



SPECIAL AND REGULAR MEETING AGENDA

Date: 12/4/2018
Time: 7:00 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

Mayor Peter Ohtaki will be participating by phone from:
Pop Century Resort
1050 Century Drive
Lake Buena Vista, FL 32830

According to City Council policy, all regular meetings of the City Council are to end by midnight unless there is a super majority vote taken by 11:00 p.m. to extend the meeting and identify the items to be considered after 11:00 p.m.

7:00 p.m. Regular Session

A. Call to Order

B. Roll Call

C. Pledge of Allegiance

D. Presentations and Proclamations

D1. Proclamation: Recognizing Ron La France

E. Public Comment

Under "Public Comment," the public may address the City Council on any subject not listed on the agenda. Each speaker may address the City Council 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 City Council cannot act on items not listed on the agenda and, therefore, the City Council cannot respond to non-agenda issues brought up under Public Comment other than to provide general information.

F. Commission Report

F1. Complete Streets Committee report on Middle Avenue conceptual bike improvements

G. Consent Calendar

G1. Accept the City Council meeting minutes for November 13, 2018 ([Attachment](#))

G2. Review of the annual report on the status of the transportation impact, storm drainage, recreation in-lieu, below market rate housing in-lieu and building construction road impact fees collected as of June 30, 2018, and make findings regarding funds collected but not expended ([Staff Report #18-218-CC](#))

- G3. Adopt Resolution No. 6472 accepting fiscal year 2018-2019 state supplemental local law enforcement grant in the amount of \$100,000; and approve a spending plan ([Staff Report #18-221-CC](#))
- G4. Authorize the City Manager to execute an agreement with Significant Cleaning Services for janitorial services up to the annual budgeted amount ([Staff Report #18-227-CC](#))
- G5. Adopt Resolution No. 6471 authorizing the City Manager to accept a grant for fiscal year 2018-19 of up to \$150,000 from Silicon Valley Community Foundation to implement the Big Lift at the Belle Haven Child Development Center and to execute a contract to enhance services to complete the scope of work ([Staff Report #18-220-CC](#))
- G6. Adopt Resolution No. 6473 supporting the City's Shuttle Program for application for the Lifeline Transportation Program fiscal year 2018-19 and fiscal year 2019-20, and authorize the City Manager to enter into necessary funding agreements ([Staff Report #18-231-CC](#))
- G7. Authorize the City Manager to enter into a contract with ICF International to prepare an environmental impact report for the proposed approximately 120,000 square foot research and development building at 1105-1165 O'Brien Drive for the amount of \$314,338 and future augments as may be necessary to complete the environmental review for the proposed project ([Staff Report #18-219-CC](#))
- G8. Authorize the City Manager to execute an agreement with Dinsmore Landscape Company for median and right of way landscape maintenance services up to the annual budgeted amount ([Staff Report #18-222-CC](#))

H. Regular Business

- H1. Adopt Resolution No. 6474 approving the City Council Community Funding Subcommittee's recommendations regarding the 2018-19 community funding allocation ([Staff Report #18-230-CC](#))

I. Informational Items

- I1. Quarterly financial review of general fund operations as of September 30, 2018 ([Staff Report #18-232-CC](#))
- I2. Review of the City's investment portfolio as of September 30, 2018 ([Staff Report #18-226-CC](#))
- I3. Update on the Housing Commission public meeting regarding the San Mateo County Civil Grand Jury report regarding restricting smoking in multiunit housing properties ([Staff Report #18-228-CC](#))
- I4. Update on the citywide Safe Routes to School program ([Staff Report #18-225-CC](#))
- I5. Update on municipal regional stormwater permit requirement to implement a new Polychlorinated Biphenyls Building Demolition Program ([Staff Report #18-223-CC](#))
- I6. Update and public release of draft project study report for the Ravenswood Avenue railroad crossing study and draft scope for additional studies ([Staff Report #18-224-CC](#))
- I7. Quarterly update on the 2018 City Council work plan ([Staff Report #18-229-CC](#))

J. City Manager's Report

K. Councilmember Reports

L. Adjournment

At every Regular Meeting of the City Council, in addition to the Public Comment period where the public shall have the right to address the City Council 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 City Council's consideration of the item.

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

Any writing that is distributed to a majority of the City Council by any person in connection with an agenda item is a public record (subject to any exemption under the Public Records Act) and is available for inspection at the City Clerk's Office, 701 Laurel St., Menlo Park, CA 94025 during regular business hours. Persons with disabilities, who require auxiliary aids or services in attending or participating in City Council meetings, may call the City Clerk's Office at 650-330-6620.

Agendas are posted in accordance with Government Code Section 54954.2(a) or Section 54956. Members of the public can view electronic agendas and staff reports by accessing the City website at menlopark.org/agenda and can receive email notification of agenda and staff report postings by subscribing to the "Notify Me" service at menlopark.org/notifyme. Agendas and staff reports may also be obtained by contacting City Clerk at 650-330-6620. (Posted: 11/29/2018)

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SPECIAL AND REGULAR MEETING MINUTES - DRAFT

Date: 11/13/2018
Time: 6:00 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

Councilmember Catherine Carlton participated by phone from:
Hotel City Centro Oaxaca.
Aldama 410 Oaxaca de Juárez, Oaxaca, OAX, Mexico 68080

6:00 p.m. Study Session

Mayor Ohtaki called the meeting to order at 6:02 p.m.

SS1. Employee pension obligations (Staff Report # 18-211-CC)

Finance and Budget Manager Dan Jacobson and Vice President and Actuary of Bartel and Associates Doug Pryor made the presentation.

City Council received clarification on the options presented and confirmed that the City would continue contributing to the pension reserve.

7:00 p.m. Regular Session

A. Call to Order

Mayor Ohtaki called the meeting to order at 7:09 p.m.

B. Roll Call

Present: Carlton (called in for item H1 only), Cline, Keith, Mueller, Ohtaki

Absent: None

Staff: Interim City Manager Starla Jerome-Robinson, City Attorney Bill McClure, City Clerk Judi A. Herren

C. Pledge of Allegiance

Mayor Ohtaki led the Pledge of Allegiance.

D. Public Comment

- Fran Dehn reminded the City Council and audience of the coats for kids donation program.
- Laura Moya presented the City Council with the 2019 HIP Housing calendars.

E. Commission Report

E1. Sister Cities Committee update

Vice Chair George Yang made the presentation.

F. Consent Calendar

- F1. Accept the City Council meeting minutes for October 23 and October 29, 2018
- F2. Adopt Resolution No. 6461 authorizing the annual destruction of obsolete records (Staff Report #18-207-CC)
- F3. Authorize the City Manager to execute a three year master agreement with HortScience, Inc. for (1) ongoing evaluation of arborist reports and associated heritage tree protections for development proposals that require planning and building permit review and (2) tasks associated with the heritage tree ordinance update, and appropriate and \$100,000 from the general fund unassigned fund balance (Staff Report #18-201-CC)
- F4. Authorize the City Manager to execute an agreement with Cartegraph Systems, LLC. for implementation of an operations management system enterprise software as a service solution in amount not to exceed \$213,248 over three fiscal years (Staff Report #18-206-CC)
- F5. Adopt Resolution No. 6465 authorizing the City Manager to sign an amendment to the contract with the State of California Department of Education to reimburse the City up to \$1,011,860 for child care services at the Belle Haven Child Development Center for fiscal year 2018-19 (Staff Report #18-202-CC)
- F6. Authorize the City Manager to execute an amendment to the agreement with Gates + Associates in an amount of \$21,195 for the Parks and Recreation Facilities Master Plan project (Staff Report #18-203-CC)
- F7. Authorize the City Manager to execute five-year master agreements with multiple consulting firms for on-call transportation services (Staff Report #18-204-CC)
- F8. Second reading and adoption of Ordinance No. 1052 amending the City Manager's powers and duties to include design approval authority (Staff Report #18-209-CC)

Staff pushed item F4 to the December 4 City Council meeting.

Item F8 was tabled for 2019.

ACTION: Motion and second (Cline/Keith) to approve the consent calendar with exception to items F4 and F8, passed 4-0-1 (Carlton absent).

G. Public Hearing

- G1. Consider the Planning Commission's recommendation to approve a Conditional Development Permit amendment to make modifications that would allow for a transit facility and associated site improvements on the project site located at 180-200 Jefferson Drive. The project would reduce the number of parking spaces and remove nine heritage trees

Consider the Planning Commission's recommendation to approve use permit and architectural control revisions to make modifications that would allow for a transit facility and associated site improvements at 220 Jefferson Drive. The project would reduce the number of parking spaces and

remove five heritage trees (Staff Report #18-200-CC)

Acting Principal Planner Kyle T. Perata and Facebook Project Manager Mandy Spain of Facebook made a presentation.

- Pamela Jones supports the buses moving off Chilco Street and suggested that bike and pedestrian pass-through be created between Instagram and Facebook.
- Cecilia Taylor received clarification about the proposed bus route. Taylor also asked whether City Council had physically visited the site and if the Complete Streets Commission had provided input on the route.

The City Council directed staff to prepare an information item for a future City Council meeting to address Cecilia Taylor's questions and received confirmation that the new route would work with future legislation. City Council received clarification that replacement trees were larger than the minimum required.

ACTION: Motion and second (Keith/Ohtaki) to approve a Conditional Development Permit amendment to make modifications that would allow for a transit facility and associated site improvements on the project site located at 180-200 Jefferson Drive and approve use permit and architectural control revisions to make modifications that would allow for a transit facility and associated site improvements at 220 Jefferson Drive, passed 4-0-1 (Carlton absent).

H. Regular Business

City Councilmember Carlton called in for item H1.

Mayor Pro Tem Mueller and City Attorney Bill McClure recused themselves for the remainder of the meeting.

- H1. Adopt Resolution No. 6470 to approve the permanent installation of bicycle improvements on Oak Grove Avenue, Crane Street, and University Drive, appropriate funds and authorize the City Manager to award construction contracts (Staff Report #18-208-CC)

Junior Engineer Marlon A. Aumentado and Principal at Alta Planning & Design Hugh Louch made the presentation.

- Steve Castillo spoke in support of a red or loading zone on Pine Street at Oak Grove Avenue..
- Marie Moran described access to the residential complex and spoke in support of a loading zone on Oak Grove Avenue.
- Bette Bohler described the parking situation on Pine Street and the need for a loading zone.
- Samir Patel spoke in support of a loading zone on Oak Grove Avenue.
- Mary Pat Kelly spoke in favor of a loading zone on Oak Grove Avenue.
- John Conway spoke about bicycle safety and concerns on Oak Grove Avenue.
- Diane Baily spoke in support of permanent bike lanes.
- Jen Wolosin spoke in favor of permanent bike lanes.
- Eric Johnston spoke in support of bike lanes but also the need for a loading zone.
- Faye Johnston spoke in favor of bike lanes but also the need for a loading zone.
- Fran Dehn spoke in support of continuing the pilot program (Attachment).

- Betsy Nash spoke in favor of permanent bike lanes and the extension to University Drive.
- Katie Behroozi spoke in support of bike lanes.

The City Council discussed extending the bike lanes to University Drive and the possibility of adding bollards and bike signals. City Councilmember Keith requested that a flagger be positioned at Station 1300. City Council also discussed increasing the appropriation limit to \$160,000 to include directed design improvements. Finally, City Council requested staff work with Pine Street residents in implementing a loading zone at the corner of Oak Grove Avenue and Pine Street.

ACTION: Motion and second (Keith/Ohtaki) to adopt Resolution No. 6470 to approve the permanent installation of bicycle improvements on Oak Grove Avenue, Crane Street, and University Drive, appropriate funds in the amount of \$160,000 for construction and additional design improvements and authorize the City Manager to award construction contracts, passed 4-0-1 (Mueller recused).

I. Informational Items

- I1. Preliminary year-end close financial review of general fund operations as of June 30, 2018 (Staff Report #18-212-CC)
- I2. Update on the Stanford University 2018 general use permit project (Staff Report #18-210-CC)

J. City Manager's Report

None.

K. Councilmember Reports

Mayor Ohtaki announces that the November 27 City Council meeting is cancelled. The next regular City Council meeting is scheduled for December 4, 2018.

L. Adjournment

Mayor Ohtaki adjourned the meeting at 9:52 p.m.



STAFF REPORT

City Council Meeting Date: 12/4/2018
Staff Report Number: 18-218-CC

Consent Calendar: **Review of the annual report on the status of the transportation impact, storm drainage, recreation in-lieu, below market rate housing in-lieu and building construction road impact fees collected as of June 30, 2018, and make findings regarding funds collected but not expended**

Recommendation

Staff recommends the City Council review the annual report on the status of the transportation impact, storm drainage, recreation in-lieu, below market rate housing and building construction road impact fees. Staff also recommends that City Council adopt the following findings:

1. Transportation impact fees, storm drainage fees, recreation in lieu fees, below market rate housing in-lieu, and building construction road impact fees are collected to mitigate direct and indirect impacts from development.
2. These funds are expended in a timely manner to fund continued improvements to public facilities related to the increased demand on the facilities resulting from development.
3. There is a reasonable relationship between these impact fees and their purpose.
4. These impact fees continue to be required to fund applicable improvements, and as such, these fees will continue to be collected and deposited into the appropriate funds for utilization solely for their intended purpose.

Policy Issues

This report does not represent any change to existing City policy and affirms the City's intention to continue to charge these impact fees to fund projects and programs that mitigate the direct and indirect impact of development in the City of Menlo Park.

Background

Cities and counties often charge fees on new development to fund public improvements to mitigate the impact of development activity. These fees are commonly known as development impact fees. In 1989, the California Legislature passed Assembly Bill 1600 (AB1600), which added §§66000 et seq. to the California Government Code, commonly known as the Mitigation Fee Act.

As required by law, these fees are segregated from the general fund and accounted for in special revenue funds. Government Code §66001 requires that the City make available to the public information regarding development impact fees for each fund within 180 days after the end of each fiscal year:

- A brief description of the fee and the fund into which the fee was deposited
- The amount of the fee

- The associated fund's beginning and ending balances for the fiscal year
- The total amount of fees collected and interest earned
- Identification of each public improvement on which impact fees were expended and the amount of expenditure on each improvement, including the total percentage of the cost of the public improvement that was funded with impact fees
- Identification of the approximate date by which construction of a public improvement will commence if the local agency determined that sufficient funds have been collected to complete financing on an incomplete public improvement and the public improvement remains incomplete
- A description of each interfund transfer or loan made from an account or fund
- Further, Government Code §66000 et. seq. also requires that findings describing the continuing need for impact fees be made every five years specifying the intended use of any unexpended impact fees, regardless of whether the fees are committed or uncommitted. Failure to make such findings subjects the City to going through a refunding procedure. This report meets the requirements to comply with the Mitigation Fee Act.

Analysis

Transportation impact fees

Due to growth and development in San Mateo County and the City of Menlo Park, increased pressure has been put on the transportation system. Early in fiscal year 2009-10, the City concluded a transportation impact fee study, which enabled staff to recommend an update to the existing fees and create a more systematic way for applying the fees.

As a result, a new fee structure was put in place effective December 6, 2009, with the passing of an ordinance that added Chapter 13.26 to the municipal code.

This fee structure is listed below and is included in the City's 2018 master fee schedule:

Transportation impact fee		
Land use	Unit	2018 fee amount*
Office	Sq.Ft.	\$ 4.87
Research and development	Sq.Ft.	3.5
Manufacturing	Sq.Ft.	2.4
Warehousing	Sq.Ft.	1.05
Restaurant	Sq.Ft.	4.87
Retail	Sq.Ft.	4.87
Single-family	Units	3301.3
Multifamily	Units	2026.34
Hotel	Per Room	1928.24
Medical office	Sq.Ft.	11.31
Child care	Sq.Ft.	4.87
Secondary dwelling unit	Units	751.39
<small>* As of July 31, 2017, ENR Construction Cost Index % change for San Francisco = 1.5 Note: If land use is not one of the above, use this formula: \$3,268.05 x Total PM Peak Hour Trips</small>		

For fiscal year 2017-18, the City received total revenue of \$1,562,050 primarily from traffic impact fees and interest income. For the same period, the City expended \$405,915 on projects eligible for funding under this revenue source. Accordingly, net revenue for the year totaled \$1,156,135 and the ending balance as of June 30, 2018, is \$4,827,758. Of this amount, all funds are available for use to meet current or planned projects eligible for this funding source. In the next five fiscal years, it is planned that the City will require \$15,863,637 from transportation impact fees to finance needed infrastructure projects. As such, there exists a continued need for this fee. Detail of current year and historical financials as well as current year project expenditures are available in Attachment A.

Storm drainage fees

The storm drainage fee, which commenced before 1989, is levied to mitigate City storm drainage impacts either directly or indirectly resulting from development projects. Storm drainage connection fees are charged for property development as shown in the City’s 2018 Master Fee Schedule:

- Single-family – per lot \$450.00
- Multifamily – per unit \$150.00
- Industrial and commercial – per square foot of impervious area \$ 0.24

For fiscal year 2017-18, the City received total revenue of \$9,436, primarily from storm drainage fees and interest income. For the same period, the City expended \$17,402 on projects eligible for funding under this revenue source. Accordingly, net revenue for the year for the year totaled (\$7,966) and the ending balance as of June 30, 2018, is \$168,480. Of this amount, all funds are available for use to meet current or planned projects eligible for this funding source. In the next five fiscal years, it is planned that the City will require \$250,000 from storm drainage fees to fund Willow Place Bridge Abutment Repairs and \$42,598 to finance needed infrastructure projects. As such, there exists a continued need for this fee. Detail of current year and

historical financials as well as current year project expenditures are available in Attachment B.

Recreation in-lieu fees

The recreation in-lieu fee, which commenced before 1989, is collected from developers to improve and expand recreation facilities in-lieu of providing new on-site facilities. The fee is charged on new residential development as shown in the City's 2018 master fee schedule:

- Single-family (RE and R-1): 0.013 (Multiplied by number of units and by market value of acreage to be subdivided)
- Multifamily development (R-2, R-3, RLU and PD): 0.008 (Multiplied by number of units and by market value of acreage to be subdivided)

For fiscal year 2017-18, the City received total revenue of \$2,656,158, primarily from recreation in-lieu fees and interest income. For the same period, the City expended \$78,341 on projects eligible for funding under this revenue source. Accordingly, net revenue for the year for the year totaled \$2,577,817 and the ending balance as of June 30, 2018, is \$3,745,549. Of this amount, all funds are available for use to meet current or planned projects eligible for this funding source. In the next five fiscal years, it is planned that the City will require \$2,358,074 from recreation in-lieu fees to finance needed infrastructure projects. The Parks and Recreation Master Plan process will identify additional demand of these funds. As such, there exists a continued need for this fee. Detail of current year and historical financials as well as current year project expenditures are available in Attachment C.

Below market rate housing in-lieu fee

The Below Market Rate (BMR) Housing program was established in 1987 to increase the housing supply for people who live and/or work in Menlo Park and have very low, low, or moderate incomes as defined by income limits set by San Mateo County. The primary objective of the fee is to create actual housing units rather than generate a capital fund. However residential developers are permitted to pay an in-lieu fee if a project does not provide the following:

- All owner-occupied residential developments of five or more units are required to provide a BMR unit.
- Residential developments of 10 to 19 units are required to provide 10 percent of the housing at below market rates.
- Development projects of 20 units or more are required to provide 15 percent of the housing at below market rates.

For new commercial developments equal to or greater than 10,000 square feet that generate employment opportunities, the in-lieu fee is established as follows:

- \$16.90 per square foot of net new gross floor area for most commercial uses
- \$9.17 per square foot of net new gross floor area for defined uses that generate fewer employees

For fiscal year 2017-18, the City received total revenue of \$6,235,008, primarily from below market rate housing in-lieu fees and interest income. For the same period, the City expended \$217,983 on projects eligible for funding under this revenue source. Accordingly, net revenue for the year totaled \$6,017,025 and the ending balance as of June 30, 2018, is \$24,669,685. Of this amount, \$15,808,095 is available for use to meet current or planned projects eligible for this funding source. The remaining fund balance reflects assets held as notes receivable (BMR loan programs) and real estate held for resale. A staff report was provided to City Council (Attachment F) on one funding opportunity, \$6,700,000, for 1317-1385 Willow Road; no formal action to fund this project. In addition, a more recent notice of funding availability was released October 25, 2018. Staff also anticipates the allocation of BMR funds, up to \$11,500,000, following the approval of the general plan update to leverage additional development of affordable housing within the plan area. It is

estimated at this time that the abovementioned activities will exhaust and potentially exceed the current available fund balance. Detail of current year and historical financials as well as current year project expenditures are available in Attachment D.

