

Expanded Community Advisory Panel (XCAP)

September 23, 2020, 4:00 pm

Summary – Special Meeting (virtual, through Zoom)

1. Welcome and Roll Call

Present: Gregory Brail, Phil Burton, Tony Carrasco, Inyoung Cho, Larry Klein, Nadia Naik, Keith Reckdahl, David Shen (late), Cari Templeton

Absent:

2. Staff Updates

Philip Kamhi, Chief Transportation Official announced they are still waiting for the final report which should be completed next week and will be sent to Council and XCAP.

Ripon Bhatia, Senior Engineer related XCAP had requested information related to the Loma Verde Avenue bike plan. In January 2019 Council directed staff to separate from the study the bicycle and pedestrian crossing off the Caltrain corridor in the vicinity of Loma Verde Avenue and incorporate that into the North Ventura Coordinated Area Access Plan process. The North Ventura Coordinated Area Plan will look into the walkable and mixed-use neighborhood and they should also be looked into the bike/pedestrian plan for Loma Verde. The Loma Verde bike/ped project is not currently in the City's five-year Capital Improvement Project for the funding of the infrastructure project. When such projects are prioritized, they would be awarded for design and construction in the budget and would move forward as funding became available.

Chair Naik believed this has been discussed in the NVCAP.

XCAP Member Reckdahl confirmed there has been no work done on this by the NVCAP. That group is wrapping it's work and he suspected this would be abandoned.

3. Oral Communications

Keri Wagner addressed her comments to the Loma Verde underpass. She did not understand why this was not in the five-year plan, because it was in the bike/pedestrian plan adopted in July 2012. There was a feasibility study done in 2016 for the Matadero Creek path which showed the Loma Verde undercrossing would come out perfectly situated for the North Ventura housing area. She wondered how this could be pushed through.

David Kennedy noted he sent an email to XCAP last week regarding the vehicle closure at Churchill, if there had been any consideration of an overcrossing rather than an undercrossing. He did not know if an overcrossing for bikes and pedestrians was better or worse than undercrossing but thought this could possibly be a mitigation and might solve some construction problems.

Chair Naik asked staff if there was an update about when the 2012 bike plan would be updated and if that was funded in the Capital Improvements Budget?

Mr. Bhatia understood they are looking into planning for an update fairly soon.

Mr. Kamhi explained the bike and ped plan had funding that would pay for it next fiscal year. The process would probably start towards the end of this fiscal year, which would be next July. The Bike and Pedestrian Plan is separate from the City budget process. The City is in a difficult financial situation this fiscal year and probably next fiscal year. A project being in the Bike and Ped Plan does not mean necessarily that there would be a budgetary action. It is a set of recommendation for what could be done to improve the bike and ped infrastructure and travel throughout the town, if grant money or other funding should become available, those are the types of projects that would be looked at.

Chair Naik clarified if a project is in the plan it could be used to apply for grant funding and if money became available, it would be prioritized.

Mr. Kamhi reported it is usually unlikely to get grant funding outside of the City, regional grant funding or Federal or State grant funding if it's not already identified in the Bike and Pedestrian Plan. That doesn't mean the City couldn't opt to fund something that either is or isn't in the Bike and Pedestrian Plan, but it is more likely to happen if a project is in the Plan.

Chair Naik asked if Seal was in the Bike and Pedestrian Plan? It was part of the 2013 Rail Corridor Study.

Mr. Kamhi believed so, but noted the Bike and Pedestrian Plan is now out of date.

Chair Naik responded to Mr. Kennedy's comment. Underpasses tend to take up less space and less length than overpasses.

XCAP Member Carrasco also advised an overpass had to go up 16 feet, and an underpass had to go down 10 feet.

4. XCAP Member Updates and Working Group Updates

Chair Naik shared that she gave the update to City Council on Monday. XCAP got a lot done between October 2019 and February 2020 and it was good to recap that for Council. She passed along congratulations and thanks from Council to every XCAP Member and the Office of Transportation staff who has been working on this. The Council meeting was a study session so there was no Council direction given.

XCAP Member Templeton attended the meeting and thought Chair Naik did a great job. The idea of the change in the size of XCAP was brought up a lot.

