on all my other comments. I'll be as fast as I can. Some questions came up that aren't kind of captured here in the sort of community response, and also one of these got mentioned earlier today. Somebody asked about the adequacy of the data that they had gathered, and I know there was a lot of discussion about the fact that the data is based on just the sort of local Palo Alto model up to the year that things would probably actually be starting to be built. So, the model of how much traffic is going to be there is, perhaps, you know, grossly inadequate to sort of prove the point that the mitigations work as Gary expects. And then another thing that I discovered talking to Gary one-on-one, and reading his report carefully is that one of the things that isn't captured is flow, and I think this is the network effects question. So, as someone living in Southgate having to go onto Churchill only to get out of my neighborhood to go anywhere, it really matters what's already happening on those streets and what's likely to happen as things kind of, as the ripple effects occur. And then there is another thing that...

Chair Naik: Susan, you're out of time. Can you just mention it quickly?

Susan: Yes. There are certain assumptions about driver behavior, why drivers make the choices they do, and I talked with Gary about this at some length too. He assumed that it's all based on distance. So, the shortest distance is the way they will go, and it doesn't take into account hassle factor and other things that affect where people go.

Chair Naik: Thank you. Okay, Roland. And if the next person could queue up right after him, so we go as fast as we can, that would be great.

Roland LeBrun: Yeah, so very briefly, on number six. The problem that you've got is what Caltrain's expectations are. Beyond ridiculous in terms of numbers of trains, and especially high-speed rail. I'll give you an example. Eurostar has actually cut down the number of trains that run down to 29 a day. And the way they did that is by increasing the capacity of each train to 900 seats. If you look at what Caltrain, the equivalent of Caltrain is doing in London, during peak they run eight and then there are two high-speed trains during peak. Off-peak they run four and one high-speed train. Okay. So, moving forward, I think what we need to do here is to look at running longer trains during peak. So, the bullets, Mayor Pat **Burk** has been saying this forever, okay. So, let's run double-length trains during peak, and then we just run half the trains off-peak. You know, it makes sense. But Palo Alto and others need to start thinking about having double-length platforms. Thank you.

David Kennedy: This may have been covered already, but I think it would be helpful for XCAP to ask Gary a little bit more about how this model, which is apparently what he is using factors in human behavior and what limitations there are around human behavior, because we make a lot of different choices to go places.

Chair Naik: So, it doesn't seem like we have to take action on this, because it sounds like we can just have that conversation with Gary. So, we don't really have to do anything.

## **5. Discussion: Preliminary Discussion of XCAP Workplan**

Chair Naik: Okay, do we have any – Sorry, I realized that I moved to six and moved to five, but we're going to have to move five to next week. That's why. I did want to point out that for the XCAP Workplan you did get some documents from me. They are by no means perfect, and I won't go into any detail other than to say that you may find some typos. I was trying to get something out to you guys beforehand, so please try to read them for the next meeting. It attempts to lay out how many meetings we have going forward and I did want to point out that there is a question mark about March 4<sup>th</sup> because we might have the State of the City. Well, we'll definitely have the State of the City, but I think it may start at 7 PM, so as long as we have the meeting that ends within two hours or two and a half hours, we could still make it to the State of City or figure something out. So, just hold out. We'll talk more about that the next time. But it would be super helpful if there's folks, I've already gotten a few emails from people who might be traveling or out of town, so if anybody is not going to be around for things, if you could just please let us know. Chantal, I do want to remember, can we reconfirm Dave Matteoni, can we just make sure that he's definitely coming next week?

Ms. Cotton Gaines, Assistant to the City Manager: Yeah, the last I heard he was, but Dave, yeah (crosstalk).

Chair Naik: Could you reach out again. I just want to be sure that we triple check.

Ms. Cotton Gaines: And then for clarification on the 4<sup>th</sup>, we Doodled the group to see if you guys could do the 3<sup>rd</sup> or the 5<sup>th</sup>, and not everyone did the Doodle, but regardless of the outcome of the Doodle, because of Finance hearings happening and just starting the conversation about our budget process, the 5<sup>th</sup> and the 3<sup>rd</sup> are not very plausible dates for this room anyway. So, I think we are going to try to keep the 4 to 6 on the same day as State of the City, and just make sure we're really diligent with our time that day, because I know you all are going to leave here and go to Mitchell Park so you can listen to that. So, I think that just may be the easiest thing. So, if anyone does have a conflict now with March 4<sup>th</sup>, please let me know. And then the other once that's on the Doodle, which I would appreciate if you guys still fill out is in April. We're trying to replace one of your meeting dates with the day before or after. So, if you can let me know what dates work for you, that would be great.

