

Expanded Community Advisory Panel (XCAP)

July 15, 2020, 3:00

Summary – Regular 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, Cari Templeton

Absent:

2. Oral Communications

Richard Perky (phonetic) noted he has been looking at the options for Churchill. He thinks the option that offers the best transportation options for all modes crossing the grade crossing is the closure to vehicles. Building an underpass for pedestrians and bikes with the mitigations results in the best cost-effective way to make sure all traffic can move across the corridor safely.

262 caller remarked reading that the Caltrain sales tax will not make it on the ballot in November. He also remarked when looking at the propaganda on the sales tax, what came up was the concept that the VTA will no longer have to contribute to Caltrain and somehow the sales tax would make up for that. That is false because in Palo Alto in Santa Clara County in 2000 there were taxes to support Caltrain and again with Measure B in 2016. He advised MTC had a planning meeting last Friday where they discussed Plan Bay Area, the two phases. There are \$400 billion worth of projects and less than \$200 billion in funding. They are splitting the projects into two, what will be done between now and 2035 and the second half between 2035 and 2050. In September they will return with a policy and decide which projects will get done in the first fifteen years. There are some Caltrain grade separations in there.

Karen Kalinsky read the memo regarding mixing underpass and hybrid alternatives at Charleston and Meadow. She requested that future fact sheets and Town Hall information include a separate option for a mixed Meadow/Charleston solution with hybrid for Meadow combined with underpass for Charleston. This option has the advantage of lower costs, better connectivity between Meadow and Alma, this option has zero property acquisitions. The Meadow underpass has the following advantages over the Meadow hybrid option: the underpass provides better safety for bikes and peds; it minimizes changes to visual impact by keeping trains at street level.

Chair Naik asked if staff in the future could keep XCAP informed on what is happening with MTC and making sure Council is aware of what is happening there also.

3. Discussion/Action: Noise & Vibration Report, Updated

Paul Burge, AECOM advised on June 2 they did a review of their draft noise study report for this comparative analysis for the different grade crossing alternatives. This

is an update based on comments received from XCAP shown on slide Noise Report Updates. He noted each of the requested updates was done. Caltrain will be using Electric Multiple Unit (EMU) trains. Acoustical data was not available for EMUs. They used the same reference information that was used in the 2014 Caltrain Electrification Study. If those coefficients and reference levels were used, they would meet the Caltrain specifications for the EMUs. The trains speeds were maxed out at 80 miles an hour for passenger trains and the three target grade crossings were identified, and 50 miles an hour for freight. Train operations were revised to the projected 2040 services of 114 daily total for Caltrain and three freight at night. This assumed the full replacement with EMUs. High numbers included high-speed train events but they were left out because currently it is not certain if high-speed rail will get to this part of the corridor. The high increase in the number of events of trains might de-emphasize the relative differences between the alternatives and may eliminate most of the benefit of removing the horn sounds. The speeds for passenger trains was changed from 50 to 80 and freight remained the same. XCAP requested using the same six-foot noise barriers that were part of the viaduct and hybrid alternatives for the closure and overpass alternatives. Two new alternatives were added, underpass with barrier and closure with barrier. An additional table was added which showed the relative noise reduction as opposed to the actual noise level. XCAP did request a revised summary table and an attempt was made to combine the assessment for the operational noise, operation vibration and construction noise and vibration into a single ranking. The concern was that there was more weight given to the operation noise and less to operational vibration and construction noise and vibration. Any attempt to try to combined those together into a single assessment would be flawed and it included some value judgement based on whoever was doing the combination as to which of these aspects was more or less important than the others. That was left to the XCAP to make those assessments and weight those assessments independently along with all the other considerations. An XCAP Member had suggested there would be some radiated sound as the train went over the viaduct and that is probably true. There are several different types of viaduct structures. Some older styles were primarily metal and can radiate structural vibration noise much more. More modern structures are typically more reinforced concrete structures which tend to have much better internal damping characteristics which would help reduce the structure-related noise. There may still be some noise but lower in frequency and lower level. It was assumed a viaduct would be the modern, reinforced concrete structure. These usually have ballasted track on the top to help reduce the vibration at the wheel/rail interface. The next slide showed the Predicted Operational Noise – Revised Assumptions shown in red. Mr. Burge pointed out one of the big differences from a noise standpoint between an electric locomotive and this EMU is that the motors are located down near the wheels, so the noise from the motor would be mitigated by the six-foot barrier. The previous Predicted Operational Noise chart was shown as a reminder. The updated Predicted Operational Noise chart has more options with the addition of the barrier. He explained the reason it looks like this didn't change much was because of the changes implemented, going from the electric to the EMU, including more trains daily and faster speeds. Those three things tended to cancel each other out. In conclusion, there were several updates based upon XCAP comments, updated tables included new predicted noise levels, no changes to the qualitative assessment on operational vibration and construction noise and vibration, removal of the combined summary table.