Building construction road impact fees

The building construction impact fee that took effect in November 2005 was adopted to recover the cost of repairing damage to streets caused by construction-related vehicle traffic. On August 5, 2008, City Council adopted a resolution extending this fee beyond the three-year sunset provision initially established. The fee is charged on the value of the construction project as shown in the 2018 Master Fee Schedule:

- The fee amounts to 0.58 percent of a construction project's value
- Residential alteration and repairs, as well as all projects under \$10,000, are exempt from the fee

For fiscal year 2017-18, the City received total revenue of \$3,027,735, primarily from building construction road impact fees and interest income. For the same period, the City expended \$4,598,500 on projects eligible for funding under this revenue source. Accordingly, net revenue for the year totaled (\$1,570,766) and the ending balance as of June 30, 2018, is \$5,344,627. Of this amount, all funds are available for use to meet current or planned projects eligible for this funding source. In the next five fiscal years, it is planned that the City will require \$17,978,493 from building construction road impact fees to finance needed infrastructure projects. As such, there exists a continued need for this fee. Detail of current year and historical financials as well as current year project expenditures are available in Attachment E.

Impact on City Resources

There is no impact on City resources resulting from this annual report, and this report meets the compliance requirements of the Mitigation Fee Act. Impact Fees collected in 2017-18 represented \$12,112,215.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification to comply with the Mitigation Fee Act is achieved by posting the annual report November 19, 2018, 15 days before the meeting at which the City Council is anticipated to make required findings as outlined in the recommendation.

Attachments

- A. Transportation impact fee financial report
- B. Storm drainage fee financial report
- C. Recreation in-lieu fee financial report
- D. Below market rate housing in-lieu fee financial report
- E. Building construction road impact fee financial report
- F. Hyperlink: City Council Staff Report #17-138-CC – menlopark.org/DocumentCenter/View/14879/H1---MidPen-1300-Block?bidId=

Report prepared by:
Dan Jacobson, Finance and Budget Manager

Staff Report #: 18-218-CC

Report approved by:
Lenka Diaz, Administrative Services Director

**City of Menlo Park
Transportation Impact Fee Financial Report**

Transportation Impact Fees	2013-14	2014-15	2015-16	2016-17	2017-18
Beginning balance	\$ 2,688,103	\$ 3,962,481	\$ 4,783,010	\$ 3,680,652	\$ 3,671,623
Developer Fees	1,350,662	1,063,265	484,865	1,565,803	1,525,690
Interest earnings and other	167,797	68,016	671,669	27,687	36,360
Expenditures	(244,081)	(310,752)	(2,258,892)	(385,171)	(405,915)
Non-traffic impact fee transfer ¹	0	0	0	(1,217,348)	0
Ending Balance	\$3,962,481	\$4,783,010	\$3,680,652	\$3,671,623	\$4,827,758

2017-18 Traffic Impact Fee Project Expenditures:	Total Expended
Middle Avenue Caltrain Crossing Study	\$170,701
Transit Improvements	70,787
Sand Hill Road Signal Interconnect	42,150
Ravenswood Avenue/Caltrain Grade Separation	39,796
Other projects	38,070
Transportation Projects Minor	26,529
El Camino Real Crossings Improvements	17,883
Total	\$405,915

Traffic Impact Fee Future Projects	2018-19	2019-23	Total
Middle Avenue Caltrain crossing study design and construction	\$1,563,725	\$9,900,000	\$11,463,725
Traffic signals modifications	640,000	1,400,000	2,040,000
Pierce Road sidewalk and San Mateo Drive bike route installation	1,007,000		1,007,000
Haven Avenue streetscape improvement	708,993		708,993
El Camino Real crossings improvements	324,650		324,650
Willow Road transportation study	159,692		159,692
Transit improvements	84,577		84,577
Transportation projects (minor)	75,000		75,000
	Total		\$15,863,637

¹ At the recommendation of the City's auditor, monies in this fund which were not related to the impact fee were transferred to a new fund in Fiscal Year 2016-17.

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**City of Menlo Park
Storm Drainage Impact Fee Financial Report**

Storm Drainage Impact Fees	2013-14	2014-15	2015-16	2016-17	2017-18
Beginning balance	\$112,893	\$116,821	\$170,220	\$172,555	\$176,446
Developer fees	4,495	52,160	783	2,250	7,270
Interest income/(expense)	936	1,239	1,552	1,641	2,166
Expenditures	(1,503)	0	0	0	(17,402)
Ending Balance	\$116,821	\$170,220	\$172,555	\$176,446	\$168,480

Storm Drainage Impact Fee Fund Expenditures	2017-18
Green Infrastructure Plan	\$17,402

Storm Drainage Impact Fee Future Projects	2018-19	2019-23	Total
Willow Place bridge abutment repairs	\$0	\$250,000	\$250,000
Green Infrastructure Plan	42,598	-	42,598
		Total	\$292,598

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**City of Menlo Park
Recreation In-Lieu Impact Fee Financial Report**

Recreation In-Lieu Impact Fees	2013-14	2014-15	2015-16	2016-17	2017-18
Beginning balance	\$1,164,504	\$1,382,656	\$1,428,915	\$1,296,910	\$1,167,732
Developer Fees	276,000	52,000	103,400	64,000	2,619,200
Interest Income/(Expense)	9,374	14,029	12,962	6,433	36,958
Expenditures	(67,222)	(19,770)	(248,367)	(199,611)	(78,341)
Ending balance	\$1,382,656	\$1,428,915	\$1,296,910	\$1,167,732	\$3,745,549

Recreation In-Lieu Fee Expenditures	2017-18
Jack Lyle Park Restrooms Construction	\$17,681
Willow Oaks Park improvements	22,977
Belle Haven Pool analysis and audit	26,131
Other projects	11,552
Total	\$78,341

Recreation In-Lieu Fee Future Projects	2018-19	2019-23	Total
Willow Oaks Park improvements	\$563,481	\$375,000	\$938,481
Civic Center Campus Improvements	0	600,000	600,000
Jack Lyle Park Restrooms Construction	449,593	0	449,593
Belle Haven Pool Master Plan implementation	0	370,000	370,000
Parks and Recreation Master Plan update	187,263	0	187,263
		Total	\$2,545,337

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**City of Menlo Park
Below Market Rate Housing Financial Report**

Below Market Rate Housing Special Fund	2013-14	2014-15	2015-16	2016-17	2017-18
Beginning balance	\$10,629,904	\$11,751,144	\$14,135,309	\$16,884,108	\$18,652,660
Fiscal Year Activity					
Charges for Services	81,277	2,388,210	3,788,681	1,824,526	6,109,892
Use of Money and Property	114,817	178,194	149,505	125,374	125,117
Expenditures	(155,522)	(182,238)	(97,368)	(181,348)	(217,983)
Proceeds from the Sale of Assets	1,080,667	0	0	0	0
Prior period adjustment	0	0	(1,092,019)	0	0
Ending balance	\$11,751,144	\$14,135,309	\$16,884,108	\$18,652,660	\$24,669,685
Adjustment for notes and interest receivable	(\$3,747,401)	(\$6,170,550)	(\$9,106,832)	(\$8,823,986)	(\$8,861,591)
Adjusted available balance	\$8,003,743	\$7,964,759	\$7,777,276	\$9,828,674	\$15,808,095

Below Market Rate Housing Special Fund Expenditures	2017-18
Project Expenditures:	
Other expenditures	\$217,983
Total Expenditures:	\$217,983

Below Market Rate Housing Special Fund Future Projects	2018-19	2019-23	Total
1317-1385 Willow Road	\$6,700,000	\$0	\$6,700,000
2018 NOFA	0	11,500,000	11,500,000
		Total	\$18,200,000

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**City of Menlo Park
Construction Impact Fee Financial Report**

Construction Impact Fee Fund	2013-14	2014-15	2015-16	2016-17	2017-18
Beginning balance	\$2,103,076	\$3,624,730	\$5,048,723	\$4,103,887	\$6,915,393
Developer Fees	1,725,457	1,584,408	1,821,534	3,095,422	2,976,022
Street Department Fees	0	0	0	0	0
Interest Income/(Expense)	16,069	39,390	40,396	62,254	51,713
Expenditures	(219,872)	(199,805)	(2,792,626)	(346,171)	(4,598,500)
Transfers			(14,140)		
Ending balance	\$3,624,730	\$5,048,723	\$4,103,887	\$6,915,393	\$5,344,627

Construction Impact Fee Fund Expenditures	2017-18
Project Expenditures:	
Street Resurfacing Project	\$4,477,107
Santa Cruz & Middle resurfacing	49,367
Operating Expenditures:	
Street Maintenance	72,026
Total Expenditures:	\$4,598,500

Construction Impact Fee Future Projects	2018-19	2019-23	Total
Street Resurfacing	\$3,244,291	\$8,000,000	\$15,465,960
Santa Cruz & Middle resurfacing	212,533	2,300,000	2,512,533
		Total	\$17,978,493

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STAFF REPORT

City Council

Meeting Date: 12/4/2018
Staff Report Number: 18-221-CC

Consent Calendar: Adopt Resolution No. 6472 accepting fiscal year 2018-2019 state supplemental local law enforcement grant in the amount of \$100,000; and approve a spending plan

Recommendation

Adopt a resolution accepting the fiscal year 2018-2019 State Supplemental Local Law Enforcement Grant (SLESF COPS Frontline) in the amount of \$100,000 and approve a spending plan.

Policy Issues

The proposed action and spending plan require City Council authorization.

Background

In 1997, the California State Legislature created the Citizen's Option for Public Safety (COPS) Program. This is a noncompetitive grant whereby cities and counties receive state funds to augment public safety expenditures. Effective in the year 2000, cities were guaranteed a minimum grant award of \$100,000.

The COPS funds must be used for frontline municipal police services and must supplement and not supplant existing funding. The funds cannot be used for administrative overhead costs in excess of 0.5 percent of the total allocation. The allocation may not be used to fund the costs of any capital project or construction project that does not directly support frontline law enforcement.

Analysis

The 2018-2019 COPS Frontline Grant award is in the amount of \$100,000. This grant is included in the City's fiscal year 2018-19 budget and a spending plan must now be approved by City Council.

A mobile operations center is a critical element utilized by public safety agencies to establish a central location for command and control during various incidents including man-made and natural disasters. The deployment of a mobile operations center provides several functions. First, and most crucial, a mobile operations center allows for enhanced communication capabilities, placing dispatch personnel in an enclosed area near an incident to pass information from officers on the scene to supervisors, to share information with other agencies involved in the incident, as well as communicating with the public and media.

The Menlo Park Police Department is not currently equipped with a mobile operations center, therefore when a command post is needed during the evolution of an incident, the police watch commander vehicle

is used. The watch commander vehicle is a Ford Explorer with a mobile data terminal, radios, and a small dry erase board in the cargo area. This option has proven inadequate for all but minor events. As seen with the recent YouTube shooting incident in San Bruno, the potential exists for a mass-casualty event within our jurisdiction. With Facebook, SRI, and a host of venture capital and biotechnical research firms, it is not a question of “if,” but of “when” a major event requiring enhanced command and control capabilities will occur. The addition of a designated mobile operations center will greatly strengthen our effectiveness in the management of an event and in the mitigation of the event’s impact to our community.

The police department does currently have the ability to utilize existing mobile operations centers within San Mateo County, however in the event of a serious adverse event there is no guarantee those resources would be available for our use. Additionally, having a mobile operation center within our existing fleet would create the opportunity for it to be utilized during scenario training and for the numerous existing community events each year.

Current estimates indicate the cost of a fully equipped and operational mobile operations center to be approximately \$400,000 to \$450,000. The 2018-2019 COPS Frontline Grant of \$100,000 is intended to be used as a deposit toward the design and construction of a mobile operations center.

Impact on City Resources

The fiscal year 2018-2019 grant funds must be spent or encumbered by June 30, 2019. There are no matching requirements for this grant.

The police department intends to continue to explore utilizing other grant funding and / or donations toward the purchase of the mobile operation center. Any remaining costs or fees would need to be included within the 2019-2020 budget. The police department will also utilize \$40,000 in carry-over funds from fiscal year 2016-17 and fiscal year 2017-18, along with next year’s SLESF COPS funds toward this purchase.

Purchases will be made in accordance with the City’s adopted purchasing policies.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

A. Resolution No. 6472

Report prepared by:
William A. Dixon, Commander

RESOLUTION NO. 6472

RESOLUTION OF THE CITY OF MENLO PARK ACCEPTING THE STATE SUPPLEMENTAL LOCAL LAW ENFORCEMENT GRANT OF \$100,000, APPROVING THE USE OF THE FUNDS IN ACCORDANCE WITH STATE REQUIREMENTS

WHEREAS, the California State Legislature created the Citizen's Option for Public Safety Program in fiscal year 1996-97; and

WHEREAS, effective September 8, 2000, cities were guaranteed a minimum grant award of \$100,000; and

WHEREAS, the City must create a Supplemental Law Enforcement Special Fund for the grant funds; and

WHEREAS, the funds cannot be used for administrative overhead exceeding 0.5 percent or allocated to fund the costs of any capital project or construction project that does not directly support frontline law enforcement; and

NOW THEREFORE, BE IT RESOLVED, that the City Council of the City of Menlo Park does hereby accept the State Supplemental Local Law Enforcement Grant of \$100,000; and

BE IT FURTHER RESOLVED, that the City Council approves the use of State Supplemental Local Law Enforcement Grant funds in accordance with state requirements, as outlined below:

- Mobile Operations Center design and construction \$100,000

I, Judi A. Herren, City Clerk of Menlo Park, do hereby certify that the above and foregoing City Council resolution was duly and regularly passed and adopted at a meeting by said City Council on the fourth day of December, 2018, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this fourth day of December, 2018.

Judi A. Herren, City Clerk

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STAFF REPORT

City Council

Meeting Date: 12/4/2018
Staff Report Number: 18-227-CC

Consent Calendar: Authorize the City Manager to execute an agreement with Significant Cleaning Services for janitorial services up to the annual budgeted amount

Recommendation

Staff recommends that the City Council authorize the City Manager to execute an agreement with Significant Cleaning Services (SCS) for janitorial services at various City facilities SCS for three and a half years with the option to extend the contract for four additional one-year terms and authorize spending up to the budgeted amount each year.

Policy Issues

This proposed action is consistent with City policy. In 2009, the City Council adopted a Climate Action Plan. Two components of the Climate Action Plan are the Zero Waste Plan and the Environmental Purchasing Policy. This proposed action is compliant with both of these components of the Climate Action Plan.

Background

On June 30, 2018, the City of Menlo Park and SCS completed an eight-year contract for janitorial services at various City facilities. At the completion of the contract, the City and SCS agreed to a two-month contract to continue janitorial services to permit the City to complete its request for proposals (RFP) for janitorial and day porter services at various City facilities. On July 16, 2018, the City received three proposals, but needed additional time to evaluate the proposals. On August 6, 2018 the City Council authorized the City Manager to execute an amendment to the agreement with SCS to provide enhanced services at the Belle Haven Branch Library and extend janitorial services through September 2018. On October 9, 2018, the City Council authorized the City Manager to execute an amendment to the agreement with SCS to extend janitorial services through December 2018 for additional time to negotiate the new agreement.

Analysis

Staff sent the RFP to 14 janitorial contractors and seven attended the mandatory pre-proposal meeting and facility walk-through. A total of three proposals were received from Total Quality Maintenance, Universal Building Services and Supply Company, and SCS.

All three contractors were interviewed by a team consisting of staff from the departments of Public Works, Community Services and the Sustainability Division of the City Manager's office. The proposals were evaluated on cost, service proposal, references, experience and location. Based upon the interviews and proposal review, SCS was selected. As discussed above, additional time was needed to finalize the agreement to ensure that it fully complied with the City's Zero Waste and Environmental Purchasing

Policies. In particular, the new agreement will require the contractor to maintain and handle the three waste streams separately (landfill [trash], recycle and compost) and on-site sorting to correct incidents of waste contamination and to increase diversion rates. The agreement now contains provisions that include penalties and incentives for compliance with these policies. The City’s buildings and facilities will be transitioned over to “zero waste” facilities under a phased approach to be agreed upon by contractor and city staff. To ease implementation and encourage compliance, the penalties and incentives will only apply to zero waste certified buildings. The new agreement also allows the City to contract with SCS for additional on-site sorting services for special events.

Impact on City Resources

The fiscal year 2018-19 budget has sufficient funds for these services. Funding for future years will be requested during the budget process each year.

The table below reflects SCS’s three and a half year proposal for janitorial and day porter services at various City facilities. The total cost for SCS through fiscal year (FY) 2021-22 is \$2,449,387.76. For comparison, the total cost for the same period from Total Quality Maintenance was \$2,905,028 and Universal Building Services was \$3,423,131.

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	Total
	January 1 - June 30	July 1 – June 30	July 1 – June 30	July 1 – June 30	
Total annual	\$ 292,735.06	\$603,034.02	\$621,125.04	\$639,758.79	\$2,449,387.76

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Report prepared by:
 Brian Henry, Interim Assistant Public Works Director

Report reviewed by:
 Justin Murphy, Public Works Director



STAFF REPORT

City Council

Meeting Date:

12/4/2018

Staff Report Number:

18-220-CC

Consent Calendar:

Adopt Resolution No. 6471 authorizing the City Manager to accept a grant for fiscal year 2018-19 of up to \$150,000 from Silicon Valley Community Foundation to implement the Big Lift at the Belle Haven Child Development Center and to execute a contract to enhance services to complete the scope of work

Recommendation

Staff recommends that the City Council authorize the City Manager to execute a contract with Silicon Valley Community Foundation for reimbursement to the City of up to \$150,000 for year three of a three year grant for enhancing full day child care services at the Belle Haven Child Development Center (BHCDC.)

Policy Issues

The recommendation does not represent any change to existing City policy as the BHCDC already receives substantial grant funding.

Background

The City of Menlo Park has operated the BHCDC for over 30 years. The BHCDC is licensed by the State Department of Social Services to provide quality child development services to families in Menlo Park and surrounding cities. The program receives funding from the State department of education, USDA Child and Adult Care Food Program, user fees, and a major contribution by the City of Menlo Park. The program seeks to build children's self-esteem by offering developmentally appropriate materials and activities supporting social, emotional, physical and cognitive abilities. Children are provided breakfast, lunch and snacks daily. The teacher to child ratio is 1:8 and a highly trained and committed staff teaches approximately 96 children, 3-5 years of age.

Currently, program enrollees are subsidized under the California department of education Child Development Division (CDD) State Preschool Program. State funding restrictions require all parents of children enrolled in the Child Development Center's (CDC) subsidized slots to be working, in school, in training, seeking permanent housing, actively seeking employment or incapacitated. All families of children enrolled at BHCDC must meet strict income eligibility requirements. Similar State family eligibility requirements apply to The Big Lift grant.

The Big Lift request for proposals invited proposals from the seven San Mateo County communities where 2013-14 third grade reading proficiency scores were close to or below the county average that had not previously received funding from The Big Lift. Eligible communities, as defined by school district boundaries, included Bayshore, Brisbane, Pacifica, Ravenswood, Redwood City, San Bruno Park and San Mateo-Foster City. In 2015 BHCDC partnered with Ravenswood School District for The Big Lift grant but neither was not

awarded the grant. In 2016, BHDCDC partnered again with Ravenswood School District and both were awarded funding for a three year grant. Each year's funding amount may vary and sub grantees (BHDCDC) commit to providing cash match of 5 percent for 2016-17, 7.5 percent for 2017-18 and 10 percent for 2018-19.

Analysis

The Big Lift utilizes a collective impact approach where Ravenswood School District will partner with nonprofit preschool programs such as the CDC and Head Start and community based agencies to work toward the long-term goal of improving third grade reading success. This collaborative is led by Silicon Valley Community Foundation, the San Mateo department of education and the County of San Mateo. There are five conditions that, together, lead to meaningful results from collective impact and that are integral to The Big Lift's approach: a shared vision for changes or common agenda, shared measurement, mutually reinforcing activities, continuous communications and backbone support. To achieve this ambitious goal, The Big Lift has committed to advancing the national Campaign for Grade-Level Reading framework, which specifies the following evidence-based interventions, or the four strategic "pillars" which include:

- High-quality preschool
- Family engagement
- Inspiring summers
- Attendance matters

The City's proposal for The Big Lift grant includes a required scope of work plan for enhanced services to the 96 existing children (the BHDCDC has no capacity to serve more) where several goals are identified to support the four pillars. For example, similarly to last year, this year the grant will provide funding for additional resources for BHDCDC, such as for classroom supplies, small equipment, an office assistant to help meet data reporting requirements, training for parents and staff as well as a contracted family engagement consultant to assist in coordinating support for BHDCDC families.

The third year proposal will continue to include funding for a full-time teacher aide to enhance quality in the classroom through providing a consistent permanent staff person to replace temporary aides. When the term of The Big Lift grants is complete in August 2019, the Community Services Department, through attrition, will manage the loss. The annual cost of this position is included in the proposal without any direct cost to the City.

