



STAFF REPORT

City Council

Meeting Date:

6/4/2019

Staff Report Number:

19-117-CC

Consent Calendar:

Receive and file an update on the Middle Avenue pedestrian and bicycle rail crossing project

Recommendation

Receive and file an update on the Middle Avenue pedestrian and bicycle rail crossing project.

Policy Issues

The City Council identified the Middle Avenue pedestrian and bicycle rail crossing project (project) as a high priority project in their 2019 work plan March 12. The project is consistent with policies stated in the 2016 general plan circulation element, the El Camino Real and downtown specific plan and is included in the City's capital improvement program (CIP.) These policies seek to maintain a safe, efficient, attractive, user-friendly circulation system that promotes a healthy, safe and active community and quality of life throughout Menlo Park.

Background

Staff provided an informational update on the project to City Council April 9 (Attachment A.) Since that time, staff has been coordinating closely with Caltrain staff on the design and construction options.

The City Council Rail Subcommittee received a project update April 22. The staff report is included as Attachment B. At the meeting, community members asked questions regarding how the various Ravenswood Avenue railroad crossing study alternatives, including a Caltrain tunnel and a fully elevated rail option, would impact concepts for the Middle Avenue crossing. As requested by the Rail Subcommittee, the analysis section below includes a discussion of these options.

A project community meeting was held May 13. A brief summary of that meeting is included in the analysis section below.

Analysis

The current study is evaluating benefits and challenges of three undercrossing concepts near Middle Avenue, included as Attachment D. Concepts 1 and 3 are both proposed to use a trenching method to install the tunnel portion. This would require the rail tracks to be removed temporarily while the tunnel is installed, putting the rail out of service during the tunnel construction (approximately 2-4 days), but allowing the tunnel to be shallower (approximately 10-11 feet below existing elevations at Alma Street and proposed Middle Plaza.) Concept 2 proposes to install the tunnel with a directional jack and boring method. This would allow the rail tracks to remain in place during installation of the tunnel, however would require the tunnel to be deeper (approximately 20 feet below existing elevations at Alma Street and proposed Middle Plaza). Concepts 1 and 3 have many benefits over concept 2 including a shorter tunnel length, shallower

tunnel depth, more efficient and easy to use ramp alignments on both sides of the tunnel and lower construction cost estimate. Concept 2 has many benefits to Caltrain operations and more flexibility in tunnel construction time periods and durations. Note that there are multiple elements still being reviewed by and coordinated with Caltrain.

As discussed in the City Council informational update April 9, a number of challenges exist to align the timeframe with that of the adjacent Middle Plaza development by Stanford, most notably ongoing coordination needs with Caltrain and their current Peninsula corridor electrification project. City and Caltrain staff have been working together to identify, plan for and overcome a number of risks and challenges to advance delivery of the undercrossing as expeditiously as possible. Construction and operation testing of Caltrain's Peninsula corridor electrification project is expected to continue until revenue service of the electrified system is projected to begin 2022, with installation of the overhead poles and wires anticipated by the end of 2019 or soon after.

Other construction issues to be coordinated with Caltrain include minimizing the construction duration and impacts on service and maintaining operations of service during the trenching, using methods such as keeping one track operational during construction and building the trench in two phases or bussing Caltrain passengers (a "bus bridge") between the Menlo Park and Palo Alto stations during the construction. Staff will continue to work with Caltrain to minimize impacts to the system while advancing and expediting construction as much as feasible.

Construction phasing

City staff's current preferred construction method for the crossing is an open cut-and-trench construction method that would require temporary removal of all existing railroad infrastructure and relocation of utilities at the crossing location. This is currently preferred due to the shallower tunnel requiring shorter ramps and stairs and preferred user experience. In this method, a trench is dug, undercrossing supports are placed, material to cover the trench is restored and train tracks are replaced.