XCAP Member Brail addressed two things he thought might worry people. Going back to the speed chart which concluded that 80 miles an hour was sufficient. There are some trains that could theoretically reach 110 miles an hour.

Mr. Burge responded he was told the maximum speed for the EMUs would be around 80 miles an hour.

XCAP Member Brail indicated his understand of Caltrain is that they don't intend to raise the speed limit, but with the EMUs they would technically have the capability to go 110 as they go through Meadow and Charleston.

Mr. Burge advised this chart was not included in the actual report. This was a chart from Caltrain and he drew in the red lines.

XCAP Member Brail asked what the impact would be from a noise perspective, if a train was going through Meadow and Charleston at 110 instead of 80?

Mr. Burge answered when the train is going at the maximum level, they are louder because the wheel/rail noise increases as a function of speed. That is mitigated somewhat by the cumulative average affect, because the duration is shorter.

Chair Naik indicated there is a document from Caltrain that said after electrification they intend to continue to operate at 79 miles an hour, but will eventually have the ability to operate at 110. When a train goes over 125 miles an hour, a grade separation has to be built and that is why high-speed rail is restricted to operating below that.

Mr. Burge explained if the speed went to 90 or 100 miles, the relative differences between the alternatives might get washed out because they would be going faster for all the alternatives.

XCAP Member Burton commented that the EMUs can accelerate and decelerate faster than diesel trains, and could hit peak speed in a shorter run length.

Mr. Burge agreed with that comment.

XCAP Member Reckdahl asked what the three affects that canceled each other out were?

Mr. Burge replied switching from the electric locomotives to the EMUs, if that was the only change all the numbers would have decreased because the EMUs produce less noise per pass by. Wheel/rail noise increases as a function of speed, so increasing speed would cause the noise to go up, and increasing the number of trains from 92 that went up to 114 would tend to raise the noise levels.

XCAP Member Reckdahl related that reinforced concrete only has 5 percent damping in it.

Mr. Burge replied 5 percent damping didn't necessarily mean 95 percent of the energy gets through. These have a greater damping effect but they have more isolation

affects as well. Most have a ballast track to reduce the vibration and preserve the structure. There are bridge bearing pads between the top of the column and the bottom of the box girder that help to reduce the vibration going down. The vibrational energy is spread out over a wider range of frequencies and tends to have a less annoying affect.

XCAP Member Reckdahl remarked if you look at the curve, it will be ten times magnification, if you have 5 percent damping at a resonance.

Mr. Burge agreed there will be some resonance noise but when talking about a variety of noise sources, what will control the noise you actually hear will be the dominant noise source. If the third, fourth or fifth after that will probably create much less of a contribution. The way decibels add together, if there are two decibel levels that are more than 10 dB apart, 60 dB plus 50 dB is 60 dB.

XCAP Member Reckdahl noted there is a lot of research into how to reduce the amount of rumble you get from reinforced concrete, so it is noticeable.

Mr. Burge explained it doesn't reduce it to zero, but in the presence of the actual train, the railroad noise, the propulsion noise plus the ambient noise it is probably less than a significant amount.