Last year's funding provided various enhancements to the BHDCDC program such as increased technology in each classroom through new iPads and iPods, parent engagement workshops, materials to beautify the classrooms as well as allowing staff to attend additional trainings for professional development.

Under the terms of the contract, the City agrees to expend contract funds on reimbursable costs necessary to provide enhanced full day child care services for eligible children. The City is also required to meet all reporting requirements and other standard contract provisions. The contract specifies a Minimum Days of Operation requirement of 246 days during the fiscal year.

Impact on City Resources

The City will receive up to \$150,000 in fiscal year 2018-19 to support the BHDCDC through the contract proposed for execution. Under this contract the City will be required to cash match 10 percent of the reimbursable funding or up to \$16,646. The City anticipates receiving additional revenues of \$1,011,860 from the State contract as well as \$95,400 from other small revenue sources such as parent fees, small

grants and food reimbursements. The City's budgeted direct cost to operate the Belle Haven Child Development Center is \$1,687,508 for the 2018-19 fiscal year. With the Child Development contract of \$1,011,860 and the contract from the Silicon Valley Community Foundation for \$150,000 the BHCDC program will receive over a million dollars in reimbursable grant funding which will reduce the net cost contributed by the City. The net cost to the City to operate the BHCDC program for fiscal year 2018-19 is estimated to be between \$430,248 and \$580,248.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Silicon Valley Community Foundation Grant agreement
- B. Resolution No. 6471

Report prepared by:
Natalya Jones, Recreation Supervisor

Report reviewed by:
Derek Schweigart, Community Services Director

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November 6, 2018

Ms. Starla Jerome-Robinson
Interim City Manager
City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025

Dear Ms. Jerome-Robinson:

On behalf of Silicon Valley Community Foundation, we are pleased to award City of Menlo Park a grant not to exceed \$150,000.00 from the Big Lift collaborative to support high quality preschool and inspiring summer programming that includes embedded family engagement practices that support learning at home and reducing chronic absenteeism. We are delighted to support City of Menlo Park with this award to improve outcomes for children in San Mateo, made possible through San Mateo County Measure K tax dollars.

Please sign, date, and return the attached grant agreement to Stephen King at sking@siliconvalleycf.org as soon as possible.

This grant agreement and attachments represent City of Menlo Park's contract with SVCF detailing how the funds will be spent. You may not use the funds in any way other than as described in the grant agreement, approved budget, and scope of work unless you receive written permission from SVCF. The foundation will require detailed reports including the project's impact on the participants and the community and expenditure report of spending. A report form is enclosed.

On behalf of The Big Lift and Silicon Valley Community Foundation, we are pleased to help support City of Menlo Park and we look forward to hearing about the impact our funds have on the community.

Sincerely,

A handwritten signature in black ink, appearing to read "Erica Wood". The signature is fluid and cursive, with a long, sweeping tail on the letter "d".

Erica Wood
Chief Community Impact Officer
Silicon Valley Community Foundation

Grant #: 2018-192002 (5258)

Silicon Valley Community Foundation
Grant Agreement

Grant Number: 2018-192002 **Amount:** up to \$150,000.00 **Date:** November 6, 2018
2018-192061

Grantee Name: City of Menlo Park

Grantee Contact: Ms. Starla Jerome-Robinson
Interim City Manager
City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025

Phone: 650.330.6610
Email: slrobinson@menlopark.org

Foundation Staff: Elisa Espinoza
Communications and Business Development Manager
Silicon Valley Community Foundation
2440 West El Camino Real, Suite 300
Mountain View, CA 94040

Phone: 650.450.5506 Fax: 650.450.5545
Email: eespinoza@siliconvalleycf.org

Grant Purpose:

To support high quality preschool and inspiring summer programming that includes embedded family engagement practices that support learning at home and reducing chronic absenteeism.

Grant Period: September 1, 2018 to June 30, 2019

Projected Grant Outcomes: Please reference the Scope of Work (SOW)

Special Conditions:

(1) This is a 10-month grant period. Payments will be paid in two installments. The first installment will be paid on receipt of the signed grant agreement. The second installment will be paid upon receipt and approval of the mid-year progress report. The second payment is contingent on the report including a financial report detailing grant expenditures that match the approved budget and providing a general ledger report documenting City of Menlo Park is meeting the 10% cash match requirement.

(2) Renewed funding for each additional year is dependent upon the grantees compliance with all provisions in the attached The Big Lift Grantee Terms and Conditions and the continued availability of funding (Exhibit A). SVCF reserves the right to discontinue, modify, or withhold any payments due under this grant, or to require repayment of any unexpended grant funds if necessary to comply with any law or

regulation applicable to this grant. Funding that is not spent during the grant period must be returned to SVCF

(3) Grantees commit to providing cash and in-kind match that total 20% of Big Lift grant expenditures, of which a minimum must be a 10% cash contribution.

Reporting Requirements

Silicon Valley Community Foundation requires progress reports at specified dates. *Please note that future grant requests will not be considered if a grantee has failed to submit a required report.* Please submit the following report(s):

Mid-Year Progress Report Due: January 31, 2019

Final Report Due: July 31, 2019

Payment Schedule:

This grant will be paid in two installments up to the amount specified, at the end of the grant period upon verification of the special conditions. Please note that payments are contingent upon the continuing availability of outside grant funds.

First payment: \$75,000.00 upon receipt of signed grant agreement
Second payment: up to \$75,000.00 upon receipt and approval of mid-year progress report and financial report

Hold Harmless

Grantee hereby irrevocably and unconditionally agrees, to the fullest extent permitted by law, to defend, indemnify and hold harmless the community foundation, its officers, directors, trustees, employees, and agents from and against any and all claims, liabilities, losses and expenses (including reasonable attorney's fees) directly, indirectly, wholly or partially arising from or in connection with the grant, the application of funds furnished pursuant to the grant, the program or project funded or financed by the grant or in any way relating to the subject of this Agreement. This paragraph shall survive the termination of this Agreement.

Inspection, Audit and Retention of Records:

Grantee agrees to provide for an audit of its activities. The grantee agrees to conduct these audits annually. Accounts and records of all grantees that disburse or utilize grant funds must be accessible to authorized officials for the purpose of audit of the grantees records pertaining to the use of grant funds.

Financial records, supporting documents, statistical records, and all other organizational records pertinent to this award must be retained for a period of three (3) years from the date of submission of the final expenditure report, and made available to SVCF and/or the County of San Mateo upon request.

Nondiscrimination:

The grantee agrees to certify that no person shall be excluded from participation in, denied the benefits

of, subjected to discrimination under, or denied employment in connection with any activity receiving funds from SVCF on the basis of race, color, religion, national origin, sex, handicap, veteran status, sexual orientation or age. The grantee agrees to comply with all federal statutes relating to nondiscrimination, including E.O. 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR, 1964-1965 Comp., p. 339), as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Intellectual Property:

By signing below, City of Menlo Park and Silicon Valley Community Foundation agree that all copyright and other interests in materials produced as a result of this grant shall be owned by the grantee organization. To ensure the widest possible distribution of such materials and ensure that they enter and remain in the public domain, the grantee organization and any individuals who may have some interest hereby grant to the Foundation a non-exclusive, transferable, perpetual, irrevocable, royalty-free, paid-up worldwide license to use or publish the materials or other work products arising out of or resulting from the grantees use of the grant funds and any earnings thereon, including all intellectual property rights, and to sublicense to third parties the rights described herein. The grantee, at Foundation's request, agrees to execute any additional documents required to affect such license.

Acknowledgement of Grant Support:

Please acknowledge San Mateo County, San Mateo County Office of Education and Silicon Valley Community Foundation's support of your program in publications such as newsletters, program activity announcements and in all media coverage. We suggest you use the following wording: "This project has been made possible in part by a grant from The Big Lift initiative with funding from San Mateo County Measure K tax dollars and supported by Silicon Valley Community Foundation and San Mateo County Office of Education."

By signing below, City of Menlo Park acknowledges the approved budget and Scope of Work (SOW) submitted to the community foundation and this grant agreement are now the contract with Silicon Valley Community Foundation detailing the purpose(s) of the grant, including what activities are supported by this grant. Please inform the community foundation if there are changes in agency personnel who are important to the administration of the grant, or if the grant funds cannot be expended for the purpose or in the time period described in the grant agreement. Grantee may not use the funds in any way other than as described in the grant agreement and approved budget unless the grantee receives written permission from the community foundation.

Accepted on behalf of City of Menlo Park by:

Signature
*(Must be signed by Executive Director,
President or Board President)*

Printed or Typed Name

Title

Date

Silicon Valley Community Foundation Report Guidelines

Reports are due to the community foundation according to the report schedule set forth in your Grant Agreement. Please note that your grant agreement advises you that reports are required by Silicon Valley Community Foundation, and that future grant requests will not be considered if a grantee has failed to submit a required report. Please complete the section below, and acquire the necessary signature. Return this page along with the final completed report to the community foundation.

Grantee Name: City of Menlo Park

Grant Amount: up to \$150,000.00

Grant Number: 2018-192002, 2018-192061

Grant Period: September 1, 2018 to June 30, 2019

Purpose of the grant: To support high quality preschool and inspiring summer programming that includes embedded family engagement practices that support learning at home and reduce chronic absenteeism

Person completing this report: _____
(Name, Title, Phone)

Mid-Year Progress Report Due: January 31, 2019

- Mid-Year Progress Report
- Success Story (Use attached Guidelines)
- Expenditure Report: Please provide a general ledger report of grant expenditures and how it aligns with your approved budget. If your actual expenses were different than those anticipated, please explain in the narrative column of the form and submit a budget revision request form.
Spending that does not align with your approved budget could make you ineligible for future Big Lift grant awards.
- Cash Match Documentation (Must equal 10% of program costs)

Final Report Due: July 31, 2019

- Final Narrative Report
- Expenditure Report: Please provide a general ledger report of grant expenditures and how expenditures align with your approved budget. If your actual expenses were different than those anticipated, please explain in the narrative column of the form. **Spending that does not align with your approved budget could make you ineligible for future Big Lift grant awards.**
- Success Story (Use attached guidelines)

Signature of Executive Director or President

Date

Please return report to: thebiglift@siliconvalleycf.org

If you have any questions about completing this report, please do not hesitate to contact community foundation staff at 650.450.5506.

Subgrantee Progress Report

Subgrantee Organization: _____

Reporting Period: _____

Contact Name: _____

Email Address: _____

Please provide a narrative for each of the questions below, referring to activities that have occurred within this six month reporting period.

Please also attach your Scope of Work and describe progress to date in each program activity (Including appropriate dates, numbers, and a description of your deliverables - bullet points are fine)

Narrative questions:

1) Describe any significant successes and highlights during this reporting period
2) Describe any significant challenges
3) Describe partnership and collaboration activities of The Big Lift in your community

4) Describe how participating in The Big Lift has contributed to building capacity at your organization

5) Submit at least two stories of a child and/or family who has benefited from The Big Lift, and a digital photo for each if possible. Please adhere to the guidelines on the following page.

Story 1:

Story 2:

Success Story Guidelines

The purpose of obtaining Success Stories is to communicate the impact of your work advanced by Big Lift funding.

Please provide, in total, **two** of the following (can be one of each type or two of the same):

Family/Child Success Stories:

These are stories about positive outcomes told from the parent's perspective. Whenever possible, these should be crafted by the parents themselves. If any of your parents are willing to use their real names, please ask them to complete the Parents as Story Tellers Form (can be made available to you as needed). Otherwise, you may tell the story from your perspective, utilizing the questions provided below.

Grantee/Provider Success Story:

These are stories told from the Grantee's or Service Provider's perspective and focus on the staff efforts that supported the client's success. We are interested in hearing the untold stories of how your staff went above and beyond to give your clients the best services possible.

REQUIRED SUCCESS STORY ELEMENTS

- For Family/Child Stories focus on clients whose situations were significantly, positively impacted by the funded service/program.
- For Grantee/Provider Stores, focus on staff efforts that enabled the client to succeed, such as how staff work improved the service delivery, better coordinated care, or overcame barriers, etc.
- Whenever possible have the family tell their own story
- Include a quote whenever possible to strengthen the story
- Change the name/s of the clients in your story if confidentiality is of concern

SUCCESS STORY QUESTIONS

The following questions are designed to help you tell your Success Story. You do not have to answer all the questions; they are meant to be thought provoking and help frame your story.

1. What was the family/client's crisis or problem?
2. What challenges were present that exacerbated the situation/what barriers did your client face?
3. What actions did your client take prior to contacting you that still didn't yield results?
4. What services did you provide to your client and how did they make a difference?
5. How did your program respect the client's culture, customs, language and strengths?
6. What agencies did you collaborate with in order to provide the best services possible?
7. As a service provider, how do you feel when your services have a positive effect?
8. What systemic issues did you face and how did you overcome them?
9. What was the final outcome for your client/what ended up happening

Exhibit A



Terms and Conditions 2018

Table of Contents

I. Introduction	Error! Bookmark not defined.
III. Programmatic Terms and Conditions	Error! Bookmark not defined.
a. Definitions and Roles	Error! Bookmark not defined.
c. Programmatic Compliance	Error! Bookmark not defined.
d. Family Eligibility	Error! Bookmark not defined.
e. Programmatic Amendments	Error! Bookmark not defined.
f. Progress Reports	Error! Bookmark not defined.
IV. Fiscal Terms and Conditions	Error! Bookmark not defined.
a. Fiscal Compliance	Error! Bookmark not defined.
c. Direct Costs Priority	Error! Bookmark not defined.
g. Supplantation	Error! Bookmark not defined.
h. Matching Requirements	Error! Bookmark not defined.
i. Program Income	Error! Bookmark not defined.
j. Budgets and Budget Amendments	Error! Bookmark not defined.
V. Reporting Requirements	Error! Bookmark not defined.
a. Programmatic Reporting	Error! Bookmark not defined.
b. Fiscal Reporting	Error! Bookmark not defined.

I. Introduction

The Big Lift is a collective impact approach where school districts partner with nonprofit preschool programs and community-based agencies to work toward the long-term goal of third grade reading success. This collaborative is led by three agencies – Silicon Valley Community Foundation (SVCF), the San Mateo County Office of Education (SMCOE) and the County of San Mateo, and funding for this grant is made available through San Mateo County Measure K tax dollars..

There are five conditions that, together, lead to meaningful results from collective impact and that are integral to The Big Lift’s approach: a shared vision for change or common agenda, shared measurement, mutually reinforcing activities, continuous communication and backbone support. To achieve this ambitious goal, The Big Lift has committed to advancing the national Campaign for Grade-Level Reading framework, which specifies the following evidence-based interventions, or “four pillars”:

- 1) A comprehensive school readiness strategy focused on high-quality preschool for 3- and 4-year-olds, leading to an aligned and sequenced set of high-quality learning experiences in kindergarten through third grade;
- 2) A focus on reducing chronic absence in the early grades, based on research about the importance of attendance in the early years to improving academic outcomes;
- 3) Development of inspiring summer learning opportunities that enable children to maintain their academic and developmental gains from high-quality preschool throughout the early grades; and
- 4) Strengthening family and community engagement through investments in strategies that support meaningful partnerships between families and schools.

Grantees of these funds will be expected to participate in all aspects of The Big Lift, to support the implementation of all four of the above pillars, to work collaboratively with SVCF, SMCOE and the County of San Mateo and to be active partners in leading this change effort.

More information about The Big Lift can be found at www.thebiglift.org.

SVCF reserves the right, at any time, to terminate grants with grantees that are not in compliance with the requirements set forth in The Big Lift Terms and Conditions.

III. Programmatic Terms and Conditions

a. Definitions and Roles

Intermediary: The Silicon Valley Community Foundation (SVCF) is the intermediary entity for the for the Big Lift award. SVCF is responsible for ensuring that the award meets all applicable regulations, statutes and administrative authorities, in conformance with the approved application. **Co-Lead:** The entities that are responsible for coordinating and collaborating with organizations in their communities to perform the activities of the Big Lift award are “co-lead” entities. The co-lead is expected to provide leadership to The Big Lift collaborative and ensure that activities are aligned and that the community is making steady progress towards third grade reading proficiency.

Grantee: Any entity that receives a Big Lift grant award to provide a direct service is a “grantee” and is accountable to SVCF for the use of funds provided. Each grantee is expected to work collaboratively with its co-lead agency(ies) to carry out the work outlined in its grant agreement, scope of work and budget.

c. Programmatic Compliance

By entering into a grant agreement, the grantee has agreed to participate and contribute to the larger Big Lift community collaborative, to support progress on all four pillars of The Big Lift and to comply with the following:

Eligibility. Big Lift eligible communities are defined by school district boundaries and include: Bayshore, Brisbane, Cabrillo, Jefferson Elementary, La Honda-Pescadero, Pacifica, Ravenswood, Redwood City, San Bruno Park, San Mateo-Foster City and South San Francisco. Big Lift preschool classrooms will be required to meet and maintain a Tier 3 or higher rating on the San Mateo County Quality Rating and Improvement System (QRIS).

Licensure in good standing. Preschool grantees must have a license to operate preschool facilities and must ensure that licensed sites are in good standing with Community Care Licensing.

Involvement in evaluation efforts. Grantees must participate in evaluation efforts led by SVCF, SMCOE and the designated external evaluator, which may include participating in surveys, focus groups, interviews, assessments and/or classroom observations. Grantees will not be required to conduct their own evaluation but will be expected to collect and provide access to information as outlined in their scope of work and as necessary. This will include, but not be limited to: timely reporting of required data in the designated data system, conducting twice a year observational assessments using a valid and reliable child assessment tool, and making progress toward conducting a developmental screening on each child in a Big Lift-funded classroom using an approved tool.

Compliance with grantee monitoring activities. Monitoring activities include, but are not limited to, site visits by SVCF or San Mateo County staff, progress reports on implementation of goals and objectives, and submission of financial records, as required by SVCF. SVCF will conduct both in-person site visits and occasional desk reviews of grantees throughout the course of the contract to ensure compliance with these Terms and Conditions. Grantees are required to address all site visit or desk review report findings by the deadline as set forth by SVCF.

State and other federal funding compliance. Grantees must maintain compliance with other funding sources. Grantees receiving Title 5 or Head Start funds must maintain good standing with the California Department of Education/Child Development Division and/or the Administration for Children and Families. Failure to do so may jeopardize Big Lift funding.

Timely reporting. SVCF will track and monitor timely and accurate submissions of data, progress reports and requests for reimbursement, and efforts will be made to correct and implement improvements to any areas of concern identified at a site visit or at any other point during the grant cycle. Patterns of late and/or inaccurate reporting as well as minimal or no effort to improve compliance with these Terms and Conditions will be taken into consideration when making future funding recommendations, and in egregious cases may affect continued funding for the current grant year.

Utilization of The Big Lift name and logo. Grantees must use The Big Lift name and logo on all public facing materials, signs, banners, press releases, social media, and publications related to their Big Lift program.

The Big Lift logo can be found [here](#).

Communication collaboration. Grantees must participate in The Big Lift's efforts to disseminate information about Big Lift program(s) and The Big Lift through social media and other communication channels. This includes obtaining photo releases to be provided to SVCF for the purposes of communicating information about The Big Lift, when applicable, through social media, publications, reports, etc.

Prohibited Program Activities. While charging time to this Award, grantees may not engage in the following activities:

1. Attempting to influence legislation.
2. Organizing or engaging in protests, petitions, boycotts, or strikes.
3. Assisting, promoting or deterring union organizing.
4. Impairing existing contracts for services or collective bargaining agreements.
5. Engaging in partisan political activities or other activities designed to influence the outcome of an election to any public office.
6. Conducting a voter registration drive or using Big Lift funds to conduct a voter registration drive.
7. Participating in, or endorsing, events or activities that is likely to include advocacy for or against political parties, political platforms, political candidates, proposed legislation, or elected Officers.
8. Engaging in religious instruction; conducting worship services; providing instruction as part of a program that includes mandatory religious instruction or worship; constructing or operating facilities devoted to religious instruction or worship; maintaining facilities primarily or inherently devoted to religious instruction or worship; or engaging in any form of religious proselytization.
9. Providing a direct benefit to:
 - a. A for-profit entity;
 - b. A labor union;
 - c. A partisan political organization;
 - d. An organization engaged in the religious activities described in the preceding sub clause; unless funds are not used to support the religious activities; or
 - e. A nonprofit entity that fails to comply with the restrictions contained in section(c)(3) of U.S.C. Title 26.
10. Providing abortion services or referrals for receipt of such services.
11. Grant funds may not be used for international travel or projects where the primary beneficiaries of an activity are outside of the United States
12. Such other activities as the Big Lift may prohibit

Individuals may exercise their rights as private citizens and may participate in the above activities on their own initiative, on non-Big Lift time, and using non-Big Lift (or matching) funds.

d. Family Eligibility

The Big Lift strives for a diversity of income levels to be represented within classrooms, while giving overall priority for new spaces to low-income families. The goal is to increase accessibility for low- and middle-income families. The Big Lift's definition of low-income households is those earning 80 percent of San Mateo County's most current median income. The Big Lift programs are required to enroll only children whose family income meets this definition.

