



REGULAR MEETING AGENDA

Date: 7/13/2022
Time: 7:00 p.m.
Location: [Zoom.us/join](https://zoom.us/join) – ID# 845 2506 8381

NOVEL CORONAVIRUS, COVID-19, EMERGENCY ADVISORY NOTICE

Consistent with Government Code section 54953(e), and in light of the declared state of emergency, and maximize public safety while still maintaining transparency and public access, members of the public can listen to the meeting and participate using the following methods.

- How to participate in the meeting
 - Access the meeting real-time online at:
[Zoom.us/join](https://zoom.us/join) – Meeting ID 845 2506 8381
 - Access the meeting real-time via telephone at:
(669) 900-6833
Meeting ID 845 2506 8381
Press *9 to raise hand to speak

Subject to Change: Given the current public health emergency and the rapidly evolving federal, state, county and local orders, the format of this meeting may be altered or the meeting may be canceled. You may check on the status of the meeting by visiting the City's website www.menlopark.org. The instructions for logging on to the Zoom webinar and/or the access code is subject to change. If you have difficulty accessing the Zoom webinar, please check the latest online edition of the posted agenda for updated information (menlopark.org/agenda).

Regular Meeting ([Zoom.us/join](https://zoom.us/join) – ID# 845 2506 8381)

A. Call To Order

B. Roll Call

C. Reports and Announcements

Under "Reports and Announcements," staff and Commission members may communicate general information of interest regarding matters within the jurisdiction of the Commission. No Commission discussion or action can occur on any of the presented items.

D. Public Comment

Under "Public Comment," the public may address the Commission on any subject not listed on the agenda. Each speaker may address the Commission once under public comment for a limit of three minutes. Please clearly state your name and address or political jurisdiction in which you live. The Commission cannot act on items not listed on the agenda and, therefore, the Commission cannot respond to non-agenda issues brought up under public comment other than to provide general information.

E. Regular Business

- E1. Accept the Complete Streets Commission minutes for June 8, 2022 ([Attachment](#))
- E2. Recommend preferred conceptual designs for Middle Avenue to the City Council ([Staff Report #22-010-CSC](#))
- E3. Recommend to City Council a new Complete Streets Commission meeting start time
- E4. Evaluate commission subcommittees to support City Council priorities

F. Informational Items

- F1. Update on major project status

G. Committee/Subcommittee Reports

- G1. Update from Downtown Access and Parking Subcommittee (Altman/Behroozi/Cole)
- G2. Update from Multimodal Metrics Subcommittee (Altman/Behroozi)
- G3. Update from Safe Routes to School Program Subcommittee (Behroozi/Cebrian/King)
- G4. Update from Transportation Master Plan Implementation Subcommittee (Altman/Behroozi/Cebrian)
- G5. Update from Zero Emission Subcommittee (Jensen)

H. Adjournment

At every Regular Meeting of the Commission, in addition to the Public Comment period where the public shall have the right to address the Commission on any matters of public interest not listed on the agenda, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during the Commission's consideration of the item.

At every Special Meeting of the Commission, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during consideration of the item.

For appeal hearings, appellant and applicant shall each have 10 minutes for presentations.

If you challenge any of the items listed on this agenda in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Menlo Park at, or prior to, the public hearing.

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**REGULAR MEETING MINUTES – DRAFT**

Date: 6/8/2022
Time: 7:00 p.m.
Location: Zoom

A. Call To Order

Chair Cole called the meeting to order at 7:02 p.m.

B. Roll Call

Present: Behroozi, Cebrian, Cole, Jensen, King, Kollmann
Absent: Altman
Staff: Acting Planning Manager Kyle Perata, Assistant Public Works Director –
 Transportation Hugh Louch, Engineering Technician Patrick Palmer, Senior
 Transportation Engineer Kevin Chen
Others: Hart Howerton Eric Morley and Hart Howerton Eron Ashley

C. Reports and Announcements

Staff Chen reported on City Council actions related to transportation since the May 11, 2022 Commission meeting.

D. Public Comment

- Jean Baronas spoke in support of a new signal at the intersection of Sharon Road and Sharon Park Drive.

E. Regular Business

E1. Accept the Complete Streets Commission minutes for May 11, 2022 (Attachment)

ACTION: Motion and second (Cebrian/ King), to accept the Complete Streets Commission minutes for May 11, 2021, including Commission feedback summary verbiage under item E2. with: 1) "...distance to nearest cross street..." to the first bullet and, 2) "...Blake Street..." to the second bullet, passed 5-0 (Jensen abstaining and Altman absent).

E2. Review and recommendation of General Plan Circulation Element and Zoning Map amendments to modify site access and circulation for the proposed Willow Village master plan project (Staff Report #22-009-CSC)

Staff Perata and the Hart Howerton team representatives Morley and Ashley made presentations (Attachment).

The Commission discussed and provided the following feedback:

- Re-examine Park Street and Main Street configurations (e.g., 4-lane roadway) for traffic flow efficiency, slower vehicular speed, and safety.
- Re-examine project site access and turning lanes on Willow Road for traffic flow efficiency and

safety.

- Improve crossings on Willow Road to project site for pedestrians and bicyclists.
- Improve bicycle access on the west side of Main Street.
- Reduce vehicular lane widths where feasible (e.g., Main Street).
- Explore additional bicycle facilities where feasible (e.g., Main Street and West Street).
- Explore relinquishment of Willow Road from Caltrans.

ACTION: Motion and second (Cebrian/ King), to approve the general plan circulation element and zoning map amendments and to advise staff and applicant to continue to improve on-site circulation to prioritize pedestrian and bicycle safety as discussed, passed 5-1 (Behroozi dissenting and Altman absent).

E3. Selection of vice chair

Staff Chen introduced the item.

ACTION: Motion and second (Behroozi/ King), to select Jacquie Cebrian as vice chair, passed unanimously.

E4. Evaluate commission subcommittees to support City Council priorities

Staff Chen made a presentation (Attachment).

The Commission discussed subcommittees' roles, responsibilities and possible overlapping duties.

ACTION: Motion and second (Cole/ Jensen), to sunset the Climate Action Plan and Multimodal subcommittees, passed 5-0 (Altman absent).

F. Informational Items

F1. Update on major project status

Staff Chen provided updates on the County's Ringwood Avenue/ Coleman Avenue transportation study and the Menlo Park Community Campus parking management plan.

G. Committee/Subcommittee Reports

G1. Update from Climate Action Plan Subcommittee

None.

G2. Update from Downtown Access and Parking Subcommittee

None.

G3. Update from Multimodal Metrics Subcommittee

None.

G4. Update from Multimodal Subcommittee

None.

G5. Update from Safe Routes to School Program Subcommittee

None.

G6. Update from Transportation Master Plan Implementation Subcommittee

None.

G7. Update from Zero Emission Subcommittee

None.

H. Adjournment

Chair Cole adjourned the meeting at 9:57 p.m.

Kevin Chen, Senior Transportation Engineer



WILLOW VILLAGE MASTER PLAN PROJECT

1350- 1390 Willow Road, 925- 1098 Hamilton Avenue, 1005-1275 Hamilton Court
Staff Presentation to Complete Streets Commission, June 8, 2022





RECOMMENDED MEETING FORMAT

- Meeting agenda:
 - Staff overview and presentation
 - Applicant presentation
 - Public comment
 - Commissioner discussion and recommendation
- Recommendation:
 - Recommend approval of applicant’s requested site access and modified site circulation associated with General Plan Circulation Element and Zoning Map Amendments for the proposed project



WILLOW VILLAGE PROJECT LOCATION





EXISTING SITE PLAN

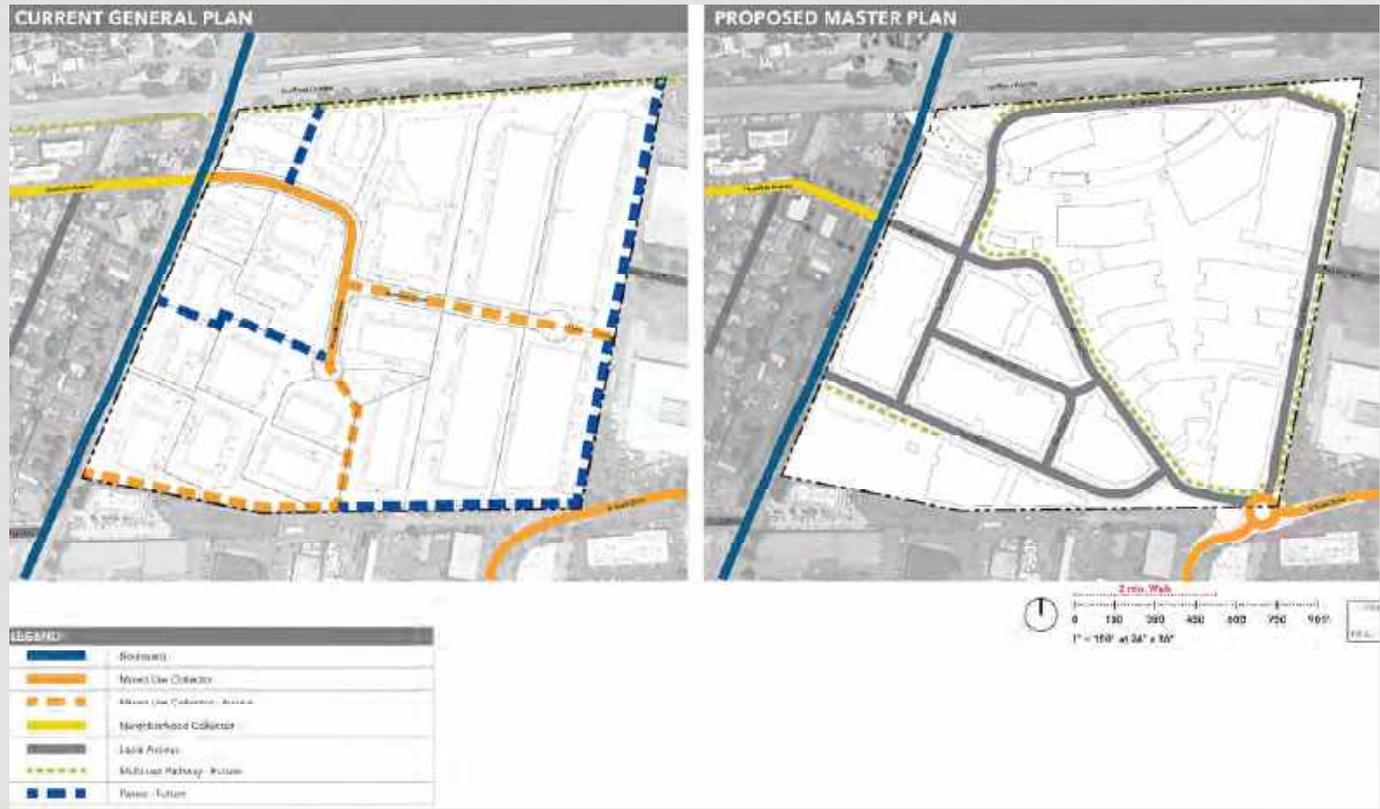


PROPOSED SITE PLAN





MAIN PROJECT SITE CIRCULATION



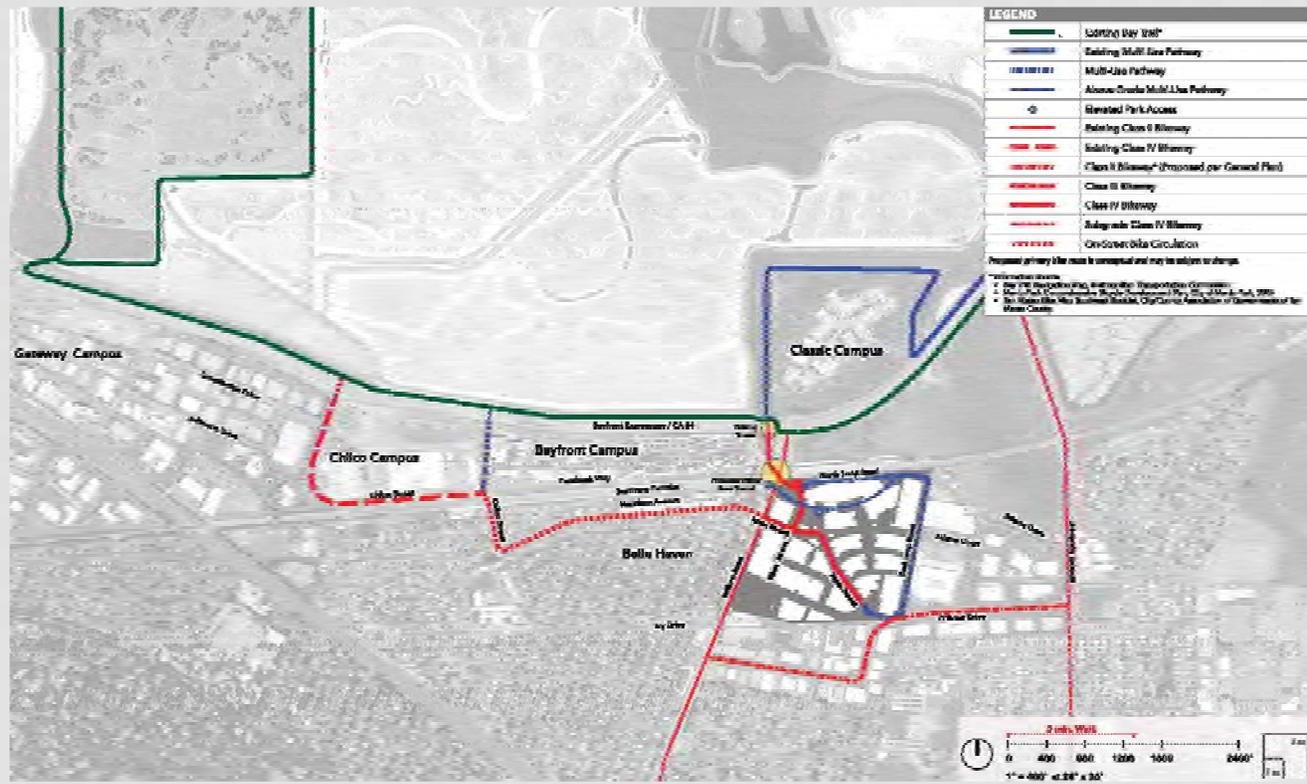


PRELIMINARY STREET CLASSIFICATIONS

- Potential street classifications within project site:
 - Mixed-use collector
 - Neighborhood collector
 - Main Street
 - Local streets
- Table 1 of Circulation Element
 - Detailed street classifications
- Table 1 of staff report
 - Provides staff’s preliminary analysis of proposed streets
 - Staff continues to evaluate proposed circulation network
 - Ensure pedestrian and bicycle circulation prioritized