Chair Naik responded they talked about the fact that XCAP had gone from 14 members to 9 members and Council recognized that XCAP would do its best to move forward. Also discussed was the significance of 4 tracks and Mr. Petty's testimony was helpful for the policy makers.

XCAP Member Brail viewed the meeting and noted the meeting had many public comments along the lines of not doing too much. There did not seem to be a lot of enthusiasm for a final recommendation from XCAP, but seemed to be more support for a lot of information about what decisions were made, how the decisions were made and what the process was to help make decisions in the future.

Chair Naik agreed with Member Brail that Council did want all the details and encouraged XCAP to include as much information as possible.

XCAP Member Carrasco felt regarding the Palo Alto Weekly article summarizing what Council talked about, first, Council would like pros and cons on each of the alternatives. That is wise because XCAP has much more information now and rethinking things now with the new information would be good. Second, some of the critical from Caltrain and high-speed rail is not available yet.

XCAP Member Kline noted a fact from staff he hadn't heard before was that Council wouldn't start deliberating on XCAP's report until sometime next year. That makes it clear that when XCAP writes its report, it needs to be clear.

XCAP Member Brail felt it was important to preserve as much context as possible and makes the report writing very important.

Chair Naik acknowledged October 30 may be tight because writing between XCAP Members is hard and who the Group is writing for is important. She then advised the agenda includes a document that shows the chapters that have been turned in. Members are asked to turn in any edits on those chapters by tomorrow at 4:00.

XCAP Member Burton was struggling to get a revised Chapter 4 input by that deadline.

XCAP Member Klein noted this referred to the chapters that have already gone through one level of editing which would be Chapters 1, 2 and 6. This should just be some suggestions and revisions, not drafting new chapters.

Chair Naik hoped after editing these chapters they would not have to be worked on again so she was asking for any suggestions or revisions now.

5. Continue Deliberations on Meadow/Charleston

Public Comment

Elizabeth Alexis acknowledged how much work has been done on this project. She supports doing some kind of underpass solutions at Charleston/Meadow which she feels have tremendous potential. These have not been fleshed out enough and that is a problem in the process. Building grade separations and built out constrained areas on active railroads that are not concrete nightmares requires compromise and a focus on details. Currently, this process is at a very conceptual level of design. Details are needed to determine if this will work or not for the present and the future. There is currently a paradigm shift underway in transportation engineering that thinks more about the neighborhoods that cars pass through and less about the cars. Some things

learned are that separating Alma and the train tracks has significant benefits for bikes, pedestrians and vehicles which makes it possible to redesign the part of Charleston between Alma and El Camino to carry the same amount of traffic but would be much safer and more pleasant for residents on those streets. The underpass was the only concept that didn't show gridlock in 10 years. This should be the beginning of an interesting conversation. This work needs to be done with Caltrain who can be a real partner.

Karen Kalinsky lives on East Meadow Drive a few blocks from the tracks. She agrees that just reporting pros and cons of each alternative would not sufficiently capture and convey the knowledge and expertise that XCAP has built. None of the alternatives are ideal so it would come down to how residents, XCAP and the City Council prioritize the various criteria to be considered. Her personal priority criteria are bike/pedestrian safety, avoiding private property acquisition and not running into serious engineering challenges, such as the trench having to divert creeks. She feels cyclists, particularly young cyclists must be protected. She feels the best options are the underpasses for Meadow and Charleston, or the viaduct. The Meadow/Charleston underpasses have the advantage of separating bikes and pedestrians from vehicle traffic, but the path is convoluted. Unfortunately, there are private property acquisitions needed. If this option is selected, the City should consider subsidizing a new affordable apartment building be built on the same site. The lack of turning movements will force some traffic onto neighboring streets. The Meadow/Charleston viaduct has the advantage of bikes and pedestrians staying at grade and lines of sight are maintained, but there are negative visual impacts. She would like to hear more about zoning changes for houses close to the tracks that could address the visual impacts to some degree.

Richard Purkey acknowledged the challenge of choosing the grade crossing that is the lesser of evils. He felt the options that required creek diversion should be set aside. The flooding risk to residents next to the railroad corridor is too great and the challenges to getting approval for what has been contemplated make those unworkable options. The tunnel option is not viable. The underpass option puts the vehicle and pedestrian and bike traffic as an undercrossing. That is creative and present some great opportunities to think through that process but it's not there yet. He is concerned about the number of property acquisitions needed to complete the project and was not in favor of this option. The hybrid and viaduct require raising the rail bed and some terrible construction proposals for it. Choosing between the two, considering the costs and lower profile, he preferred the hybrid over the viaduct. He hoped in further engineering studies there might be some way to bring down the elevation of the track in the viaduct option. At this point, based on the analyses, he would prefer the hybrid option.