The Big Lift uses [HUD income guidelines](#) to establish eligibility. Income guidelines for 2018 are as follows:

Family size of 2: \$93,950 annually or \$7,829 monthly
Family size of 3: \$105,700 annually or \$8,808 monthly
Family size of 4: \$117,400 annually or \$9,783 monthly
Family size of 5: \$126,800 annually or \$10,567 monthly

e. Programmatic Amendments

The scope of work outlined in the grantees contract details the activities to be carried out and goals to be accomplished over the course of the contractual period. **Grantees are required to obtain written approval from SVCF before making any changes to the scope, objectives or goals of their program, whether or not a budgetary change is involved.**

SVCF must also be notified if the Executive Director, Program or Fiscal Contact is changed to ensure contact information is updated, regardless of whether or not the individual(s) are on the approved budget.

See the [Budgets and Budget Amendments](#) section for more information on changes that require a formal budget amendment.

f. Progress Reports

Grantees will be required to submit twice-yearly narrative reports that describe progress toward meeting identified goals from the approved scope of work and success and challenges in implementing their Big Lift-funded program. Grantees will also be asked to share interesting or inspiring stories and anecdotes that reflect the value of their program. These stories will be shared with San Mateo County and other interested parties, and may be disseminated and/or published via The Big Lift's social media channels and The Big Lift reports.

IV. Fiscal Terms and Conditions

a. Fiscal Compliance

The grantee agrees to account for its grant funds, and meet reasonable fiscal and administrative requirements, as described below. The grantee further agrees to establish fiscal control and fund accounting procedures which meet minimum requirements of these Terms and Conditions. Accounting procedures should be established and those procedures must provide for an accurate and timely recording of receipt of funds by source, of expenditures made from such funds, and of unexpended balances.

These requirements and all provisions in these Terms and Conditions are also applicable to all matching funds for this federal award, the details for which are outlined below under [Matching Requirements](#).

c. Direct Costs Priority

Grantees must allocate at least 90% of their total Big Lift budget to providing direct services to children, parents and/or providers. The Big Lift award is not intended to defray administrative costs¹ within an organization, and funding requests to pay for direct service activities will be given priority over requests for related administrative costs. When other sources of support are not available for these costs, no more than 10% of the total Big Lift budget can be allocated toward administrative costs.

¹ *Administrative costs are defined as activities that do not provide a direct benefit to children, parents or providers, and include any allowance for indirect costs and audits, as well as general administration and expenses.*

g. Supplantation

Funds must be used to supplement and not to supplant funds that have been appropriated for the same purpose. Therefore, awarded funds cannot be used to supplant - or replace - existing state and local funds already allocated for the same purpose.

In addition, these grant funds should not be used to purchase items or services that would otherwise be purchased with the grantees own funds for this project. Expenditure of funds for the acquisition of new equipment or services, when equipment and/or personnel required for the successful execution of projects are already available, or budgeted for within the grantee organization, will be considered supplanting and will be disallowed.

It will be expected of Big Lift grantees, however, to pursue other sources of funding where applicable. For example, state preschools, when eligible, should apply for additional funding when it comes available for the expansion of new spaces.

h. Matching Requirements

Grantees agree to provide a 10% cash match and a 10% in-kind match of total Big Lift program expenses.

Cash Match vs. In-kind Match

Cash match includes unrestricted new or existing funds spent for program-related costs. They cannot be previously obligated funding that is redirected for purposes of meeting this match requirement. Possible sources of cash match include (but are not limited to): private or philanthropic grants or contributions, federal, state or local government grants or contracts for supportive services, or state or local government rent subsidy programs.

In-kind match includes, but is not limited to, the valuation of in-kind real property, equipment, supplies, services, and other expendable property. "In-kind" is the value of something received or provided that does not have a cost associated with it. For example, if in-kind match is permitted by law (other than cash payments), the fair market value of donated services/office space could be used to comply with the in-kind match requirement. Also, third party in-kind contributions may count toward satisfying match requirements provided the Grantee receiving the contributions expends them as allowable costs.

All matching funds, provided by the grantee **must** be tracked accordingly. SVCF and SMCOE will work with grantees to ensure compliance with this requirement. Grantees must maintain an audit trail for all matching contributions, whether cash or in-kind, and all supporting documentation must be maintained and made available for review and monitoring by SVCF. The matching requirement amounts will be tracked on an on-going basis, but must be fully expended within 12 months from the start of the award period.

i. Program Income

Grantees that choose to charge fees must use The Big Lift Family Fee Scale. Income generated from family fees must be reported during each reporting period may not be used as match for The Big Lift.

j. Budgets and Budget Amendments

Grantees may not begin to incur costs for a program until the budget has been approved by SVCF, referred to as the "original budget" or the "originally approved budget," and included as part of the grantees contract. Any deviations from this originally approved budget are required to be reported to SVCF, and, in some cases, may require prior approval and a formal budget amendment before such changes can be made and costs incurred. All changes must be reported to SVCF within **two weeks** of the time the grantee/program director is notified of the change, in writing via e-mail. Any submission beyond two weeks from the change date may impact the possibility of reimbursement and will be subject to SVCF approval.

When requesting approval for budget revisions, the grantee must use the SVCF-approved form for budget requests, to be submitted via e-mail to SVCF along with a written explanation for the requested change(s). SVCF will review the request and notify the grantee whether or not the budget revisions have been approved.

SVCF will not consider any budget revision requests submitted three months prior to end of the grant period. The last day to submit a budget revision for the FY 18/19 grant period will be **March 31, 2019**.

V. Reporting Requirements

a. Programmatic Reporting

Programmatic Changes

As stated above in [Programmatic Amendments](#), any changes to the scope, objectives or goals of the program must be submitted to SVCF and require prior approval before changes are to be made. Changes to staffing of the program must be reported to SVCF in writing within two weeks of knowledge of the change (in order to ensure timely payment of affected invoices).

Progress Reports Due Twice Per Year

Twice annually, on January 31 and July 30, Big Lift grantees must submit progress reports:

1. A narrative report using The Big Lift Progress Report Template and an updated scope of work will be collected.

Twice Per Year	
January 31, 2019	July 31, 2019

b. Fiscal Reporting

Grant Period: September 1, 2018 – June 30, 2019

Financial Reports due Semi-Annually with progress report

Period: September 1 – December 31, 2018	Due: January 31, 2019
Period: January 1 – June 30, 2019	Due: July 31, 2019

Budget Changes

As stated above in [Budgets and Budget Amendments](#), any major changes to the originally approved budget must be submitted to SVCF and require prior approval before changes are to be made. All other changes must be reported to SVCF in writing as soon as possible (in order to ensure timely payment of affected invoices).

Record Retention: As a grantee, it is important to maintain financial records, supporting documents, and all other records pertinent to your award. Grantees must retain all financial books, documents, papers and records directly related to this Agreement for a period of three (3) years after SVCF makes its final disbursement.

RESOLUTION NO. 6471

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO PARK
AUTHORIZING AN AGREEMENT WITH SILICON VALLEY COMMUNITY
FOUNDATION TO RECEIVE GRANT FUNDING FOR THE BIG LIFT FOR
FISCAL YEAR 2018-19**

WHEREAS, the City of Menlo Park has operated the Belle Haven Child Development Center for over 30 years; and

WHEREAS, the program offers developmentally appropriate materials and activities that support social, economic, physical and cognitive abilities; and

WHEREAS, the program receives funding from the State of California Department of education; and

WHEREAS, a resolution must be adopted annually in order to certify the approval of the funding by the City Council receiving the reimbursement and authorizing the designated personnel to enter into the contract.

NOW THEREFORE BE IT RESOLVED, that the City of Menlo Park, acting by and through its City Council, having considered and been fully advised in the matter and good cause appearing therefore do hereby authorize entering into local agreement number CFDA 94.019 reimbursing the City up to \$150,000 for implementation of The Big Lift at the Belle Haven Child Development Center for fiscal year 2018-19.

I, Judi A. Herren, City Clerk of Menlo Park, do hereby certify that the above and foregoing City Council resolution was duly and regularly passed and adopted at a meeting by said City Council on the fourth day of December, 2018, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this fourth day of December, 2018.

Judi A. Herren, City Clerk

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STAFF REPORT

City Council

Meeting Date: 12/4/2018
Staff Report Number: 18-231-CC

Consent Calendar: **Adopt Resolution No. 6473 supporting the City's Shuttle Program for application for the Lifeline Transportation Program fiscal year 2018-19 and fiscal year 2019-20, and authorize the City Manager to enter into necessary funding agreements**

Recommendation

Staff recommends that the City Council adopt Resolution No. 6473 (Attachment A) in support of the Citywide Shuttle Program, for the Metropolitan Transportation Commission's Lifeline Transportation Program fiscal years 2018-19 and 2019-20 to continue funding for operations and administration of the program and authorize the City Manager to enter into necessary funding agreements.

Additionally, staff recommends that the City Council authorize the City Manager to approve extensions and amendments to original shuttle funding agreements from the City/County Association of Governments, Peninsula Corridor Joint Powers Board (PCJPB), and San Mateo County Transportation Authority.

Policy Issues

This project is consistent with the 2016 general plan goal and policies to support local and regional transit that is efficient, frequent, convenient and safe. These policies seek to promote the use of public transit and to promote the use of alternatives to the single-occupant automobile. The grant requires an adopted resolution of support by the City Council as part of the application.

Background

The City of Menlo Park manages an extensive shuttle program that provides transit service to many residents, employees and visitors. The program is primarily funded by grants provided by San Mateo City/County Association of Governments (C/CAG), San Mateo County Transportation Authority (SMCTA) and the Metropolitan Transportation Commission (via the San Mateo County Transit District). These funds are typically made available following the successful completion of a competitive application process, an executed agreement between parties, and a demonstrated adherence to the agreement details.

Previously, the Shuttle Program went to City Council January 23, 2018 for a resolution for funding agreements with the San Mateo County Shuttle Program (Attachment B.) Resolution, No. 6421, is for the C/CAG and SMCTA while the proposed resolution will be for the Metropolitan Transportation Commission's (MTC) Lifeline Transportation Program. Resolution No. 6421 contains budget numbers that have been updated after the January 23, 2018 City Council meeting, and are further discussed in the analysis section.

On February 9, 2018, C/CAG issued a call for shuttle projects, on behalf of MTC, for fiscal year 2018-19 and 2019-20. Cycle five of the Lifeline Transportation Program includes approximately up to \$1,700,000 for this two-year funding cycle, and direct costs for operations, marketing, and administration of shuttles are

eligible for funding. Applications were due March 23, 2018, and C/CAG and MTC require a City Council resolution as part of the application submission. The City's Midday Shuttle is currently supported by a grant through Cycle four of this program, expiring June 30, 2018. This agreement was extended to June 30, 2019, to utilize existing funds from Cycle four as the Cycle five memorandum of understanding is being drafted (pending adoption of the resolution from this City Council meeting.)

The City's extensive shuttle program includes the following services, which include a mid-grant cycle service change in March 2017, when the Midday Shuttle was expanded from two buses to a one-bus midday route with new service to Sharon Heights and a two-bus all-day route to Belle Haven:

- Two fixed-route, peak-hour shuttles that travel between the Caltrain station and the business parks and office complexes along Marsh Road and Willow Road
- Two fixed-route community shuttles: One route provides all-day transportation between Belle Haven and downtown Menlo Park, serving several senior housing facilities, Menlo Park Senior Center, the Belle Haven library, the Veterans Affairs Medical Center, the main library, Caltrain station, Little House and Safeway. The other route provides midday transportation between Sharon Heights and downtown Menlo Park, serving several senior housing facilities, Stanford Medical Center, Stanford Shopping Center, Palo Alto Medical Foundation, downtown Palo Alto, Draeger's and Caltrain station.
- A door-to-door service called the Shoppers' Shuttle, which operates three days per week providing transportation to Little House, Menlo Park Senior Center, downtown Menlo Park, the main library, Safeway, Caltrain station, Stanford Shopping Center, and retail destinations in Menlo Park and Redwood City.

Analysis

By applying for funds through the Lifeline Transportation Program, the City is seeking to ensure the continuation of the City's Shuttle Program. The City applied to the Lifeline Transportation Program on behalf of the two fixed-route community shuttles and the door-to-door shuttle service. Funding was awarded to the community shuttles to continue and expand service, while the Shoppers' Shuttle was not selected for grant funding. However, the City will continue the Shoppers' Shuttle service, funding it at 100 percent to ensure door-to-door transportation services for those who have mobility issues or may live too far from fixed-route service.

The funding from the Lifeline Transportation Program along with funds allocated from C/CAG allow the community shuttle service to be expanded. These changes to the community routes will provide consistent all-day access to more shopping and medical destinations, along with improving regional transit connectivity. However, implementation of this new service is currently on hold while the shuttle provider, MV Transportation, resolves driver staffing shortages.

The community shuttles, M1-Menlo Midday and M2-Belle Haven, will be combined to create a new east-west all-day shuttle service between Belle Haven and Sharon Heights via downtown Menlo Park, downtown Palo Alto and the Stanford Medical Center. This line will be renamed the M1-Crosstown Shuttle, and would replace and expand current community shuttle service as seen in the table below.

Table 1: Comparison of community shuttles		
Community shuttle service	Fiscal year 2016-18 actual	Fiscal year 2018-20 Proposed
Routes	Midday (pre-March 2017) M1-Menlo midday (post-March 2017) M2-Belle Haven (post-March 2017)	M1-Crosstown
Service Hours	Midday: 9:30 a.m. - 3 p.m. M1-Menlo midday: 9:30 a.m. - 3 p.m. M2-Belle Haven: 6:30 a.m.- 5 p.m.	6:30 a.m.- 6 p.m.
Buses	Midday: 2 buses M1-Menlo midday: 1 bus M2-Belle Haven: 2 buses	3 buses
Headways	Midday: 60 minutes M1-Menlo midday: 90 minutes M2-Belle Haven: 90 minutes	60 minutes

The M1-Crosstown builds on the expanded community shuttle service implemented in March 2017. This route would provide all-day service for Sharon Heights residents, along with all-day service to Stanford Medical Center, Stanford Shopping Center, Palo Alto Medical Foundation and downtown Palo Alto.

The M1-Crosstown would leverage the downtown Palo Alto transit hub to connect both residents and visitors with more regional destinations. Transit options include more express/limited Caltrain trains, SamTrans and VTA. Free shuttles are also available for service to Stanford University, Palo Alto civic institutions, Stanford Eye / Ear Institutes, and Palo Alto Veterans Affairs Medical Center.

Proposed program budget

When the Shuttle Program went to City Council January 23, 2018 for a resolution for funding agreements with the San Mateo County Shuttle Program, the amount that the City would receive from the Lifeline Transportation Program was not known. Additionally, budget estimates used a 10 percent cost escalation rather than the 5 percent used in the grant applications. As a result, Resolution No. 6421 contains budget numbers that have since been updated. These updated budget numbers are reflected in Tables 2 and 3 below.

Similar to the last call for projects, the Lifeline Transportation Program requires a local match of at least 20 percent of the total project cost. The match can come from other grant sources or local City funds. Additionally, this program only funds shuttles that affect vulnerable populations, such as low-income and senior populations, meaning only the M1-Crosstown Shuttle is eligible.

The City’s program is currently funded through a variety of sources, including grants from C/CAG, SMCTA, and MTC’s Lifeline Transportation Program (through fiscal year 2017-18), and the City’s Development Shuttle Fee. Table 2 below indicates the estimated program budget for the next two years (fiscal year 2018-19 and 2019-20), since Cycle 5 of the Lifeline Transportation Program is administered in a two-year cycle (typically is a three-year cycle.)

The costs in Table 2 account for an escalation in costs of up to 5 percent in fiscal year 2018-19 and 2019-20, as anticipated by SamTrans, and similar regional shuttles (Stanford Marguerite, Mountain View MVGo.) Additionally, differences between fiscal year 2016-17 and 2017-18 account for creation of the M1-

Crosstown, and provision of a second bus on the M3-Marsh Shuttle to alleviate overcrowding on several routes. The original Table 2 in Staff Report 18-018-CC from January 23, 2018 used numbers for an escalation in costs of 10 percent in fiscal year 2018-19 and fiscal year 2019-20. This number was to account for any potential cost increases over the next two years. However, after consultation with the City's shuttle contract administrator at the San Mateo County Transit District, an escalation rate of only 5 percent was used in applying for grants to both the C/CAG and SMCTA's joint call for projects, and the Lifeline Transportation Program. The new budget numbers are reflected in Table 2.

Shuttle route	Fiscal year 2016-17 actual	Fiscal year 2017-18 budget	Fiscal year 2018-19 proposed budget	Fiscal year 2019-20 proposed budget
Midday	\$280,000	\$533,000	\$0	\$0
M1-Crosstown	\$0	\$0	\$580,000	\$587,000
M3-Marsh Road	\$133,000	\$191,000	\$274,000	\$278,000
M4-Willow Road	\$103,000	\$128,000	\$152,000	\$155,000
Shoppers'	\$ 48,000	\$ 40,000	\$ 59,000	\$ 60,000
Total	\$564,000	\$892,000	\$1,065,000	\$1,080,000

Notes: FY 2016-17 data are presented as the most recent complete fiscal year. The M1-Crosstown is the successor to the previous Midday Shuttle.

The Lifeline Transportation Program has awarded \$494,000 for the M1-Crosstown Shuttle, in addition to the C/CAG allocation of \$774,000 for a total of \$1,268,000. The cost for the M1-Crosstown Shuttle will be approximately \$1,167,000 for fiscal year 2018-19 and fiscal year 2019-20, so these two funding amounts exceed the anticipated operating costs. The City will split reimbursement by requesting 40 percent of costs (approximately \$468,000) through the Lifeline Transportation Program and 60 percent of costs (approximately \$700,000) through the San Mateo County Shuttle Program.

The breakdown for funding allocation for the M1-Crosstown and other shuttles are listed in Table 3. Funds are provided from either C/CAG, Lifeline Transportation Program, SMCTA, or City of Menlo Park local match. The local match the City provides for the Shuttle Program is based on developer fees and Measure A funds. The developer fees help offset the cost of the M3-Marsh Road and M4-Willow Shuttles, while Measure A covers the remaining balance for those two shuttles and the Shoppers' Shuttle.

Funding source	C/CAG or TA	MTC Lifeline¹	Developer fees²	Menlo Park	Total
M1-Crosstown ³	\$774,000	\$494,000	\$0	\$0	\$1,268,000
M3-Marsh Road	\$414,000	\$0	\$92,000	\$46,000	\$552,000
M4-Willow Road	\$230,000	\$0	\$38,000	\$39,000	\$307,000
Shoppers'	\$0	\$0	\$0	\$119,000	\$119,000
Total	\$1,418,000	\$494,000	\$130,000	\$204,000	\$2,246,000

¹ Lifeline Grant award offsets contribution from C/CAG-TA so that it is 100 percent fully funded through these two entities.

² The City collects \$130,000 over two years from developer-required contributions to the City's Shuttle Program.

³ The M1-Crosstown is anticipated to need \$1,167,000 for FY2018-2020. Funding from C/CAG and MTC exceeds that

amount, with a total \$1,268,000. However, only the amount needed will be spent.

Lastly, Staff recommends that the City Council authorize the City Manager to approve extensions and amendments to original shuttle funding agreements from C/CAG, PCJPB and SMCTA. This will allow for authorization of the original agreement to extend to subsequent changes, reducing the time needed for City Council approval for minor changes.

One example is the current Rail Shuttle Bus Service Administration Agreement with the PCJPB which was made effective November 2014 and is extended through various amendments for each individual shuttle route. For example, the Midday Shuttle is currently on Amendment No. 4, which extends the agreement terms until June 30, 2019. Extensions and amendments like these for simple changes underscore the need for explicit authorization of an original agreement to extend to subsequent changes. This will reduce the time needed for City Council approval for minor changes and alleviate any questions of authorization powers for extensions and amendments, by delegating explicit authority to the City Manager.

Impact on City Resources

The estimated total annual cost of the M1-Crosstown, M3-Marsh Road, M4-Willow Road, and Shoppers' Shuttle services is \$1,065,000 in FY 2018-19 and \$1,080,000 in FY 2019-20. The funding for the City's share of 25 percent comes from the City's development shuttle fee, Measure A funds, and the MTC Lifeline Transportation Program (this program provides approximately 40 percent of the costs for the M1-Crosstown shuttle.)

