



City of Palo Alto

City Council Staff Report

(ID # 6182)

Report Type: Action Items

Meeting Date: 10/13/2015

Summary Title: Transportation Policy Discussion

Title: Discussion and Direction to Staff on: 1) The California High Speed Rail Authority's plans to proceed with environmental clearance for their San Francisco to San Jose segment; 2) Next steps regarding rail grade separations in Palo Alto and authorization for staff to pursue outside funding for both grade separations and at-grade crossing Improvements; and 3) The City's interests and strategies regarding the proposed Santa Clara County Transportation Sales Tax Measure, including a potential City of Palo Alto transportation funding measure or other funding strategy

From: City Manager

Lead Department: Planning and Community Environment

Recommendation

Staff recommends that the City Council:

- 1) Discuss and provide direction to staff in light of the recent announcement that the California High Speed Rail Authority is proceeding with plans for the San Francisco to San Jose segment;
- 2) Authorize next steps on the scoping and design of grade separations and pursuit of funding for grade separations and at-grade crossing improvements; and
- 3) Discuss the City's interests and strategies related to the proposed Santa Clara County transportation sales tax measure, including a potential City of Palo Alto transportation funding measure or other funding strategy.

Executive Summary

Recently, the California High Speed Rail Authority (CHSRA) made the announcement that they would be initiating the environmental clearance process for the San Francisco to San Jose section of their high speed rail (HSR) project. This came as a surprise to many individuals who have been tracking HSR as the CHSRA had historically given the

impression that following completion of construction in the Centrally Valley (currently in progress), construction would proceed in Southern California, not Northern California.

With the CHSRA's announcement that they are initiating environmental clearance work for the San Francisco to San Jose project section, the City of Palo Alto must prepare for the work associated with reviewing and commenting on the upcoming draft environmental impact report (DEIR). At this time the CHSRA has announced that they plan to release the DEIR for comment in the winter of 2016 (approximately 15 months from now) and certify a final EIR in the summer of 2017 (approximately 21 months from now).

Engaging effectively within the timeframe set forth by the CHSRA requires that the City review its policy positions and next steps in order to effectively advocate on behalf of the City's interests in a safe and cohesive community. This includes discussion of the City's advocacy position with respect to the HSR project, as well as options for grade separating rail from local pedestrian, bicycle, and auto circulation.

Based on responses to questions at recent CHSRA "Open Houses" and briefing events, CHSRA envisions implementation of the "Blended System" using the Caltrain corridor as configured by the Caltrain Modernization Project. It appears that the CHSRA (and Caltrain) will give more credence to local proposals for grade separating or otherwise improving at-grade crossings in instances where local jurisdictions are actively engaged in design and environmental review of those improvements. As a result, staff is seeking Council authorization to proceed with these next steps and the pursuit of required funding. In addition, this agenda item gives the City Council an opportunity to discuss the County transportation sales tax measure that is currently in the planning stages (as discussed on September 15, 2015) and whether Palo Alto should pursue a voter-approved local funding measure or other funding strategy.

Issue #1: High Speed Rail

It has been almost seven years since Proposition 1A was passed by the voters in November 2008, essentially starting the California HSR project as it is known today. The project continues to face many of the same obstacles it has in the past including identification of sufficient funding sources, local and regional opposition to its design and implementation plans, and debatable ridership figures; however, the CHSRA did achieve a major objective when the State legislature approved approximately \$8B in funding for initial construction in the Central Valley in 2012.

At this time, the CHSRA is proceeding with the implementation of a HSR system between San Francisco and San Jose that shares tracks with Caltrain. While the Blended System addresses some of the City's concerns regarding the project, CHSRA has not made a commitment to maintain future operations within a Blended System.

Nor have the safety and traffic impacts of an at-grade Blended System been addressed, especially taking into account the increase in trains that HSR service will cause.

Based on uncertain funding, continued litigation, and its evolving design, the City has not been able to accurately predict when various HSR project milestones will be achieved. Therefore, the City Council took the position that the City of Palo Alto opposes HSR because the current project fundamentally contradicts the measure presented to the voters under Proposition 1A in 2008 and because the business plan is fatally flawed and not credible.

To provide historical context on the issue of California HSR, below is a brief summary of events that have occurred since Governor Jerry Brown signed SB 1029 on July 18, 2012 which authorized the expenditure of voter approved Proposition 1A funds and effectively initiated project construction.

On September 19, 2012 the U.S. Federal Railroad Administration (FRA) issued a Record of Decision that approved the alignment from Merced to Fresno. This allowed construction of the Initial Construction Segment (ICS) to begin in 2013. The Merced to Fresno section is the first of several project sections that will make up the HSR system.

On March 18, 2013 the CHSRA Board of Directors approved a MOU with the Peninsula Corridor Joint Powers Board (PCJPB) that authorized a the Blended System concept for HSR in the San Francisco to San Jose project section. The key component to the Blended System approach is that instead of CHSRA and Caltrain trains operating on two separate sets of tracks they will instead operate on a single, shared set of tracks.

As a part of the agreement, the CHSRA is providing \$705 million in Proposition 1A funds for Caltrain electrification understanding that in the future electrified CHSRA trains will operate in the corridor using the Blended System structure. Therefore, electrifying the San Francisco to San Jose rail corridor will benefit both Caltrain and the CHSRA. The total cost of Caltrain electrification is currently estimated to be approximately \$1.7 billion.