BICYCLE AND PEDESTRIAN CIRCULATION





COMPLETE STREETS COMMISSION REVIEW



- Review and recommend approval of proposed site access and circulation
 - Comparable circulation to adopted Circulation Element and Zoning Map provided by proposed plan
 - Circulation will continue to be evaluated and refined through project entitlement process
 - Staff evaluating proposed street designs for bicycle and pedestrian circulation
 - Provide any additional recommendations for staff and the applicant to consider when evaluating the proposed site access and circulation



THANK YOU

Willow Village

Complete Streets Commission Meeting

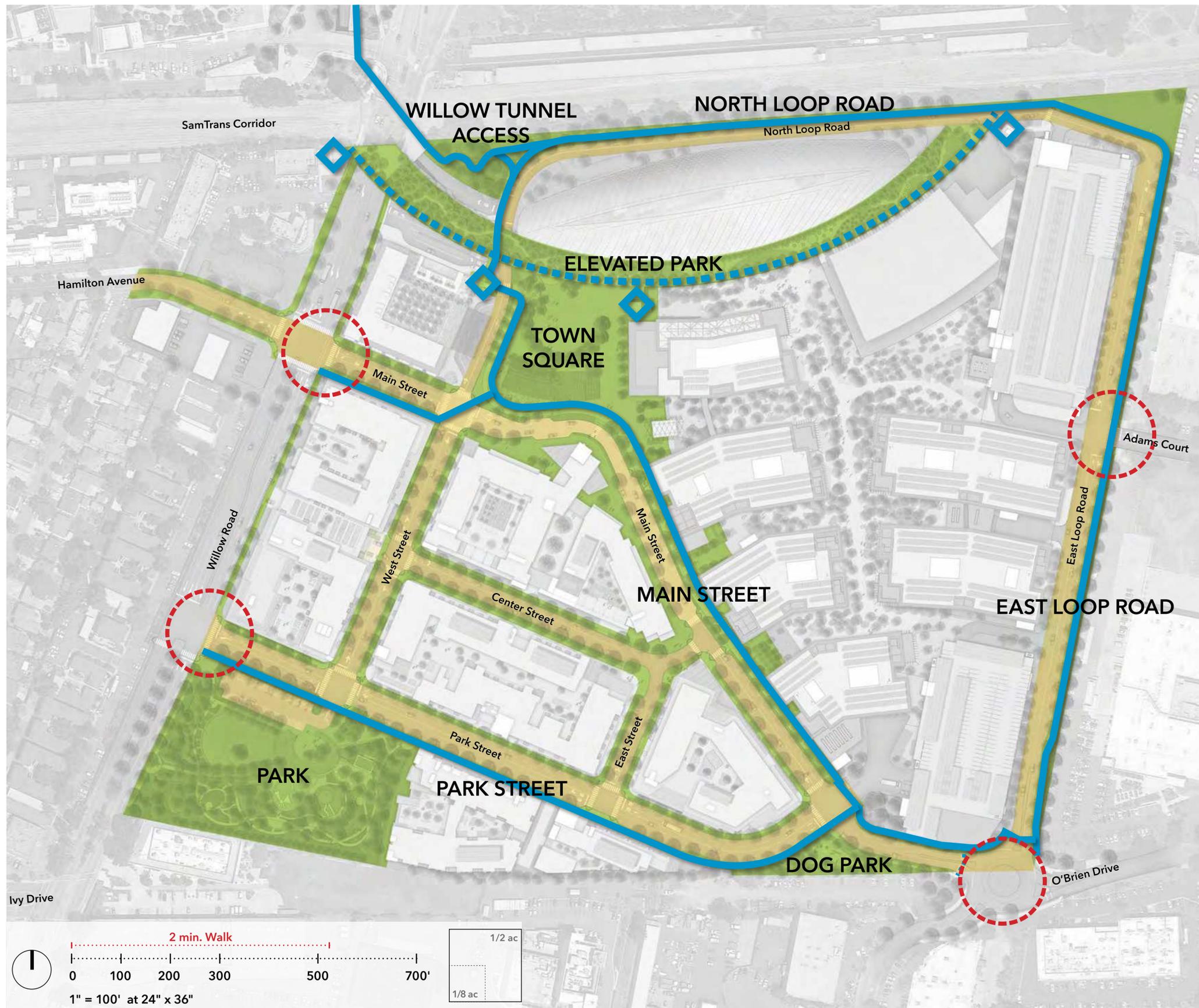
JUNE 08, 2022



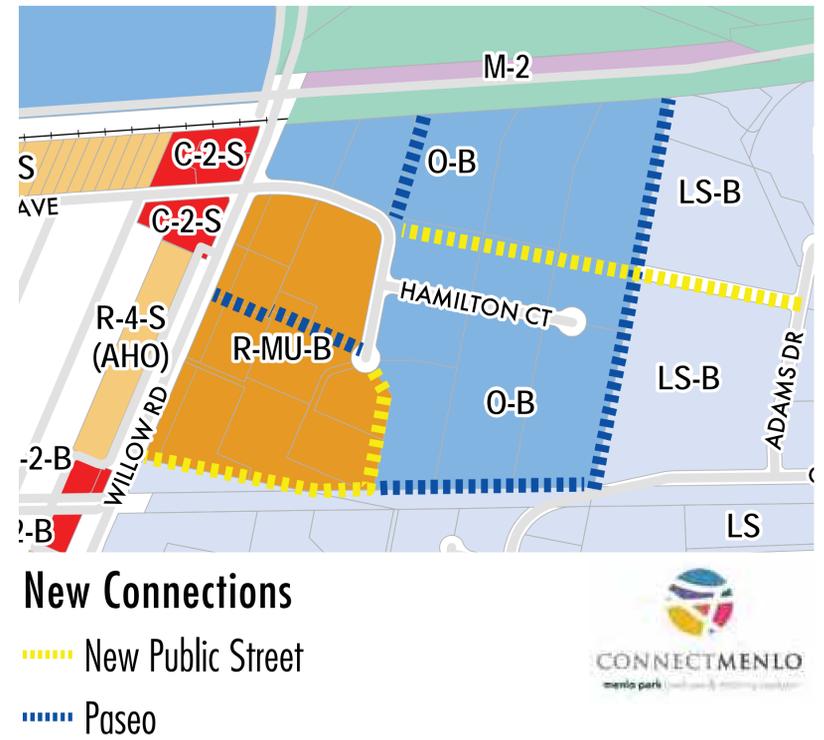


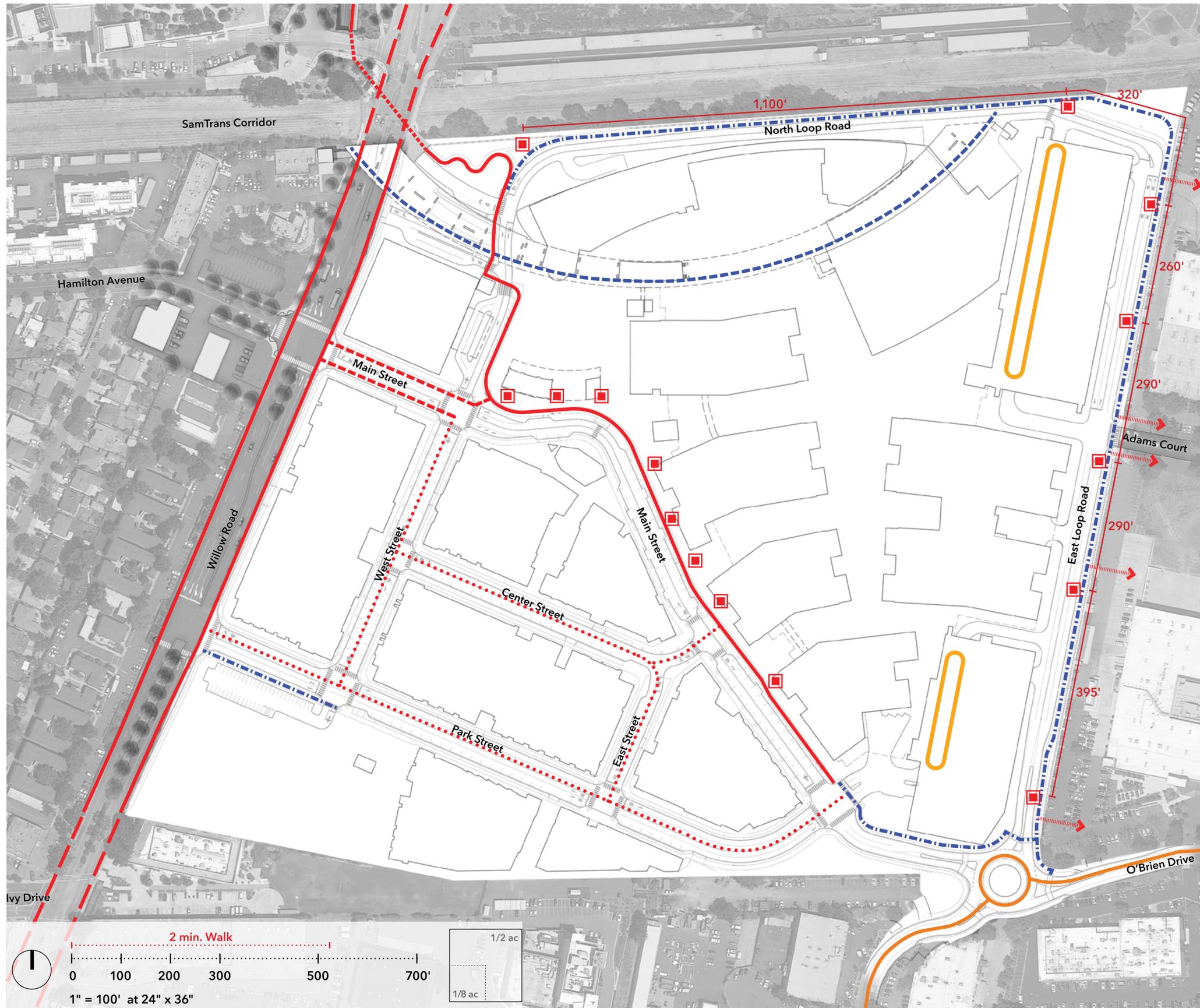
LEGEND	
1	Town Square
2	Grocery Store on Ground Level
3	Publicly Accessible Park
4	Publicly Accessible Dog Park
5	Elevated Park Access (Elevator and Stairs)
6	Elevated Park
7	Hotel
8	Mixed-Use Block
9	Residential Block
10a	Office Campus
10b	Meeting & Collaboration Space
11	Parking Garage with Transit Hub on Ground Level
12	Proposed Multi-use Pathway
13	Willow Road Tunnel
14	Realigned Hamilton Avenue
15	Hamilton Avenue Parcel North
16	Hamilton Avenue Parcel South





LEGEND	
	Open Space
	Vehicular Travel Way
	Pedestrian & Bicycle Circulation
	Pedestrian & Bicycle Circulation (Elevated Park)
	Elevated Park Elevator & Stairs
	Site Access