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Resolution No. 6473
- B. Hyperlink: Staff Report #18-018-CC – menlopark.org/DocumentCenter/View/16513/F3---FY2018-20-CCAG-TA-Shuttle-Call-for-Projects?bidId=

Report prepared by:
Nicholas Yee, Transportation Demand Management Coordinator

Report reviewed by:
Kristiann Choy, Senior Transportation Engineer

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RESOLUTION NO. 6473**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO PARK
SUPPORTING THE CITY'S SHUTTLE PROGRAM AND PARTNERSHIP WITH
THE METROPOLITAN TRANSPORTATION COMMISSION IN THE LIFELINE
TRANSPORTATION PROGRAM**

WHEREAS, the Metropolitan Transportation Commission (MTC) has established a Lifeline Transportation Program to assist in funding projects that 1) are intended to result in improved mobility for low-income residents of the nine San Francisco Bay Area counties, 2) are developed through a collaborative and inclusive planning process and 3) are proposed to address transportation gaps and/or barriers identified through a substantive community-based transportation plan or are otherwise based on a documented assessment of needs; and

WHEREAS, MTC has adopted principles, pursuant to MTC Resolution No. 4309, to guide implementation of the Lifeline Transportation Program for the two-year period from Fiscal Year 2016-17 and Fiscal Year 2017-18, and has designated the County Congestion Management Agency (or another countywide entity) in each of the nine bay area counties to help with recommending project selections and project administration; and

WHEREAS, the City/County Association of Governments of San Mateo County (C/CAG) has been designated by MTC to assist with the Lifeline Transportation Program in San Mateo County on behalf of MTC; and

WHEREAS, C/CAG conducted a competitive call for projects for the Lifeline Transportation Program in San Mateo County; and

WHEREAS, the City of Menlo Park submitted a project in response to the competitive call for projects; and

WHEREAS, C/CAG has confirmed that the City of Menlo Park's proposed project, the Crosstown Shuttle, is consistent with the Lifeline Transportation Program goals as set out in MTC Resolution No. 4309; and

WHEREAS, C/CAG, after review, recommends the City of Menlo Park's proposed project, the Crosstown Shuttle, be funded \$494,346 under the Lifeline Transportation Program; and

WHEREAS, the City of Menlo Park agrees to meet project delivery and obligation deadlines, comply with funding conditions placed on the receipt of funds allocated to the Lifeline Transportation Program, provide for the required local matching funds, and satisfy all other conditions set forth in MTC Resolution No. 4309; and

WHEREAS, the City of Menlo Park certifies that the project and purpose for which funds are being requested is in compliance with the requirements of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and with the State Environmental Impact Report Guidelines (14 California Code of Regulations Section 1500 et seq.) and if relevant the National Environmental Policy Act (NEPA), 42 USC Section 4-1 et seq. and the applicable regulations thereunder; and

WHEREAS, there is no legal impediment to the City of Menlo Park making the funding request; and

WHEREAS, there is no pending or threatened litigation which might in any way adversely affect the ability of the City of Menlo Park to deliver the proposed project for which funds are being requested; and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Menlo Park

1. Supports MTC's Lifeline Transportation Program, which will fund \$494,346 of the City of Menlo Park Crosstown Shuttle's costs in fiscal years 2018-19 and 2019-20;
2. Directs that City of Menlo Park staff shall forward a copy of this Resolution, and such other information as may be required, to MTC, C/CAG, and such other agencies as may be appropriate.

I, Judi A. Herren, City Clerk of the City of Menlo Park, do hereby certify that the above and foregoing Resolution was duly and regularly passed and adopted at a meeting by said City Council on this fourth day of December, 2018, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this fourth day of December, 2018.

Judi A. Herren
City Clerk

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STAFF REPORT

City Council

Meeting Date:

12/4/2018

Staff Report Number:

18-219-CC

Consent Calendar:

Authorize the City Manager to enter into a contract with ICF International to prepare an environmental impact report for the proposed approximately 120,000 square foot research and development building at 1105-1165 O'Brien Drive for the amount of \$314,338 and future augments as may be necessary to complete the environmental review for the proposed project

Recommendation

Staff recommends that City Council authorize the City Manager to approve a contract with ICF International (ICF) for the amount of \$314,338 and future augments as may be necessary to complete the environmental review for the Adams Court Project, located at 1105-1165 O'Brien Drive, based on the proposed scope and budget included as Attachment A.

Policy Issues

The proposed building at 1105-1165 O'Brien Drive will ultimately require the Planning Commission to consider the merits of the proposed project, including the request for bonus level development and the associated community amenities provided through the proposed project. Staff will be reviewing the proposed project and will identify policy issues for the Planning Commission to consider as part of its review of the requested land use entitlements for the project. The proposed project would not require any additional action by the City Council following approval of the environmental impact report (EIR) contract. The Planning Commission would take the final action on the project, including the EIR, unless appealed to the City Council. Authorizing the City Manager to enter into a contract with ICF would allow the City to conduct the environmental and fiscal reviews, which are necessary for the overall entitlement review of the project proposal and does not imply an endorsement of the project. The policy implications of the project proposal are considered on a case-by-case basis, and will be informed by additional analysis as the project review proceeds.

Background

On March 13, 2018, Tarlton Properties (project applicant) submitted an application for a use permit, architectural control, and environmental review for a new approximately 120,000 square foot research and development (R and D) building located in the LS-B (life sciences, bonus) zoning district. The project site is located in the Menlo Business Park and consists of two parcels with a total lot area of 2.2 acres. The existing parcels would be merged as part of an administrative lot merger application to create a single parcel for the entire project site. The site contains two one-story R and D and warehouse buildings with three tenant spaces addressed 1105, 1135, and 1165 O'Brien Drive. A location map is included as Attachment B.

The applicant is proposing to demolish the two existing buildings, surface parking lots, and landscape areas on the project site, and construct a new approximately 120,000 square foot, five-story R and D building with associated fitness and commercial uses. The proposed R and D building would be constructed in an east-west orientation with a curving front façade following the curve of O'Brien Drive, while the parking structure with 281 spaces would be attached to the western side of the building, but constructed in a north-south orientation. The main entrance would be located on the curved O'Brien Drive frontage and would be connected to the street by a landscaped entry plaza serving as publicly accessible open space with seat walls, benches and tables. Above the fifth level of the parking structure would be a fitness center for Menlo Business Park employees and an outdoor area programmed with a badminton court, bocce courts, and landscape and seating areas, also for use by the Menlo Business Park employees. An approximate 700 square foot commercial space would be located on the ground floor and open to the public. Select plan sheets from the project plans are included in Attachment C.

In December 2016, the City Council adopted the ConnectMenlo general plan and zoning ordinance update (ConnectMenlo), which rezoned the project site from M-2 (general industrial) to LS-B (life sciences, bonus available). The proposed project has been submitted for review under the new LS-B zoning. Staff is in the process of evaluating the proposed project for consistency with ConnectMenlo and the updated zoning ordinance.

Analysis

The proposed project requires an EIR. As part of the environmental review process, the potential impacts of the proposed project will be evaluated for consistency with the program level EIR for ConnectMenlo through an initial study. The initial study will determine areas where the proposed project is consistent with analysis in the ConnectMenlo EIR and those topic areas would not be analyzed in detail in the EIR accordingly. Further, the scope for the project EIR has been structured so the EIR would comply with the settlement agreement between the City of Menlo Park and the City of East Palo Alto regarding the EIR for ConnectMenlo. Therefore, the proposed environmental analysis will, at a minimum, include a project level transportation impact analysis and a housing needs assessment, as outlined in the settlement agreement.

In addition to complying with the settlement agreement, the project level transportation impact analysis will report the vehicle miles traveled (VMT) associated with the project for consistency with Senate Bill 743. While not required to be implemented until January 1, 2020, the project analysis will include the VMT information for reference. The transportation analysis will also use the citywide travel demand model to estimate trip distribution patterns for the project instead of the data in the City's Circulation System Assessment (CSA) which was last updated in 1999. The City's model was also used in the ConnectMenlo and Facebook Campus Expansion EIR analyses. The City's Transportation Division anticipates updating its Transportation Impact Analysis (TIA) guidelines to include VMT and updates to the CSA in 2019 after completion of the Transportation Master Plan.

Following authorization of the contract for ICF to conduct the environmental review, ICF will prepare an initial study for the project. The initial study will be used to inform the notice of preparation, which will identify the topic areas to be studied in the project level EIR. As part of the initial stages of the environmental and entitlement analysis, City staff will determine what, if any, additional technical analyses could be required for the proposed project and set up contracts with qualified consultants or augment the contract with ICF accordingly. Staff is recommending that the City Council provide the City Manager the authority to approve future contract augmentations, if needed.

Impact on City Resources

The applicant is required to pay all Planning, Building and Public Works permit fees, based on the City's master fee schedule, to fully cover the cost of staff time spent on the review of the project. The applicant is also required to bear the cost of the associated environmental review and fiscal analysis. For the environmental review and fiscal analysis, the applicant deposits money with the City and the City pays the consultants.

Environmental Review

An initial study and EIR will be prepared for the proposed project. The EIR will utilize the program level EIR prepared for the ConnectMenlo general plan and zoning ordinance update and focus the project level EIR on specific topics accordingly.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. EIR scope and budget proposal from ICF
- B. Location map
- C. Project plans (select sheets)

Report prepared by:
Tom Smith, Senior Planner

Report reviewed by:
Deanna Chow, Assistant Community Development Director

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June 22, 2018 (rev. November 26, 2018)

Tom Smith, Senior Planner
City of Menlo Park Community Development Department
701 Laurel Street
Menlo Park, CA 94025

SUBJECT: Proposal to Conduct CEQA Review for the 1105 O'Brien Drive Project

Dear Mr. Smith:

ICF Jones & Stokes, Inc. (hereafter referred to as ICF) is pleased to present this scope and budget to prepare an Initial Study and Environmental Impact Report (EIR) for the proposed 1105 O'Brien Drive Project (hereafter referred to as the Project). This scope of work reflects the proposed Project information provided to ICF by Menlo Park staff, knowledge of the area, and prior experience with similar projects within Menlo Park. We offer a team of highly skilled environmental professionals who are familiar with the City and will produce legally defensible and comprehensive CEQA documentation allowing the Project to be developed as expeditiously as possible. Our experience on several projects in the City allows our staff to respond quickly to your needs.

The Project site is located at 1105, 1135, and 1165 O'Brien Drive, which are part of the Menlo Park Labs campus. The Project Sponsor would construct a new five-story, 118,567 square-foot (sf) building for life science uses, which would replace the three existing single story buildings (totally approximately 38,900 sf) and would merge the existing properties into one lot located at 1105 O'Brien Drive. Five levels of parking for approximately 280 stalls would be provided in an attached parking structure. Access to the Project site would be provided via O'Brien Drive.

This scope of work reflects recent conversations with the City and provides a solid launching point to move through the environmental review process efficiently, thoughtfully, and diligently. ICF is currently working on the 1350 Adams Court Project and the Commonwealth Corporate Center Building 3 Project, both of which are in the vicinity of the Project. ICF is proposing a similar CEQA approach for the 1105 O'Brien Drive Project as the ones being applied to these two projects. Using a similar approach will ensure schedule and budget efficiencies and consistency between the environmental documents. In addition, as demonstrated in our proposal, ICF has formed a team of expert internal staff and includes the same subconsultant team as the ones for the other two projects. The proposed team includes Keyser Marston and Associates (Housing Needs Assessment), Hexagon (Transportation), and Bay Area Economics (Fiscal Impact Analysis).

This proposal is valid for a period of 90 days, at which time ICF reserves the right to revise the contents or extend the validity date, if needed. If selected to conduct the CEQA review, ICF respectfully reserves the right to negotiate contract terms similar to those we negotiated with the City in previous contracts. Please feel free to contact Kirsten Chapman at 415.537.1702 or kirsten.chapman@icf.com. We look forward to working with you on this project.

Sincerely,



Trina L. Prince-Fisher
Contracts Administrator

Attachments

- A. Keyser Marston and Associates (Housing Needs Assessment)
- B. Hexagon (Transportation)
- C. Bay Area Economics (Fiscal Impact Analysis)
- D. Budget
- E. Schedule



A. Firm Profile

Founded in 1969, ICF is a leading global professional services firm that provides consulting and implementation services addressing today's most complex management, technology, and policy challenges. Our work is primarily focused in four key markets: environment and infrastructure; energy and climate change; health, human services, and social programs; and homeland security and defense. Our environmental practice provides services in environmental planning, land use planning, regulatory compliance, regulatory implementation, natural resources, and supporting environmental review. Our full-time professional staff includes environmental compliance experts, land-use and natural resource planners, wildlife and fisheries biologists, plant and wetland biologists, watershed planners, restoration experts, archaeologists, architectural historians, community affairs experts, attorneys, engineers, and information technologists. With more than 4,500 employees on six continents, we combine passion for our work with industry and technical expertise to protect and improve the quality of life.

ICF is a recognized leader in California Environmental Quality Act (CEQA) compliance, having prepared thousands of environmental impact studies and related documents since the founding of the former Jones & Stokes. Bob Jones, one of the founders of Jones & Stokes, was instrumental in drafting the legislation that ultimately became CEQA in California. Shortly thereafter, Bob joined fellow biologist Jim Stokes to form Jones & Stokes, which rose to prominence in the fields of environmental planning and natural resources management. By the time it was acquired by ICF in 2008, Jones & Stokes was one of the most well-known and well-respected firms providing NEPA and CEQA compliance services in the Bay Area and throughout the west. Although we are able to draw expertise from all west coast offices, we will service the Project primarily by our San Francisco office.

B. Key Personnel and Project Experience

We offer unique advantages with our local knowledge and experience with issues important to the City of Menlo Park (City). This deep local knowledge and familiarity with City staff and practices directly relates to enabling us to deliver high-quality environmental support by understanding the nuances of your needs. We understand the issues important to City staff as well as members of the public and, using our relevant experience on City projects, can anticipate these needs and keep projects on schedule and budget. Similar to our project management team on previous Menlo Park projects, Erin Efner will serve as Project Director, and Kirsten Chapman as Project Manager. In addition, ICF will team with Keyser Marston and Associates (Housing Needs Assessment), Hexagon (Transportation), and Bay Area Economics (Fiscal Impact Analysis). Please refer to Appendices C through F.

This team is currently preparing two other CEQA documents for similar projects in the vicinity: 1350 Adams Court and Commonwealth Corporate Center Building 3. As with the Project, these two projects are within the M-2 Area and are tiering off of the ConnectMenlo EIR. Since templates and processes are currently being established for these projects, ICF and the subconsultant team will apply a similar strategy to move the 1105 O'Brien Project through the CEQA process. Using the same team and techniques will allow for time and cost savings and consistency between all projects in the M-2 area.



In addition to the two ongoing projects listed above, a list of completed relevant work is presented below. This is not an exhaustive list of projects completed by ICF on the peninsula/in the Bay Area; additional project information is available upon request.

- Facebook Campus Expansion Project EIR and EIR Addendum—City of Menlo Park
- Menlo Park Facebook Campus Project EIR and EIR Addendum—City of Menlo Park
- Commonwealth Corporate Center EIR—City of Menlo Park
- Middle Plaza Project at 500 El Camino Real—City of Menlo Park
- 1300 El Camino Real Project—City of Menlo Park
- City Place Santa Clara EIR—Related Santa Clara (Related), Santa Clara
- SF Giants Mission Seawall Lot 337/Pier 48 EIR—Seawall Lot 337 Associates LLC
- Burlingame Point Project EIR Addendum—City of Burlingame

C. Project Understanding and General Approach

ICF has reviewed the information provided by the City and Tarlton Properties (Project Sponsor). Based on our review of project materials and experience with similar projects, particularly the 1350 Adams Court Project, we understand that an Initial Study, followed by a focused EIR is needed. The project understanding and the general approach is discussed below.

Project Understanding

The Project site is located at 1105, 1135, and 1165 O'Brien Drive, which are part of the Menlo Park Labs campus. The site is currently developed with three existing single-story buildings totaling 38,900 sf. The site is bounded by ReadyFresh warehouse and Dura-Foam Roofing & Solar Center to the north, O'Brien Drive to the east and south, and a warehouse property adjacent to Kelly Court to the west. Under the City's current General Plan, the Project site was rezoned as an Life Science-Bonus (LS-B) district. The Project Sponsor would construct a new 118,567 square-foot (sf) building for life science research and design (R&D) uses. Five levels of parking would be provided in a parking garage with approximately 280 parking stalls for future tenants. The proposed building would include five stories featuring R&D uses, office uses, a fitness center, lounge areas, and ground floor commercial space. The roof of the parking garage would include a 13,220-sf roof deck area with seating, landscaping, and sports courts. The exterior of the Project site would feature an entry plaza, a shuttle stop, bio-retention areas, and two driveways from O'Brien Drive.

General Approach

ConnectMenlo, which updated the City's General Plan Land Use and Circulation Elements and the M-2 Area, was approved on November 29, 2016. This serves as the City's comprehensive and long-range guide to land use and infrastructure development. ConnectMenlo assumed an increase in net new development of up to 2.3 million square feet of non-residential uses, up to 4,500 residential uses, and up



to 400 hotel rooms. The Project site is within the M-2 Area and is within the parameters of the ConnectMenlo assumptions.

Because of the long-term planning horizon of ConnectMenlo, the ConnectMenlo EIR was prepared as a program EIR, pursuant to Section 15168 of the CEQA Guidelines. Once a program EIR has been certified, subsequent activities within the program must be evaluated to determine whether additional CEQA review needs to be prepared. However, if the program EIR addresses the program's effects as specifically and comprehensively as possible, subsequent activities could be found to be within the program EIR scope, and additional environmental review may not be required (CEQA Guidelines Section 15168[c]). When a program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects that are not within the scope of a program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR. The ConnectMenlo Program EIR will serve as the first-tier environmental analysis for the Project.

On December 5, 2017, the City Council approved the proposed settlement agreement between the City of Menlo Park and the City of East Palo Alto to resolve the litigation regarding ConnectMenlo. The key terms of the settlement agreement are reciprocal: environmental review for future development projects, traffic studies, fair share mitigation impact fees, trip cap projects, and study of the multiplier effect. The settlement agreement will serve to inform the scope of the analysis for several topics in the EIR and provide guidance on the requirements for the Project's Housing Needs Assessment (HNA), as discussed in Attachment C.

Based on the requirements outlined in Section 15168 of the CEQA Guidelines, an Initial Study will be prepared to disclose relevant impacts and mitigation measures covered in the ConnectMenlo EIR and discuss whether the Project is within the parameters of the ConnectMenlo EIR. This will scope out several topics from further evaluation. Subsequent to the Initial Study, a Focused EIR will be prepared for the impacts that need further discussion and/or mitigation beyond those analyzed in the ConnectMenlo EIR. This is discussed in more detail below.

As discussed above, ICF and the proposed subconsultants are currently working on the 1350 Adams Court Project and the Commonwealth Corporate Center Building 3 Project. Both projects are within the M-2 Area and are tiering from the ConnectMenlo EIR, as proposed for the 1105 O'Brien Project. This scope of work draws from our experience with these two projects and proposes a very similar process and approach. ICF will use the same template for the Initial Study and EIR as is currently being developed for the 1350 Adams Court Project. This will allow for schedule and budget efficiencies, as well as consistency between the CEQA documents being prepared for all projects in the M-2 area.



D. Scope of Work

Task 1. Project Initiation

The CEQA documentation effort will be initiated by discussing key issues, reviewing completed environmental documents, planning data collection efforts including a site visit, and refining the schedule for completion of individual tasks. At the outset of the CEQA process, ICF will meet with City of Menlo Park staff, the Project Sponsor team, and the traffic subconsultants. At this meeting, the team will:

- Discuss data needs to complete the Initial Study/EIR.
- Confirm procedures for contacting the Project Sponsor team, City staff, and public agencies.
- Review and agree on schedules and deadlines.
- Summarize the next steps, including the NOP, Initial Study, scoping, draft Project Description, and the EIR.
- Discuss in more detail how to apply ConnectMenlo and determine which mitigation measures would apply.
- Discuss City preferences regarding Initial Study/EIR format and organization.
- Discuss CEQA baseline and cumulative projects.
- Outline Alternatives.

This task also assumes a thorough site reconnaissance to be conducted by key EIR preparers.

Deliverables

- Data needs request for the City and Project Sponsor
- Revised schedule

Task 2. Initial Study/EIR Project Description

ICF will prepare the Project Description based on discussions with Project Sponsor team, input from City staff, site visit, data needs responses, and review of the Project application, plan set, and supplemental reports. A clear and accurate Project Description is essential to the analysis. Based on discussions with City staff and on the Project Sponsor's application and plans, ICF will prepare a Project Description for both the Initial Study and the EIR that will incorporate the following topics:¹

- Project Overview and Background
- Project Site Location
- Project Objectives
- Project Characteristics by including:
 - Relationship to ConnectMenlo
 - Site plan
 - Development districts and uses
 - Employment levels

¹ Assumes that data needs outlined in ICF's data request have been fulfilled.