That said, the Caltrain electrification project and the CHSRA San Francisco to San Jose project segment are being treated by both agencies as separate projects and are going through separate environmental review and construction processes.

Caltrain has a certified EIR for their electrification project although that document is currently being challenged in court; however, despite the legal challenge, Caltrain is proceeding with a design/build contract for Caltrain electrification and is anticipating a completion date in the range of late 2020 to early 2021.

Again, although the CHSRA has not made any announcement about when they anticipate CHSRA trains will be operating in the San Francisco to San Jose project

segment, they have announced that they are proceeding with their environmental clearance work and are targeting a completion date for the draft EIR of winter 2016 with certification of a final EIR in summer 2017.

Although speculative at this time, it is also worth noting the likelihood that House Majority Leader Kevin McCarthy (R - California) will replace Representative John Boehner (R - Ohio) as Speaker of the House. Representative McCarthy is a longtime opponent of HSR and has previously stated he opposes providing the project the approximately \$3.3 billion in federal funding allocated to it as a part of the 2009 stimulus package.

The proposed accelerated timeline may not allow adequate time for public participation in the process. Specifically, this timeline does not allow for the use of the Context Sensitive Solutions (CSS) process previously advanced by the City of Palo Alto.

CSS, as defined by the organization's website (www.contextsensitivesolutions.org), is a "collaborative, interdisciplinary, holistic approach to the development of transportation projects."

The organization further states that a CSS approach is guided by four core principles:

- 1) Strive towards a shared stakeholder vision to provide a basis for decisions;
- 2) Demonstrate a comprehensive understanding of contexts;
- 3) Foster continuing communication and collaboration to achieve consensus;
- 4) Exercise flexibility and creativity to shape effective transportation solutions, while preserving and enhancing community and natural environments.

The CSS process would likely be infeasible if the CHSRA maintains its current environmental clearance timeline.

Litigation Update

Several lawsuits involving the CHSRA are currently in progress. One lawsuit challenges the CHSRA's compliance with Proposition 1A and has a hearing scheduled for mid-February. The key issues in that lawsuit are:

- 1) Does the Blended System concept comply with Proposition 1A;
- 2) Will the Initial Operating Segment (IOS), which is planned to be Merced to Burbank, be financially viable (which is a requirement of Proposition 1A);

3) Can CHSRA trains meet the Proposition 1A San Francisco to Los Angeles travel time requirement of two hours and 40 minutes?

Also pending are two lawsuits raising the question of whether provisions of the federal Interstate Commerce Commission Termination Act (ICCTA) preempt the application of CEQA to a public rail project.

One is *Friends of Eel River v. North Coast Rail Authority*, fully briefed and awaiting oral argument in the California Supreme Court. (This case does not concern HSR directly, but does provide an opportunity for the Supreme Court to address the question whether the federal ICCTA preempts California's environmental review requirements.)

The other is an appeal in the 9th Circuit Court of the Surface Transportation Board's determination that the ICCTA preempted CEQA for the HSR project. That case has briefing extending into February. In the meantime, five consolidated CEQA cases on the Fresno to Bakersfield segment have been stayed.

There is also a challenge pending in the Sacramento Superior Court to the Air Resources Board's determination (and the Legislature's appropriation) allowing the CHSRA to use Cap and Trade auction proceeds to fund HSR, both on the grounds that the CEQA review failed to identify significant impacts and that the determination and appropriation violate AB 32.

The Authority's latest Business Plan (the 2016 edition) should be released in draft form towards the end of this year, and could precipitate another round of litigation over compliance with Proposition 1A.

Policy

Framework

The City of Palo Alto's current, official position on HSR is that the City of Palo Alto believes that the HSR project should be terminated for the following reasons:

- The current project fundamentally contradicts the measure presented to the voters under Proposition 1A in 2008. The voters approved the measure based on grossly underestimated construction costs, overstated ridership numbers and underestimated fares. The voters also required that HSR could operate without a subsidy and that funding sources would be identified and environmental review would be complete prior to construction of an Initial Operating Segment.
- Given that the revised HSR Business and Funding Plans do not meet the projected ridership, fare, job creation, and other significant requirements, the City believes that the voters were not given the accurate information during

the 2008 election necessary to make an informed decision on a HSR project for the State of California.

In addition, on June 24, 2013, the Palo Alto City Council adopted the following guiding principles in event that HSR moves forward:

- 1) The City supports a non-elevated alignment of HSR/Caltrain in Palo Alto;
- 2) The City's preferred vertical alignment of fixed rail in Palo Alto is below grade;
- 3) When examining the potential impacts of vertical rail alignments equal attention shall be given to all Palo Alto neighborhoods. Adopted mitigation measures should be proportionate to the impacts identified in the studies
- 4) The City believes that the Program Environmental Impact Report (EIR) for the Central Valley to San Francisco portion of HSR is fatally flawed and that the CHSRA should reopen and reconsider its decision to use the Pacheco Pass route;
- 5) The City supports the findings of the Legislative Analyst's Office, State Auditor, and the HSR Peer Review Committee regarding the viability and accuracy of the CHSRA's Business Plan on such matters as the ridership projections, the identification of sufficient and reliable funding sources, project management, and operation of HSR
- 6) The City favors legislation which would enable implementation of the HSR Peer Review Committee authorized by AB 3034;
- 7) Palo Alto supports transit and urban design solutions that will be compatible with our economic development strategies, transportation goals, and rail corridor vision. HSR/Caltrain needs to complement the goals and strategies of the City's Comprehensive Plan;
- 8) Palo Alto supports the use of the Context Sensitive Solutions process for HSR and Caltrain that is funded and implemented by the CHSRA;
- 9) The CHSRA should provide sufficient funding to affected cities to allow them to hire experts to study reports requiring feedback and sufficient outreach to the community to capture their concerns and suggestions;
- 10) Proposed changes to the Caltrain corridor by either the CHSRA or PCJPB should provide both realistic renderings of the various alternatives and

simulations that would help provide an understanding of the system's sound and vibration impacts;