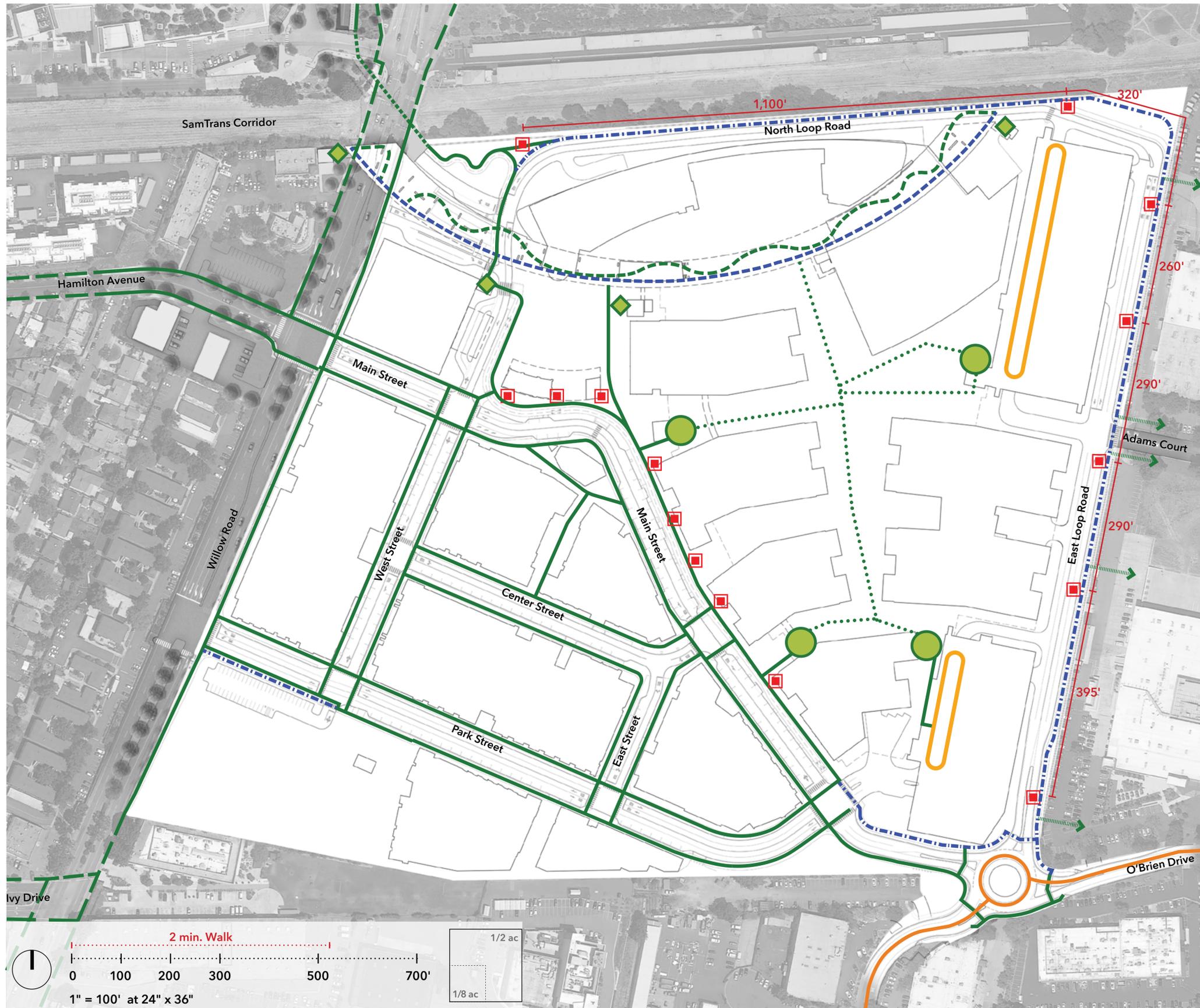


LEGEND	
	Multi-Use Pathway
	Elevated Park Multi-Use Pathway
	Existing Class II Bikeway
	Class IV Bikeway
	Subgrade Class IV Bikeway
	Class III Bikeway
	On-Street Bike Circulation
	Suggested Bike Routes*
	Potential Future Connection
	Furnishing Zone
	Transit Hub

* Information Source:

- Menlo Park Comprehensive Bicycle Development Plan, City of Menlo Park, 2005
- San Mateo Bike Map Southeast Booklet, City/County Association of Governments of San Mateo County

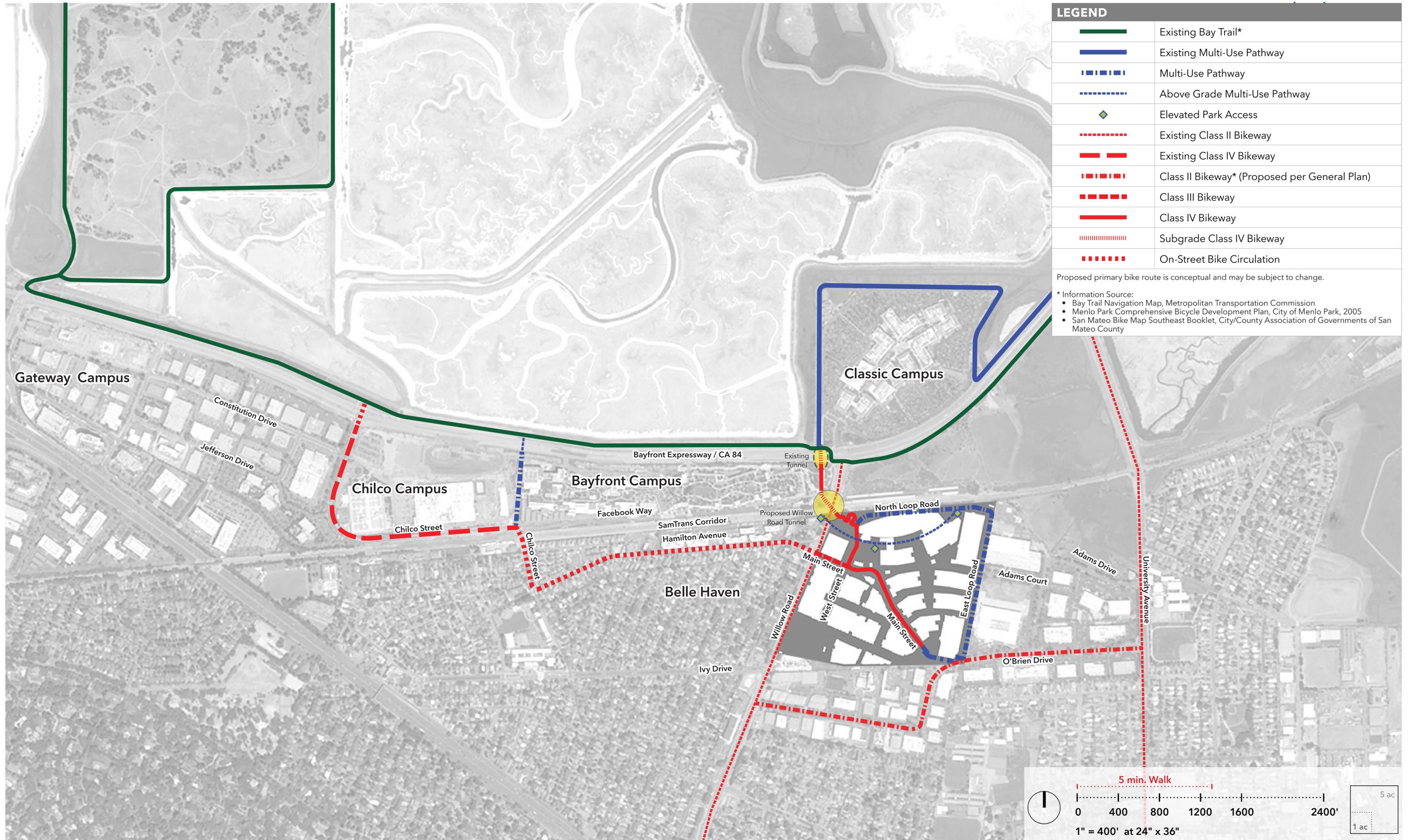
- Proposed primary bike route is conceptual and may be subject to change.
- Refer to Appendix 4 for parcel-by-parcel details on short and long term bike parking.



LEGEND	
	Existing Pedestrian Circulation
	Pedestrian Circulation
	Subgrade Pedestrian Circulation
	Elevated Park Pedestrian Circulation
	Internal Campus Pedestrian Circulation
	Potential Future Connection
	Multi-Use Pathway
	Elevated Park Multi-Use Pathway
	Furnishing Zone
	Elevated Park Access (Publicly Accessible)
	Secure Campus Entry
	Transit Hub

Note:

- Proposed primary pedestrian is conceptual and may be subject to change.
- Refer to Appendix 4 for parcel-by-parcel details on short and long term bike parking.

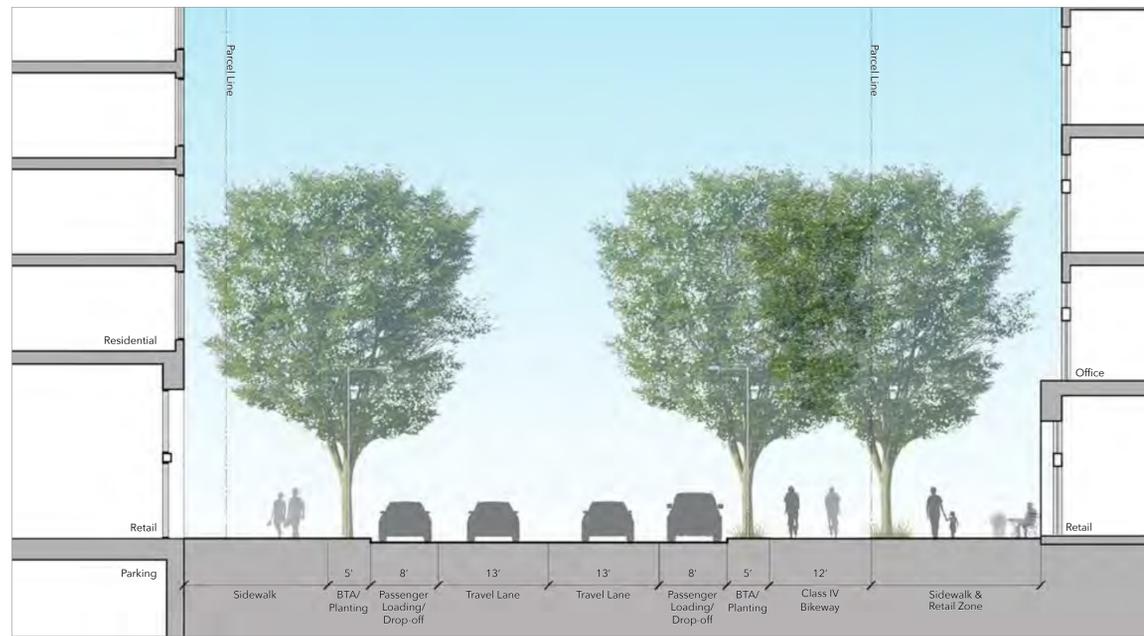


LEGEND	
	Existing Bay Trail*
	Existing Multi-Use Pathway
	Multi-Use Pathway
	Above Grade Multi-Use Pathway
	Elevated Park Access
	Existing Class II Bikeway
	Existing Class IV Bikeway
	Class II Bikeway* (Proposed per General Plan)
	Class III Bikeway
	Class IV Bikeway
	Subgrade Class IV Bikeway
	On-Street Bike Circulation

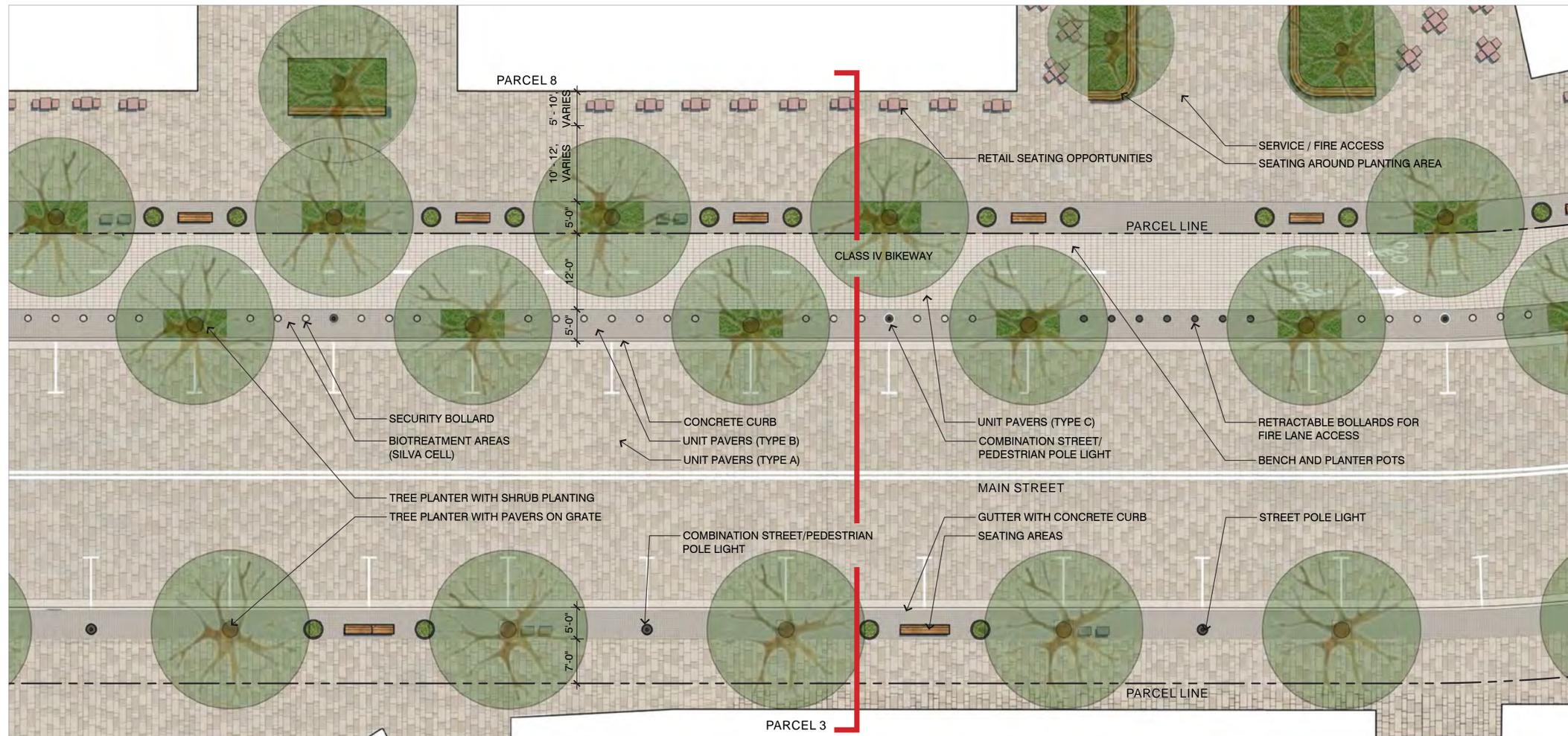
Proposed primary bike route is conceptual and may be subject to change.