XCAP Member Reckdahl indicated it seemed Mr. Burge was trying to predict a general number with some specific measurements on one design. His point was, if talking about absolute estimates, it probably almost gets down to the noise floor of the calculation error. This isn't just an absolute calculation of how much noise there is. It is for a down select, and that is a relative rating. On the chart the viaduct has the same noise as something at grade, that isn't right. There is some additional noise due to the reradiation off the structure. Someone who might look at this a year or two from now and not realize the context the chart is delivered in. There is a number that is hard to determine so it is zeroed out. Only one design has that hard to determine number and the other ones are known to be hard zeros.

Mr. Burge related he has been standing near a number of these structures and when standing near a metal bridge or viaduct it is obvious. When standing near a more modern reinforced concrete structure, that is not the dominant noise source. The effect from the structurally radiated noise is much lower. It is probably buried deep enough below the direct propulsion, wheel/rail and highway noise that it is probably not detectable.

XCAP Member Reckdahl commented the effect of the parapets reduced the noise by 12 dB. When that noise hits the parapet, it will be absorbed by the parapet and funneled down into the structure. Any more between the parapet and the ground and some of that noise will be radiated back up. So, the parapets will be less effective.

Mr. Burge related that one of the assumptions included in the report was that they would acoustically absorptive on the interior side. The parapet barriers that are situated close to the train because they are acoustically reflective. The wheel/rail noise and propulsion noise will bounce, reflect off the inside of the barrier then off the body of the train and eventually up over the barrier. They can lose effectiveness if

they don't have acoustically absorptive materials on the inside. That is a standard arrangement on close in rail noise barriers.

XCAP Member Reckdahl explained the parapet is being hit with pressurized air at a certain frequency. That is a force on the parapet and the parapet has to be supported by something, so the structure of the parapet supports that and that vibration goes down through the structure of the viaduct and any mode between the parapet and ground will be excited.

Mr. Burge replied the amount of acoustic energy being parted into the barrier would be several orders of magnitude lower than the magnitude of the vibration being imparted into the rail head and down through the structure.

Chair Naik asked XCAP Member Reckdahl for clarification on what this report is not saying that he thinks it should say?

XCAP Member Reckdahl responded these number are hard to quantify in a general design. He would like to see what things have been zeroed out but both the parapet and the radiation of the noise are not zero and he would be satisfied if it was said these were assumed to be small, but haven't been quantified.

Mr. Burge believed the working added in the report said it would be assumed that with the properly designed viaduct structure, the additions of the structural radiated sound would not be significant.

XCAP Member Reckdahl reiterated his complaint is particularly with the viaduct. That is the one most susceptible to this. Looking at the rows on the table the natural tendency is to compare rows and some of the rows are identical when in reality they are not. The viaduct's noise characteristics have not been fully captured.

Mr. Burge explained to get the exact number would require a much higher level of modeling and analysis. In the updated model, the viaduct with barriers option for Churchill is 64.3 versus 58.6 for the underpass with barrier.

XCAP Member Reckdahl turned to vibration attenuation. This is not consistent with the vibration attenuation. The structure is acting like a dynamic isolator and as a result, not as much vibration gets down to the ground.

Mr. Burge responded part of the reason for that is the vibration that hits the ground on the viaduct is limited to the where the posts go into the ground and vibration radiates out from there spherically. For the on-ground assumption, the vibration from the rail bed is continuous, so the propagation is cylindrical. A spherical propagation is much more efficient than a linear propagation. It is not worse for the homes that are closer to the posts because the energy distributes spherically from a point source but cylindrically from a line source.

XCAP Member Reckdahl believed the energy going into that is more concentrated, because it will be all the forces nearby are all funneled down into the one post.

Mr. Burge noted if the posts are 100 feet apart, everyone will be near a post. This was based on the FTA guidance for this and their guidance is that the vibration for the viaduct, because there are fewer inputs into the ground, is that the vibration at the receptor location would be about 10 dB.

XCAP Member Reckdahl believed if you were next to the post you would see a higher level than if you were right next to the rail.