11) Palo Alto strongly supports Caltrain and the commuter rail service at the current or improved levels of service;

12) Palo Alto supports the modernization of Caltrain. However, whether the City supports electrification cannot be determined until all potential impacts are identified, studied and suitable mitigation measures are implemented;

13) Palo Alto supports Caltrain as the lead agency for all system improvements in the Caltrain corridor;

14) Palo Alto will work cooperatively with neighboring communities with respect to HSR and Caltrain issues of mutual concern through agencies such as the Peninsula Cities Consortium;

15) Palo Alto expects all current rail crossings to remain open to automobiles, bicycles and pedestrians. In the event that the modernization of Caltrain and/or HSR increases train service from current 2012 levels, Palo Alto will consider grade separation solutions for the Alma, Churchill, East Meadow, and East Charleston crossings. These improvements must be funded by Caltrain, HSR and/or other external funding sources

16) A detailed and transparent environmental analysis of all proposed improvements must be completed. Therefore, the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) shall not be modified in any way that (1) exempts the HSR or Caltrain Modernization projects, either in whole or in part; or (2) reduces the obligation of the HSR or Caltrain Modernization project sponsors to conduct a full environmental review process that allows for a detailed analysis of all potential impacts and mitigation measures at a level that is not less than the level currently required by law;

17) The overall environmental review should be comprised of two separate Environmental Impact Reports. The first EIR should be for the Caltrain Modernization Project. The second EIR should address any subsequent improvements proposed or necessary for HSR operation in the corridor;

18) Palo Alto strongly supports revisions to the PCJPB governance structure that more accurately reflect the distribution of Caltrain ridership. Additionally, such

revisions should be made at or prior to a ballot measure seeking a dedicated funding source for Caltrain operations, should one occur;

19) The Guiding Principles of the Committee incorporates by reference Council adopted written comments to the CHSRA, PCJPB, and other relevant agencies. In case of any conflict in policies the most recent language prevails.

The City's Comprehensive Plan denotes a robust participation by Palo Alto in regional transportation affairs including one goal (T-9), nine policies, and two programs in the existing Transportation Element.

The list of policies under Comprehensive Plan Goal T-9 state that the City should be a regional leader in traffic reduction efforts and should work with stakeholders at all levels to find appropriate solutions to these efforts.

The existing Comprehensive Plan was completed before Caltrain use had expanded to its current service level, and well before HSR was contemplated. Language in the Transportation Element related to Caltrain supports electrification efforts to allow for more trains and a reduction in pollution (Program T-17). Even in 1997-1998, Palo Alto was the second largest generator of trips on the Caltrain system as it is today.

Other policies and programs under Program T-9 emphasize any efforts that reduce pollution including air (which would now be referenced as GHG reduction efforts), noise, and fuel consumption. Although concepts of sustainability had not yet become part of most community's vernacular, it is clear that Policy T-56 and Program T-56 foreshadowed these issues with the language presented, "Improved air quality is the driving force behind...many other current traffic management actions."

Based on feedback from the Citizens Advisory Committee (CAC) charged with assisting the City Council on the Comprehensive Plan update, there is clear interest in retaining strong language related to the City's continued leadership and participation in regional conversations related to solving shared traffic impacts.

Additionally, studies conducted since the Comprehensive Plan was adopted in 1998 provide potential language to be included in the Comprehensive Plan update, the 2012 Bike and Pedestrian Master Plan, and the 2013 Palo Alto Rail Corridor Study, among others.

The Rail Corridor Study found significant deficiencies related to safety at all at-grade crossings and suggested specific language to be included in the Comprehensive Plan update including:

1) "Goal 2: Ensure the Highest Possible Safety at All Rail Crossings and Mitigate Rail Impacts on Neighborhoods, Public Facilities, Schools and Mixed-Use Centers."

2) "Policy 2.1: Improve existing at-grade crossings. All at-grade crossings of the Caltrain corridor should be improved to provide the highest possible level of safety and convenience. This may be grade separations or safer at-grade crossings, with the preferred choice being grade separation, if supported by technical studies."

3) "Policy 2.2: Provide additional safe and convenient crossings. Additional crossings of the tracks, and in some cases Alma Street as well, are essential to provide connections from neighborhoods to destinations such as schools, parks and services."

4) "Policy 2.3: Improve safety and minimize noise, vibrations and visual impacts of operations in the Caltrain rail corridor. With or without the addition of a High Speed Train, the Caltrain corridor should be modified to improve safety and to minimize noise, vibration and visual impacts on adjoining districts, public facilities, schools and neighborhoods."

Based on this existing policy direction and the status of HSR today, staff is seeking direction to advocate that the issues above be addressed as integral to the HSR project, and not simply as mitigation measures. Specifically, that HSR be grade separated from local pedestrian, bicycle, and motor vehicle conflicts at key Palo Alto intersections.