Due to the time constraints, necessary permissions, available resources, required utility work and permit acquisitions, the idea of expediting construction phasing to construct only the tunnel portion before the electrification wires being installed is not feasible. The project team is now re-evaluating the overall project schedule to determine if a design-build construction process is feasible with the goal to complete the construction to align with the opening of the Middle Plaza development. The project team is coordinating with design-build construction specialists to refine the schedule and will continue to provide updates. Ultimately, opening the crossing to the public by completion of Middle Plaza development is still the project's goal.

The efforts spent to date to expedite the construction of the tunnel portion are still applicable to a non-phased approach and helps the project process move along quickly to help meet the completion schedule. Efforts begun to date include coordination on required property acquisition, coordination with Caltrain on environmental review approach, utility location and confirmation, preliminary design and completion of the second community meeting.

Coordination with Ravenswood Avenue railroad crossing options

Staff has been coordinating the Middle Avenue crossing project with the Ravenswood Avenue railroad crossing study, also being performed by the same staff and consultant team. Considerations to coordinate the two projects include determining appropriate pedestrian and bicycle crossing depth to accommodate projected rail elevations for the Ravenswood Avenue railroad crossing study options and construction staging impacts including temporary railroad track location to potentially keep the Middle Avenue crossing open during grade separation construction. Additional evaluations will be performed to analyze if this is

feasible.

Interest in performing detailed analyses of a citywide rail tunnel and variations of a fully raised rail have been expressed. The Ravenswood Avenue railroad crossing project included preliminary evaluations of these options, their feasibility and a scope of work has been drafted to perform a detailed analysis. This draft scope of work has been discussed at previous City Council and Rail Subcommittee meetings. This effort requires additional funds to be appropriated and will come before the City Council at a later date for direction and action.

The citywide tunnel option of the rail corridor would negate the need for a pedestrian and bicycle crossing since the rail would no longer be at ground level. A walkway at existing ground level could be constructed as part of the rail project. Additionally, the City Council received a presentation from professor Bennon of Stanford global project Center May 21 regarding feasibility of tunnels for rails and potential funding mechanisms. In summary, he stated that by undergrounding the rail, there would be the opportunity for development on the land where the rail now exists to help pay for some of the construction of the undergrounding, a method called land value capture. The level of development required to help pay for part of this endeavor would be of a high urban density similar to near the Caltrain station 4th and King streets in San Francisco. As this was a presentation, no direction was given to staff at this meeting.

With a fully elevated rail option over Ravenswood and Oak Grove Avenues, the Middle Avenue crossing could either remain in place or be replaced with a walkway nearer to the existing ground level. Attachment E illustrates the latest rail profiles considered for the fully elevated options, including the approximate location, elevation and size of the Middle Avenue undercrossing. Should this option of grade separation move forward, an at-grade walkway connecting Middle Plaza and Alma Street would be possible, however, this could not be constructed until the grade separation construction.

The best case schedule for the construction of any grade separation project at Ravenswood and Oak Grove avenues is eight years minimum and likely more since no funding has yet been secured for design or construction. Cost estimates prepared as part of prior roject study report work ranges from \$310-380 million.

Right-of-way needs

In addition to coordination with Caltrain on uses within their right-of-way, on the west side of the crossing, the project will require acquisition of a portion of the 700 El Camino Real property to the north (currently shopping center including Big 5 and BevMo.) There is a 52-foot wide rectangular portion of the parcel that extends south between the Stanford owned property and the Caltrain property that must be utilized for the stairs and ramps into the crossing tunnel. Currently this portion of the property is an underutilized parking lot. The yellow shading in Attachment D illustrates the portion of this property necessary for each of the three concepts.

Staff is having on-going discussions with the affected property owner about the project. As part of the process of acquiring the needed portion of this property, staff will return to City Council to seek approval to negotiate, tentatively July 2019.

Tree impacts

In order to construct the project, existing heritage trees and vegetation on both sides of the crossing location will need to be removed. An inventory and detailed evaluation of the tree removals and replacement requirements is in process. There are opportunities for restoring landscaping and trees within the proposed ramp and stair areas on both sides of the tunnel, on which staff anticipates seeking community input as part of future engagement efforts.