Mr. Burge advised he would note XCAP Member Reckdahl's comment. The basis that the viaduct would potentially reduce vibration at some of the nearer homes is based on the Federal Transit Administration's 2018 Noise Vibration Impact Assessment Manuel.

XCAP Member Carrasco thought XCAP Member Reckdahl's concerns were real and care should be taken when designing that mitigation and how that absorption material touches the wall.

Chair Naik advised that XCAP Members Reckdahl, Carrasco and Burton are the technical review for the report so they should put something about that there.

XCAP Member Shen remarked there was mention of the fencing of the backyards up against the rail would not affect noise transmission. He asked if there was a fence available that could help mitigate sound from trains?

Mr. Burge answered there could be but typical backyard fences are notoriously poor at noise reduction. Wood fences usually have gaps and the height of the wall is usually not enough. The more massive or solid and the taller the fence is, the more noise could be reduced.

XCAP Member Burton inquired about the comment regarding the rail ties being imbedded in gravel?

Mr. Burge explained the traditional rail lines are attached to a tie which are often wood. That is usually imbedded in gravel, which is a ballast. For lighter rail like BART, they are usually fixed directly to the slab although the pin holding it down usually has a rubber mat under it. Most of the viaducts are designed to accommodate heavy rail vehicles and have a ballasted track on top of the concrete slab.

XCAP Member Burton commented that ballasts at right of ways are usually used for drainage. When considering the notion of concrete sleepers, were the most modern techniques assumed in terms of noise mitigation measures?

Mr. Burge replied usually the wooden ties were used at an at-grade installation and on a viaduct, a concrete sleeper in ballast would be used. Occasionally on a viaduct surface a rubber ballast mat could be laid down between the hard surface of the viaduct slab and the ballast and the sleeper is laid into the ballast.

Chair Naik remarked the 12 dB reduction from the noise parapet was interesting. What might be misleading is Table 5-1, the different alternatives and the potential noise reduction, in 5-4 added was the potential benefit of adding a barrier for the at-

grade alternatives and the underpass alternatives. Those potential reductions are not explained in the 5-1 chart. She also asked if Mr. Burge had said the difference between an electric motor locomotive pulling cars and the EMUs is that the EMUs are quieter because the noise is down by the wheels, which can be mitigated by the noise parapets.

Mr. Burge replied the electric motors that generate the energy to move the train are not in one location that pulls the entire train, they are distributed throughout the train. They have a lower noise level to being with, but they are at a lower elevation physically. If there is a six-foot barrier and an electric locomotive goes by, the venting for the motor is still at the high elevation, 10 to 12 feet in the air. The EMU's Caltrain is proposing, the traction motor is down by the wheels, so the noise from that is well reduced by the six-foot barrier. There is also less noise to begin with.

XCAP Member Burton had never heard of electric EMUs that do not have the motors in the wheel structures of the car. Diesel DMUs may have the motors on the roof of the car. Electric locomotives often have the motors inside the body of the engine and use mechanical drive to transmit the power to the wheels.

XCAP Member Reckdahl asked when the calculations were done for the viaduct, was the fact that the viaduct was elevated taken into account?

Mr. Burge replied yes.

Public Comment

Susan Newman remarked that she enjoyed the noise and vibration report. She thought it might be worth saying somewhere that if the train increases go up as much as they are projected to go with the high-speed rail, it would wash out most improvements from not having the whistle and bells and from eliminating the diesel engine. It would have been nice to keep the summary suggestions, but break apart the summary analysis to separate construction from operational noise. In the discussion about the backyard fences, it was mentioned that the more massive and solid it was, the better it was for reducing noise and less so for the viaduct or hybrid because the noise source is elevated.

Carlin Otto noted on page 14 she would like to see an analysis of how the noise expands out to houses in rows three, four and five. She expects the noise would expand out way more from a viaduct than from a trench and she would like to see an analysis of this.

Adrian Brandt thought there was a lot of arm chair analysis. Denver RTD has some very large, long viaducts they built with very comparable electric trains running on them. There are very real-world examples of viaducts with trains running across. As the consultant noted, when you have the train on top, the other effects from a human perception point of view are minimized. There are steel and concrete viaducts in San Mateo that trains are running on and he encouraged checking those out.