Issue #2: Palo Alto Grade Separations

As noted earlier, it appears that the CHSRA (and Caltrain) will give more credence to local proposals for grade separating or otherwise improving at-grade rail crossings in instances where local jurisdictions are actively engaged in design and environmental review of those improvements.

In 2014, the City retained Hatch Mott McDonald (HMM), a consulting firm specializing in construction engineering, at the direction of the Palo Alto City Council to study conceptual grade separation alternatives for a portion of the Caltrain right of way encompassing three existing at-grade crossings (Charleston, Meadow, and Churchill). This study provided preliminary information on the potential impacts and cost of construction (by order of magnitude) for various roadway submersion and trenching alternatives.

The resulting information was shared with the City Council and the public on October 20, 2015 and was intended to facilitate community dialogue on the issue and ultimately to help form a policy position on grade separations. The study was not definitive in determining an ultimate configuration, but provided a starting point for dialogue on the issue, and indicated that roadway submersion alternatives would require significant property acquisitions, while trenching alternatives would not. Also, trenching

alternatives could maintain turning movements along Alma Street, while not all of the roadway submersion alternatives would do so.

For example, the two percent (2%) grade trench alternative would grade separate Charleston and Meadow for around \$488 million and require zero property acquisitions versus submerging the roadway at the two intersections which would cost approximately \$320 million and require 32 full parcel acquisitions and seven partial acquisitions.

Listed below are the specific grade separation alternatives evaluated by HMM. Alternatives that were studied by HMM were:

- 1) Trenching the corridor from approximately San Antonio to approximately Oregon Expressway, which would grade separate both Meadow and Charleston by keeping the existing roadways at-grade and running rail traffic beneath it in an open trench;
 - ❖ Please note that this alternative does not address whether or not the roadway is submerged below the railroad tracks at Churchill.
- 2) Submerging the roadway beneath the railroad tracks at Churchill;
- 3) Submerging the roadway beneath the railroad tracks at Meadow;
- 4) Submerging the roadway beneath the railroad tracks at Charleston.

It should be noted, as the report from HMM indicates, that the roadway submersion alternatives at both Charleston and Meadow that maintain turning movements on and off of Alma must be done as a single project due to their proximity; however, submerging the roadway at Churchill can occur regardless of what happens at the Meadow and Charleston intersections.

The 2014 study used current and local construction cost information. HMM generated their estimates in part by using information they've obtained from current transportation construction projects in the area with similar traits such as the Bay Area Rapid Transit (BART) to San Jose extension project. Furthermore, HMM used figures that are more applicable to the existing conditions at the intersections they studied as it relates to utility relocation costs, right of way impacts, staging, and traffic signal impacts, rather than wholesale allowance numbers.

Results of the Analysis

As displayed in the Alternative Cost Estimates in the HMM report, the most expensive alternative is the one percent (1%) grade trench alternative at a cost of approximately \$1.05 billion. This alternative would not require a design exemption as it relates to the slope of the grade but it's more than double the cost of the two percent (2%) grade

trench alternative mainly due to the impacts it would have on Oregon Expressway (already grade separated) and the San Antonio Avenue and California Avenue Caltrain stations due to its large footprint. Additionally, this alternative becomes significantly more complex than the two percent (2%) grade trench alternative when existing creeks are considered because instead of the trench being able to go above them the creeks would have to be rerouted, likely requiring additional infrastructure such as pump stations.

Although both the one percent (1%) grade trench alternative and the two percent (2%) grade trench alternative are more expensive than the roadway submersion alternatives they require zero parcel acquisitions, have fewer visual impacts by having a reduced footprint at each intersection, and result in a grade separated roadway that is level with the existing roadways, significantly benefiting bicycle and pedestrian movements.

Table 1 below summarizes the trench alternatives:

Table 1: Summary of Trench Alternatives		
Trench Grade	One Percent (1%)	Two Percent (2%)
Cost	\$1.051 billion	\$488 million
Full Property Acquisitions	0	0
Partial Property Acquisitions	0	0
Turn Movements Maintained	Yes	Yes
Source: Hatch Mott McDonald, 2014		

As for the roadway submersion alternatives, they are significantly less expensive than the trenching alternatives (ranging in price from approximately \$85 million to \$184 million per roadway submersion) but have far greater impacts in the form of property acquisitions, lost turning movements, and their larger footprints.

Below are two tables that summarize the roadway submersion alternatives. Table 2 below shows the roadway submersion alternatives where Alma Street is left at-grade and therefore turning movements on and off of Alma Street are lost. Table 3 below shows the roadway submersion alternatives where Alma Street is lowered in order to maintain turning movements.

Table 2: Summary of Roadway Submersion Alternatives that Abolish Alma Street Turning Movements

Roadway Intersection	Submersion	Churchill	Meadow	Charleston
Cost		\$90 million	\$85 million	\$102 million
Full Property Acquisitions		16	11	18
Partial Property Acquisitions		4	5	3
Turn Movements Maintained		No	No	No
Source: Hatch Mott McDonald, 2014				

Table 3: Summary of Roadway Submersion Alternatives that Lower Alma Street to Maintain Turning Movements

Roadway Intersection	Submersion	Churchill	Meadow	Charleston
Cost		\$184 million	\$143 million	\$153 million
Full Property Acquisitions		33	14	18
Partial Property Acquisitions		3	4	3
Turn Movements Maintained		Yes	Yes	Yes
Source: Hatch Mott McDonald, 2014				

As previously noted, if the roadway submersion alternatives that maintain turning movements on and off of Alma Street at the Meadow and Charleston intersections are selected they must be constructed congruently, as a single project, and that will cost an additional \$23 million for a total project cost of \$319 million.