* Information Source:
 • Bay Trail Navigation Map, Metropolitan Transportation Commission
 • Menlo Park Comprehensive Bicycle Development Plan, City of Menlo Park, 2005
 • San Mateo Bike Map Southeast Booklet, City/County Association of Governments of San Mateo County

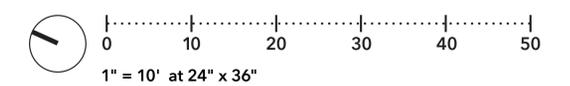
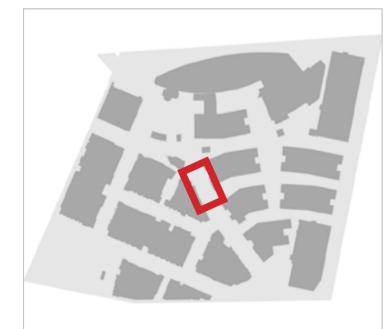




SECTION



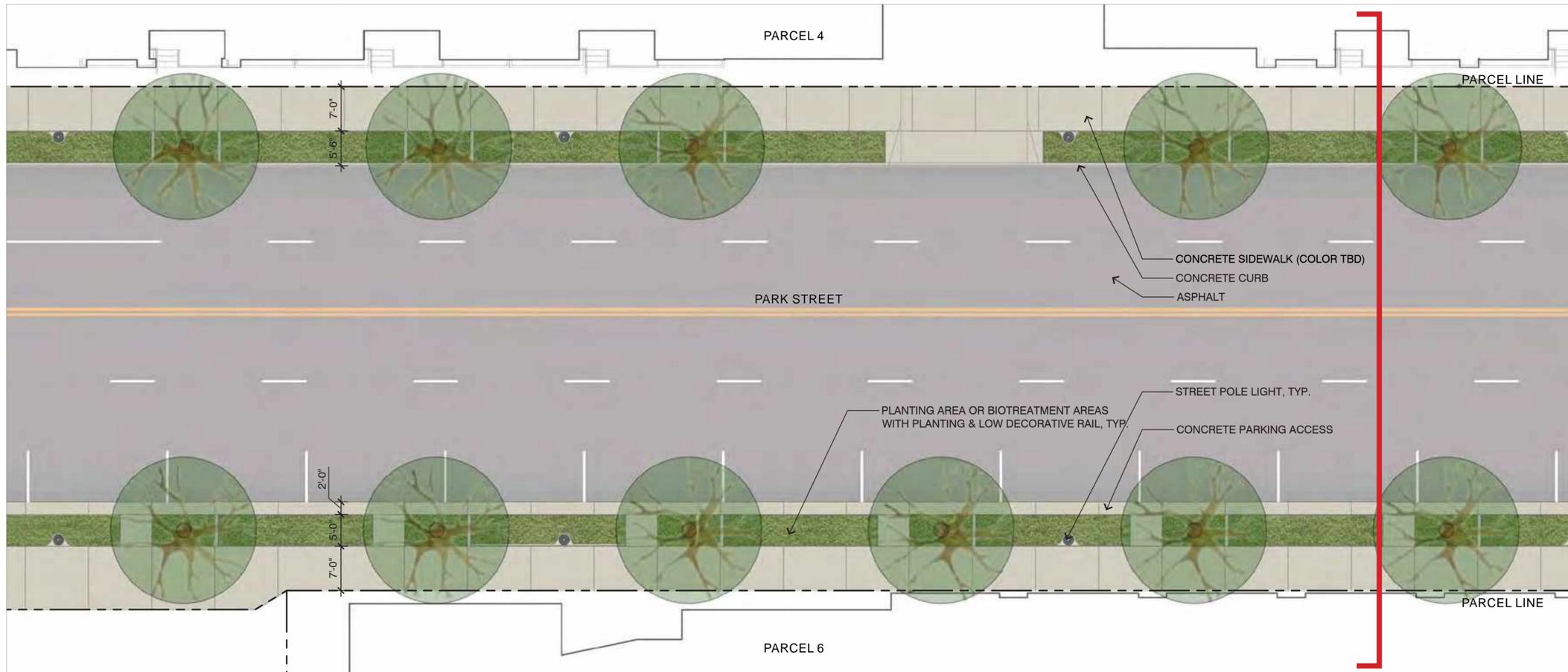
PLAN ENLARGEMENT



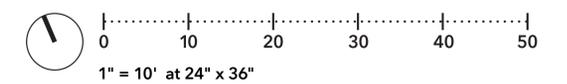
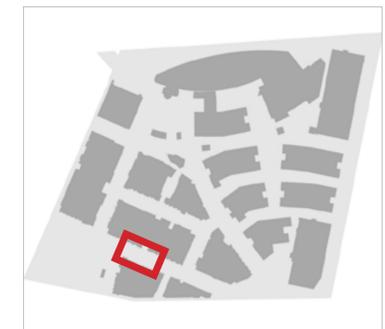




SECTION



PLAN ENLARGEMENT



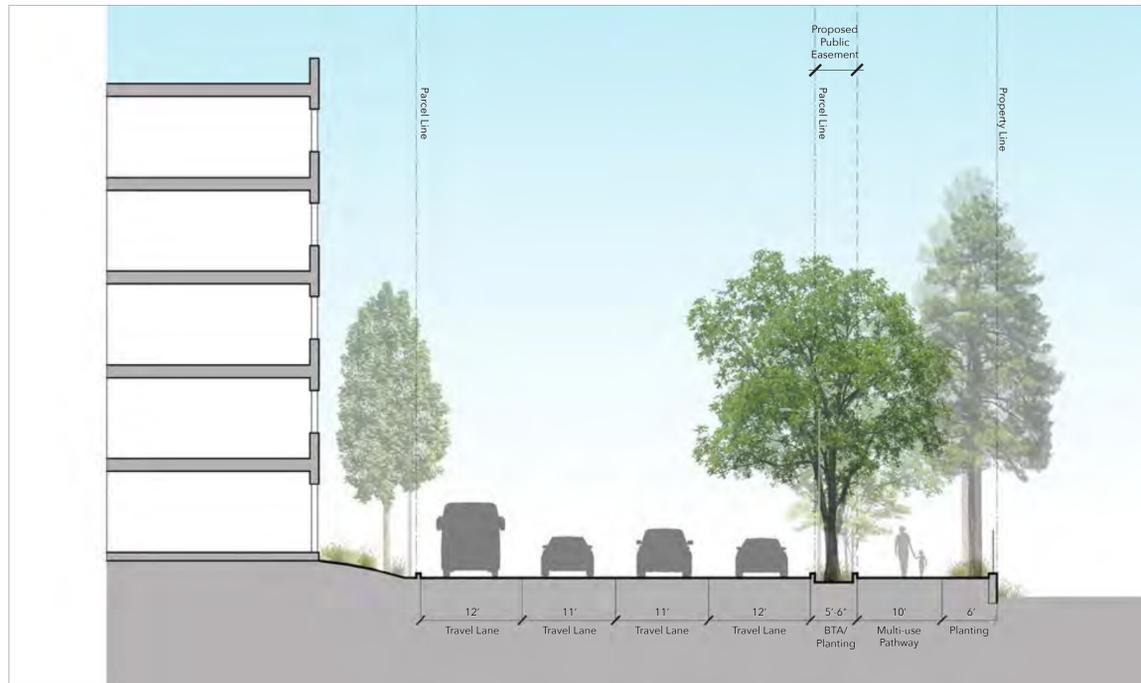




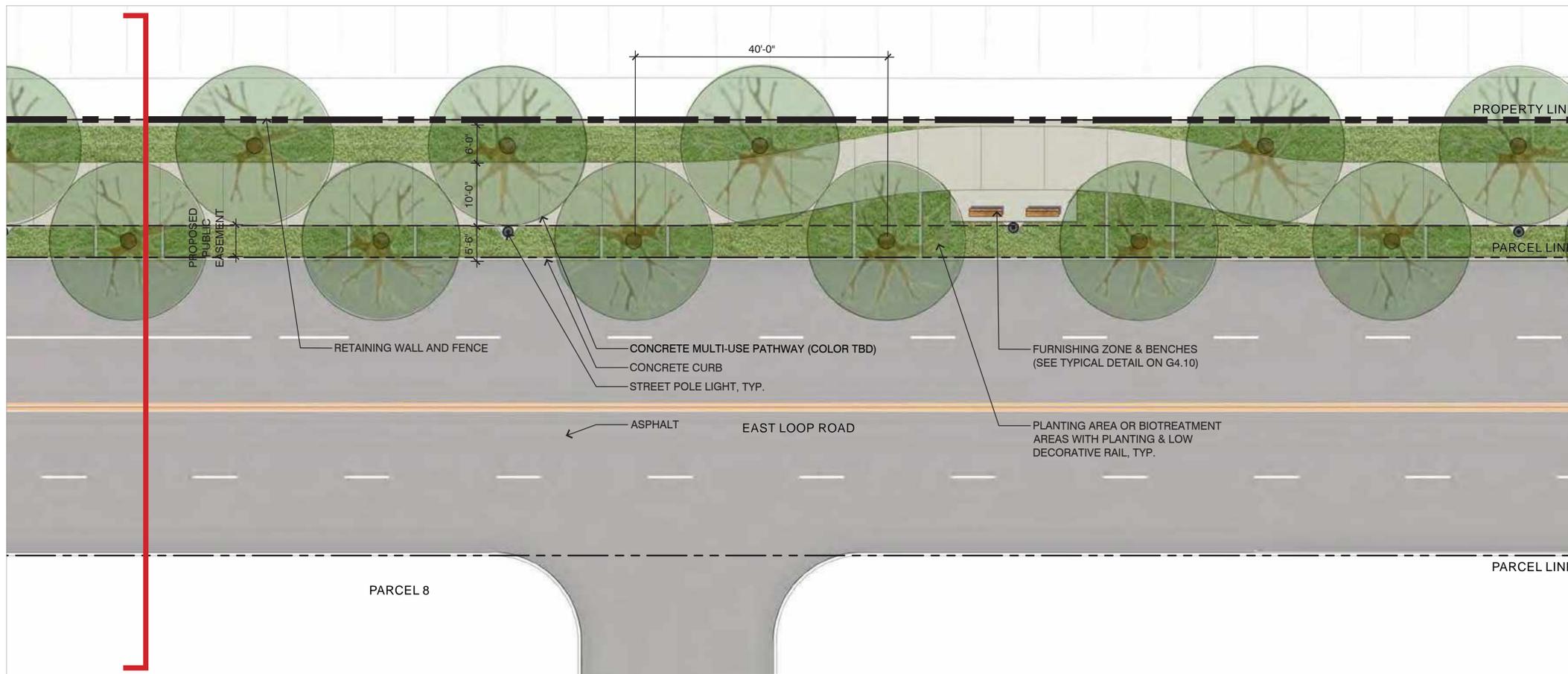


WILLOW VILLAGE

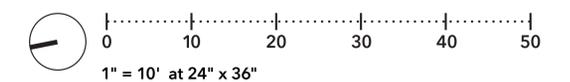
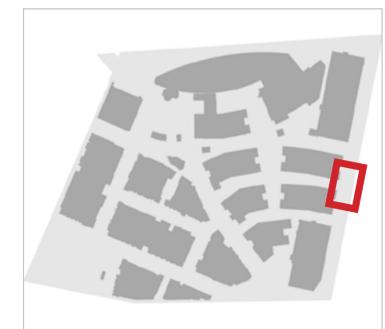
Menlo Park, CA



SECTION



PLAN ENLARGEMENT



Thank You

CAFE



MISSION STATEMENT

- The Complete Streets Commission shall advise the City Council on realizing the City's adopted goals for Complete Streets, Vision Zero, Climate Action Plan, and provide input on major land use and development projects as it relates to transportation.



GOALS / PRIORITIES

1. To advance the goals of the city's newly adopted Climate Action plan by making alternatives to driving safer and more attractive, namely by:
 - Reviewing the city's Transportation Master Plan (TMP) and recommending the projects most likely to reduce Vehicle Miles Traveled (VMT)
 - Providing input on major development projects such as the Menlo Park Community Campus, by looking at them through the lens of transportation accessibility, especially bicycle/pedestrian/public transportation accessibility

2. Advise City Council on the implementation of the TMP:
 - Evaluate the current process and procedure of the neighborhood traffic management program (TMP Project #165)



GOALS / PRIORITIES

3. Continue to advocate for and advise the Council on the planning and installation of the Middle Avenue pedestrian and bicycle rail crossing, and safe cycling/pedestrian infrastructure connecting the Burgess complex to the Middle Avenue corridor to Olive Street, and north on Olive Street to Hillview Middle School.
4. Continue to support Council in ongoing initiatives to improve access to Downtown and support downtown businesses.



GOALS / PRIORITIES

5. Continue to support the implementation of the Safe Routes to School strategy and advocate for community engagement, program continuity and engineering implementation:
 - Evaluate the current state of the safe routes to school program

6. Continue to support City Council's role as a stakeholder with regard to regional multimodal and transportation demand management programs projects to increase sustainable transportation for Menlo Park.



SUBCOMMITTEES (MEMBERS)

- Climate Action Plan (none)
- Downtown Access and Parking (Altman/Behroozi/Cole)
- Multimodal Metrics (Altman/Behroozi)
- Multimodal (Cebrian)
- Safe Routes to School Program (Behroozi/Cebrian/King)
- TMP Implementation (Altman/Behroozi/Cebrian)
- Zero Emission (Jensen)



STAFF REPORT

Complete Streets Commission

Meeting Date: 7/13/2022
Staff Report Number: 22-010-CSC

Regular Business: Recommend preferred conceptual designs for Middle Avenue to the City Council

Recommendation

Staff recommends that the Complete Streets Commission recommend preferred design concepts for Middle Avenue to the City Council.

Policy Issues

This project is consistent with the policies and programs stated in the 2016 General Plan Circulation Element (e.g., CIRC-1.7, CIRC-1.8, CIRC-2.7, etc.). 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.

This project is a 2021 City Council priority, which continue to be used in 2022.

Implementation of bicycle facilities on Middle Avenue between El Camino Real and University Drive fulfill "Mitigation Measure TRA-2.1" of the Mitigation Monitoring and Reporting Program (MMRP) established in the 500 El Camino Real Project Final Environmental Impact Report (FEIR) approved in 2017.