XCAP Member Brail noted there was a comment about showing how the noise from the viaduct will spread over a larger area? There is a widely held belief in Palo Alto

that the viaduct will broadcast the train noise to a larger area. He would like to hear from the expert what the actual impact of that might be without requiring another large study.

Mr. Burge responded the further you get from the train the lesser the noise level will be. The report included typical locations for first and second row on each side. The assumption was once you get beyond the third and fourth rows, you are more buildings intervening and the impact will be less and less. He thought the people who hear the trains now that are more than three or four rows back are hearing mostly the horn noise. Unless there is a very detailed analysis, this wouldn't be very consistent, depending on where you were back through the area. Trains will be audible because it is a transient noise source which tends to be louder than the steady state noise sources, but only for a limited amount of time. On the table that showed the absolute noise level, one of the conclusions was that all of these that result in a grade separation eliminating the horn sounding is the big difference.

Chair Naik thought the question was specifically about the elevated alternatives. In Palo Alto typically there aren't structures over fifty feet, especially on the right-of-way.

Mr. Burge replied geometrically, if you are standing in your front yard in the second row, you have a shot of seeing possibly the top of the train. If you are three or four rows back, that angle reduces the chance that you can actually see the train is less and less. He added that sound refracts or bends around things and if you are close to what it is bending around, you might get a good reduction. As you get further back that effect will lessen. You might hear it even if you can't see it.

4. Discussion/Action: Renderings and fact Sheets, Updated for Churchill Partial Underpass and Meadow/Charleston Underpass

Millette Litzinger, AECOM, explained the updates to the renderings were provided in the packets along with the fact sheets for the underpasses. Those are based on responses to comments and additions asked for. Those are items where some adjustments were made. The updates on the renderings are fairly minor. The fact sheets have been expanded with a full page added to each one.

Chair Naik clarified there was a question if these were fact sheets or more overviews. She was informed by staff this was an industry standard of how the terms were used and these will still be called fact sheets

Ms. Litzinger began with page 1 of the Meadow/Charleston underpass fact sheets. For the Meadow Drive underpass overview looking southeast, the top left, highlighted are the things that are not shown in the rendering that are shown in the plan view. There were minor edits to the text, the bottom sentence at the bottom was added. On page 2 they added the intersection turning diagrams and some wording to the engineering challenges. Some information was added on the other sheets related to Caltrain right-of-way. The estimate it included both Meadow Drive and Charleston. There is a note that has been on all the statements regarding several known fiberoptic lines within the railroad right-of-way that would need to be relocated, but that was not included in the estimate.

Chair Naik asked when there is a relocation of a fiberoptic line that belongs to a utility, it is the agency that deals with the location costs?

Ed Shikada, City Manager responded it depended on the franchise. It is true in large measure, but the caveat is to indicate what is and is not in the cost estimate.

Ms. Litzinger continued on page 3 they added an additional rendering along with the plan views that showed the property impacts. The noise descriptions were also refined in the criteria to be consistent with the noise study. Some of the wording was updated related to the clear and safe routes to school.

Chair Naik remarked under the noise and vibration there was a request to include in the analysis the option of adding a noise parapet at the at-grade alternatives which did reduce noise. She asked for a sentence to be included that might indicate that is a possibility here as well. That would be the same comment for the Churchill partial underpass and for the Churchill closure.

Mr. Burge asked if that was considered part of one of the alternatives?

Chair Naik replied the point is to be able to explain if one of these alternatives is selected, an additional option is the noise parapet. Without prejudging what might be said, putting that in as a potential add-on option is important to highlight.

Ms. Litzinger moved to the Churchill underpass. This is similar to the previous one with a few minor text edits. The width of the bike path at Kellogg was shown. On Page 2, added in the engineering challenges indications of Kellogg Avenue and its encroachment inside the Caltrain right-of-way. Also added under neighborhood consideration, the loss of parking on Kellogg Avenue. Added were the partial property acquisitions that would be required and an additional rendering was added. On Page 3, the intersection turning movement diagram was updated, the changes in wording were made to the noise and vibration topic.