The estimated cost of approximately \$488 million for this alternative is higher in cost than the two roadway submersions for these locations but requires no parcel acquisitions and provides far greater bicycle, pedestrian, and visual benefits. To make this alternative feasible, it would require a 2% grade, which would necessitate a design exception to Caltrain’s 1% grade standard and impacts of a 2% grade would also have to be evaluated in respect to freight, and future HSR, service on the corridor. This alternative would also require addressing key issues such as construction staging that maintains an operational corridor, additional engineering, constructability, and cost studies.

At the May 30 Comprehensive Plan Summit and in other conversations within the community, it appears that there is significant interest in further exploring the 2% trench grade separation alternative for the Charleston and Meadow grade crossings, and staff would like Council’s authorization to take steps necessary to proceed with

further design and environmental review, as well as pursuit of funding. (Further Council discussion and action would be required prior to actually proceeding with design and environmental review, since these activities are not currently budgeted.)

Trenching Between Oregon Expressway and San Francisquito Creek

One common question that is asked is why the City is not actively studying constructing a trench between Oregon Expressway and San Francisquito Creek. The reason is that constructing a trench between San Antonio Avenue and Oregon Expressway does not require the re-construction of any major infrastructure or encounter any significant natural barriers.

However, constructing a trench north of Oregon Expressway would encounter six key constraints beyond both of the existing at-grade crossings at Churchill Avenue and Alma Street that would not only require significant engineering and construction work but would also exponentially increase the cost of the project.

Those six key constraints north of Oregon Expressway are:

- 1) The reconstruction of Oregon Expressway to an at-grade roadway;
- 2) The submersion of the California Avenue Station to serve a trenched railroad;
- 3) The reconstruction of Embarcadero Road to an at-grade roadway;
- 4) The reconstruction of University Avenue to an at-grade roadway;
- 5) The submersion of the Palo Alto Downtown Station to serve a trenched railroad;
- 6) The submersion of the trench to a depth low enough to go under San Francisquito Creek.

Trenching the Caltrain corridor to a depth low enough to go under San Francisquito Creek would require significant alterations to the corridor in Menlo Park, which would require agreement among the two cities on the project scope, as well as involvement of two counties, Santa Clara County and San Mateo County.

Any of the work associated with addressing the six key constraints north of Oregon Expressway listed above is from an order-of-magnitude standpoint in the hundreds of millions of dollars range, per constraint.

HMM studied in detail the construction of a roadway submersion at the Churchill crossing; however, the City did not have them study a roadway submersion at the Alma Street at-grade crossing near San Francisquito Creek.

A preliminary staff evaluation of submerging the roadway at Alma found that it could likely be done without any parcel takings but could result in eliminating access to Alma Street from Palo Alto Avenue. In terms of cost, based on the cost estimates of other roadway submersions that were studied by HMM staff estimates this project would likely cost approximately \$50 to \$100 million.

Near-term improvements are currently in progress to create additional queuing space and bicycle entrance and exit ramps near the Alma Street Caltrain grade crossing, and the City has received requests from residents in the area to accelerate designation of the Alma Crossing as a "quiet zone." With sufficient resources, achieving this designation via near-term improvements to the at-grade crossing can be pursued in parallel with grade separation planning and environmental review.

Recognizing the significant funding required for the options described above, Palo Alto would be well served to ensure that the scope and cost estimates for grade separating the corridor in Palo Alto be refined to the best and most reasonable extent possible given what is known at this time. If authorized by the City Council, additional circulation analysis and design studies would be undertaken to address questions such as the following:

- 1) To what extent do current trends in active transportation, complete streets design, and mobility innovations present design opportunities not previously considered;
- 2) What tradeoffs should be considered between auto access and the need for property acquisition in the vicinity of grade separations;
- 3) Could modification of existing grade separations such as Embarcadero or Oregon Expressway reduce the auto movements and the capacity needed at proposed grade separations such as Churchill?

The property acquisitions associated with some of the alternatives presented in the HMM report are significant and therefore staff feels strongly that any decision that is made on this topic should be based on a thorough and contemporary consideration of priorities and alternatives.

Based on these considerations, staff recommends proceeding with the development of a request for proposal (RFP) for architectural design, transportation engineering, and community engagement expertise. This effort will be intended to refine the scoping and alternatives analysis of grade separation options, in order to identify feasible alternatives for grade separating HSR in order to address community safety and quality of life priorities.

Section 130 Funding

On September 1, 2015, representatives from City of Palo Alto, Caltrain, Caltrans Rail Division, and the California Public Utilities Commission (CPUC) met to review the Churchill Avenue at-grade crossing. This crossing was identified for possible funding of hazard elimination and safety improvements through the Federal Section 130 funds.

The Section 130 program is a federally funded program, administered by states, for the reduction of hazards at at-grade rail crossings through relatively low-cost operational strategies. Section 130 funding can reimburse the actual and direct costs of the design and construction of recommended improvements that are done subsequent to Caltrans executing a contract and issuing the notice to proceed. After completing diagnostic meetings, the CPUC will conclude its analysis and finalize the list of projects for funding by the Section 130 program. Those projects on the final lists will then proceed to be further developed, including finalizing the scope of work for programming and contracting.