Community meeting

The second community meeting for this phase of the project was held Monday, May 13, in the Elm room of the Arrillaga Family Recreation Center. Approximately 25 people attended the meeting that started with an open house style set of boards for attendees to review the three proposed concepts, ask questions and provide feedback. This was followed by a presentation by the project team, questions and another opportunity for the attendees to review and provide feedback on the exhibits.

Feedback received and questions asked generally fell into the following categories: preferred crossing concept, preference of stair and ramp types, safety and security concerns, clarifications on designs and coordination with other projects. Some of the feedback included:

- Shallower tunnel preferred
- Shorter ramps and stairs preferred
- Concerns regarding bicyclists traveling fast and in large groups in same area as pedestrians on ramps

A copy of the presentation is posted on the project webpage (Attachment C) and a summary of the meeting will be posted on the project webpage once it is finalized.

Next steps

City staff will be presenting the current concepts and feedback heard to date to the Complete Streets Commission June 13 for a recommendation on the preferred concept(s.) Staff anticipates bringing forward the options to City Council to select a preferred crossing concept(s) July 16. Negotiations to acquire necessary right-of-way for the project will be brought before City Council for discussion and authorizations in summer 2019.

Upon selection of a preferred crossing location and direction on overall layout, the project team will proceed with completion of the 30 percent design plans and environmental documentation. Staff is also exploring a design-build approach to the next phases of the project to help expedite project delivery. Staff is currently evaluating this possible approach and continues to meet with Caltrain to coordinate and determine the best delivery options. Staff will return to the Rail Subcommittee and City Council with a more detailed update and delivery plan as more information becomes available.

The San Mateo County Transportation Authority (SMCTA) grant was initially identified to expire in July 2018, and has received two time extensions to February 2020. It is critical to keep this schedule on track to ensure the project progresses, and in accordance with the funding agreement that the City is reimbursed the awarded funds from SMCTA.

The key milestones for the next steps of the project are summarized below:

Table 1: Key project milestones	
Coordination with Caltrain	On-going
Complete Streets Commission meeting	June 13, 2019
City Council authorize negotiations to acquire right-of-way	July 16, 2019
City Council selects preferred crossing tunnel alignment and layout	July 16, 2019
Completion of environmental documents and 30% design plans (grant scope)	By February 2020
Construction	2021-2022
Goal for undercrossing opening	Concurrent with Middle Plaza occupation, 2022

Impact on City Resources

The project was included in the CIP for fiscal year 2016-17, with a total budget in the amount of \$700,000. Through the Measure A pedestrian and bicycle program grant awarded for this project, the SMCTA will reimburse the City up to \$490,000.

Environmental Review

The project will required a complete review under the California Environmental Quality Act. More information about the environmental review will be provided in the July 2019 report to City Council.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting. Additionally, an email notification was sent to the Public Works projects interest list to notify the public about this Informational Item.

Attachments

- A. Hyperlink – City Council informational update, April 9:
menlopark.org/DocumentCenter/View/21181/K3-20140904-Middle-crossing-CC
- B. Hyperlink – Rail Subcommittee staff report, April 22: menlopark.org/DocumentCenter/View/21356/C1-20190422-Middle-Ave-ped-update-CCRS
- C. Hyperlink – Middle Avenue pedestrian/bicycle crossing: menlopark.org/middlecrossing
- D. Three crossing concepts
- E. Ravenswood Avenue rail crossing, fully elevated over downtown option with Middle Avenue crossing location shown