XCAP Member Reckdahl noted a typo on page 3 of the Meadow fact sheet, at the bottom it mentions minimized disruption duration of construction, closing of Churchill. This is probably a copy and paste error. Also, on that page in the upper right, the property impacts, he liked the fact there is transparency, but there is so much runway between this and wanting to acquire these properties, that people may be unjustly concerned. Could there be something inserted to say this is not set in stone and very preliminary.

Chair Naik suggested putting the word potential in front of titled private property impacts might be helpful.

Mr. Wong remarked the only potential problem with that is people may think, maybe there is another way to avoid acquisition of the property and in some cases, there is no other way.

Chair Naik asked if conceptual would be acceptable?

XCAP Member Reckdahl indicated he wanted something to communicate the fact that this is a preliminary design that is not finalized, so conceptual would be okay.

XCAP Member Carrasco was concerned with the bike/ped path issues and he appreciated that the path was widened to 20 feet and he assumed it was the same in the Churchill alternative. It is not comparable with the existing because of the slope. He is still concerned about the slope at 8 percent and did not understand how this fed into the matrix. In the matrix these are shown as dark blue and the pedestrian experience is not as comparable as what is existing now, so it should be a different color.

XCAP Member Templeton liked the updates. She shared some feedback that there is some inconsistency in the legends from map to map, especially the colors and that may cause confusion. Referring to the part with Churchill and the Embarcadero bike path, it is hard to discern the difference between the red and the magenta.

XCAP Member Burton noted the new data sheets are a significantly improved. The traffic movement clarified the issues in a way that is simple for people to understand. Regarding the labeling of property acquisitions, he preferred something like preliminary, subject to further analysis instead of conceptual or possible.

Public Comment

David Kennedy commented on the Meadow crossing, plan view or rendering, it almost appeared that Meadow bends a little north as it goes across Alma. If that was the case, is it possible to look at straightening that out and being able to add a lane as it goes under Alma to add the left-turn function. If that could not happen, as a tax payer, it is hardly worth the money to spend on the Meadow crossing with only three or four turn alternatives. He noted both on Meadow and Charleston, there has been a lot of attention paid to the bike crossing at Alma. He noted several blocks further west bikes and pedestrians will have to cross El Camino at grade.

Neva Yarkin remarked out of the three options left for Churchill, partial underpass, viaduct or closure, she felt the best option would be closure of Churchill and mitigation for Embarcadero and Oregon Expressway. Closing Churchill would be the safest, most direct path towards Paly, Stanford and El Camino. Caltrain owns the right-of-way and that could be a nonstarter for the partial underpass option. Also, there are major engineering challenges for this option. She encouraged following the Paris Plan which is cutting car usage, cutting the carbon footprint and reduce pollution. Following this path would make Palo Alto a better place to live for everyone.

Keri Wagner advised she bikes the intersections of Charleston and Alma and East Meadow and Alma regularly. She has many concerns about how the bike and pedestrian paths are constructed. Bikes sharing paths with pedestrians is very tricky unless there is some separation. She is also concerned about the bike and pedestrian paths only being on one side of the intersection, especially at Meadow. She is older and bikes a lot and she is worried about the 8 percent grade.

Susan Newman related that in both of the fact sheets it says "pedestrian and cyclists' access will significantly improve due to mode separation" for maintaining access to

neighborhoods, parks, etc. She felt that was a strong statement given the unresolved issues about the bike and pedestrian pathways, if there is separation between the bikes and pedestrians, especially at Churchill and how that will be done. She thought one of the reasons Palo Alto is such a bike friendly place is that it is fairly flat and it is easy to get around at all ages. She is worried about some of the tunnel designs and wondered if the 8 percent grade issue will be addressed before the XCAP recommendation is made.

Karen Kalinsky remarked, with the revised matrix sheets being discussed at the next XCAP meeting she added to her request about a separate option for a mixed Meadow/Charleston solution with hybrid for Meadow combined with underpass for Charleston and asked that be added to the matrix sheets.