- Site access, circulation, and parking
- Transportation Demand Management (TDM) Program
- Campus design, architectural themes, massing, building design, potential sustainable design features, and materials
- Amenities such as landscaping, lighting, signage, courtyards, and gathering spaces
- Utilities
- Recycling and Waste
- Phasing and Construction Scenario
- Project Approvals and Entitlements

The Project Description will be submitted to the City for review. Following receipt of comments, ICF will then revise the Project Description based on City comments and additional data needs responses from the Project Sponsor. This revised version of the Project Description will be included in the Initial Study.

Deliverables

- Electronic copies of the draft Project Description in MS Word and Adobe PDF format

Task 3. Initial Study

In the Initial Study, ICF will disclose each of the CEQA environmental topics to determine which would require additional discussion in the focused EIR, and which would present no change from what was previously analyzed in the ConnectMenlo EIR. For efficiency and consistency with other City documents, the Initial Study will follow the same format as the 1350 Adams Court Project Initial Study.

- **Aesthetics** – Aesthetic impacts were determined to be less than significant in the ConnectMenlo Draft EIR. The Project would include increased development intensity; therefore, the buildings would have more mass, bulk, height, lighting, and/or glare, resulting in potentially greater visual impacts. Upon receipt of site plans, building elevations, and/or visual simulations (if available) prepared by the Project Sponsor, ICF will determine whether the Project would result in additional aesthetics impacts than what was analyzed in the ConnectMenlo EIR. However, based on existing receptors, it is not expected that impacts would be greater than those previously analyzed.
- **Agricultural and Forestry Resources** – No agricultural or forestry resources currently exist at the Project site. Therefore, no impacts would occur.
- **Air Quality** – It is anticipated that all of the air quality topics will be discussed in the EIR, rather than in the Initial Study (see Task 5, below).
- **Biological Resources** – The Project site is within an urban setting and is bordered on all sides by the Menlo Park Labs campus and industrial/warehousing uses. Although the Project site is near the Bay and the Don Edwards San Francisco Bay National Wildlife Refuge, it is separated by State Route 84 and, therefore, is not expected to have an impact on special-status species inhabiting these areas. The Project site is currently developed with three single-story buildings and surface parking lots. Trees line the southern of the Project site bordering the parking lot,



which could provide habitat for nesting birds. The Initial Study would consider potential impacts to nesting birds during construction. This scope assumes that the applicant will provide a Biological Resources Assessment (BRA), per Mitigation Measure BIO-1 from the ConnectMenlo EIR. ICF will review the BRA and incorporate it into the Initial Study.

- **Cultural Resources** – The Project area was undeveloped until the 1960s and, therefore, due to the ages of the structures, may contain historic buildings. The need for documenting and evaluating historic built resources, as outlined in the ConnectMenlo EIR Mitigation Measure CULT-1, is anticipated. The Project may result in the same amount and location of ground disturbance as what was assumed in the ConnectMenlo EIR. The findings of the ConnectMenlo EIR will be reviewed to assess the potential for encountering archaeological resources, paleontological resources, and/or human remains at the Project site. It is anticipated that the magnitude of potential impacts for the Project would not change relative to the ConnectMenlo EIR and the same mitigation measures would apply. These standard mitigation measures would be referenced in the Initial Study. Results from existing archaeological technical reports, as available, will be incorporated into the Initial Study.
- **Geology and Soils** – It is expected that construction of the proposed new building would have the same impacts related to geology and soils as previously analyzed in the ConnectMenlo EIR. Construction of the new building is expected to adhere to the California Building Code and associated recommendations and no additional impacts would result. The Initial Study would evaluate the geohazard risks specific to the Project site using the Geotechnical Report from the Project Sponsor.
- **Greenhouse Gas Emissions (GHG)** – It is anticipated that all of the GHG topics will be discussed in the EIR, rather than in the Initial Study (see Task 5, below).
- **Hazards and Hazardous Materials** – Construction and implementation of the Project would not create a significant hazard to the public or environment. The Project would likely not result in increased impacts compared to the ConnectMenlo EIR and the same mitigation measures would apply to mitigate the hazardous material impacts to a less-than-significant level. The previous analysis will be referenced here and a determination will be made as to whether the new Project would result in additional impacts.
- **Hydrology and Water Quality** – As stated above, the Project site is mostly covered in impervious surfaces with paved surface parking lots and three single-story buildings. Therefore, the demolition of the existing buildings and the construction of a new building would likely result in minimal changes to impervious surfaces and would have less-than-significant impacts on stormwater runoff quality or quantity, flooding, or drainage. The analysis will consider how the change in building footprints and impervious surfaces compare to existing conditions would potentially affect peak flow rates. It is expected that the same hydrology impacts as analyzed in the ConnectMenlo EIR would occur. To analyze impacts specific to the Project site, ICF will review technical information received from the Project Sponsor, such as hydrology or drainage reports.

- **Land Use** – The land use and policy impacts are expected to be similar as those previously analyzed. The revised General Plan designated the Project site as an LS-B district and the zoning ordinance allows up to 1.25 FAR (plus 10 percent commercial use) and 110-foot maximum height with community benefits. The proposed 5-story structure would have a combined floor area of 118,567 sf. The Project would be consistent with the General Plan and would comply with existing zoning and building requirements, with the bonus level development. It is not expected that additional physical environmental impacts would result beyond what was previously evaluated in the ConnectMenlo EIR.
- **Mineral Resources** – No mineral resources currently exist at the Project site. Therefore, no impacts would occur. This will be documented in the IS.
- **Noise** – It is anticipated that all of the noise topics will be discussed in the EIR, rather than in the Initial Study (see Task 5, below).
- **Population and Housing** – As discussed above, one of the key terms of the 2017 settlement agreement between the City of Menlo Park and the City of East Palo Alto is that an HNA will be prepared when the preparation of an EIR is required. Therefore, population and housing topics will be discussed in the EIR, rather than in the Initial Study (see Task 5, below).
- **Public Services and Utilities** – As stated above, the Project would intensify uses at the site compared to existing conditions and would introduce new onsite employees as well as additional demand for services and utilities. ICF will estimate the Project-generated demand for public services and utilities based on existing operational standards. Compared to the analysis in the ConnectMenlo EIR, the Project is not expected to trigger the need for new or expanded public service facilities or utilities. This scope of work anticipates that the land use assumptions in the Water Supply Evaluation (WSE) Study prepared for ConnectMenlo were conservative. ICF will document the Project's compliance with zoning requirements. In addition, the Initial Study will discuss and evaluate the existing water flow issue for fire pressure in the area.
- **Transportation and Traffic** – It is anticipated that all of the transportation topics will be discussed in the EIR, rather than in the Initial Study (see Task 5, below).

ICF will submit the draft Initial Study to the City, edit the Initial Study based on one round of comments, and release the Final Initial Study. Additional rounds of review are not assumed in this scope of work.

Deliverables

- Electronic copies of the draft Initial Study in MS Word and Adobe PDF format
- Electronic copies of the revised (final) Initial Study that incorporates comments from the City and Project Sponsor in MS Word and Adobe PDF format



Task 4. Draft and Issue Notice of Preparation/Scope Definition

Concurrent with the finalization of the Initial Study, ICF will prepare the Notice of Preparation (NOP) for City staff review. Upon receipt of NOP comments, ICF may need to refine the scope of work based on discussions with staff (if necessary).

- **Draft and Issue Notice of Preparation.** An NOP will be prepared by ICF for City staff review. The NOP would include a description of the Project, a description and map of the Project location, the probable environmental effects of the Project, and the intersections to be analyzed in the EIR. The scope assumes that one draft and one final NOP will be prepared. The scope also assumes that ICF will distribute the final NOP and Notice of Completion (NOC) to the State Clearinghouse and that the City will distribute the NOP the County Clerk (for posting) and oversee mailing to other interested parties and public agencies. The final Initial Study would be circulated with the NOP as an attachment.
- **Public Scoping.** ICF will attend and present at one scoping meeting (held as part of a regular Planning Commission meeting) and record comments received during the meeting. The principle objective of this scoping meeting will be to confirm or revise the list of critical environmental issues and the range of alternatives to be examined in the EIR.
- **Revised Scope of Work.** As a result of discussion at the project initiation meeting, public scoping meeting, and responses to the NOP, ICF will revise the scope of work for consideration by City staff, if necessary. The revised scope of work will fine-tune the data collection activities, refine impact methodologies and assumptions (e.g., number of locations for traffic counts, noise measurements, etc.), adjust significance criteria for key environmental and neighborhood issues, and affirm or revise expectations about the preparation process, schedule, and products. Additionally, topics that were originally scoped out in the Initial Study may need to be analyzed further in the EIR. Accordingly, in consultation with City staff, a revised scope of work and budget may be prepared as part of this task. This would be submitted as a budget amendment.

Deliverables

- Electronic copies of draft NOP in MS Word and Adobe PDF format
- Electronic copies of the final NOP in MS Word and Adobe PDF format
- Fifteen hard copies of the final NOP to the State Clearinghouse

Task 5. Administrative Draft EIR

As discussed above, the Project site is within the ConnectMenlo area. Since the Project's site plan and development parameters are consistent with ConnectMenlo, the programmatic ConnectMenlo EIR is applicable to the Project. In accordance with Section 15168 of the CEQA Guidelines, the Draft EIR will be limited to those effects that: have planned characteristics that are substantially different from those defined in the ConnectMenlo EIR, require additional mitigation measures, or have specific impacts not



evaluated in sufficient detail in the ConnectMenlo EIR. The purpose of this task is to prepare the focused Administrative Draft EIR. Due to the size of the Project, it is not expected to have significant impacts on the environment; any impacts would likely be reduced to a level of less than significant with incorporation of mitigation measures. However, because of the 2017 East Palo Alto settlement, the Project is required to prepare an EIR analysis for the topics of Transportation and Population and Housing. Since increases in traffic can result to impacts to Air Quality, Greenhouse Gas Emissions, and Noise, those topics will also be included in the EIR.

This task will synthesize background information for use in the existing setting, evaluate changes to those baseline conditions resulting from implementation of the Project to identify significant impacts, and identify mitigation measures to reduce potentially significant impacts to a less-than-significant level. The ICF team will collect the information necessary to define baseline conditions in the Project area. We anticipate that baseline conditions will reflect the conditions at the time of the NOP release. ICF will also refer to the ConnectMenlo EIR and other EIRs prepared for projects in the area (such as the 1350 Adams Court Project) for applicable background data, impact areas, and mitigation measures.

The analysis will be based on standard methodologies and techniques, and will focus on the net changes anticipated at the Project site. The text will clearly link measures to impacts and indicate their effectiveness (i.e., ability to reduce an impact to a less-than-significant level), identify the responsible agency or party, and distinguish whether measures are proposed as part of the Project, are already being implemented (such as existing regulations), or are to be considered. This approach facilitates preparation of the Mitigation Monitoring and Reporting Program (MMRP) that follows certification of an EIR, as discussed in more detail under Task 12, below.

The Administrative Draft EIR will also incorporate the alternatives and other CEQA considerations described in Task 6 (below). It is envisioned that the City's initial review of the document will consider content, accuracy, validity of assumptions, classification of impacts, feasibility of mitigation measures, and alternatives analyses. Because the impacts and mitigations are subject to revision based on staff review of the Administrative Draft EIR, the Executive Summary will be prepared only for the Screencheck Draft. The following task descriptions summarize the data to be collected, impact assessment methodologies to be used, and types of mitigation measures to be considered, by environmental issue.

Impacts Requiring No Further Analysis

Section 15128 of the CEQA Guidelines states, "An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." The issues scoped out in the Initial Study will be briefly summarized.

Air Quality

ICF will prepare an analysis of air quality impact for the Project consistent with all applicable procedures and requirements of the Bay Area Air Quality Management District (BAAQMD) and based on the findings



and mitigation measures from the ConnectMenlo EIR. The air quality analysis will focus on the criteria pollutants of greatest concern in the San Francisco Bay Area Air Basin (SFBAAB) that will be generated by construction and operation of the Project. Those pollutants include ozone precursors (reactive organic gases [ROGs] and oxides of nitrogen [NOX]), carbon monoxide (CO), and inhalable particulate matter (PM10 and PM 2.5). ICF air quality specialists will prepare an air quality analysis describing existing air quality conditions, the Project's impacts to air quality, and mitigation measures (including those recommended and required by the BAAQMD designed to reduce the significance of Project-related air impacts).

ICF will identify significant impacts using the BAAQMD's thresholds of significance, California Environmental Quality Act: Air Quality Guidelines. We will describe the air quality thresholds used to identify significant impacts based on the BAAQMD's Air Quality Guidelines, as well as the methodology used to estimate Project-related emission impacts.

Consistent with ConnectMenlo Mitigation Measure AQ-2b2 for projects that exceed the BAAQMD land use screening level sizes, ICF will quantify criteria air pollutant emissions associated with Project construction, even though the combined square footage of the Project is not anticipated to exceed the corresponding screening size of 277,000 sf. As discussed below, construction emissions will be required for the health risk assessment (HRA) during construction. As such, we will quantify construction-related emissions of ROG, NOX, CO, PM10, and PM2.5 based on the CalEEMod model and construction data (i.e., anticipated construction schedule and equipment) for the Project provided by the Project Sponsor. Where Project-specific data is unavailable, ICF will use default values from CalEEMod. The analysis will address construction-related mitigation measures required by BAAQMD (and as required by ConnectMenlo Mitigation Measure AQ-2-b1), including adherence to BAAQMD rules and regulations. Estimated construction emissions will then be compared to the BAAQMD's construction emission thresholds to determine the Project's significance for construction activities.

Consistent with ConnectMenlo Mitigation Measure AQ-2b2, potential Project construction-related impacts will be evaluated, including an assessment of increased health risks on sensitive receptors during construction. As such, ICF will prepare a detailed health risk assessment (HRA) to estimate potential health risks associated with the Project. The detailed HRA will evaluate construction-related health risks to existing sensitive receptors near the Project site. ICF will coordinate with BAAQMD staff to verify the emission sources evaluated, methodology, and models used in the HRAs to estimate emissions, sensitive receptor exposure, and health risks. The HRA will be consistent with methodologies and procedures recommended by the Office of Environmental Health Hazard Assessment (OEHHA), as well as the BAAQMD in their Recommended Methods for Screening and Modeling Local Risks and Hazards guidance document and California Air Pollution Control Officers Association in their Health Risk Assessments for Proposed Land Use Projects guidance document.

Consistent with ConnectMenlo Mitigation Measure AQ-2a and the BAAQMD Guidelines, projects that do not exceed the BAAQMD land use screening level sizes do not require a detailed analysis of operational



emissions. The combined square footage of the Project's office building and parking structure would not exceed the corresponding screening level of 346,000 sf.

The Project is an office building that may require the use of a diesel generator, which is a potential source of toxic air contaminants. ICF will qualitatively evaluate the TAC impacts of the generator based on guidance from the BAAQMD.

According to ConnectMenlo Mitigation Measure AQ-3a, projects that have the potential to increase traffic by more than 100 or more diesel truck trips or 40 or more truck trips with transportation refrigeration units per day and are within 1,000 feet of a sensitive land use shall prepare a health risk assessment in accordance with OEHHA and BAAQMD procedures. Although the Project site is within 1,000 feet of sensitive receptors, this scope assumes that the Project would not increase diesel truck trips by more than 100 per day and, thus, an HRA is not required. In the event that the Project Sponsor demonstrates that the Project would increase truck trips to levels specified in Mitigation Measure AQ-3a, our scope and budget will be modified to reflect preparation of an operational HRA.

ICF will qualitatively evaluate the potential for odor impacts during construction and demolition activities. Odors generated during long-term Project operation will also be considered.

In the event buildings to be demolished contain asbestos used for insulation purposes, ICF will describe and assess the potential for asbestos exposure during demolition in the air quality chapter. Potential mitigation for reducing exposure to asbestos will include compliance with BAAQMD Regulation 11, Rule 2; ARB Air Toxic Control Measures; and federal National Emission Standards for Hazardous Air Pollutants regulations.

Greenhouse Gas Emissions

ICF will prepare an analysis of climate change impacts. The climate change analysis will describe existing environmental and regulatory climate change quality conditions, followed by an analysis of the proposed Project's construction and operational impacts. The climate change analysis will focus on the greenhouse gases (GHG) of greatest concern, carbon dioxide, (CO₂), methane (CH₄) and nitrous oxide (N₂O) that will be generated by construction and operation of the Project.

ICF climate change specialists will prepare a climate change analysis describing existing conditions, the Project's impacts to climate change, and mitigation measures designed to reduce the significance of Project-related climate change impacts.

In the Project Setting section, ICF will describe the key concepts of climate change, the GHGs of greatest concern and their contribution towards climate change, and the current climate change regulatory environment as it applies to the Project. We will also summarize existing GHG levels based on GHG inventories conducted in jurisdictions in the vicinity of the Project (City of Menlo Park Climate Action Plan, BAAQMD GHG Inventory). ICF will quantify construction-related emissions of CO₂ based on the CalEEMod emissions model and construction data (i.e., anticipated construction schedule and



equipment) provided by the Project Sponsor. Construction-related emissions of CH₄ and N₂O will be based on factors provided by the Climate Registry.

ICF will use the traffic data from the transportation analysis (i.e., trip generation rates) and the CALFEEMOD model to estimate CO₂ emissions from vehicular trips resulting from the Project, while emissions of CH₄ and N₂O will be based on assumptions provided by the U.S. Environmental Protection Agency. GHG emissions associated with operational area sources (i.e., hearth and landscaping), energy consumption (electricity, natural gas), water consumption, and waste and wastewater generation will be quantified based on the CALFEEMOD model, as well as other accepted protocols, such as the Climate Registry's General Reporting Protocol. It is anticipated that there will no major changes to vegetation and land cover associated with the Project; these emissions will not be quantified.

For near-term greenhouse gases impacts, we will evaluate whether the Project is consistent with the City's most recent Climate Action Plan (CAP) update by identifying whether the proposed Project is consistent with each strategy in the CAP update. If an individual Project is found to be consistent with the CAP update, that Project would not be expected to result in a cumulatively considerable contribution to a significant cumulative impact with regards to climate change per State CEQA Guidelines, Section 15183.5. We will also evaluate the Project's greenhouse gases impacts with respect to significance criteria adopted and recommended by the Bay Area Air Quality Management District, California Environmental Quality Act: Air Quality Guidelines. To assess the Project's impacts in the post-2020 period, ICF will develop an appropriate threshold based on substantial evidence that adequately characterizes the Project's progress toward reaching the state's 2030 and 2050 GHG goals.

Where significant impacts are identified, we will identify mitigation measures (including those recommended by the California Air Pollution Control Officer's Association and California Attorney General) designed to reduce the significance of Project-related climate change impacts.

Population/Housing

The Project would include life science R&D uses, which would result in new employees. ICF will analyze the impact of the increase in employees and, in turn, the resulting population and housing impacts. The Population/Housing chapter of the EIR will examine the Project's effect on population and housing in the City and, to a lesser extent, in the region. The analysis will focus on the increase in population and the secondary effects associated housing needed to accommodate the increased employment that would result from the Project. ICF, with assistance from Keyser Marston Associates (KMA), will undertake the following tasks:

- As included in Attachment C, a HNA will be prepared by KMA. ICF will peer review the HNA and incorporate the findings into the analysis.
- Discuss the housing effect resulting from the Project in the context with the Association of Bay Area Governments (ABAG) regional household forecasts and fair share housing allocations.



- Similar to other job intensive projects, the EIR will examine the secondary housing demands based on future residential patterns for proposed employees. This discussion will be presented in the “Growth Inducement” section of the EIR.
- One of the key terms of the settlement agreement between the City of Menlo Park and the City of East Palo Alto is that an HNA will be prepared when the preparation of an EIR is required. As required by the 2017 settlement agreement, the HNA prepared for the Project will include an analysis of the multiplier effect for indirect and induced employment.

Transportation/Traffic

The Project would increase the amount of life science R&D space at the Project site. An increase in traffic would likely result and the greater development could affect how previously analyzed intersections and roadway segments operate in the future. The scope of work for the Transportation analysis, prepared by Hexagon, is included as Attachment D.