Wendy Akers-Ghose encouraged everyone to close their eyes, get in cars and go over to 101. When getting on 101, look at the sound walls. Caltrain says they need to be 12 to 16 feet. Imagine that sound wall with a train on top of it. Move a section of that to where the train tracks currently are, between neighborhoods. That is what the hybrid would do. On one side the homes would be looking at the 15 foot with the train above the rooflines. On the Alma side there would be a little landscaping to soften it. The issue with the underpass is the property acquisition. She does not like the

elevated option and preferred the trench but both the elevated and the trench allow these neighborhoods to be visually connected.

XCAP Deliberations

Chair Naik explained Member Reckdahl will be given some time to present information on the trench option. Also, she noted the public wanted to know when Members were voting for or against something and why so she felt using the dynamic matrix would help Member express themselves.

XCAP Member Reckdahl indicated his presentation contains his personal opinions, not XCAP's and have not been vetted by XCAP. He lives in Charleston Meadow and his neighbors like the trench. This is a rail separation in a developed area and there will be tradeoffs and problems. He continued with slides for his presentation including potential trench issues, trench cost compared to other trench projects, construction duration, creek interference, mitigations for creek interference, groundwater leakage, groundwater flow, trench tiebacks and summary. The AECOM cost estimate for the South Palo Alto trench is \$800-950 million. He compared six trenches, two of which have been completed and all of them had considerably lower cost than the South Palo Alto trench. These six trench projects are all much wider than the South Palo Alto trench and some have many more overpasses. Most had to deal with going down into the water table which makes construction more complicated. The cost of each of these was about \$40,000 per linear foot. If the length of the South Palo Alto trench is multiplied by that \$40,000, the cost would be less than \$300 million and that would change the trench conversation. He questioned AECOM's numbers but whenever there are uncertainties in a project, more money is thrown in to be safe. Many people are disregarding the trench because of the huge cost estimate, but his evidence shows that is not consistent. He did note this was not necessarily the same data. Construction duration was predicted to be six years but the Reno trench took three years and the Alameda trench was completed in four years. Regarding creek interference, there will likely be some creek interference as Adobe Creek is located about 1200 feet from Charleston Road. AECOM proposed damming the creek and pumping the water over the trench but Valley Water may not allow this. Passive siphons are simpler but can accumulate sediment which would have to be cleaned out yearly. Active siphons require backup power but are less prone to sediment. Siphon would need Valley Water approval but the water expert felt this was doable. He then presented mitigations for creek interference which were cross-sectional area can be increased by widening or deepening the creek under the rail; creek interference can be reduced by varying the trench's vertical curves; creek interference can be reduced by increasing the allowable curvature of the rail's vertical curves. Raising the bridge deck would bring the trench up one to two feet also. Changing the curvature or the slope could be evaluated by The Caltrain study and would be a big win. Regarding groundwater leakage, the current AECOM design allows water to leak in and be pumped out. That pumping lowers the groundwater table permanently. Groundwater must be treated for pollutant. Reno, Alameda and Carlsbad trenches all seal the trench from surrounding groundwater, but stormwater pumping will still be needed but at a lower cost. Many people are concerned about groundwater flow. Recent developments at San Antonio and along El Camino have foundations much deeper than 30 feet. His opinion is that the groundwater flow is already being constrained so

the flow is occurring deeper than 30 feet. The trench's impact on groundwater flow should be determined by a groundwater analysis. Tiebacks prevent trench walls from caving inward but also prevent planting trees. Some construction techniques produce a much stiffer wall. Alameda and Carlsbad trenches used struts at the top of the walls installed using compression. The choice of struts or tiebacks would depend on a geotechnical soil analysis.

XCAP Member Burton asked about earthquake provisions, but he was shocked at the numbers Member Reckdahl presented.

Mr. Kamhi stated he was not sure where the costs were pulled from, but assumed they were construction costs.

XCAP Member Reckdahl replied one chart showed just construction costs, another showed the total costs.