Background

Middle Avenue is an important part of the transportation network in the City of Menlo Park as it fronts Safeway Plaza, Nealon and Lyle Parks, senior centers, preschool and other community amenities. Children on bicycle use Middle Avenue as a route to Hillview Middle School and Oak Knoll Elementary School while others use it to the bicycle bridge at the south end of San Mateo Drive to reach Stanford University. Middle Avenue is currently a Class III bicycle route for shared use with vehicles. Removal of parking on one or both sides of the street would be required to establish Class II bicycle lanes.

In anticipation of the completion of Middle Plaza at 500 El Camino Real, the City Council had directed staff to study the traffic calming options along Middle Avenue with the following project goals:

- Enhance bicyclist and pedestrian visibility and improve safety of all street users
- Provide safe and comfortable cycling and pedestrian infrastructure and encourage sustainable mode of transportation
- Increase accessibility of the corridor by supporting improvements related to Middle Plaza and ongoing study of the grade-separated pedestrian and bicycle crossing

On March 3, 2022, City staff held in-person and virtual public meetings to inform residents about the project and gather feedback from the community to shape potential bicycle improvements and traffic calming options. Additional comments on current issues, needs, and priorities for the corridor were captured through

online public surveys on the project website.

On May 11, 2022, City staff presented to the Complete Streets Commission a summary of community feedback received at the public meetings and online surveys. Overall, the majority of the community supported a removal of parking from at least one side of the street and having traffic calming measures to address concerns around safety of pedestrians and bicyclists. A hyperlink to the staff report from that meeting is included as Attachment A.

Following the presentation, staff were requested to consider design options on the following topics:

- Bicycle facility and parking
 - Present two bicycle lane/parking removal options- one with parking removed on one side and one with parking removed on both sides
 - Examine property lot size, driveway capacity, distance to school, and distance to nearest cross street
- Traffic Calming measures
 - Explore multiple traffic calming measures at El Camino Real, Blake Street, University Drive, Arbor Road, San Mateo Drive, and Olive Street
- Others
 - Conduct a parking demand evaluation at Nealon Park and propose frontage parking configuration alternatives
 - Explore the possibility of eliminating westbound right turn lanes on Middle Avenue at University Drive and Olive Street to improve pedestrian and bicycle safety
 - Evaluate feasibility and explore a temporary trial phase in response to residents request to close Blake Street
 - Evaluate circulation from Safeway and gas station driveways near El Camino Real and Middle Avenue

Analysis

Based on the feedback from the CSC and the public, staff developed design options within three areas:

- Bikeway facility design
- Intersection design at major intersections (El Camino Real, University Drive, and Olive Street)
- Traffic calming treatments along the corridor

Because a portion of the corridor (from El Camino Real to University Drive) will be implemented by Stanford University as a part of the Middle Plaza conditions of approval, exhibits for these options generally are split by implementing party (Stanford and the City). For simplicity, the intersection design options are shown as a separate exhibit as these options could be paired with multiple bikeway facility options.

Bicycle Facility Design

The CSC directed staff to consider bicycle facilities and removal of parking on one or both sides of Middle Avenue. The CSC also directed staff to consider either removing the parking in front of Nealon Park or converting it to parallel parking. During the public outreach phase of the project, the parking in front of Nealon Park was closed to install sidewalks in front of the park. The temporary closure did not result in parking challenges on either weekday evenings or weekends (Attachment B).

The potential to remove parking in front of Nealon Park creates an opportunity to place a portion of the

proposed bikeway in the space currently used by parking. In exploring this idea, staff identified three alternatives for bicycle lanes along Middle Avenue (Attachment C):

- Option 1: Class II bike lanes with a small buffer (approximately 2' on each side). Parking would be preserved on the south side of Middle Avenue.
- Option 2: Class II bike lanes with a larger buffer (approximately 4' on each side). Parking would be removed from both sides of the street.
- Option 3: Class IV separated bikeway on the north side of the street. Parking would be preserved on the south side of Middle Avenue, or a Class II bike lane (without a buffer) could be retained in the eastbound direction instead of the parking. This option was only evaluated for the El Camino Real to University Drive segment.

For all three concepts, a portion of the bicycle facility near Nealon Park could be placed within the space currently used for parking. As a result, some parallel parking would be provided on the street side of the bicycle facility in these locations. Staff has also identified that restriping the parking lot could produce approximately 10 additional parking spaces. All design options would reduce the travel lanes to 10 feet and provide minimum of 5-foot wide bicycle lanes.

The following table summarizes the advantages and disadvantages of each option for consideration:

Table 1: Summary of Bicycle Facility Design Options		
	Advantages	Disadvantages
Option 1 – remove parking on one side	<ul style="list-style-type: none"> • Accommodates bicyclists traveling between neighborhoods, schools, and other common destinations • Maintains on-street parking on the south side • Retains space for delivery vehicles 	<ul style="list-style-type: none"> • Higher risk of bicycle collisions with opening car doors • Limited space for bicyclists to pass other bicyclists without encroaching into the travel lane
Option 2 – remove parking from both sides	<ul style="list-style-type: none"> • Greater distance between vehicles and bicyclists • Without parking, risk of “dooring” accidents is eliminated 	<ul style="list-style-type: none"> • No on-street parking along Middle Ave. • University Drive to El Camino Real would be more impacted due to fewer cross streets (Attachment B) • Package delivery vehicles likely to use bike lane for deliveries • Wide space (10' or more) for bicycle lane and buffer may lead to vehicles passing other vehicles using the bike lane
Option 3 – separated bikeway – El Camino Real to University Dr.	<ul style="list-style-type: none"> • Improves comfort and safety for bicyclists due to separation from traffic and limited conflict points • Improves access to and circulation around Nealon Park and community center 	<ul style="list-style-type: none"> • Potential for complicated transition from separated bikeway to bike lanes at University Dr. • Requires vertical separation between the bikeway and travel lane (bollards or concrete islands), increasing cost • Potential to increase conflicts between drivers and bicyclists in front of Safeway shopping center.

Intersection Improvements

Staff evaluated potential intersection improvements at three locations:

- El Camino Real
- University Drive
- Olive Street

El Camino Real

Two issues were evaluated at this intersection – the design of the intersection itself and the potential to update the Safeway and gas station access driveways from Middle Avenue.

Staff were directed to consider a protected intersection at El Camino Real and Middle Avenue. A protected intersection has a distinct path of travel for bicyclists that is separate from the automobile path of travel and is signalized to allow for separated travel movements. Staff has evaluated both a protected intersection, which would likely require removal of one travel lane on each direction of El Camino Real, and an alternate approach of a dedicated intersection, which has some of the features of a protected intersection but does not require bike lanes on all approaches (Attachment D). Staff recommends pursuing a dedicated intersection in the short term, which would have some potential right-of-way impacts, requiring additional design and coordination with Caltrans.

Attachment D also shows existing and proposed vehicle circulation at the Safeway and gas station at the intersection of El Camino Real and Middle Avenue. For the gas station, there are two driveways along El Camino Real and two driveways along Middle Avenue, one of which is technically an access point from Alto Lane. All driveways currently operate without turn restrictions. Staff recommends closing the driveway on Middle Avenue that is closest to the intersection, conditioned on mutual agreement with property owner. Closing this driveway would reduce conflicts between vehicles that access the gas station, vehicles using Middle Avenue and bicyclists while not restricting access for vehicles to the gas station.

For the access to Safeway plaza, staff recommends considering two changes for any of the new bicycle facilities:

1. Right out only at driveway on Middle Avenue
2. Relocate the driveway further down on Middle Avenue

The first change would require drivers traveling northbound on El Camino Real to exit on southbound El Camino Real and make a U-turn at Middle Avenue. The second change would require additional coordination and reconfiguration of parking spaces at the Safeway plaza, without any change in the amount of parking provided at the plaza. Note that staff do not recommend restricting left turns from eastbound Middle Avenue into Safeway plaza because it would require vehicles access Safeway plaza to make a complex movement to access the shopping center from Middle Avenue.

University Drive and Olive Street

Staff explored removing the right turn pockets at University Drive and at Olive Street. The CSC also directed staff to consider a roundabout at University Drive. Because the intersection of Middle Avenue and Olive Street is a three-legged intersection with Middle Court slightly offset from the intersection, a roundabout was not considered at this location.

To evaluate removal of the right turn pockets, staff reviewed available data and analysis on intersection options. The most recent analysis for University Drive comes from the near-term and cumulative (2040) scenarios from the Middle Plaza project EIR (Table 2). According to this analysis, removal of right-turn lane would add approximately 4 vehicles to the left/through lane during the PM peak period in the cumulative

scenario. Based on the intersection LOS presented below and the anticipated added volumes, removal of the right turn pocket at University Drive is not expected to generate significant intersection operational deficiencies.

Study Scenarios	Intersection LOS	Approach LOS	WB Middle Avenue	
			95th percentile queue ¹	
			Left/through lane	Right turn lane
Near-term (2021) AM	34 sec/veh LOS D	16 sec/veh LOS C	3 vehicles	1 vehicle
Near-term (2021) PM	24 sec/veh LOS C	25 sec/veh LOS C	7 vehicles	2 vehicles
Cumulative (2040) AM	49 sec/veh LOS E	18 sec/veh LOS C	4 vehicles	1 vehicles
Cumulative (2040) PM	58 sec/veh LOS F	49 sec/veh LOS E	11 vehicles	4 vehicles

Source: 500 ECR Environmental Impact Report, approved in 2017

¹ Assumed 1 vehicle in queue = 25'

Staff have not conducted an intersection analysis at Middle Avenue and Olive Street. However, staff did review pedestrian and vehicle volumes at the two locations (Table 3). Vehicle volumes are approximately half as large at Olive Street, while the number of pedestrian crossings are comparable. As a result, eliminating right-turn lane at Olive Street in favor of bulb outs or other pedestrian improvements is not anticipated to generate significant intersection operation deficiencies.

Locations	Day/Time	Average Daily Pedestrian Traffic	Average Daily Vehicle Traffic
Middle Ave / Olive St	Mon-Sun All Day	205	3,840
	Weekday AM	25	848
	Weekday PM	39	1,538
Middle Ave / University Dr	Mon-Sun All Day	199	7,020
	Weekday AM	39	1,537
	Weekday PM	61	2,582

Source: Streetlight Data from February-March 2022

Staff also evaluated the potential for a mini-roundabout at the intersection of Middle Avenue and University Drive. A mini-roundabout is a generally a small version of a roundabout, designed primarily for residential streets that do not experience large trucks (i.e., trucks tend to be package delivery vehicles) and thus can have a smaller inner circle, consistent with the design of residential streets.

Using the latest national guidance, staff identified that a mini-roundabout is feasible at this intersection (Attachment E). A mini-roundabout has potential benefits and tradeoffs, including:

- Safety benefits from reduced speeds
- Reduced intersection delay due to all-way yield for vehicles

- Reduced crossing distance for pedestrians due to the use of bulb outs and the elimination of separate turn lanes
- Sharing of the travel path by vehicles and bicycles through the roundabout itself, though ramps can be provided to allow less confident bicyclists to use the sidewalk instead

Staff recommends removal of the right turn lanes and requests direction from the CSC on the potential implementation of a mini-roundabout at Middle Avenue and University Drive.

Traffic Calming Measures

In addition to bicycle lanes and major intersection treatments, staff explored various traffic calming measures to address concerns raised about vehicle speeds and volumes, pedestrian and bike safety, and accessibility. Attachment F summarizes advantages, disadvantages, and expected cost for each individual traffic calming measures considered by the project. Based on the effectiveness of these measures, Staff selected potential locations (Attachment C) for traffic calming measures with a goal of providing predictable speeds and safer crossing opportunities at key locations (Table 4).

Table 4: Proposed Traffic Calming Measures		
Locations	Issues/Challenges	Potential Traffic Calming Measures
Blake Street	Located across from Nealon Park, high volume of pedestrians and bicyclists crossing street at Blake Street	<ul style="list-style-type: none"> • Raised crosswalk • Flashing beacons*
Arbor Road	Located across from Lyle Park, church, and preschool	<ul style="list-style-type: none"> • Raised crosswalk • Flashing beacons
San Mateo Drive	Road alignment not feasible for traffic circle	<ul style="list-style-type: none"> • All-way stop signs • Left-turn bike pocket • Bulb-out/Curb extension on Middle
Olive Street	T-intersection not feasible for traffic circle	<ul style="list-style-type: none"> • Bulb-out/Curb extension on Middle

* A rectangular rapid flashing beacon (RRFB) is being installed at this location as part of the Nealon Park sidewalk project

In addition to these specific locations, staff recommends that speed feedback signs be installed in at least 4 locations (two eastbound and two westbound) and that speed tables be installed at up to two additional locations on Middle Avenue. Consistent with feedback from Menlo Fire on other traffic calming projects, staff is recommending the use of raised crosswalks and speed tables (essentially a larger speed hump) instead of speed humps.

The CSC also requested staff to consider adding a continuous sidewalk on the south side of the corridor where it is not currently available. Sidewalk provides many benefits including safety, mobility, and healthier communities. Adding a sidewalk could take place within the City’s right-of-way without moving the existing curb line, but does require adjustments to the street drainage system and utilities, as well as residential driveways, plantings and irrigation, and other changes. Based on the cost estimate from a recent sidewalk installation project, staff estimates that filling sidewalk gaps from Olive Street to University Drive would cost approximately \$4 million.

Blake Street Closure

The CSC directed staff to evaluate the request by residents of Blake Street to close the street to through traffic. Blake Street is approximately 30 feet wide one-block long two-lane Local Access road located directly across from Nealon Park. Residents along Blake Street raised concerns of excessive cut-through

traffic into a short neighborhood street with high pedestrian traffic that uses the street due to a lack of sidewalks traveling between the broader Allied Arts neighborhood and Nealon Park and Downtown.