Churchill Avenue currently has an estimated 11,362 average motor vehicle trips per day and an average of 96 trains per day (92 of which are Caltrain trains) in close proximity to a high school and residential neighborhoods. Due to this two safety issues at this crossing exist:

- 1) Higher than normal bicycle and pedestrian traffic mostly attributed to Palo Alto High School;
- 2) Regular queuing on the tracks by eastbound motorists due to short queuing space.

Concepts under study to address these problems include widening and realigning the Churchill Avenue crossing for bicycles and pedestrians, installation of a pre-signal to mitigate the motor vehicle queuing concerns, installation of bicycle signal heads, a "scramble phase" to the traffic signals at the Alma Street and Churchill Avenue intersection, replacement of the crossing surface, and additional lighting.

A pre-signal consists of traffic signals that stop motorists prior to the railroad crossing. A "scramble phase" with bicycle signal heads would reduce wrong-way cycling on Churchill Avenue.

At this time the CPUC priority list of projects for Section 130 funding is being developed. This project has been identified as a preliminarily candidate location for safety improvements. City and Caltrain staff are advancing development of proposed safety improvements, however, until the final analysis is completed by the CPUC and the priority list is established, no project funding is guaranteed. Should there be a project, the City, and/or Caltrain may also do work in addition to the Section 130 project at their own expense.

A community meeting has been scheduled for Thursday, October 22, 2015 from 6:00 PM to 8:00 PM at the Palo Alto High School Media Arts Building to update the community on both the possible Section 130 improvements and the Churchill Avenue Phase I project, which would implement a segment of the City's 2012 Bicycle and Pedestrian Plan. (This project received City Council policy approval of Concept Plan Lines in January 2015.)

Proposed improvements include an extension of the multi-use path to El Camino Real where a new westbound right turn lane would be added to improve capacity of the intersection. Bicycle and pedestrian safety at the El Camino Real intersection would also be enhanced through traffic signal modifications, the introduction of a new crosswalk on the north leg of the intersection, and new bicycle lane markings and ramps to support connections to the Stanford Perimeter Trail project. The project also includes raised speed tables that double as crosswalks at Castilleja Avenue and Madrono Avenue and lighting improvements.

Section 190 Funding

On September 14, 2015, City staff received notification from Caltrain staff regarding a call for nominations to the Section 190 Program. This state-funded program provides funds to local agencies to grade-separate at-grade crossings, or to improve existing grade-separated crossings. The CPUC has jurisdiction over the safety of highway-rail crossings in California. The CPUC reviews projects for the safe design of crossings and recommends safety measures, such as automatic warning devices, to mitigate hazards for at-grade crossings users.

The optimal safety improvement for an at-grade rail crossing is the complete separation of the railroad tracks from the roadway through construction of a grade separation structure. Replacement of at-grade crossings with grade separated crossings eliminates the fatalities and injuries that often result from collisions between train and road users. It also eliminates blocking delays that cause traffic congestion, reduces the noise from train horns and automatic warning devices, and can improve emergency response times. The Section 190 Program helps local agencies finance the high costs of grade separating rail crossings, thereby improving public safety and convenience.

The California Section 190 program typically provides approximately \$15 million total per year to three or four grade-separation construction projects in the state. Every two years, the CPUC establishes and furnishes to the California Transportation Commission (CTC) and the California Department of Transportation (Caltrans) a funding priority list of grade separation projects for rail crossings most urgently in need of separation or alteration.

Section 190 of the California Streets and Highways Code (S&H Code) requires the state's annual budget include \$15 million for funding these projects. Section 2450 et

seq. of the S&H Code sets out the procedure for administering these funds, and Section 2453 gives the CTC responsibility for allocating the funds to qualified projects.

For a project that eliminates an existing at-grade crossing or alters or reconstructs an existing grade separation, an allocation of 80% of the estimated cost of the project is made. No allocation shall be made unless the railroad agrees to contribute 10% of the cost of the project. Subsequent to the CPUC's issuance of the Priority List, Caltrans accepts separate applications for an allocation of funds on or before April 1 of each fiscal year. Caltrans distributes the available funding according to a project's compliance with the program regulations, readiness and the priority ranking established annually by the CPUC. The project on the list with the highest priority, and which also meets the requirements detailed below, has first claim to the available funds to the extent of the yearly cap.

Assembly Bill 1067, approved by the Governor on October 7, 2005, changed S&H Code 2454(g)(2) to make the project ranked number 1 on the priority list, eligible for an allocation of up to \$15 million dollars, spread over multiple years. The next project in the ranking which meets the requirements receives the next allocation, and so on, until the fiscal year's funds are exhausted. Two different formulas are used to make these computations, one for existing at-grade crossings nominated for separation or elimination and another for existing separations nominated for alteration or reconstruction.

Additional funds were made available as a result of the passage of Proposition 1B in 2006, which created the Highway-Railroad Crossing Safety Account that funded \$150 million for improving rail crossings by constructing grade separations, allocated using the priority list created under this process. The bulk of these funds have been expended as of today, with a significant portion allocated to the recently constructed elevated grade separation of Caltrain in San Bruno. Total funding for large, grade separation projects typically include a mix of Section 190 funding, federal funding routed through a Metropolitan Planning Organization (MPO), regional funding, and local funds. In San Mateo County, 15% of the county transportation sales tax receipts are dedicated to grade separations, and currently four grade separation projects are being advanced with these funds.