Noise

Due to the development intensity at the Project site, the Project could result in greater noise levels compared to existing conditions. Increased development could result in a longer construction period, additional traffic, and more onsite activity during operation. ICF will address exposure of existing noise sensitive land uses to noise and vibration associated with construction activity. The discussion of construction noise and vibration impacts will mostly rely on the analysis in the ConnectMenlo EIR, and will include applicable mitigation measures from the ConnectMenlo EIR that would be required for the proposed Project. In addition, ICF will discuss exposure of existing noise sensitive land uses to operational noise from the Project site (mechanical equipment, parking lots, loading docks, etc.) and apply mitigation measures from the ConnectMenlo EIR, as needed. In addition, traffic noise will be discussed in this chapter. Our scope assumes that ICF noise specialists, along with the traffic consultants, will compare roadway segment volumes for the Project with what was assumed in the ConnectMenlo EIR. If there is no change, or if project-generated traffic volumes do not exceed what was assumed in ConnectMenlo EIR, then no additional analysis would be necessary. However, if the Project would result in a higher volume of traffic on any studied roadway segment, then additional analysis would be necessary. Our scope assumes that no more than four segments would experience changes to volumes. For those roadway segments, existing traffic noise conditions in the Project area will be modeled using the FHWA Traffic Noise Model (TNM) version 2.5 and traffic data to be provided by Hexagon. The analysis will implement all relevant mitigation measures from the ConnectMenlo EIR to reduce the potential traffic noise impacts to less-than-significant. This scope of work and budget assumes that the analysis tier off the analysis in the ConnectMenlo EIR; any potential for project-specific traffic noise impacts beyond what was previously analyzed will require additional work and a budget amendment will be issued at that time.



Deliverables

- Five hard copies of Administrative Draft EIR
- Electronic copies of Administrative Draft EIR in MS Word and Adobe PDF format

Task 6. Project Alternatives and Other CEQA Considerations

The purpose of this task is to complete drafts of the remaining sections (Alternatives and Other CEQA Considerations) of the EIR for City staff review. This task involves preparation of other required sections examining particular aspects of the Project's effects and the identification and comparison of Project alternatives.

Other CEQA Considerations

This task involves documenting unavoidable adverse impacts, growth-inducing effects, and cumulative effects of the Project:

- The significant and unavoidable effects will be summarized from analyses performed in Task 5 (if applicable).
- Cumulative effects where relevant will be addressed as part of Task 5 and summarized as part of this section of the EIR. The future projects in the vicinity of the Project site will be considered as they relate to potential cumulative impacts. This scope assumes the City will help develop the approach for analyzing cumulative effects, typically a combination of using ConnectMenlo and a list of other reasonably foreseeable planned projects.
- Discussion of energy conservation per Appendix F of the CEQA Guidelines. In order to assure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The EIR will consider the energy implications of the Project to the extent relevant and applicable to the Project.

Alternatives

In accordance with CEQA, the alternatives to the Project must serve to substantially reduce impacts identified for the Project while feasibly attaining most of the Project objectives. ICF assumes that one Reduced Project Alternative will be quantitatively analyzed and will be based on a sensitivity analysis to reduce identified impacts. The No Project Alternative will be qualitatively analyzed. This scope assumes that the City/Project Sponsor will provide justification for dismissing offsite alternatives and other alternatives considered but rejected.

Deliverables

- Other CEQA Considerations chapter to be submitted with Administrative Draft EIR
- Alternatives chapter to be submitted with Administrative Draft EIR



Task 7. Screencheck Draft

The purpose of this task is to prepare the Screencheck Draft EIR for City staff review. ICF will prepare a Screencheck Draft EIR to respond to the City's and Project Sponsor's comments on the Administrative Draft EIR. This scope assumes that comments from multiple reviewers will be consolidated with any conflicting comments resolved, and that comments do not result in substantial revisions or additional analyses. The Screencheck Draft EIR will include an Executive Summary section, which will summarize the Project Description, impacts and mitigations, and alternatives. Impacts and mitigations will be presented in a table that identifies each impact, its significance, and proposed mitigation as well as the level of significance following adoption for the mitigation measures.

Deliverables

- Five hard copies of Screencheck Draft EIR
- Electronic copies of Screencheck Draft EIR in MS Word and Adobe PDF format

Task 8. Public Draft EIR

The purpose of this task is to prepare and submit the Draft EIR to the City for distribution to the public. ICF will revise the Screencheck Draft to incorporate modifications identified by the City. The revised document will be a Draft EIR, fully in compliance with State CEQA Guidelines and City guidelines, and will be circulated among the public agencies and the general public as well as specific individuals, organizations, and agencies expressing an interest in receiving the document. During this task, ICF will also compile the appendices that will be distributed with the Draft EIR and produce a version of the full document that can be uploaded onto the City's website. ICF will also prepare a NOC to accompany the copies that must be sent to the State Clearinghouse. This scope of work and budget assumes that ICF will send the required documents to the State Clearinghouse and that the City will distribute the Draft EIRs to all other recipients.

Deliverables

- Twenty hard copies of the Draft EIR
- Electronic copies of the Draft EIR in MS Word and in Adobe PDF format
- Notice of Completion
- Fifteen hard copies of the Executive Summary, along with 15 electronic copies of the entire Draft EIR on CD, for the State Clearinghouse

Task 9. Public Review and Hearing

The City will provide a 45-day review period during which the public will have an opportunity to review and comment on the Draft EIR. During the 45-day review period, the City will hold a public hearing to receive comments on the Draft EIR. ICF key team members will attend and participate as requested. This scope of work assumes the preparation of meeting materials (e.g., PowerPoint presentations and handouts) but does not assume the labor needed to provide meeting transcript/minutes.



Task 10. Draft Responses to Comments and Administrative Final EIR

The purpose of this task is to prepare responses to the comments received on the Draft EIR and incorporate these responses into an Administrative Final EIR for City review. The Administrative Final EIR will include:

- Comments received on the Draft EIR, including a list of all commenters and the full comment letters and public meeting transcripts with individual comments marked and numbered;
- Responses to all comments; and
- Revisions to the Draft EIR in errata format as necessary in response to comments.

All substantive comments for each written and oral comment will be reviewed, bracketed, and coded for a response. Prior to preparing responses, ICF will meet with staff to review the comments and suggest strategies for preparing responses. This step is desirable to ensure that all substantive comments are being addressed and that the appropriate level of response will be prepared. This scope of work and budget assumes ICF will prepare responses for up to 50 substantive discrete, non-repeating comments and will coordinate integrating the responses prepared by other consultants. However, the number and content of public comments is unknown at this time. Therefore, following the close of the Draft EIR public review period and receipt of all public comments, ICF will meet with the City to revisit the budget associated with this effort to determine if additional hours are needed. Very roughly, each additional substantive discrete comment may cost an additional \$350.

Frequently raised comments of a substantive nature may be responded to in a Master Response, which allows for a comprehensive response to be presented upfront for all interested commenters. ICF will identify and recommend possible Master Responses for City consideration during the initial meeting to discuss strategies for preparing responses.

Following the strategy session, ICF will prepare Master Responses (as appropriate) and individual responses to the bracketed and coded comments. Individual responses to each comment letter will be placed immediately after the comment letter. As necessary, responses may indicate text revisions, in addition to clarifications and explanations. All text changes stemming from the responses to the comments, as well as those suggested by City staff, will be compiled into an errata included as part of the Final EIR.

Following City's review of the Administrative Final EIR, ICF will address all comments received and prepare a Screencheck Final EIR for City review to ensure that all comments on the Draft were adequately addressed.

Deliverables

- Five hard copies of the Administrative Final EIR
- Electronic copies Administrative Final EIR in MS Word and in Adobe PDF format
- Five hard copies of the Screencheck Final EIR
- Electronic copies of the Screencheck Final EIR in MS Word and in Adobe PDF format



Task 11. Final EIR

Based on comments received from City staff, the Screencheck Responses to Comments will be revised and appropriate revisions to the Draft EIR will be noted. The Final EIR will then consist of the Draft EIR and the Responses to Comments document. Revisions to the Draft EIR will be presented as a separate chapter in the Final EIR. The revised Responses to Comments document will be submitted to the City for discussion by the Planning Commission and subsequent certification by the City Council.

Deliverables

- Twenty hard copies of the Final EIR
- Electronic copies of the Final EIR in MS Word and Adobe PDF format

Task 12. Certification Hearings, MMRP, Statement of Overriding Considerations, and Administrative Record

The purpose of this task is to attend meetings to certify the EIR. Team members will attend and participate in up to two meetings to certify the EIR. If requested by City staff, ICF will present the conclusions of the EIR and a summary of the comments and responses.

As part of this task, ICF will also prepare a draft and final MMRP for the project, as required by Section 15097 of the State CEQA Guidelines. The MMRP will be in a tabular format and include:

- The mitigation measures to be implemented (including applicable mitigation measures from ConnectMenlo and project-specific mitigation measures)
- The entity responsible for implementing a particular measure
- The entity responsible for verifying that a particular measure has been completed
- A monitoring milestone(s) or action(s) to mark implementation/completion of the mitigation measure

ICF will prepare the Statement of Overriding Considerations and Findings of Fact pursuant to Section 15093 of the CEQA Guidelines, if required based on the impacts of the Project. CEQA requires the decision-making agency to balance the economic, legal, social, and technological benefits of a proposed project against its unavoidable environmental impacts. The Statement of Overriding Considerations includes the specific reasons to support its action based on the Final EIR and other information in the record.

ICF will also compile the Administrative Record, assembling background documents as well as correspondence or telephone notes that are cited as sources in the EIR.

Deliverables

- Electronic copies of the Draft MMRP in MS Word and Adobe PDF format
- Five hard copies of the Final MMRP
- Electronic copies of the Final MMRP in MS Word and Adobe PDF format



- Electronic copies of the Statement of Overriding Considerations and Findings of Fact in MS Word and Adobe PDF format
- One electronic copy (on CD or DVD) of the Administrative Record (submitted at the Draft EIR phase and the Final EIR phase)

Task 13. Project Management and Meetings

The purpose of this task is to effectively manage the above tasks, and maintain communication with City staff. ICF project management will be responsible for coordination activities, will maintain QA/QC requirements for document preparation, and will monitor schedule and performance for all EIR work tasks. Project management subtasks also include maintaining internal communications among ICF staff and subconsultants and with City staff and other team members through emails and frequent phone contact, as well as the preparation of all correspondence. The Project Manager will coordinate internal staff, project guidance, and analysis criteria. Contracting with the City and subconsultants will be performed at the onset of the Project.

Team members will attend and participate in meetings on an as-needed basis. For purposes of the cost estimate, ICF has assumed three City staff and/or Project Sponsor face-to-face meetings (in addition to the Project Initiation meeting described in Task 1), up to three public meetings (described in Task 12), and 10 phone conference calls. Additional meetings may be appropriate during the course of this effort, and will be invoiced on a time-and-materials basis.

E. Cost

The cost estimate for the Initial Study and EIR is \$314,338, as detailed in Attachment D. Please note that the budget assumes that the ConnectMenlo Program EIR will serve as the first-tier environmental analysis for the Project. In addition, the budget reflects some efficiency gained from preparing concurrent CEQA documents for other projects in the City. As discussed above, ICF and the proposed subconsultants are currently working on the 1350 Adams Court Project and the Commonwealth Corporate Center Building 3 Project. Both projects are within the M-2 Area and are tiering from the ConnectMenlo EIR, as proposed for the 1105 O'Brien Drive Project. Therefore, this budget reflects that much of the setting, format, and analysis prepared for these ongoing projects will also be used for the 1105 O'Brien Drive Project, resulting in cost savings. This budget assumes that the 1105 O'Brien Drive Project would follow these projects in schedule. If these other projects are put on hold, and 1105 O'Brien Drive needs original analysis, this scope and budget will be revisited.

F. Schedule

The preliminary schedule is included in Attachment E. This schedule can be used for discussion at the kick-off meeting. A revised schedule will be submitted at a later date once ICF has a better understanding of the start date.





KEYSER MARSTON ASSOCIATES™
ADVISORS IN PUBLIC/PRIVATE REAL ESTATE DEVELOPMENT

June 6, 2018

ADVISORS IN:
REAL ESTATE
AFFORDABLE HOUSING
ECONOMIC DEVELOPMENT

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Erin Efner and Kirsten Chapman
ICF International
201 Mission Street, Suite 1500
San Francisco, CA 94105

Re: Proposed Scope of Services to Prepare a Housing Needs Assessment for the 1105 O'Brien Drive Project.

Dear Ms. Efner and Ms. Chapman:

Keyser Marston Associates, Inc. ("KMA") is pleased to present the enclosed proposed scope of services to prepare a Housing Needs Assessment ("HNA") for the City of Menlo Park addressing the proposed 1105 O'Brien Drive Project. The Project consists of a new 118,567 square foot life sciences building that will replace three existing buildings with a combined 38,900 square feet of building area.

KMA is exceptionally well qualified to prepare the HNA for the Project based on our broad expertise preparing housing impact studies and project-specific housing needs analyses. Our HNA experience includes three previous projects in Menlo Park: Menlo Gateway, the Facebook Campus, and the Facebook Campus Expansion Project. KMA is also currently preparing an HNA for a similar project, 1350 Adams Court, which is being undertaken by the same applicant. We anticipate that the analysis of the 1350 Adams Court project will provide the groundwork for the HNA for the 1105 O'Brien Drive Project and enable significant cost efficiencies.

The enclosed HNA scope of services includes preparation of an HNA addressing, to the extent possible, the following housing-related impacts of the proposed Project:

- Housing need by affordability level for on-site workers;
- Potential range of indirect and induced employment or "multiplier effects" and indirect and induced worker housing needs;
- Estimated geographic distribution of housing needs by jurisdiction for both on-site workers and indirect and induced workers; and

- Evaluation of the potential impacts on the regional housing market and the degree to which the project may contribute to rising housing costs and displacement of existing residents of lower income communities in the local area.

We understand that the HNA must be prepared consistent with the terms of the recent settlement agreement between the City of East Palo Alto and Menlo Park. The enclosed scope of service is designed to provide the analyses contemplated by the settlement agreement. However, we would be happy to discuss potential refinements to the scope of services and budget to ensure the HNA address the City's needs as well as satisfy the intent of the agreement with East Palo Alto.

The scope of services and proposed budget for the HNA is enclosed as Attachment A.

Please let me know if you have any questions or comments regarding this proposed scope of services.

Sincerely,

KEYSER MARSTON ASSOCIATES, INC.



David Doezema

Attachment A: Scope of Services
Attachment B: KMA Rate Schedule

Attachment A
Scope of Services to Prepare a Housing Needs Assessment (HNA)
for the 1105 O'Brien Drive Project

The following scope of services is for preparation of a Housing Needs Assessment (HNA) addressing the 1105 O'Brien Drive Project. The HNA will address the following major housing-related topics:

- 1) Housing need by affordability level for on-site project workers;
- 2) Potential range of indirect and induced employment or “multiplier effects” and indirect and induced worker housing needs;
- 3) Estimated geographic distribution of housing needs by jurisdiction for both on-site workers and indirect and induced workers; and
- 4) Evaluation of the potential impacts on the regional housing market and the degree to which the project may contribute to rising housing costs and displacement of existing residents of lower income communities in the local area.

These housing-related impacts are not required to be analyzed under CEQA but may be of interest to decision-makers and/or the public in evaluating the merits of the project. These analyses are being provided consistent with the terms of a 2017 settlement agreement with the City of East Palo Alto. The pertinent paragraph from the 2017 settlement agreement states the following:

When the preparation of an EIR is required pursuant to this Agreement, concurrent with the preparation of the EIR, Menlo Park or East Palo Alto, whichever is the lead agency for the Development Project, will conduct a Housing Needs Assessment (“HNA”). The scope of the HNA will, to the extent possible, include an analysis of the multiplier effect for indirect and induced employment by that Development Project and its relationship to the regional housing market and displacement. Nothing in this section indicates an agreement that such an analysis is required by CEQA.

Task 1 – Project Initiation and Data Collection

The purpose of this task is to identify the availability of data necessary to complete the HNA, identify key analysis inputs and assumptions, and refine the approach to the assignment. As part of this task, KMA will:

- (1) Provide a list of data needs to complete the HNA and work with ICF International and the City’s project team as necessary to gather the data.

- (2) Meet with City staff, its consultants, and the project sponsor team to: (a) discuss data and analysis alternatives (b) review technical methodology and approach (c) discuss and agree on schedule.

Task 2 – Housing Needs Assessment for On-Site Workers

KMA will quantify, by affordability level, the housing demand associated with the proposed project. The analysis will quantify total housing demand based on the estimated number of net new employees added by the project (which are net new jobs in the region) and household size ratios developed from Census data. Employee compensation levels are estimated by linking generic occupational categories with local data on compensation levels. Employee compensation levels are then translated into housing need by affordability level using published income limits and accounting for the fact that households have more than one worker on average.

The primary data sources we will use for this component of the analysis are:

1. Data on occupations by industry from the Bureau of Labor Statistics. KMA will select the industry category (or blend multiple categories) to represent the likely mix of tenants expected to occupy the project.
2. Current employee compensation data specific to San Mateo County for the relevant occupational categories from the California Employment Development Department will be used in the analysis.

KMA has prepared similar analyses for other projects in Menlo Park including the existing Facebook Campus, the Facebook Campus Expansion Project, and the Menlo Gateway Project. KMA is also currently preparing a similar analysis for the 1350 Adams Court Project. We have performed project-specific housing needs analyses for commercial and institutional development proposals in the cities of San Carlos, Palo Alto, Redwood City, and Napa County. Some of these analyses have been performed using employee occupation and compensation data provided by the applicant and some have been performed using generic data as is assumed in this proposal. KMA has also prepared affordable housing nexus fee studies in many cities. Roughly twenty five years ago, KMA developed a proprietary model to perform the nexus analysis and allocate households into affordability levels using local, state and federal data sources. KMA has refined the model over the years and now has considerable experience adapting the model to specific projects.

The end product of this task is the total number of net new employee households attributable to the development, by affordability level, who will need housing within daily commute distance.

Task 3 – Potential Multiplier Effects on Employment

To the extent possible, KMA will prepare an analysis estimating the range of potential indirect and induced employment impacts of the project, also referred to as multiplier effects. The estimated multiplier effects on employment will then be translated into an estimate of housing need.

Indirect jobs are within firms that provide services to the building tenant, for example, legal or accounting services. Induced jobs are those associated with the consumer spending of both direct on-site workers and indirect workers. Jobs in restaurants, retail, and healthcare are examples.

Multiplier effects will vary significantly depending on the occupant of the building and whether the associated economic activity will be net new to the region. Our preliminary understanding is that specific tenants have not been identified. Even if initial tenants were known, the structures may still be occupied by a variety of tenants over their lifetime. To address this uncertainty, KMA will test a range of tenant types to bracket the potential range of multiplier effects. The analysis will also test how multiplier effects vary based on the degree to which economic activity is net new to the region. As an example, multiplier effects of a law firm would vary depending on whether the practice is primarily focused on serving Bay Area clients, in which case multiplier effects may be relatively minimal, versus a firm that serves a broader national or international client base, effectively “exporting” its services outside the local area, in which case multiplier effects will be more substantial.

We propose to complete the analysis using the economic analysis software IMPLAN. IMPLAN is the most common tool used for quantifying economic impacts and is widely used throughout the Bay Area, including for purposes of both Menlo Park’s and East Palo Alto’s affordable housing nexus studies. For purposes of the scope of services and budget, we are assuming the analysis will address multiplier effects within a four-county area inclusive of San Mateo, Santa Clara, San Francisco and Alameda counties, selected based on proximity and commute shed. The counties to be considered may be adjusted based on a discussion with the client, keeping in mind there is a data cost associated with adding additional counties.

KMA will translate the indirect and induced employment into an estimated housing need using the same methodology as employed for the Task 2 analysis. KMA is not proposing to quantify housing needs by affordability level for indirect and induced workers.

Task 4. Analysis of Commuting and Geographic Distribution of Housing Needs

The prior tasks are to determine the total housing needs irrespective of where workers will live. This task develops information to help understand existing commute relationships and trends, and approaches to identifying how the total housing needs will be accommodated locally. KMA will analyze the commute relationships of existing jobs in Menlo Park and where job holders live

(or commute from as a place of residence) using data from the U.S. Census. KMA will then apply the data to estimate Menlo Park's share of increased housing needs and the estimated distribution of housing needs throughout the region. To the extent possible, the distribution of housing needs will also be estimated for potential indirect and induced jobs. We will incorporate any tenant-specific commute data to the extent available, although our understanding is that tenants are not yet known.

Task 5 – Relationship to Regional Housing Market and Potential to Contribute to Displacement

This task is designed to provide an evaluation, to the extent possible, of the potential for the project to influence housing prices and rents and contribute to displacement pressures in the local area. Lower income communities in the Bay Area have become increasingly vulnerable to displacement of existing residents. Employment growth, constrained housing production, and rising income inequality are among the factors that have contributed to increased displacement pressures, especially within lower income communities in locations accessible to employment centers where many households are housing-cost burdened.

Given the complex array of factors that influence housing markets and neighborhood change, precise estimates or projections of impacts and outcomes are not feasible; rather, the analysis will seek to provide information and context that will be useful to understanding the likely magnitude or range of potential impacts. The analysis will consider both the direct employment identified in Task 2 and, to the extent possible, the indirect and induced employment addressed in Task 3.