Mr. Kamhi explained the Palo Alto cost was without escalation, along with the construction management costs and right-of-way costs. The construction costs alone were in the range of about \$400 million.

XCAP Member Reckdahl responded just the construction costs were under \$200 million, but the AECOM construction costs were \$450 to 540 million.

Chair Naik noted Member Reckdahl's caveat was that this was information he had been able to come up with and AECOM did heavy numbers because they don't have geotechnical and other information.

Mr. Kamhi remarked the estimates for the other trenches were in the middle of the ballpark but he is surprised at these numbers and he has asked AECOM for the comparables they used.

XCAP Member Carrasco believed AECOM did a very good cost estimate on the project. It is very well detailed and has a lot of information. The critical issue is that the construction costs are similar to Member Reckdahl's numbers but the administrative costs are about 2.2 times over the hard construction number.

XCAP Member Reckdahl responded that Reno documented how they financed this and listed all the different financing sources so this was more the total costs.

XCAP Member Burton asked Member Carrasco about an issue he raised in the past about the AECOM overheads being significantly higher than private sector construction cost overheads.

XCAP Member Carrasco replied private sector costs were about 30 percent and, in this case, it is about 120 percent. Looking at the detailed costs, one linear wrought iron fence costs \$100 where Home Depot is \$10 to \$15. The administration cost is the big number.

XCAP Member Brail noted the cost is concerning, but it is also concerning because if this is done for the trench, why not all the options? He thought the roll of the XCAP

was to decide which alternative(s) are worth the City investing a lot of money in to take to the next level of engineering. He was more concerned about the water, because that is the biggest downside to the trench. A lot of time was spent on noise studies and traffic studies, but he felt there wasn't a lot of time spent on the water issue. He would like to know if more flood zones would be created.

XCAP Member Reckdahl explained this was all second-hand information, but the water expert did not talk about flooding. He was confident that a powered siphon would get the water under trench. Nothing has yet been proposed to Valley Water.

XCAP Member Brail expressed disappointment with Caltrain's response was – we don't have any time to give you an answer. There are some Palo Alto residents who are experts on water and creeks and wondered if there was someone XCAP could invite to a meeting to speak about this.

Chair Naik recalled the retired civil engineers who volunteered on the project felt the raised alternatives, the viaduct and hybrid, were slightly under costed, but the costs of the below-grade alternatives were bloated.

XCAP Member Reckdahl summarized, the Charleston/Meadow trench has many engineering challenges but they don't appear to be show stoppers. Cost estimates are not consistent with other rail trench projects. He wondered if someone from Carlesbad or Alameda with first-hand knowledge of this could be brought in for a conversation?

XCAP Member Cho asked about the tiebacks and how much would have to be excavated to put in the tiebacks?

XCAP Member Reckdahl responded he thought the tiebacks would go in when doing the initial wall.

Chair Naik thought the area near the Stanford Medical Offices is deeper and wider than the railroad right-of-way and inquired if there were tiebacks or struts used?

XCAP Member Carrasco explained there is a drilled hole with an I-beam placed in it. Lagging is added between the I-beams and that is strong enough to keep the dirt out without tiebacks. It is much more expensive than tiebacks.

XCAP Member Klein reported a retired water engineer for the City wrote a very comprehensive paper and he might be willing to vet some of the things brought out by Member Reckdahl.

Chair Naik remembered he knew more about the storm water but less about the underground creek water. She asked what the assumptions were that would be needed to drive this cost down to a \$300 million trench?

XCAP Member Burton noted about a year ago he raised the issue of vertical curves and he ran some spread sheets. The vertical curve transition distance is what Member Reckdahl alluded to.

XCAP Member Reckdahl remarked if you're trying to minimize the creek, when going from Charleston towards Adobe, the transition should be as flat as possible.

XCAP Member Burton continued when he raised this issue, AECOM said – you don't understand. The real issue is the design speed assumption for freight versus passenger. A freight train requires a much gentler vertical curve acceleration than passenger. The question for Caltrain is if the 50-mile-an-hour design speed can be relaxed for freight and bring that down to 35, at which point it is the same runout distance for the transition curve as passenger.

Chair Naik clarified Member Burton's question for Caltrain is if the 50-mile-an-hour for UP down to 35 in a small segment?