Interested local agencies are responsible for submitting nominations to the CPUC with the required information. These agencies must be ready to share in the project's cost. The CPUC requires applicants to attend the formal public hearings and provide testimony in support of their proposals. The list is dynamic, responding to local demographic changes. Projects may change in ranking from one year to the next, as new nominations may show a greater public need for grade separation or improvement. The system is not one where the first project on the list is necessarily the first to be funded. Although the priority list ranking is an important factor in determining whether a project is funded, securing an allocation requires a number of other

requirements to be met (as noted above).

In recent years, these additional requirements have not been met by the vast majority of projects on the priority list, thereby allowing projects with a lower priority ranking to be funded. If there is a possibility that a grade separation project may be able to meet the requirements outlined above within two years of its nomination, the CPUC strongly recommends that the local agency apply for funding through the Section 190 Program.

Staff has discussed the Section 190 program with Caltrain representatives, and based on their input is recommending that Palo Alto submit its grade crossing for nomination to the Section 190 program in 2017 (assuming the start of additional planning and environmental review very soon). Apparently, there is no benefit to reaching the top of the list if your project is not ready for construction. If Palo Alto were to submit a nomination this year, we would need to resubmit every two years until the project is ready, and would receive no added benefit for being in the list for a longer time.

Caltrain staff indicates they are willing to support the City in our concept planning and environmental work, and they have already agreed to an arrangement in Burlingame where the City is leading the work and they are simply reviewing. (The management structure for grade separation projects vary by city, and Caltrain is open to different models.) Caltrain would need to concur with the design concept before offering full support for a Section 190 nomination, and their staff indicated that they would need several months to form an opinion based on the HMM study.

Issue #3: Proposed Santa Clara County Transportation Tax Measure

The Santa Clara County Valley Transportation Authority (VTA) has been discussing the possibility of placing a transportation sales tax measure on the November 2016 ballot. This tax measure would be focused on enhancing public transportation systems such as BART and Caltrain, improving pavement maintenance, highways, and expressways, and improving active transportation alternatives for bicyclists and pedestrians.

Historically, countywide transportation sales tax measures in California have often employed a strategy of combining a list of specific, major regional projects to be funded with separate program categories within which smaller-scale projects (such as street repaving or Transportation Demand Management) would be subsequently identified and funded. Projects of significant local importance (such as Caltrain grade separations) could also come from a crossover category in which the tax measure designates a funding level and specific projects are subsequently selected based on certain criteria.

To solicit input and better educate stakeholders, the VTA has launched "Envision Silicon Valley," a campaign aimed at engaging community leaders in a visioning process to discuss current and future transportation needs, identify solutions, and develop funding priorities. In order to be considered for potential funding through the potential 2016

transportation tax measure, projects should be included in the Valley Transportation Plan (VTP) 2040 and the Plan Bay Area documents.

Inclusion of projects in the VTA's VTP 2040 and the MTC's Plan Bay Area documents makes them eligible for funding. The proposed transportation sales tax measure would provide a local source of transportation funds to supplement regional, state, and federal funds along with direct funding from local agencies.

Communities and transit agencies submitted projects in August 2015 for consideration as part of the VTP 2040 process. An estimated \$40 billion in projects and programs were submitted for an estimated \$20 billion in potential funding (including future grant funds as well as the sales tax funding).

On August 17, 2015, the City Council provided direction regarding the City's response to VTA's "call for projects" for their 2040 long range plan. This same list of projects is anticipated to be the basis for discussions about a 2016 ballot measure to establish a countywide transportation sales tax and the City Council adopted the following priorities:

- 1) Dedicated funding for Caltrain grade separations in Palo Alto or North Santa Clara County and other Caltrain capacity improvements;
- 2) Bicycle and pedestrian improvements;
- 3) Better first and last mile service particularly in North Santa Clara County;
- 4) Support VTA's plan to support transportation management associations and other transportation demand management measures.

In addition, the August 17th staff report suggested that the following principles could be used to guide future discussions and advocacy around the sales tax measure:

- Ensure that Caltrain is provided with sufficient funds to meet their current and future capacity needs including longer trains, station and platform enhancements, and money for grade separations;
- Provide funding for first and last mile transit connections using advanced technology and public/private partnership strategies with specific funding discretion given to cities;
- There should be a focus on safety improvements, alternatives to single-occupancy vehicle trips, and adequate maintenance of existing transportation infrastructure;

- Any roadway expansion should prioritize high occupancy vehicle (HOV) lanes;
- Any operational street improvements should help plans for Complete Streets;
- Program and project funding should have flexibility to meet changing needs but not jeopardize key, identified funding categories such as Caltrain improvements; and
- Priority should be given to projects resulting from collaboration among neighboring communities.

It is expected that an initial proposal for the tax measure will be developed by VTA in early 2016 based on input from the VTP 2040 Call for Projects as well as further discussions by the Envision Silicon Valley committees. Based on preliminary discussions over the past year, at this time the following projects and programs are likely to be considered for the tax measure (which is likely to be a 30-year, 1/2 cent sales tax that would generate about \$6 billion over the 30-year life of the tax measure):

- 1) The BART Phase 2 extension to San Jose (and possibly to Santa Clara);
- 2) Increased capacity for Caltrain including longer trains, station and platform enhancements, and money for grade separations;
- 3) Expressway improvements based on the current County Expressway Plan with priorities including upgrades to the Lawrence and Page Mill Expressways;
- 4) Key freeway improvement projects including express lanes and interchange upgrades such as the San Antonio/U.S. 101 interchange;
- 5) Local street and road pavement maintenance allocations with a possible provision to un-encumber local funds if an adequate pavement maintenance level is achieved;
- 6) Transportation improvements for bicyclists and pedestrians; and
- 7) Transit service improvements for seniors and people with disabilities.