Adrian Brandt noted he is concerned with the neighborhood fabric and the bicycle and pedestrian human scale. He feels the most out of place major civil works within the City would be the Oregon underpass and the University Avenue Underpass. He preferred to keep bicycles and pedestrians at grade. Churchill could be kept at grade if the tracks were completely up and out of the way. He could not imagine considering putting essentially a freeway wall in downtown Palo Alto.

Chair Naik asked if it was possible to get clarification about the percent grade for the bikes at each alternative, and if that could be put in the section with information about the pedestrian/bike ramp width of 20 feet.

Mr. DeStefano remarked the separated bike/ped underpass at Meadow was five percent grade going in and out underneath the underpass at Alma and the same for Charleston. The ascension from the tunnel at Kellogg was based off of eight percent with landings. That could be designed for five percent but the ramp would have to be longer. There would be some additional impacts.

Chair Naik encouraged whatever can be done on the fact sheets to encapsulate what is done on the renderings and plans and clarify what the grades are.

XCAP Member Reckdahl was bothered by the percent grade and the maximum is cited. The maximum occurs for a short period of time and that is deceptive.

Mr. DeStefano advised the ramps extended for significant lengths. There could be some language added, for example, the Kellogg underpass is based on X percent over Y length.

XCAP Member Reckdahl asked if these renderings will be modified at all? He is bothered that Meadow only has three of the eight turning motions.

Mr. Bhatia explained in response to the XCAP's request the City asked the traffic consultant to review the operation of the off and on ramps at the intersections at Meadow and Charleston. The preliminary results showed that various traffic control options may be able to allow for additional movements at those intersections. That information will be updated for the meeting on July 22 with a traffic update report.

XCAP Member Reckdahl advised currently there is no way, going from El Camino towards Alma on Meadow to turn left onto Alma. There is a lane going under Alma but it can't turn left because there isn't a left-turn lane. He suggested putting all-way stop signs at both the ramp coming from southbound Alma to Meadow and from Meadow to northbound Alma. That would give four turning capabilities there.

Chair Naik noted that would change these intersection turning movement diagrams on the fact sheets.

Mr. Kamhi clarified this would allow for six of the eight turning movements to be accomplished.

XCAP Member Burton was also concerned about the three only turning movements at Meadow and the comments about striping as a way of increasing the turning movements. Could that be accomplished without degrading the level of service through those intersections? He asked, regarding the bike and pedestrian ramps, are there any reference points or ADA guidelines for acceptable grade limits?

Male answered the acceptable grade limit is 8.33 percent as long as there are landings for every rise in elevation of 30 inches, which is a five-foot landing for about every 30 feet.

XCAP Member Burton asked why this was not designed with six movements and this is only now an issue?

Mr. Bhatia remarked the typical left-turn movements come into the picture when you have more than 100 vehicles in any direction for the left-turn pocket establishment. In this situation, when looking at the intersection as a whole and separately evaluated it, it would work okay because of the opposing direction traffic.

XCAP Member Burton thought what was said is that given the volumes through the intersection and the fact that there may not be a separate left-turn lane, there won't be too many turning movement conflicts.

XCAP Member Carrasco thought residents would want to know about the gridlock that happens at about twelve trains and at sixteen trains there will be more gridlock. He felt City residents should be alerted that east to west across the tracks will be gridlocked and that should be explained somewhere in the fact sheets.

Ms. Litzinger noted there is a fact sheet that was in their original group called Connecting Palo Alto that talked about what the plans are for expanding Caltrain's service and what that meant for queue links if nothing is done.

Chair Naik advised that used Churchill as an example but did not mention Meadow and Charleston. At that time there hadn't been a Meadow and Charleston traffic study. There was more focus on the north.

Ms. Litzinger indicated some wording could be added that there would be similar circumstances at Meadow and Charleston.

XCAP Member Brail referred to grades, a sustained 8 percent grade, although it may be ADA compliant, is quite unpleasant for not serious cyclists. He wondered if a bicycling coalition in Palo Alto could give some guidance on this.