XCAP Member Burton advised ideally, they would apply that to all the designs for all the alternatives. If not, could they give a variance for this one situation. He noted it was not unusual along a freight line to have a general speed of about 50 and speed limits in some local zones.

XCAP Member Brail AECOM could be asked about their high estimates and tiebacks versus struts.

XCAP Member Burton remembered Caltrain was assuming a design plate that had to do with auto rack cars, trilevel auto racks. Even if special treatment was needed at the ramp up or ramp down areas, and those struts could not be used, that distance might be shortened if the design plate was changed.

XCAP Member Carrasco asked if all the cost estimates for all the alternatives should be done because they were all a little high.

Mr. Kamhi noted they have asked AECOM for information which will hopefully be available at the next meeting. Looking at the San Gabriel project, Mr. Bhatia found the 2011 cost estimate was \$500 million. In 2014 they found approximately \$100 million in savings. There has been more than 11 years of escalation. It depends on bidding environment which would impact all alternatives. A gentleman from Alameda Corridor east talked to City Council.

Chair Naik believed the San Gabriel presentation was on XCAP's website. That was a very long trench and they created a construction authority that managed the project among multiple cities which helped drive down the costs.

Mr. Kamhi referred to the list of projects for the Alameda Corridor east, which is a significant list of projects part of which the San Gabriel cog completed.

Chair Naik explained those were bid as a group. Southern California has political structures called the Council of Governments. This group worked together, figured out all their projects together and bid those out. One agency coordinated between all the cities and handled all the details. That formed the basis for part of why Caltrain is looking at a construction authority.

XCAP Member Klein noted the Alameda Corridor east project was bid out in 2014 and that was a favorable year for bidding construction contracts. Palo Alto based its major infrastructure long-term projects on the costs that were available in 2014.

Mr. Kamhi advised the project as a whole was about \$1.9 billion, but did not include about \$20 million in additional costs to start up the agency.

Chair Naik related that is what Caltrain is trying to capitalize on with their corridor study.

XCAP Member Carrasco suggested the cost estimate from AECOM should detail the cost of concrete per square yard, and come up with a number. They can go back to the trench and find out how many cubic yards there are and add the pieces and components. It would be good to get their summary in the format outlined by Member Reckdahl. It would be easier to understand how much the linear cost would be.

Chair Naik asked Member Reckdahl what could drive the costs down.

XCAP Member Reckdahl replied the grade and the curvature.

XCAP Member Burton was familiar with the notion of electric districts around cities. When cities wanted to ban steam engines, typically with an engine change like that, there is an accrued district and the result is considerable expense to the railroad. That said, the amount of money that could be saved is huge and that savings could be put into a capital fund. The railroad would draw upon that to make themselves whole for that engine and crew change.

Chair Naik added that Caltrain is doing a corridor-wide study so there may be other places where these slopes make a difference. Another conversation could be there are these diesel hybrid electric trains. Maybe part of the corridor-wide deal could be – we agree to buy several of those to operate in this part of their line to be able to deal with the places where the slope is more than it should be. The more the City can finesse what is needed from Caltrain, then they can be more creative about the solutions they need.

XCAP Member Reckdahl remarked the longer a project goes, the more expensive it is. A lot of money could be saved if things could be phased more efficiently.

XCAP Member Carrasco thought this would take longer because it would be built during gridlock in very heavy traffic areas.

Chair Naik wanted more information about how long it would take to do the excavation. A question for AECOM would be construction duration and phasing. Next, groundwater leakage mitigation could be the sealed walls. Creek interference is preventing water from going downstream and active siphons were preferred by the expert. The way the evaluation matrix is written says ongoing maintenance costs, but \$4,000 to \$8,000 a year.

XCAP Member Reckdahl explained those costs would be more if the groundwater is leaking in and has to be continually pumped out.

XCAP Member Klein felt almost all the questions that Member Reckdahl has raised are for AECOM to respond to. Would there be a problem with hiring them to spend more time on this. There were a few questions that seemed to be more directed to Caltrain but he is reluctant to go down that path because of the length of time it takes to get responses from Caltrain and their answers may not be crucial at this stage. He wondered if Mr. Jim Lightbody might have some insight as to how Caltrain might turn around with answers to these questions.