Staff identified potential alternatives for a trial phase of street closure with the goal of eliminating cut-through traffic, reducing volume and speed on the street, and improving pedestrian and bike safety. The alternative includes two options:

- Option 1: Local traffic accessible to/from both ends
- Option 2: Local traffic accessible to/from one end

Both options may provide dedicated space for pedestrian and bicyclists in lieu of on-street parking and access will be limited through use of signs and bollards which could easily be removed by emergency vehicles.

Next Steps

Based on CSC feedback on the preferred bikeway facility, intersection design options, and traffic calming options, staff will present final recommendations to the City Council for approval. If approved by the City Council, staff will proceed with final design of improvements for Middle Avenue

Impact on City Resources

Resources expended for project evaluation and improvement design are considered part of the City's baseline operations. Design and construction for improvements along Middle Avenue between El Camino Real and University Drive would be funded by Stanford. Improvements along Middle Avenue between University Drive and Olive Street would require additional funding.

Environmental Review

The Middle Avenue complete streets project is categorically exempt under the California Environmental Quality Act Article 19, § 15301 Existing Facilities - Class I since it involves minor construction on a public street. No additional vehicle miles traveled or roadway capacity will be added as a result of implementation of future bicycle lanes and traffic calming measures.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting. Additional public outreach was achieved by sharing meeting information on the project website and sending email blasts to the project interest list.

Attachments

- A. Hyperlink – Staff report dated May 11, 2022
<https://beta.menlopark.org/files/sharedassets/public/agendas-and-minutes/complete-streets-commission/2022-meetings/agendas/20220511-complete-streets-commission-agenda-packet.pdf#page=29>
- B. Additional studies for bicycle facility design
- C. Conceptual Bicycle Facility Design Plan
- D. El Camino Real Intersection
- E. University Drive Intersection
- F. Traffic Calming Measures: Advantages and Disadvantages

Report prepared by:
Esther Jung, Associate Transportation Engineer

Report reviewed by:
Kevin Chen, Senior Transportation Engineer
Hugh Louch, Assistant Public Works Director – Transportation

Additional studies for bicycle facility designNealon Park Parking Utilization Study

Parking occupancy data was collected during the weekdays and weekend while the frontage parking at Nealon Park was closed for construction of a separate pedestrian improvement project. Despite of having little league games on Thursday evening and Saturday, no more than 80 percent of the parking spaces in the rear lot were utilized. The counts include handful of vehicles parked at unmarked spaces as well as the vehicles presumably parked by non-park users.

Staff also observed parking demand along Middle Avenue near the park as well as along Kenwood Drive, Morey Drive, and Blake Street during event hours but found only small number of vehicles parked.

Table 1: Parking Counts at Nealon Park - Weekdays

		Wednesday, 5/18/22				Thursday, 5/19/22				
		1pm	2pm	4pm	6pm	2pm	4pm	5pm	6pm	7pm
Handicapped	Occupied	4	5	1	1	3	1	0	0	0
Non-Handicapped	Occupied	72	58	49	29	61	55	63	63	69
Unmarked Spaces	Occupied	10	2	7	6	15	8	7	8	9
Total	Occupied	86	65	57	36	79	64	70	71	78
	Vacant	39	52	65	85	51	59	52	52	46
On-street: Middle		4	3	2	2	7	4	4	5	4
On-street: Blake		0	0	1	0	1	0	0	0	0
On-street: Morey		1	1	1	1	5	3	4	2	1

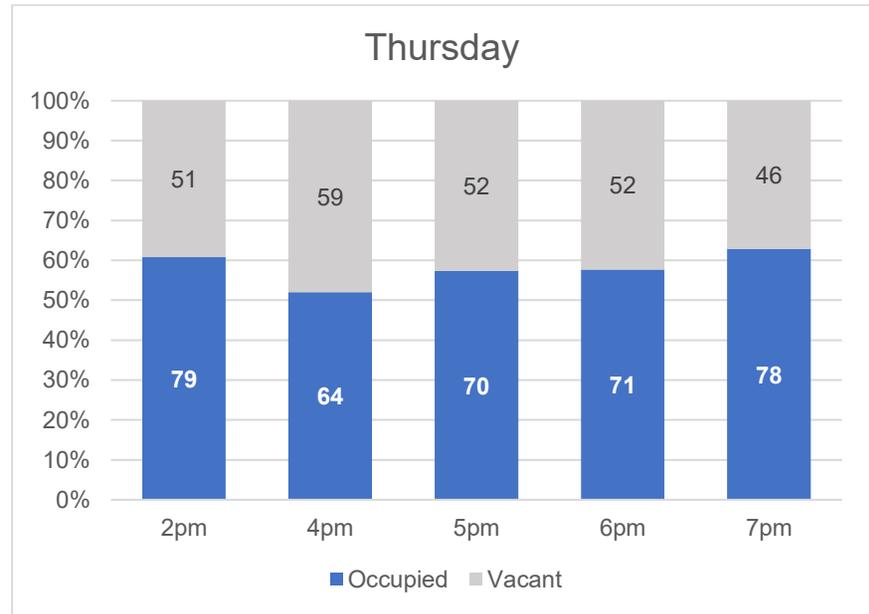
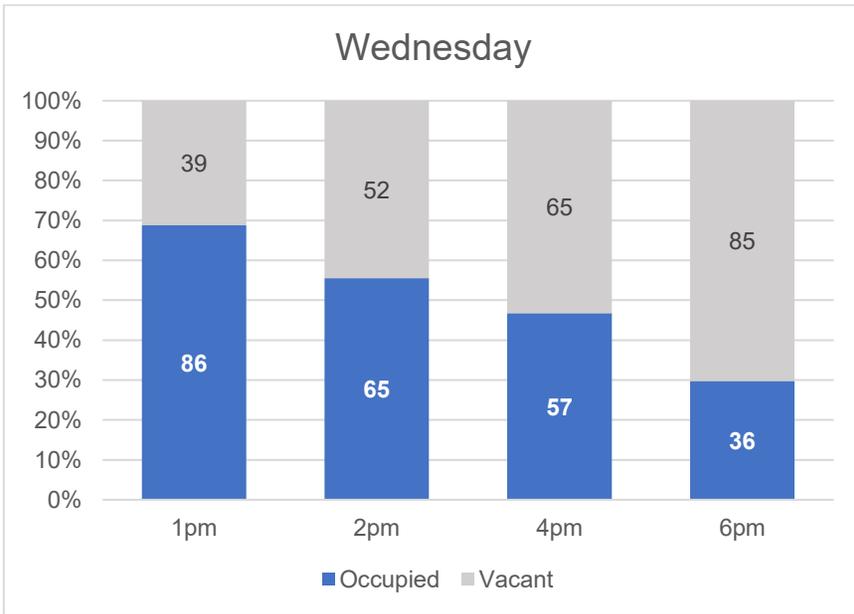
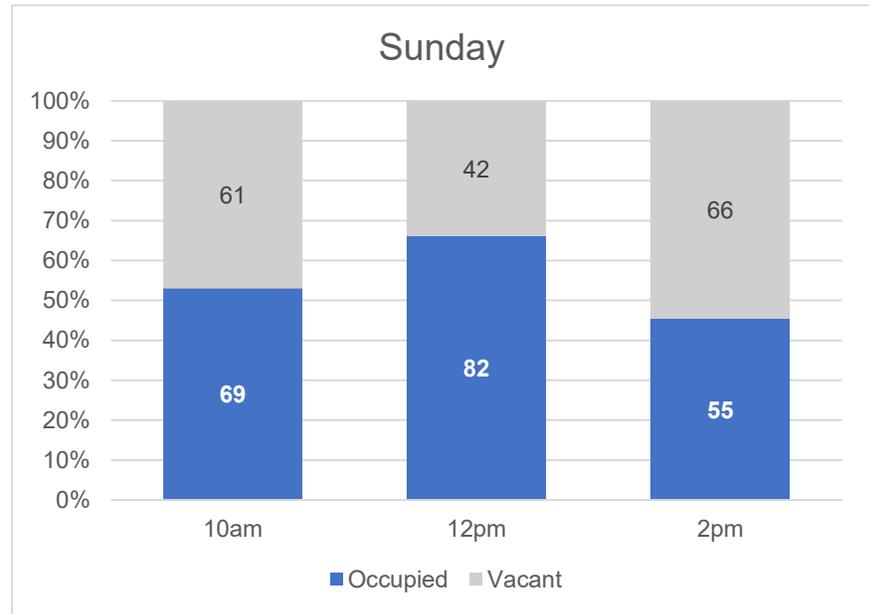
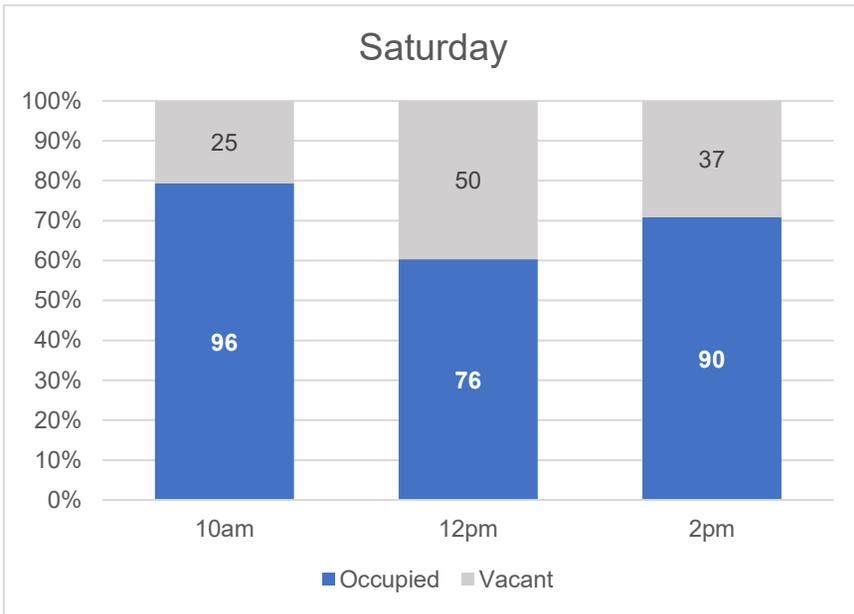


Table 2: Parking Counts at Nealon Park - Weekend

		Saturday, 5/20/22			Sunday 5/21/22		
		10am	12pm	2pm	10am	12pm	2pm
Handicapped	Occupied	1	0	0	0	2	2
Non-Handicapped	Occupied	89	65	78	54	71	47
Unmarked Spaces	Occupied	6	11	12	15	9	6
Total	Occupied	96	76	90	69	82	55
	Vacant	25	50	37	61	42	66
On-street: Middle		5	12	8	5	7	6
On-street: Blake		0	0	1	0	2	2
On-street: Morey		0	2	1	3	0	2



Driveway and Garage Parking Capacity

Staff performed field visits to examine lot sizes and driveway vehicle capacity to evaluate the impact of parking removal. As shown in Table 3, single family homes (SFH) on Middle Avenue either have one- or two-car garage/carport with driveway space to fit at least 2 additional cars. The properties on the south side have greater driveway capacity than the properties on the north side.

Additionally, there are more single family homes on the south side of Middle Avenue between San Mateo Drive and El Camino Real and several multi-unit housing and community oriented land uses, including a church and a preschool, on the north side between San Mateo Drive and University Drive.

Table 3: Driveway and Garage Capacity				
Segment		Number of SFH ¹	Average SFH Garage Size	Average SFH Driveway Capacity
Olive Street – San Mateo Drive	North	21	1.6	2.7
	South	17	1.9	2.9
San Mateo Drive – University Drive²	North	9	1.8	2.1
	South	22	1.7	2.9
University Drive – El Camino Real	North	5	1.0	2.2
	South	26	1.4	2.9

¹ Not including multi-unit housing (i.e. duplex, fourplex, condominiums, etc.)

² Church, preschool, community center, and 10 additional parcels with multi-unit housing are located on the north side of the segment between San Mateo Drive and El Camino Real

Cross Street

Table 4 below shows number of cross streets within each segment. Alto Lane and Maywood Lane were excluded from the counts since street parking on these streets is not available for public. El Camino Real to University Drive would be most impacted by a removal of parking on both sides of the street since there are fewer number of cross streets to find on-street parking. Additionally, a potential closure of Blake Street would limit street parking in this segment.

Table 4: Cross Streets		
Segment		Number of Cross Streets
Olive Street – San Mateo Drive¹	North	4
	South	4
San Mateo Drive – University Drive²	North	4
	South	4
University Drive – El Camino Real³	North	3
	South	2

¹ cross street includes Olive Street, excludes San Mateo Drive

² cross street includes San Mateo Drive, excludes University Drive

³ cross street includes University Drive. Parking is not allowed on El Camino Real

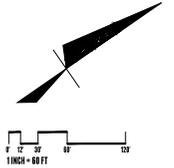
Distance to School

With Menlo Park’s continuous support for bicycle network and Safe Routes to Schools program, there has been increasing number of students biking on neighborhood streets where they live and go to school. Table 4 summarizes distance from major intersections along Middle Avenue to the nearby schools.