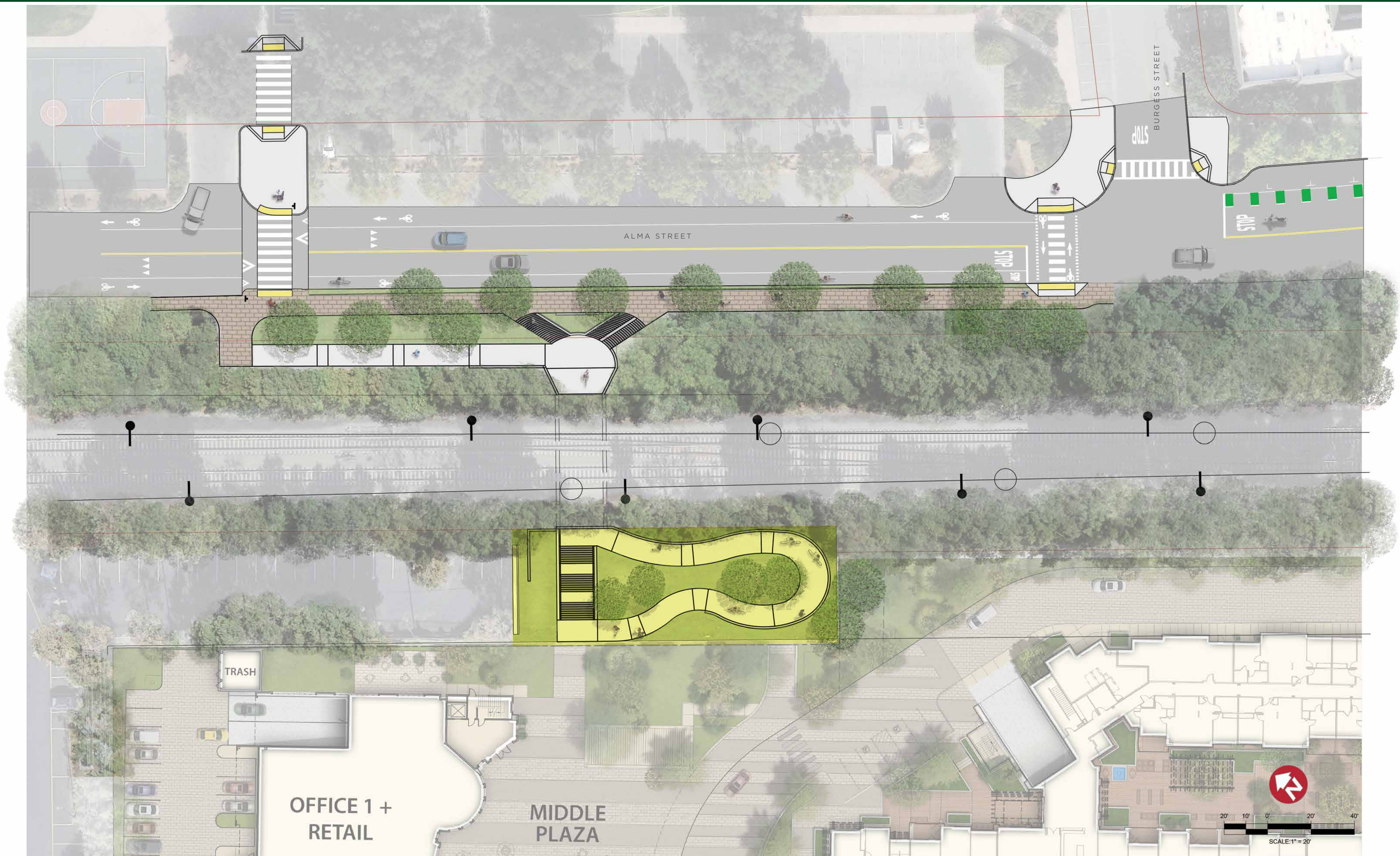
Report prepared by:

Angela R. Obeso, Senior Transportation Engineer

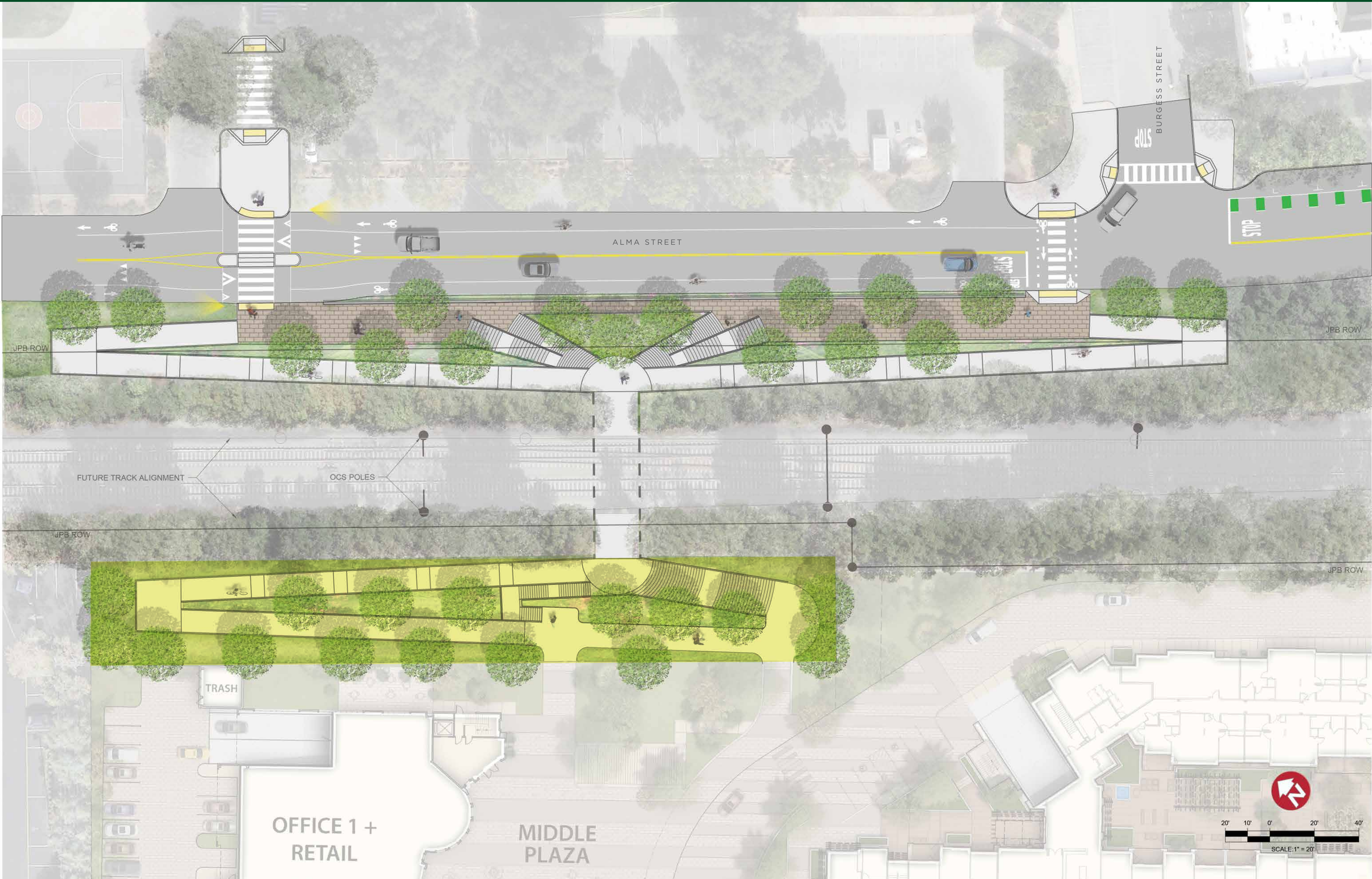
Report reviewed by:

Nicole H. Nagaya, Assistant Public Works Director

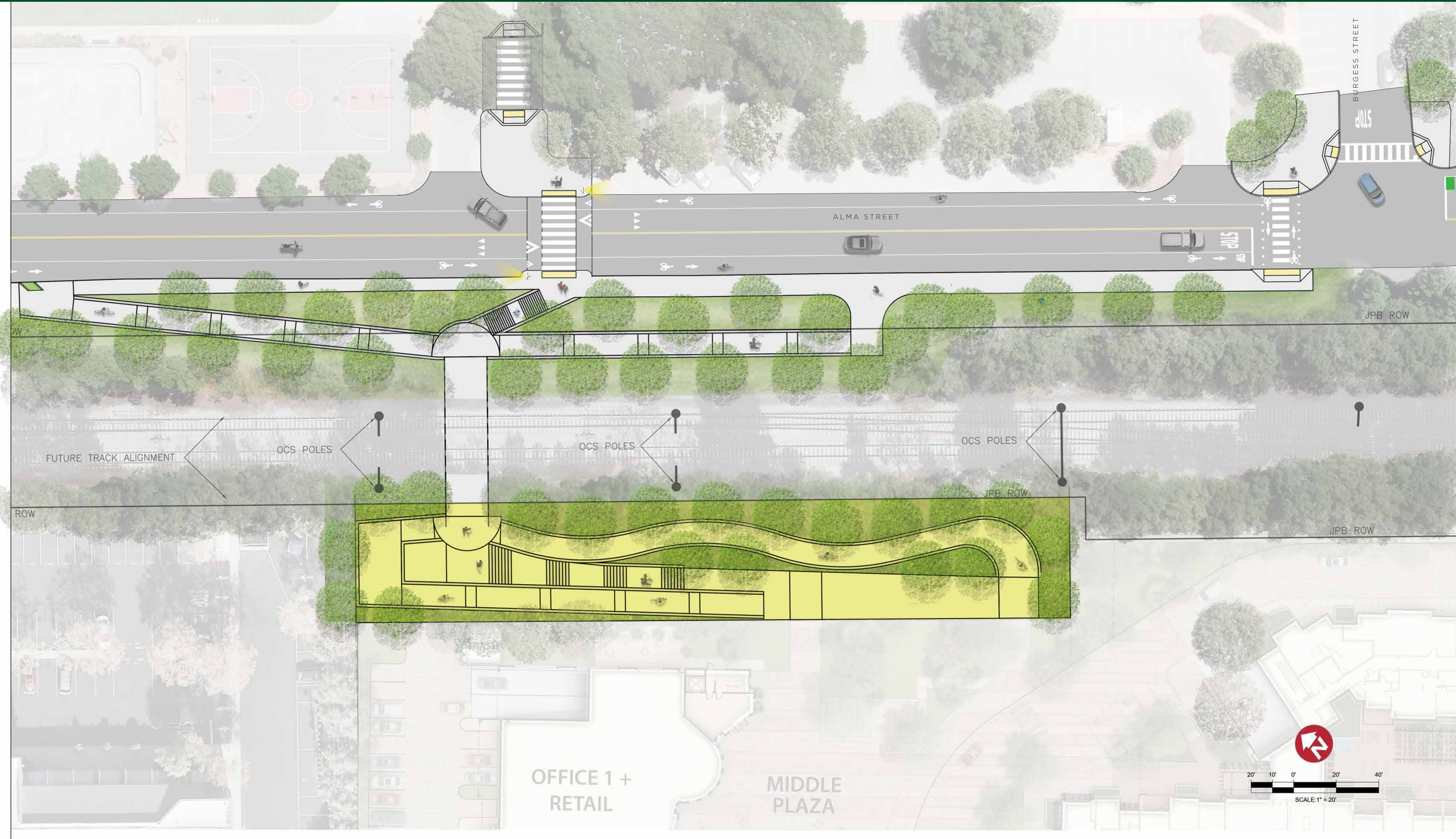
Middle Avenue Undercrossing - Concept 1 Plan



Middle Avenue Undercrossing - Concept 2 Plan



Middle Avenue Undercrossing - Concept 3 Plan





FULLY ELEVATED OVER DOWNTOWN RAIL PROFILE OPTION