Chair Naik did not know if there was any money available to ask AECOM questions, so the report may need to be very specific about these issues. She advised that Caltrain has said the things about the vertical clearances and curvature and the technical things are among the things included in the scope of this now two-year study.

Mr. Kamhi shared regarding the AECOM contract, the contract with Gary from Hexagon has been fully expended. There is still some money in the AECOM contract which was intended to do the project study report. AECOM will be asked these questions, but there is a limit to what they can do.

Chair Naik responded that was helpful, but the other options haven't yet been discussed. The underpasses had the most questions and study of those wasn't quite finished. She would prefer to wait and look at those options.

Mr. Kamhi explained there was a level of design that was done on all of the alternatives. The newest alternatives were given more design than the previous designs.

Chair Naik clarified that there weren't as many iterations back and forth because time ran out. That is what she means by it not being as well developed. It hasn't benefited as much from public input.

Mr. Kamhi agreed with that.

XCAP Member Carrasco asked if AECOM could be asked to translate their cost estimate into the cost per linear foot? Also, could construction costs be broken out separately from administrative costs. Overhead is part of the construction cost.

Mr. Kamhi thought on the fact sheet the costs were broken down that way.

XCAP Member Carrasco related it is broken down very well in the cost estimates as of September 2019, but he would like the cost of each alternative broken down into linear feet cost.

Mr. Bhatia shared that the plan profiles have the length of the trenches and the improvements.

XCAP Member Klein thought AECOM and staff should be asked for their opinion about all the questions Member Reckdahl has raised and work from that in a week or two.

Mr. Kamhi inquired if Member Carrasco just wanted the length cost estimate?

XCAP Member Carrasco clarified he would like the cost per linear foot for each alternative, the viaduct, the hybrid and the underpass.

Mr. Kamhi will ask AECOM for clarification of comparables they used. This presentation was sent to AECOM.

Chair Naik believed a reasonable question would be – what assumptions would need to be changed to get closer to \$300 million on this alternative. Member Carrasco would like the linear foot cost for each of the different alternatives.

XCAP Member Reckdahl responded a concern is the creek, but he thought that would need more analysis.

Mr. Kamhi agreed that was not something that would likely come in this stage of development.

XCAP Member Brail remarked it would be nice to get an opinion from an expert on the record, not necessarily AECOM or engineering.

Chair Naik assumed, given the budget constraints, part of what will need to be included in the report would be a paragraph that addressed future needs.

XCAP Member Klein asked if Member Reckdahl's presentation has been sent to AECOM.

Mr. Bhatia confirmed the presentation with some pictures will be sent to AECOM.

XCAP Member Klein's request would be about the screen showing trench costs and could that be sent to AECOM.

Mr. Kamhi confirmed he sent a picture of this screen to AECOM and Mr. Bhatia also sent pictures of some other slides.

XCAP Member Templeton commented about the assumption that the primary objection to the trench was the price. That was not her primary objection. She was very concerned about the safety of redirecting the creek and the flooding concerns and was looking forward to answers regarding those concerns.

XCAP Member Cho agreed with Member Templeton's point and it is worth discussing. Her concerns were buildability, excavation and duration of construction and safety and she is not in favor of it. None of the alternatives is perfect and it is a very hard choice.

XCAP Member Shen noted he came into this meeting feeling there was not a good alternative to pick from. He is not in favor of property taking and that leaves the tunnel or trench.

Chair Naik asked Member Shen what his biggest concern was about the trench?

XCAP Member Shen replied water, four tracks versus two and cost.

XCAP Member Klein reported the group has gotten so many messages that cost shouldn't be a factor. This committee doesn't have the money, City Council doesn't have the money. Regional governments the Federal government or ultimately, voters will be asked for the money for any of the alternatives. Realistically, if Palo Altans are asked for the money, a good case needs to be made to the 95 percent of residents who don't live in the Charleston and Meadow neighborhoods to spend that money. The amount of money asked for in infrastructure bonds will be more than equal to all the previous infrastructure spending in Palo Alto. The case needs to be made that the recommendation makes sense financially to the entire community, not just one particular neighborhood. He continued that he is very interested in Member Reckdahl's presentation and could change his mind about the trench being the viable alternative. His other concern is the length of construction. If six years can be brought down by 50 percent, that could be a game changer.