XCAP Member Cho: So, I forgot to say something, so you know, what was the new name for Mike Price's?

Chair Naik: The Churchill partial underpass.

XCAP Member Cho: The partial underpass at Churchill, the house at Alma and Churchill, the corner house they have a garage right next to that corner. So, if that

plan, they cannot access their garage. That's my neighbor. That's what their concern was, so we need to put that somewhere.

Chair Naik: I'm assuming when we get more detailed work back from AECOM that's totally going to be addressed, because again, those are all conceptual.

## **6. XCAP Member Updates and Working Groups Updates**

Chair Naik: For the next items on the agenda we've only got a few minutes. I did want to leave some time for Chantal to give us an update. For the workings groups, I think we're chugging along. I don't know that the working groups have any updates, but if there is anything that you wanted to do, we could do it. You could send it to Chantal and she could distribute it to the group.

XCAP Member Burton: I went to last night's Caltrain electrification meeting and so did Philip. So, the very short answer, the very short key points were, they are talking only about the wires above the tracks. There were questions from several people in the audience about grade crossing issues and I restrained myself, because it wasn't our meeting. But they were very clear that they were open to discussion, but the speaker was very vague beyond that. The other key point, which was interesting was that the information was Palo Alto specific. So, if anybody has any curiosity about the actual construction in Palo Alto, it has probably been posted on the Caltrain website. Okay.

Philip Kamhi, Chief Transportation Official: I was just going to add that they have weekly updates that you can sign up for regarding that. And also, InYoung was there.

XCAP Member Burton: I'm sorry.

XCAP Member Cho: Yeah, I get those updates. It's pretty cool. So, all the construction, what's happening in the corridor.

XCAP Member unidentified: How far along are they in Palo Alto now?

XCAP Member Burton: It looks like the bulk of the work will be done this year, you know, starting and ending at different point, this year. That's the electrification work. Nothing about station platform extensions, which is way out of scope of this discussion. That's all I have to say.

Mr. Kamhi: I think one of the things that maybe would be of interest to this group is that there will probably be some temporary closure of Alma related to the construction, but emphasize the word temporary. I think they were saying a couple of days potentially.

Chair Naik: That seems to me like an excellent time to practice what it might be like to shut down Alma and maybe potentially look at what driver behavior is when Alma is shut down and what kind of mitigations are alternative routes people might take.

Mr. Kamhi: I would say not necessarily, because this might be weekends, this might be nights. It's pretty – and it might just be one lane.

Chair Naik: If it's multiple weeks, though, if it's long enough to have changed modes, cause a mode shift in traffic, then that would be fascinating.

Mr. Kamhi: Yeah, so they said a couple of days, so it's very unlikely.

XCAP Member Burton: It sounds like a couple of days. It will be the kind of thing where you're driving along and suddenly you see a sign that says "detour". No real advance warning unless you get those weekly emails and then you'll change on the fly and you'll never have to do that the following weekend, or something like that. They also made the key point in response to a question, they can't tell you much in advance whether somebody will be working opposite your house on a given day, because day-in, day-out they can't predict the speed of construction.

Mr. Kamhi: Yeah, they will only tell us Citywide that there is construction, but just note that if they're closing Alma or any detours like that, they will have to get a permit from the City, so there will be some advance notice. The City can provide it, maybe potentially faster than that weekly email.

Chair Naik: Do we have any public comments on the working group updates? No. Thank you. I appreciate seeing none.

## **7. Staff Updates**

Chair Naik: And then, Chantal, just so you know, this one that I did with the things that are highlighted, those are all questions that we should talk about in terms of what staff needs from us. You know, kind of some milestones going forward in terms of Townhall stuff and when we might be able to expect more answers to some of the criteria questions that we had, so we can keep going on the criteria piece and then start to apply those. So, we can talk offline about that, but that's what those highlights meant. Chantal, did you have anything for us?

Ms. Cotton Gaines: Only one small announcement. The Chamber of Commerce will be stepping down from the XCAP, so Judy Kleinberg will no longer be serving on the XCAP and the Chamber as a whole decided that they wanted to step down at this time. So, I wanted to let you guys know your total number now is twelve members and Judy sends her regards and she loved spending time with all of you.