Mr. Kamhi thought it was a 5 percent grade.

XCAP Member Brail felt 5 percent was okay. If any grades that are greater than 5 percent, they could be red flagged and that would be helpful.

5. XCAP Member Updates and Working Group Updates

Chair Naik asked Mr. Kamhi for an update on the Group being able to use Google Docs to be able to edit the reports.

Mr. Kamhi responded it was the inability to use Google Docs for off-line work on this document. After speaking with Legal, despite the fact that some of the Brown Act requirements had been temporarily lifted, this is not something that could be done. This would be a document that every member of the XCAP and members of the public could see, so it is a transparent process, but this was considered by Legal as a serial meeting and that is not possible. His recommendation would be for each member to work on their chapter or with partners, work on their sections then send a document to staff and staff will put it all together and bring it as a draft document to the XCAP. At that point, XCAP could provide comments or feedback to be incorporated into the document in order to create the final document.

Chair Naik assumed the first step was sending everything to staff. After it is pulled together, the nine members each could have a different edit to the same paragraph.

Mr. Kamhi reported potentially they would have to take all the edits and let XCAP decide which edits are appropriate.

XCAP Member Klein thought the process should be the committee submit that to Chair Naik or himself, so it would go through at least one level of editing. Then at an XCAP meeting there would be a modest level of editing.

XCAP Member Burton asked since he will be working with one or two other people on just his section of the report, could he use Google Docs?

Mr. Kamhi replied he could Google Docs within the smaller groups with a limit of four people. A serial meeting would be when all the XCAP members and the public could comment on all the different sections.

XCAP Member Templeton remarked there is a technology related public meeting bill going to the State that she could pass this information on to. It is an opportunity for XCAP to use technology. When the sections are put together, how done will the document be? She asked if when the chapters are sent to staff and they put them together, can staff do a first pass regarding proofreading or is that something the whole XCAP has to do?

Mr. Kamhi advised the chapters would be handed off to staff who will then put it together. They can do a certain level of proofreading, spelling or grammatical errors. Staff's intention would be not to modify the intent of the writing.

XCAP Member Templeton reported she hasn't had a chance to meet yet with XCAP Members Shen and Cho, but she is working on an alternative way to view the matrix. She recalled an XCAP member wanted to look at this and she didn't remember who that was.

XCAP Member Brail responded he was interested in a more digestible matrix and would be happy to look at it.

XCAP Member Carrasco also wished to look at it as well.

Chair Naik explained she had to look at timing for the next meeting and it would be useful to have XCAP Member Templeton's matrix information then.

XCAP Member Templeton inquired if documents used and shared in this meeting be Google Docs?

Mr. Kamhi understood it is an interactive Google Doc and that can be shared as a Google Doc. The XCAP as a group cannot provide comments on it and do editing to it outside of the meeting.

XCAP Member Brail related that since it sounded like if this is done wrong, it is not legal, so really specific instructions on how to do this would be helpful. If he created a Google Doc, who should he share it with when he is ready to have it included in the staff report, or does he need to turn it into a PDF and email it?

Mr. Kamhi clarified it can be emailed to staff and they can put it into a combined document. It doesn't matter if it is sent as a Google Doc or word document. PDF would be less preferable.

XCAP Member Brail indicated no more than four XCAP Members can edit or comment on the document?

Mr. Kamhi remarked staff will make sure the document is coordinated and packaged together and do the preliminary spell and grammar check.

XCAP Member Klein reported what he was proposing earlier was a second level of Committee participation before being submitted to staff and that would be with Chair Naik and himself. That would be a voice in what is presented to the public.

XCAP Member Brail then clarified that he should his section with no more than two other XCAP Members and then share it with either Chair Naik or XCAP Member Klein, but not both.

Chair Naik explained she will meet with Mr. Kamhi and XCAP Member Klein and write out specific instructions and that will be sent out to the group. The public will be

seeing lots of different drafts that will be made public at various points. There are no secret meetings going on.

6. Staff Updates

None.

7. Adjourn

The meeting adjourned at 5:28 P.M.