Further public and agency review regarding the proposed sales tax measure will occur starting in the fall. The Envision Silicon Valley process will include formal review of the proposed measure by the following VTA boards and committees:

- 1) The VTA Board and Envision Silicon Valley Ad-Hoc Committee (Los Altos Councilmember Jeannie Bruins represents the North County cities);
- 2) The VTA Policy Advisory Committee (Councilmember Liz Kniss represents Palo Alto);

3) The VTA Technical Advisory Committee (City of Palo Alto Planning & Community Environment staff represents the City);

4) Envision Silicon Valley stakeholder committees, including community interest groups and transportation advocacy groups such as the Palo Alto Chamber of Commerce and Stanford University.

Additionally, potential advocacy for the composition of the measure could come from key employers (separate or through the Silicon Valley Leadership Group), community and environmental groups, and/or a possible coalition of North County cities.

At this time, VTA's likely approach to grade separation funding would set aside a portion of countywide sales tax funds for a category of eligible projects. Palo Alto's grade separation project proposals would then need to reach a stage of readiness to make them most competitive against other grade separation projects throughout Santa Clara County. If successful, sales tax proceeds would still likely provide only a portion of total project costs. It is likely that another source, whether local, state, or federal, would be needed to complete any grade separation project.

If the VTA is successful in passing a 30-year half-cent sales tax increase for transportation needs it is staff's best estimation that approximately \$750 million to \$1 billion of the approximately \$6 billion that would be generated over the life of the proposed VTA tax would go towards all Caltrain improvements, including capacity improvements as well as grade separations.

Normally, a tax measure of this nature could provide a majority of the project cost for a grade separation; however, the amount of money each project gets at this time is still very speculative and would need to compete with other projects throughout the County within the overall funding available. Additionally, since the approximately \$488 million cost of the proposed trench is well above the approximately \$85 million to \$184 million cost of a roadway submersion grade separation in Palo Alto based on the HMM study, it is unknown what percentage of the project cost the trench alternative would receive from the money allocated for Caltrain improvements. In the context of other competing projects, staff's assessment at this time is that it is unlikely that Palo Alto grade separations could be expected to receive more than \$50 million from a VTA sales tax measure.

Based on the preceding considerations, staff recommends that the City Council direct staff to advocate for a robust "return to source" provision in the ballot measure (recognizing the percentage of the County's sales tax generated in Palo Alto and Palo Alto's share of the County's job base), as well as maximum funding for Caltrain grade separations.

State law allows cities and special taxing agencies within a county to add an additional

two percentage points of sales tax above the state's sales tax limit. Currently, one-and-a-quarter percentage point of this allowance has been used in Santa Clara County leaving a balance of three-quarters of a percentage point that can be used.

Palo Alto has not used any of the one-and-a-quarter percentage point increase referenced above as most of it has been used by transit agencies. If the City chooses to pursue a tax measure to use some of the remaining increment it can impose either a general tax, which requires a majority vote of the City's residents, or special tax, which requires a two-thirds vote of the City's residents. If a special agency, such as the VTA, levies a tax it must be a special tax, therefore requiring a two-thirds vote of the entire County.

If a half-cent tax proposal were submitted to the City's voters and approved it is estimated based on current sales tax receipts that it would generate \$12.8 million per year. A quarter-cent cent tax increase would generate half that amount (or \$6.4 million per year). These estimates could change due to a variety of factors such as an economic downturn or increased internet sales tax revenue.

The general rule the City uses for a 30-year tax is that for every \$1 million in annual revenue the City receives, it can issue approximately \$14 worth of debt off of that revenue. Therefore, if the City were to pass a 30-year half-cent sales tax increase it would generate in present day dollars approximately \$12.8 million per year which would allow the City to generate approximately \$179.2 million in debt revenue off of that 30-year half-cent sales tax. In comparison to a VTA tax measure, a local Palo Alto funding measure would likely generate significantly greater proceeds for Palo Alto in addition to an assurance Palo Alto receives grade separation funding. Notably, however, this funding scenario would meet only a fraction of the funding need for the current preferred grade separation scenarios, and issuing that amount of debt may be a concern.

Also, it's important to note that bond money can be used for "soft costs" such as design, engineering, and environmental work related to an infrastructure project as well.

If voters approved both a Countywide .5% measure and a City .5% measure at the same election, it is possible that an amendment to the 2% sales and use tax cap could provide a resolution allowing both measures to go into effect. If that did not occur, the conflict between the two measures would likely be resolved through court action.

In addition, Council may direct staff to explore alternative voter-approved measures to fund transportation projects, or other funding mechanisms.

Timeline & Resource Impact

Based on Council's discussion and direction, staff will return with a timeline and budget request for next steps related to grade separation, except that the scope of work for Section 130 funding (for the Churchill crossing) must be submitted to CPUC this month and would need to be finalized – with Caltrain support -- immediately.

Environmental Review

This agenda item provides an opportunity for Council discussion and direction to staff on major transportation policy issues, however, it is not a "project" requiring review under CEQA.