(crosstalk)

Ms. Cotton Gaines: I think it's just a variety of the commitments already made and the time constraints required, etc. for the XCAP.

Chair Naik: So, XCAPers, just be mindful that that means that our Brown Act number has just dropped again, so our number is now?

Ms. Cotton Gaines: You're at twelve and quorum is...

(off mic)

Chair Naik: No, we're at twelve, so our quorum is seven, but then the Brown Act means we can't talk more than five, yeah.

XCAP Member unidentified: Not more than six.

Ms. Cotton Gaines: Just don't go over your quorum. You're save with five.

Chair Naik: Five is safe. Twelve people, so five is safe as the most people on a conversation. I just want to be sure we're careful of that.

(off mic)

XCAP Member unidentified: So, Chantal, how is the business community going to be represented, because they're going to complain if you don't.

Ms. Cotton Gaines: Thank you for reminding me of that So, similar to us continuing to be in constant contact with Palo Alto Unified, we will do the same with staying in touch with Judy and trying to reach out. We have plans to have a meeting during the day with businesses and so that was something that I follow up with Judy about sure we are going to do, and just making sure their perspective is still heard.

XCAP Member Klein: I would suggest we do more than that. I don't Judy is the sole representative of business in the community. I think that, for example, Town and Country is sort of off on its own and they have a much more direct interest than almost any other business you can think of. So, I would suggest that we talk directly with the Town and Country management and the Chamber has never really included the Stanford Research Park and I think you ought to really reach out, or we should somehow reach out to the management of the Stanford Research Park and talk to them.

Ms. Cotton Gaines: Thank you. And we have contacts at those places and Judy actually recently spoke with Town and Country and has a contact person, so we will follow up through that contact person, in the management of Town and Country.

XCAP Member Klein: We've got to do it directly, no rely on...

Ms. Cotton Gaines: Right, I agree, but I'm saying the conversation has been initiated, so we're following up.

Chair Naik: So, one thing I was thinking about was how do we formally, so for example you guys are doing the interface with PAUSD, but to the extent that they have formal feedback, I want to be sure that we have that in writing in some way, so that when we do our deliberations, like let's say for example, if we're deliberating the closure of Churchill, if there was something that PAUSD was sent back, then we have something in writing that could be both included in an eventual appendix and also would be considered. I think it's important that we have something similar to the extent we can, from anybody that we reach out to in the business community formally where they've got some official comments, because I



want to be sure we've got everything in front of us when we have to go to work, and I would also, I know XCAP is already doing a lot, but to the extent that we've got our own connections in the community, that might be able to pull those people in like let's try to help, because we want to make sure we're getting everybody.

XCAP Member Reckdahl: If I had a business at Alma Plaza, I'd be a little nervous about this metal work.

XCAP Member unidentified: And I agree. I think, you know, you're trying to have certain domains represented. The schools and business are very important, so there has to be a mechanism for us to communicate with them so, as you said, when we look back at this historically, we did try to include them.

Chair Naik: So, Chantal, I do have for the agenda for next time, to make sure that we leave some time to discuss anything that XCAP might have as feedback for the Townhalls. Like if they could actively solicit information for us, to what extent possible the Townhall. I mean, obviously it has its limitations. Whoever shows up, it's not everybody. But to the extent that if there was something that we thought would be useful to ask, I want to make sure we have that conversation next week, so that we can give that to their teams, so they can incorporate those as possible. Anybody else?

XCAP Member Cho: I just have a question. You know, I just looked at these pictures again.

Chair Naik: Let the record show she is showing the traffic improvements at Embarcadero and Alma.

XCAP Member Cho: So, it's kind of intrusive like, you know, like it's a tree, you turn this way. Why is it not turned this way, in order to go to Embarcadero from east to west?

Chair Naik: InYoung, I'm going to have you save that for the traffic control team. I can talk off line, but I think.

XCAP Member Cho: I think you guys already know these answers.

Chair Naik: I think what I'm hearing you say is that it might be useful for there to be some other type of diagram that explains the different traffic movements. Would that be helpful.

XCAP Member Cho: Yeah. I'll just take it off.

Chair Naik: Okay. We're a couple of minutes over, but I think that's it. Thank you so much guys, and remember we're doing Norm Matteoni, the attorney who will be coming to speak about eminent domain next week, so I hope you guys will come.

## **8. Adjourn**

The meeting adjourned at 7:02 P.M.