XCAP Member Carrasco thanked Member Reckdahl for his presentation. The idea of comparing other alternatives in this kind of detail, other places and the costs and benefits is valuable. The trench has been his second-best alternative, the tunnel being his first. The downside of the trench to him, is the cost. The conceptual costs of all the alternatives needs to be looked at more carefully. He is also concerned about the construction duration during gridlock.

Chair Naik recognized these numbers were ballpark and would like the cost drivers figured out and asking AECOM to be more a partner in helping problem solve where the designs are (audio out) curvature of UP's freight speeds would all be helpful. The water issue is a grave concern for her but a water study is not possible before the decisions have to be made. She remarked she did not think of this in terms of what Palo Altans will be asked for in infrastructure bonds. All the research she has done on the cost of these projects is that there is typically a local match and is usually what the Measure B money would be put towards. Then there is money that comes from other sources, so it's not like Palo Alto will have to come up with the entire money. The cost and the water issues for her have made the discussion about the trench difficult.

XCAP Member Burton was shocked by the sheer cost and construction time. If those issues could be mitigated significantly, the trench is in the running.

Chair Naik asked if there any easy questions for AECOM about the other alternatives so those answers would be available at the upcoming meetings.

XCAP Member Brail indicated last week was the first he had heard of the Loma Verde bicycle project. One of the advantages he noted for the viaduct was that it might be possible to cross under it on foot or bike, but there wasn't anywhere to go between Meadow and Charleston. He would like more information about the Loma Verde proposed overcrossing and where it would be. If an elevated option was chosen, it would be more positive if residents could be given more recreational opportunities.

Mr. Kamhi advised there is the Midtown Connector and a feasibility study. It is also in the 2012 Bike and Ped Plan.

XCAP Member Reckdahl thought it went over the tracks and over Alma on a bicycle overpass.

Chair Naik offered a map with information about this.

XCAP Member Reckdahl also commented XCAP seemed to be paralyzed by the four-track issue. The Council had many questions about this at their last meeting. He asked if anyone could map a potential four-track passing area onto a map of Palo Alto to see if there was anywhere this could be put where it doesn't overlay with a tunnel, trench or hybrid?

Chair Naik advised that has to be about three miles long. Caltrain expressed they have taken a conservative view going from the San Francisquito Creek down to Mountain View. The area is essentially from south of Oregon Expressway down.

XCAP Member Burton thought Caltrain might have to acquire some land via its own Eminent Domain. In the Caltrain documents he has seen; they are pretty flexible about the exact sighting of the four-track section.

Chair Naik also had concerns about that. In the beginning of this process this was hanging out there because it was something Caltrain and high-speed rail had discussed previously. No action had been taken. To her it was conceivable Palo Alto could forge ahead with a two-track alternative then negotiate saying Palo Alto had its two-track plan that is moving ahead unless Caltrain could prove otherwise that high-speed rail is coming. What changed was the issue of four tracks went to the Caltrain Board in January and was approved in February and nobody caught that. By April it became clear the Caltrain Board had taken a specific position, but also, they had taken a more conservative position than imagined where they now decided they didn't want to encumber any land at Churchill either. That impacted some of the choices about Churchill. She personally does not believe high-speed rail is coming any time soon. She also appreciates that once you give up your right-of-way, you don't get it back so land banking in the railroad industry is a serious thing. Currently, Caltrain is in a situation where they have been getting money from high-speed rail and there is a possibility that as high-speed rail dies, some of that money might get split up, so more money might come to different train sections in the north or south. She believes Caltrain will do nothing to anger high-speed rail until they are sure they've gotten everything they can get. This may be a problem for a long time because there are places where grade separations matter to Caltrain and others where it doesn't impact their operations. Palo Alto's grade separations are not high on the list of grade separations that help Caltrain with their operations and they are not rushing to give answers. In this case, it presents an opportunity for Mountain View and Sunnyvale because the alternatives they are considering don't move the train tracks. It is irrelevant to them if there are four tracks or two. In Palo Alto's alternatives, currently the only South Palo Alto alternative that would not be impacted by four tracks is the underpass, which has not gotten a high level of review. The choices are very different if thinking about four tracks versus two tracks.

XCAP Member Brail inquired, since all alternatives will be deliberated, can AECOM be asked what the possibility is for sound walls on the hybrid option and if that is a

complex choice. The noise study assumed the viaduct had sound walls and the hybrid did not.