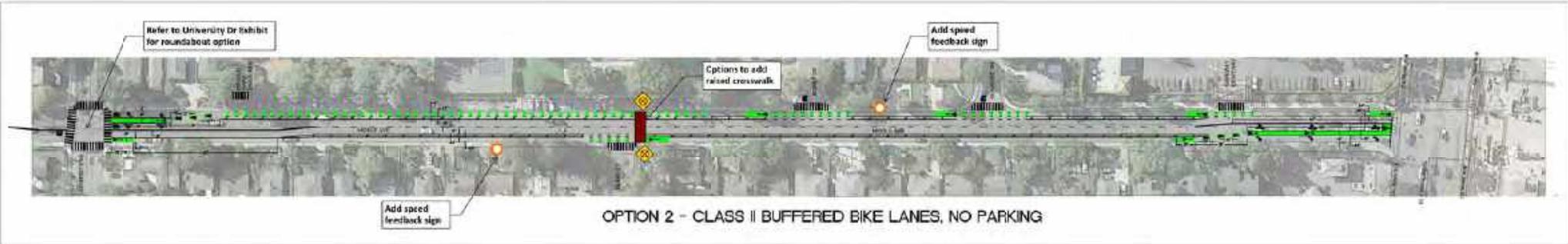
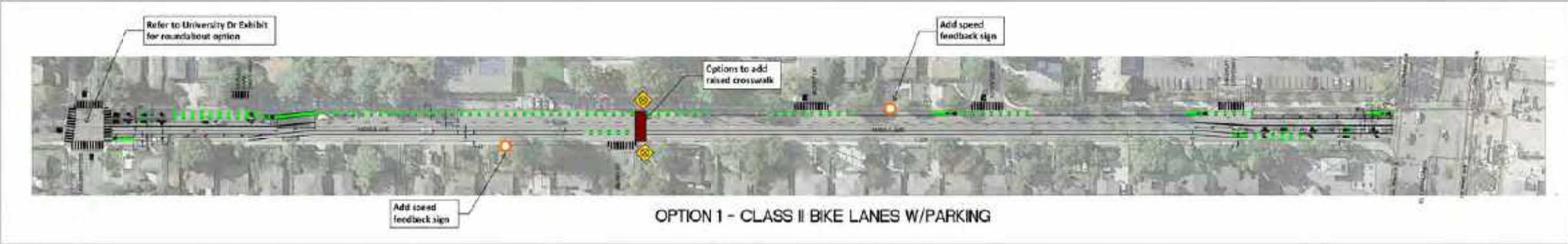
Investing in bicycle lanes with separation from moving or parked vehicles can offer a safe and comfortable space for children to bike and encourage bicycling for other trips. While establishing bicycle safety routes only during school hours may be feasible where parking and bicycle lanes revert based on time-of-day, it would be ineffective if cars are parked outside of designated parking hours and block the bicyclists.

Table 4			
Locations	Hillview Middle School	Oak Knoll Elementary School	New Beginning Preschool
Olive Street	2,200 ft (0.4 mi)	3,000 ft (0.6 mi)	2,500 ft (0.5 mi)
San Mateo Drive	4,200 ft (0.8 mi)	5,000 ft (1.0 mi)	600 ft (0.1 mi)
University Drive	6,200 ft (1.2 mi)	7,000 ft (1.4 mi)	1,500 ft (0.3 mi)
El Camino Real	7,900 ft (1.5 mi)	8,700 ft (1.7 mi)	3,200 ft (0.6 mi)

El Camino Real - University Drive



- Flashing beacon
- Raised Crosswalk
- Speed table
- Speed feedback sign
- Curb extension / Bulb-out
- Stop sign



University Drive - San Mateo Drive



OPTION 1 : CLASS II BIKE LANES W/ PARKING



OPTION 2 : CLASS II BUFFERED BIKE LANES, NO PARKING

San Mateo Drive - Olive Street

● Flashing beacon
 ■ Raised Crosswalk
 ■ Speed table
 ○ Speed feedback sign
 Curb extension / Bulb-out
 ● Stop sign

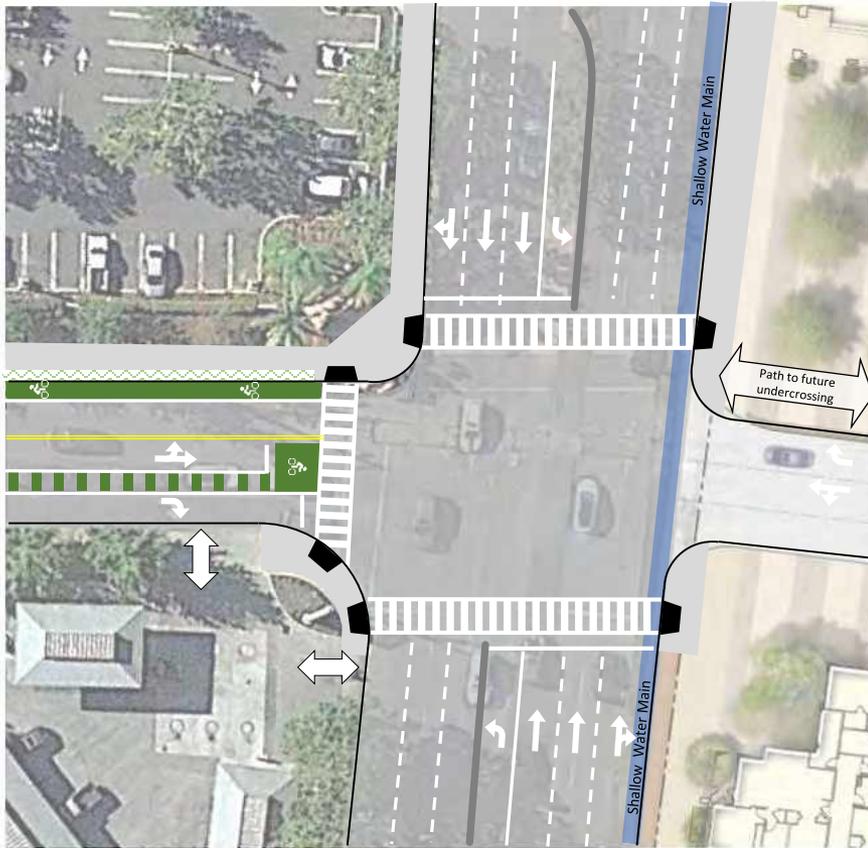


OPTION 1 : CLASS II BIKE LANES W/ PARKING

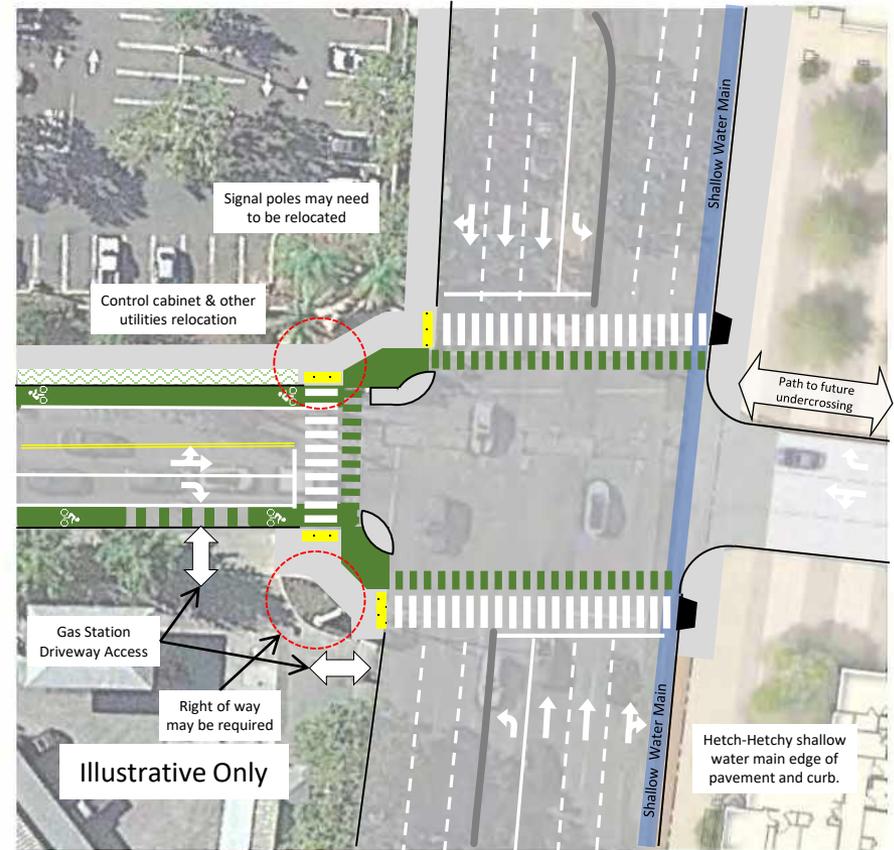


OPTION 2 : CLASS II BUFFERED BIKE LANES, NO PARKING

● Flashing beacon
 ■ Raised Crosswalk
 ■ Speed table
 ○ Speed feedback sign
 Curb extension / Bulb-out
 ● Stop sign



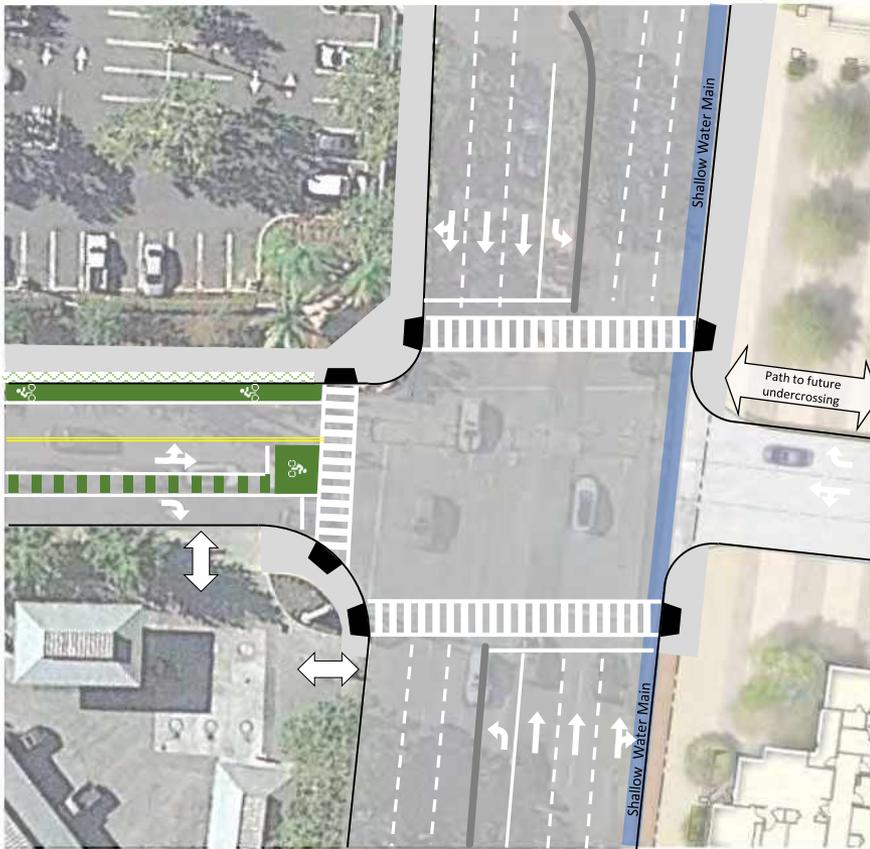
Standard Intersection Treatment



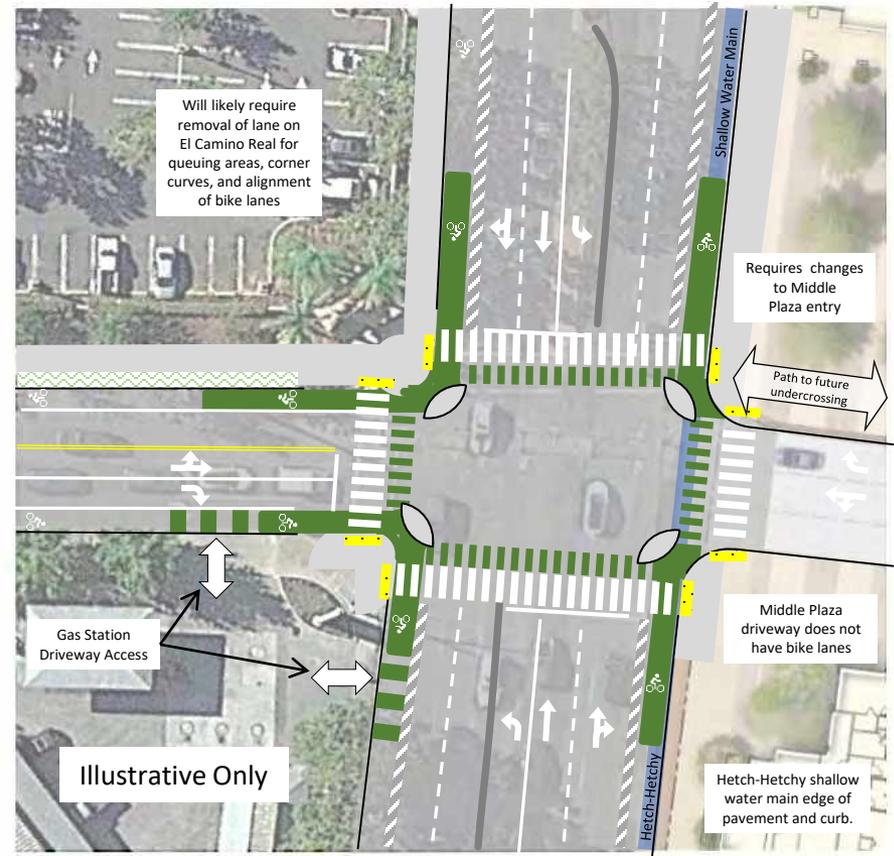
Dedicated Intersection

Notes:

- Improves crossing while there are no bicycle lanes on El Camino Real
- Design would need to consider bus, truck, and large vehicle turning movements at intersection
- Gas station access may limit design options
- Recommend that no right turn on red from Middle Avenue - consider right turn overlap with Northbound left turn