Chair Naik asked staff if they could verify whether the noise study assumed both the viaduct and the hybrid had the sound parapet.

XCAP Member Klein commented on the high-speed rail. He had a lead role in Palo Alto opposing high-speed rail in the past and helped organize a State-wide coalition against high-speed rail, he thought the likelihood of high-speed rail coming through the peninsula in the next 30 to 40 years is slim to none. Particularly after COVID-19 and the budget problems California has, the governor will have to pull the plug on the rest of high-speed rail because it doesn't make sense. The lesson for this Group is to proceed as it has been and not account for a four-lane situation anywhere in the areas studied. Keep in mind, what is recommended won't be implemented today or tomorrow or next year. There is adequate time for issues to be worked out and it doesn't make sense for XCAP to work out where a four track might go.

XCAP Member Carrasco related that Joe Simidian (phonetic) had made an agreement that there would only be two tracks through Palo Alto and he didn't know how that could be violated.

Chair Naik explained it was a mostly two-track system. The original high-speed rail plan was four tracks the entire length from San Francisco to San Jose. When it was noted four tracks were not needed the entire length, just passing tracks in certain areas, a deal was negotiated in 2012, the Blended Agreement. That agreement is why Caltrain is taking this position. High-speed did an exercise asking Caltrain to give a fictitious schedule. Caltrain gave a schedule that only had six trains per hour which didn't allow for any Caltrain growth. High-speed rail has been using that to assume that Caltrain can move to the side and high-speed rail didn't need passing tracks. Caltrain said they own the right-of-way and high-speed rail had to build their own passing tracks. It doesn't matter what XCAP thinks, it only matters what Caltrain feels they need to plan for. The political pressure for a certain amount of time will be that Palo Alto is stuck with the possibility of four tracks because of the Board action taken and this will hang around until this dies. The Metropolitan Transportation Commission and the State rail plan is looking to keep the land land-banked for other things and she has grown less confident in that. Chair Naik remarked with the underpass alternative AECOM's plan looked at shoofly tracks and she asked if shoofly tracks are already built, if the tracks are raised several feet, is it technically possible, given the situation they forecasted in their type of engineering?

Mr. Kamhi thought the option to raise it would be a possibility. The question would be the cost for that.

Chair Naik noted it would be helpful to understand a ballpark by how much before needing to build structure. When talking about the percent grade the bikers are concerned about, every one to two feet makes a difference.

Mr. Kamhi is waiting for information from AECOM about that.

XCAP Member Carrasco felt it would be valuable to know exactly where, within a foot, the viaduct would be placed. It is important to know what that impact would be on the backyards of the residents living there. There is a code in Palo Alto called the Daylight Plane. He imagined if the Daylight Plane already established in the zoning ordinance is within the track height, he would be much more comfortable with the viaduct. He is also much more comfortable with a two-track viaduct than a four-track and he would be opposed to that. He would like a more detailed description of what the backyards would look like and how far the tracks would be from those yards. Elizabeth's version of the underpass has tremendous potential. It could be the most beautiful of all the alternatives but it needs further work. He would like to keep that one on the table. The downside is it takes a long time to construct and the viaduct is much easier.

Mr. Bhatia advised some of the information is in the noise report. The noise report does say they did further evaluation with the parapet walls for both hybrid and underpass options. It would further reduce the noise levels. There is a predicted noise level table in the noise report.

Mr. Kamhi, in response to Member Carrasco's request about location of the viaduct, he did not know if they could get that precise in any of the alternatives.

Mr. Bhatia indicated the noise report did show estimated distances of the fences from the proposed alignment of the viaduct and hybrid options.

Mr. Kamhi advised the exact locations could not be answered at this point. They are estimates in the current level of design. What Mr. Bhatia reference is their best estimate.

XCAP Member Carrasco ask if there was a section that showed the backyards, the fence and the height of the viaduct.

Mr. Bhatia noted on page 23 of the AECOM report, the height of the viaduct is shown, the distances from the first row of homes.

XCAP Member Carrasco would like more detail to make a good judgement.

Chair Naik explained at this level of 5 percent engineering that is not possible.

At this point the meeting was adjourned.

6. Adjourn

The meeting adjourned at 6:59 pm