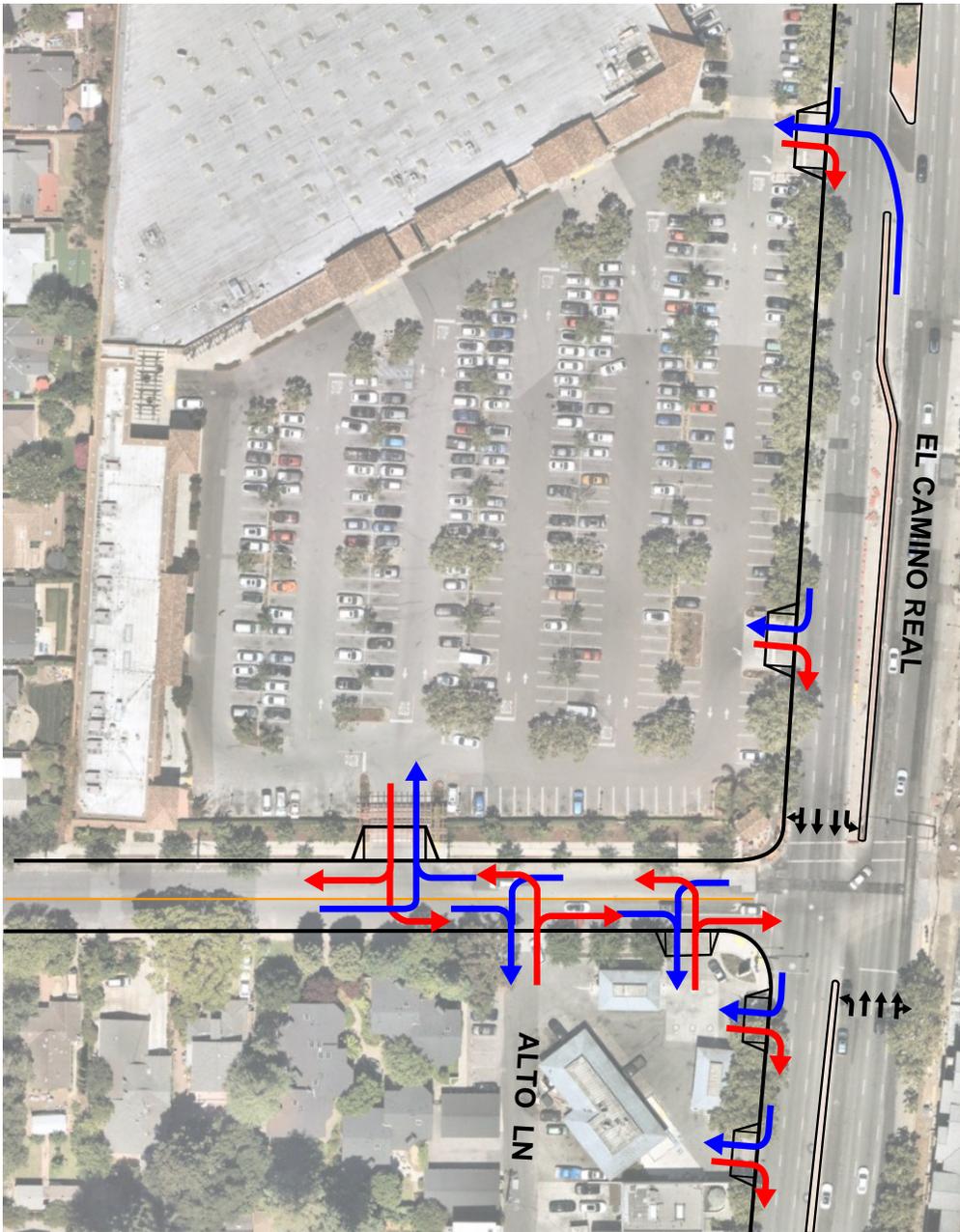
Standard Intersection Treatment



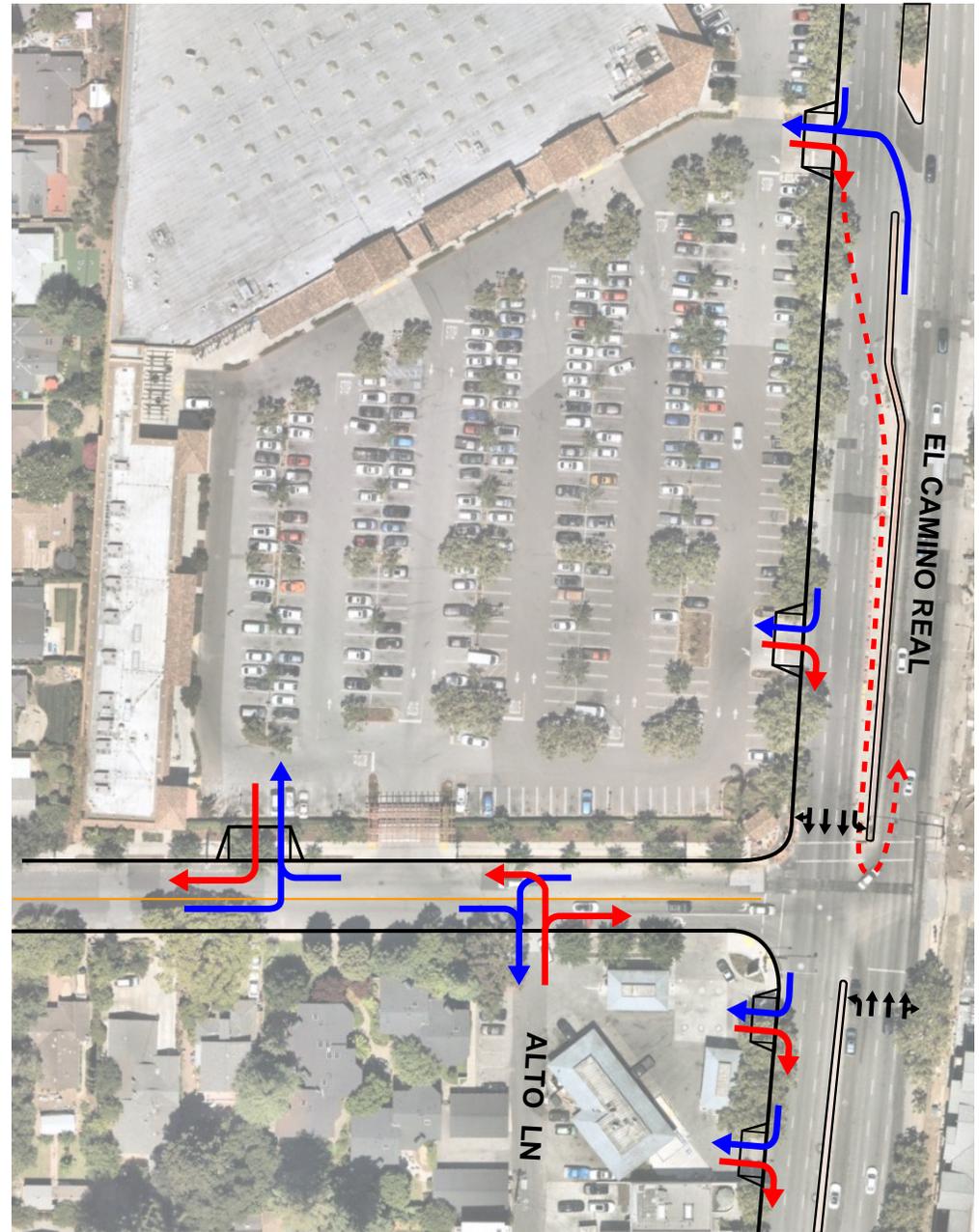
Protected Intersection

Notes:

- Likely requires removal of one travel lane on El Camino Real to align bike lanes and allow for corner curves and protected queuing areas
- Middle Plaza entry has no bicycle lanes on the entry driveway
- Middle Plaza corners need to be modified to accommodate queuing area, any reconstruction would be above the Hetch-Hetchy shallow water main
- Design would need to consider bus, truck, and large vehicle turning movements at intersection
- Gas station access to Middle Avenue would need to be addressed due to proximity to corner and queuing areas
- Recommend no right turn on red from Middle Avenue



Existing

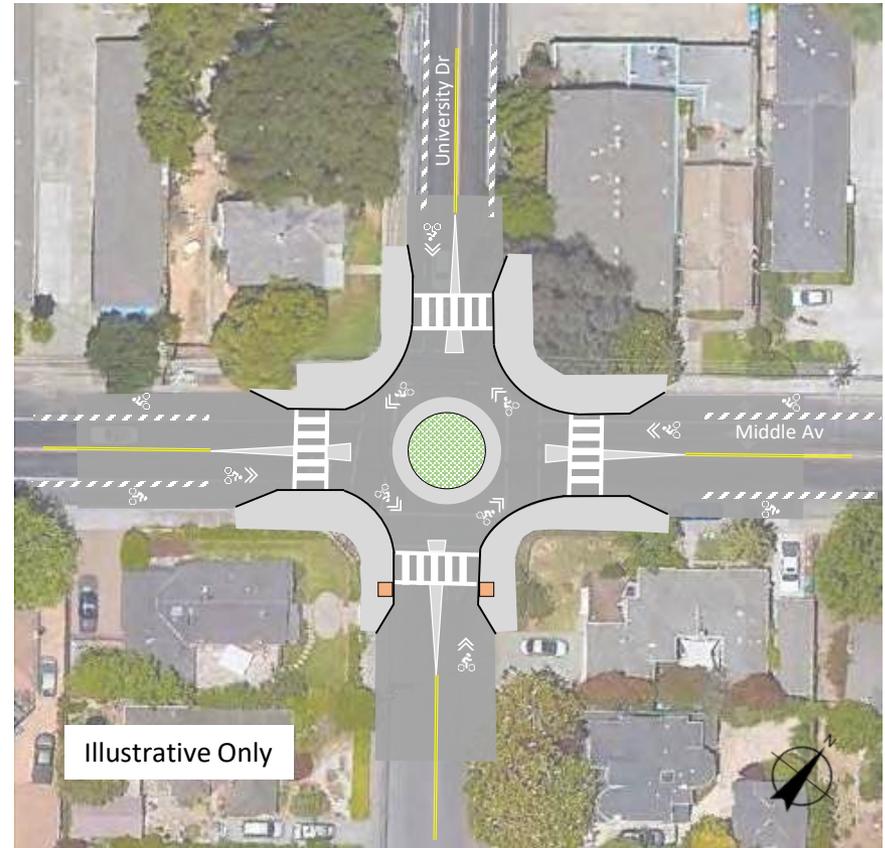


Potential Changes

- Move Safeway driveway
- Restrict left-turn out of plaza to Middle Avenue
- Close gas station driveway on Middle Avenue closest to El Camino Real



Existing Conditions



Mini-Roundabout

Notes:

- Assumes that bicyclists share the lane with vehicles in the roundabout
- Slip ramps could be provided at all corners to allow less confident bicyclists to use the sidewalks to navigate the roundabout
- Design would need to consider bus and truck movements

Traffic Calming Features

Feature	Pros	Cons	Location		Typical Cost
			Intersection	Street Segment	
Flashing beacons (RRFB)	<ul style="list-style-type: none"> Higher vehicle yield rate to pedestrians No impact to emergency vehicles 	<ul style="list-style-type: none"> No secondary traffic calming effect Higher construction cost 	x	x	Medium
Speed tables or speed humps	<ul style="list-style-type: none"> Reduces speed Speed tables are preferred by Menlo Fire 	<ul style="list-style-type: none"> May increase noise Driver discomfort if immediate adjacent to driveways 		x	Low
Raised crosswalks	<ul style="list-style-type: none"> Improve safety for both vehicles and pedestrians Effective in reducing speeds, though not to the extent of speed bumps 	<ul style="list-style-type: none"> Potential impact to drainage Impact to emergency vehicle 	x		Medium
Speed feedback signs	<ul style="list-style-type: none"> Visually remind drivers of speed and alerts violators without affecting normal traffic 	<ul style="list-style-type: none"> Effectiveness may be reduced over time as regular drivers become desensitized Some drivers may ignore knowing that the signs do not include automated enforcement 		x	Low
Bulb-out/ Curb extension/ Corner Radius Reduction	<ul style="list-style-type: none"> Reduces speeds of turning vehicles Shortens pedestrian crossing distance Prevents street parking near intersection 	<ul style="list-style-type: none"> Makes right-turns more difficult for large vehicles May result in loss of street parking 	x		Medium
All-way stop signs	<ul style="list-style-type: none"> Requires vehicles to stop Prioritizes pedestrian crossings 	<ul style="list-style-type: none"> Effectiveness may be reduced if drivers do not stop Not effective in situations with limited cross-traffic or pedestrian and bicycle volumes 	x		Low
Roundabout	<ul style="list-style-type: none"> Reduce number of conflicts between transportation modes Better traffic flow 	<ul style="list-style-type: none"> May require more intersection space to implement Relatively new feature for Menlo Park 	x		Medium
Left-turn bike pocket	<ul style="list-style-type: none"> Provides dedicated space for turning bicyclists 	<ul style="list-style-type: none"> Relatively new feature for Menlo Park 	x		Low

Turn restrictions	<ul style="list-style-type: none"> • Limits specific turning movements especially where volume control is desired • Does not limit emergency vehicles from accessing sites 	<ul style="list-style-type: none"> • May divert traffic problem onto another street or intersection • May increase trip lengths for some drivers or limit access for local homeowners/businesses 	x		Low
Reduce Travel Lane Width	<ul style="list-style-type: none"> • Allows inclusion of other facilities, such as bicycle lanes and medians • Reduces travel speeds 	<ul style="list-style-type: none"> • May not be appropriate for higher volume streets with significant numbers of large vehicles 		x	Low
Traffic Enforcement	<ul style="list-style-type: none"> • Produces immediate results and can be effective where streets experience excessive speeding or stop sign violations • Can be deployed on short notice and during specific hours when problem occurs 	<ul style="list-style-type: none"> • Takes considerable staff time and there are limited resources • Effectiveness typically does not last beyond enforcement period 	x	x	Medium