KMA will complete the following tasks to inform an evaluation of potential impacts:

- a) *Review of Historic Real Estate trends* – KMA will review historic data on home sales and rental trends in 3 or 4 selected housing submarkets over a historic period utilizing data readily available from commercial data providers such as REIS and data quick. The purpose will be to provide context regarding recent housing market trends.
- b) *Review of employment trends* – KMA will assemble data on historic employment trends for the same time frame as the historic review of real estate trends. Employment trends data will be distinguished by compensation level so that growth in higher-income and lower-income jobs can be separately understood. We will also look at employment trends across different geographic scales to enable relationships to be tested at the different geographic scales.
- c) *Analysis of historic relationships* – KMA will analyze the extent to which employment growth and real estate trends have been correlated with one another. This relationship

will be drawn upon to provide context for understanding the degree of influence the project may have on local home prices and rents.

- d) *Estimated increased housing demand in East Palo Alto* – KMA will draw on the commute shed data from Task 4 to describe the estimated share of new workers likely to seek and find housing in East Palo Alto and other communities of interest. However, it may not be possible to isolate commute trends for specific neighborhoods, such as the Belle Haven neighborhood of Menlo Park, unless there is specific proposed tenant that is able to provide commute data for smaller geographic areas.

KMA will discuss the likely impacts or range of impacts on housing prices and displacement that could be experienced as a result of the project based upon the information assembled in a) through d), above. Findings will be qualitative in nature but will reference the quantitative information assembled in the analysis tasks as part of the narrative.

Task 6 – Report Preparation

The methodology, data sources, results and implications of the HNA will be documented in a written report. This scope assumes one draft version of the report for review and one final report.

Task 7 – Responses to DEIR Comments

KMA anticipates assisting the City and ICF International in preparing responses to comments on the Draft EIR. KMA's focus will be on comments that are directly related to the HNA. We have included a time and materials budget allowance for KMA to assist with preparation of responses to comments.

Budget

KMA proposes to complete this scope of services for the 1105 O'Brien Drive Project on a time and materials basis for an amount not to exceed \$29,000 per the estimate below. The proposed budget assumes cost efficiencies from also preparing the HNA for the separate 1350 Adams Court Project within a similar time frame. The proposed costing will need to be adjusted if both analyses are not fully completed. A copy of our current rate schedule is attached.

Task	Budget Estimate*
Task 1 - Project Initiation and Data Collection	\$2,000
Task 2 – Total Housing Need by Income, on-site workers	\$7,000
Task 3 – Potential Multiplier Effects	\$2,500
Task 4 – Geographic Distribution of Housing Needs	\$2,500
Task 5 – Relationship to Regional Housing Market and Displacement	\$2,500
Task 6 – Report (Draft and Final)	\$5,000
Task 7 – T&M Allowance for DEIR responses to comments	\$4,000
Meetings in Menlo Park (one in addition to kickoff)	\$1,000
Public hearings (assume one)**	\$2,000
Reimbursable Expenses (IMPLAN data and market data)	\$500
Total for the 1105 O'Brien Drive Project	\$29,000

* Includes efficiencies from also preparing the HNA for the 1350 Adams Court Project. Budget will need to be adjusted if work is halted on the 1350 Adams HNA.

** Includes related coordination and preparation.

**KEYSER MARSTON ASSOCIATES, INC.
PUBLIC SECTOR HOURLY RATES**

	<u>2017/2018</u>
A. JERRY KEYSER*	\$280.00
MANAGING PRINCIPALS*	\$280.00
SENIOR PRINCIPALS*	\$270.00
PRINCIPALS*	\$250.00
MANAGERS*	\$225.00
SENIOR ASSOCIATES	\$187.50
ASSOCIATES	\$167.50
SENIOR ANALYSTS	\$150.00
ANALYSTS	\$130.00
TECHNICAL STAFF	\$95.00
ADMINISTRATIVE STAFF	\$80.00

Directly related job expenses not included in the above rates are: auto mileage, parking, air fares, hotels and motels, meals, car rentals, taxis, telephone calls, delivery, electronic data processing, graphics and printing. Directly related job expenses will be billed at 110% of cost.

Monthly billings for staff time and expenses incurred during the period will be payable within thirty (30) days of invoice date.

* Rates for individuals in these categories will be increased by 50% for time spent in court testimony.



HEXAGON TRANSPORTATION CONSULTANTS, INC.

August 9, 2018

Ms. Erin Efner
ICF International
201 Mission Street, Suite 1500
San Francisco, CA 94105

Re: *Proposal to Prepare a Traffic Impact Analysis for the Proposed R&D Development at 1105 O'Brien Drive in Menlo Park, California*

Dear Ms. Efner:

Hexagon Transportation Consultants, Inc. is pleased to submit this proposal to prepare a Traffic Impact Analysis for the proposed research and development (R&D) project at 1105 O'Brien Drive in Menlo Park, California. The project consists of 118,567 square of office/R&D space and a 5-level parking garage, which will replace the existing 38,900 square feet of office/R&D space on site. Vehicular access to the project site would be provided by two driveways located on O'Brien Drive.

Scope of Services

The purpose of the traffic study is to identify any traffic impacts in accordance with City of Menlo Park standards and procedures. It is not anticipated that the project would generate more than 100 peak-hour trips on CMP facilities. Therefore, an analysis in accordance with the C/CAG's CMP guidelines, as well as a C/CAG checklist, will not be required. The project would only add minimal trips to the freeway ramps, therefore, a freeway ramp analysis would not be necessary. The traffic study will include an analysis of weekday AM and PM peak-hour traffic conditions and will determine the traffic impacts of the proposed project on key intersections in the vicinity of the site. Because the project would generate only about 25 net peak-hour trips, its traffic impact would extend to only a small area in the vicinity of the site. The intersections we propose to study are identified below.

Study Intersections:

1. Willow Road (SR 114) and O'Brien Drive [Menlo Park]
2. Willow Road and Newbridge Street [Menlo Park]
3. Willow Road and US 101 NB Off-ramp [Menlo Park]
4. Willow Road and SB 101 Off-ramp [Menlo Park]
5. O'Brien Drive and Kavanaugh Drive (unsignalized) [Menlo Park]
6. University Avenue and Bayfront Expressway [Menlo Park]
7. University Avenue (SR 109) and O'Brien Drive [East Palo Alto]
8. University Avenue (SR 109) and Kavanaugh Drive [East Palo Alto]

The tasks to be included in the traffic analysis are:

1. **Site Reconnaissance.** The physical characteristics of the site and the surrounding roadway network will be reviewed to identify existing roadway cross-sections, intersection lane configurations, traffic control devices, and surrounding land uses.



2. **Observation of Existing Traffic Conditions in the Study Area.** Existing traffic conditions will be observed in the field in order to identify any operational deficiencies and to confirm the accuracy of calculated levels of service.
3. **Data Collection.** Existing weekday AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) peak-hour traffic volumes will be obtained from the City of Menlo Park and previous studies with counts conducted in year 2017. New manual peak-hour turning movement counts will be conducted at one unsignalized intersection: O'Brien Drive and Kavanaugh Drive.
4. **Evaluation of Existing Conditions.** Existing traffic conditions will be evaluated based on existing traffic volumes at the study intersections. The existing traffic conditions at the two study intersections within the City of Menlo Park will be evaluated using the software VISTRO, which employs the *2010 Highway Capacity Manual* (HCM) methodology for intersection analyses. The remaining two study intersections in the City of East Palo Alto will be evaluated using the VISTRO software based on the *2010 Highway Capacity Manual* methodology, pending the approval of the City of East Palo Alto.
5. **Evaluation of Background Conditions.** Background traffic volumes represent the existing volumes plus the projected volumes from approved developments that have not yet been constructed and occupied. Background traffic volumes will be taken from the 1350 Adams Court traffic study. Intersection levels of service under background conditions will be evaluated.
6. **Project Trip Generation, Distribution, and Assignment.** Estimates of trips to be added to the surrounding roadway network by the proposed R&D development will be based on the trip generation rates recommended by the Institute of Traffic Engineers' *Trip Generation Manual, 10th Edition*. A 20% transportation demand management (TDM) reduction will be applied in accordance with Menlo Park requirements. This task includes a peer review of the project's TDM Plan to insure that the 20% trip reduction can be achieved. The trip generation estimate for the proposed project will give credit for the trips generated by the existing buildings on site. The trip generation of the existing buildings will be estimated using ITE rates. The directional distribution of site-generated traffic will be forecast based on the City of Menlo Park Travel Demand Model. The site-generated net traffic will be assigned to the roadway network based on the trip generation and distribution pattern discussed above. Project trips for a project alternative with reduced size will also be estimated. A qualitative discussion of the project's impact under this alternative will be included.
7. **Evaluation of Background Plus Project Conditions.** Project-generated traffic will be added to the background condition traffic volumes. Intersection level of service calculations will be conducted to estimate project traffic conditions during the AM and PM peak hours after project completion. Intersection impacts associated with the development of the proposed project will be evaluated relative to background conditions.
8. **Cumulative Conditions.** Hexagon will use the 2040 model run results for the City of Menlo Park General Plan EIR certified in December 2016 to describe operating conditions at the study intersections under cumulative conditions. Volumes will be interpolated for



- study intersections not included in the model. Hexagon will determine whether the proposed project is included in the existing forecasts. If not, the forecasts will be adjusted to include the proposed project.
9. **VMT Analysis.** The vehicle miles travelled (VMT) associated with the proposed project will be estimated using a manual methodology developed in consultation with City staff. The project VMT will be presented for informational purposes as the City has not yet adopted any policies or thresholds of significance with regard to VMT.
 10. **Site Access and On-Site Circulation.** A review of the project site plan will be performed to determine the overall adequacy of the site access and on-site circulation in accordance with generally accepted traffic engineering standards and to identify any access or circulation issues that should be improved. Sight distance will be checked at the project driveways. Parking will be evaluated relative to the City of Menlo Park Parking Code.
 11. **Evaluation of Vehicle Queuing.** For selected locations where the project would add a significant number of left-turning vehicles, the adequacy of existing/planned storage at turn pockets will be assessed by means of comparison with expected maximum vehicle queues. Vehicle queues will be estimated using a Poisson probability distribution.
 12. **Bicycle, Pedestrian, and Transit Facilities.** A qualitative analysis of the project's effect on transit service in the area and on bicycle and pedestrian circulation in the study area will be included in the traffic report. Any impacts of the project on the nearby facilities will be identified and improvements recommended to mitigate the impacts.
 13. **Description of Impacts and Recommendations.** Based on the results of the level of service calculations, impacts of the site-generated traffic will be identified and described. Recommendations will be formulated that identify the locations and types of improvements or modifications necessary to mitigate significant near term or long-range project impacts. Improvements could include street widenings, lane additions, changes in lane usage, or modifications to existing traffic signals, which will be consistent with the mitigation measures proposed in the City's General Plan Update - ConnectMenlo.
 14. **Meetings.** The fee estimate includes Hexagon staff attendance at three meetings in connection with the project: one staff meeting, one Planning Commission meeting, and one City Council meeting. Additional meeting attendance would be provided as additional services and will be billed based on staff time plus expenses.
 15. **Reports.** Our findings and recommendations will be summarized in the transportation/traffic section in the project's administrative draft environmental impact report (DEIR). Hexagon will revise the EIR transportation chapter based on City comments. Hexagon also will help the team respond to DEIR comments to produce the final EIR.
 16. **Additional Services.** Any work not specifically referenced in the above Scope of Services—for example analyzing additional project alternatives, analyzing additional intersections, and attending additional meetings—shall be considered additional services



Time of Performance

Barring any unforeseen delays, an administrative draft traffic analysis report will be submitted approximately five weeks after 1) authorization to proceed, and (2) receipt of new count data, which need to wait until Fall when schools are back in session. The final traffic report will be delivered one week after receipt of all review comments.

Cost of Services

The fee for the scope of services will be based on time and expenses up to a maximum budget of \$28,000. This scope/budget assumes that the traffic study for the project located at 1350 Adams Court will be completed first, and this traffic study will use information from that analysis. Should this project come before 1350 Adams Court, or lag significantly behind, the scope and budget may need to be revisited.

We appreciate your consideration of Hexagon Transportation Consultants for this assignment. If you have any questions, please do not hesitate to call.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Gary K. Black
President

Hexagon 2018 Billing Rates

<u>Professional Classification</u>	<u>Rate per Hour</u>
President	\$275
Principal	\$230
Senior Associate II	\$215
Senior Associate I	\$200
Associate II	\$180
Associate I	\$165
Planner/Engineer II	\$145
Planner/Engineer I	\$125
Admin/Graphics	\$105
Senior CAD Tech	\$95
Technician	\$75

Direct expenses are billed at actual costs, with the exception of mileage, which is reimbursed at the current rate per mile set by the IRS.

Billing rates shown are effective January 1, 2018 and subject to change January 1, 2019.

June 13, 2018

Kirsten Chapman
Project Manager
ICF
201 Mission Street, Suite 1500
San Francisco, CA 94105

Dear Ms. Chapman:

We appreciate the opportunity to submit this proposal to prepare a Fiscal Impact Analysis for the proposed R&D life sciences project located at 1105 O'Brien Drive ("Project"). Our understanding is that the Project would entail demolition of the existing buildings at 1105, 1135, and 1165 O'Brien Drive and developing a new 118,567-square foot R&D building targeted to life science tenants. The proposed plan for the site would also include a 116,365-square foot parking garage. The City of Menlo Park requires a Fiscal Impact Analysis study that will address impacts to the City's General Fund, as well as Special Districts, including the Menlo Park Fire Protection District.

BAE is an award-winning real estate economics and development advisory firm with a distinguished record of achievement over its 30+-year history. Headquartered in Berkeley, CA, BAE also has branch offices in Los Angeles, Sacramento, New York City, and Washington DC, enabling our 18 staff to contribute to and learn from best practices in urban sustainable development around the U.S. Our practice spans national and state policy studies to local strategic plans and public-private development projects. BAE has extensive experience assessing the fiscal impacts and economic impacts of proposed new development, including our previous work for the City of Menlo Park, as well as assisting local governments to negotiate for community benefits from proposed new development.

BAE is currently working on a fiscal impact analysis for the project at 1350 Adams Court, which we understand will be similar to the proposed projects at 1105 O'Brien Drive. Consequently, the following scope and budget proposal includes efficiencies based on our ability to use information and analysis from the 1350 Adams Court fiscal analysis to prepare the fiscal analysis for the 1105 O'Brien Drive fiscal analysis.

San Francisco

2600 10th St., Suite 300
Berkeley, CA 94710
510.547.9380

Sacramento

803 2nd St., Suite A
Davis, CA 95616
530.750.2195

Los Angeles

448 South Hill St., Suite 701
Los Angeles, CA 90013
213.471.2666

Washington DC

1400 I St. NW, Suite 350
Washington, DC 20005
202.588.8945

New York City

49 West 27th St., Suite 10W
New York, NY 10001
212.683.4486

The following pages detail our proposed work program, schedule, and budget. This proposal remains effective for 90 days from the date of submittal of this letter. Please feel free to contact me at 510.547.9380 for additional information regarding our submittal.

Sincerely,

A handwritten signature in black ink, appearing to read 'SH', with a stylized flourish extending to the right.

Stephanie Hagar
Vice President

Scope of Services

This section outlines BAE's proposed work program, including deliverables.

Task 1: Project Start-Up and Background Data Collection

Task 1A: Project Start-Up. BAE will convene a phone conference with City staff to review the project and discuss overall project objectives, the proposed schedule, and deliverables. The discussion will focus on the extent to which methodologies and assumptions used for the 1350 Adams Court fiscal analysis and prior fiscal analyses should be modified to better tailor the analysis to the specific characteristics of the Project. The proposed budget for this task is based on the assumption that BAE will not need to conduct a site visit for this analysis due to our existing familiarity with the site and overall context.

Task 1B: Review Key Financial, Planning, and Environmental Documents. This task will include a review of relevant documents and plans pertaining to the proposed project including the General Plan, the Zoning Ordinance, the project Environmental Impact Report, and City staff reports.

BAE's collection and analysis of background materials for this task will rely heavily on the analysis of background materials that BAE will prepare for the fiscal analysis for the 1350 Adams Court. Consequently, the proposed budget for this task does not include review the City budget, the Comprehensive Annual Financial Report, City fee ordinances, or other financial documents from the City and affected special districts, as this analysis will be prepared for the 1350 Adams Court project. BAE will also use the market, demographic, and other data that BAE will assemble for the fiscal analysis for the 1350 Adams project to the extent applicable to the Project. This approach is based on the assumption that BAE will receive an authorization to proceed on the fiscal analysis during the 2018/2019 fiscal year.

Task 2: Analyze Fiscal Impacts

BAE will adapt the fiscal model that BAE is currently preparing for the fiscal analysis at 1350 Adams Court, as well as prior fiscal analyses for projects in Menlo Park, to analyze the revenue and cost implications of the Project and up to three Project Alternatives for the City, Menlo Park Fire Protection District, and affected school districts.

BAE will estimate annual General Fund revenue sources, including sales tax, property tax, transient occupancy tax, business license revenue, franchise fees, and any other applicable taxes. BAE will also estimate one-time revenue sources including impact fees and property transfer tax, as applicable. For key revenues subject to substantial variation (e.g., business-to-business sales tax), BAE will estimate revenues within an expected low to high range as appropriate.

BAE will estimate annual General Fund operating expenses by city department. The cost analysis will, whenever feasible, evaluate the marginal cost of providing additional service to the project. BAE plans to use upcoming conversations with City staff and special districts related to the project at 1350 Adams Court to also discuss potential marginal costs for the project at 1105 O'Brien Drive.

Fiscal impacts will be presented in current dollars on a net annual and cumulative basis over a 20-year period presented in constant 2018 dollars.

Task 3: Prepare Draft and Final Fiscal Impact Reports

Task 3A: Prepare Administrative Draft Fiscal and Economic Impact Analysis Report. BAE will prepare and submit an Administrative Draft Fiscal Impact Analysis report in electronic format to City staff. The report will include a concise executive summary of the findings, as well as detailed explanations of the methodologies, data sources, and assumptions used to project the fiscal impacts of the Project. The report will identify key contributing factors to the fiscal outcomes and discuss the sensitivity factors that could cause the fiscal impacts to vary from those projected in the report.

Task 3B: Prepare Public Review and Final Draft Report. Upon receipt of a single-consolidated set of comments from the City, BAE will prepare revisions to the report as necessary. At the discretion of City Staff, BAE will also review any comments from the Project Applicant and make modifications to the report as appropriate. BAE will then submit a draft Public Review Draft for staff to review. Staff will note any minor corrections and BAE will submit a Final report.

Task 3C: Prepare Presentation, Attend Two Meetings. BAE staff will attend up to two public meetings (e.g. one Planning Commission meeting and one City Council meeting) to present the results of the fiscal impact analysis. BAE will prepare a PowerPoint presentation and provide the presentation to City staff for review prior to each meeting.

Task 4: Project Coordination

BAE will coordinate this assignment and participate in team conference calls with ICF, as necessary.

Data Needs

From the project sponsor, BAE will request development pro formas, market studies, and marketing plans, including pricing assumption. In addition to data from the project sponsor,

BAE may need to acquire market, demographic, and other data from vendors. A budget for these materials is included below.

Budget and Fees

BAE will complete all work identified in the Scope of Services, including expense reimbursement, for the not-to-exceed amount of \$14,310. This budget includes two public meetings as part of Task 3. Please note that attendance at additional public meetings/hearings is calculated at the rate of \$1,500 for preparation, travel and up to three hours of meeting time, with hourly rates for all meeting time over three hours, as well as additional meetings beyond those set forth in the scope. All hours will be billed according to the following 2018 rates as listed below.

Principal	\$300/hour
Senior Advisor	\$300/hour
Director	\$235/hour
Vice President	\$210/hour
Senior Associate	\$185/hour
Associate	\$140/hour
Sr. Analyst	\$110/hour
Analyst	\$95/hour

Shown below is a project staffing plan and estimated cost per task. David Shiver will serve as Principal in Charge and Stephanie Hagar as Project Manager for this assignment.

	Hours by Staff			Budget	
	Principal	Vice President	Associate		
	Shiver	Hagar			
	<i>Hourly Rate</i>	\$300	\$210	\$140	
Task 1: Project Start-Up and Background Data Collection	1	2	3	\$1,140	
Task 2: Analyze Fiscal Impacts	2	6	20	\$4,660	
Task 3: Prepare Draft and Final FIA Reports (incl. 2 public meetings)	2	18	20	\$7,180	
Task 4: Project Coordination	<u>1</u>	<u>3</u>	<u>0</u>	<u>\$930</u>	
Subtotal Labor	6	29	43	\$13,910	
Expenses (a)				\$400	
Total (Labor + Expenses)				\$14,310	
Optional Task: BAE Attendance at Additional Public Meetings/Hearings - Each (a)				\$1,500	

Notes:

(a) Includes data expenses and mileage for meetings.

Project Schedule

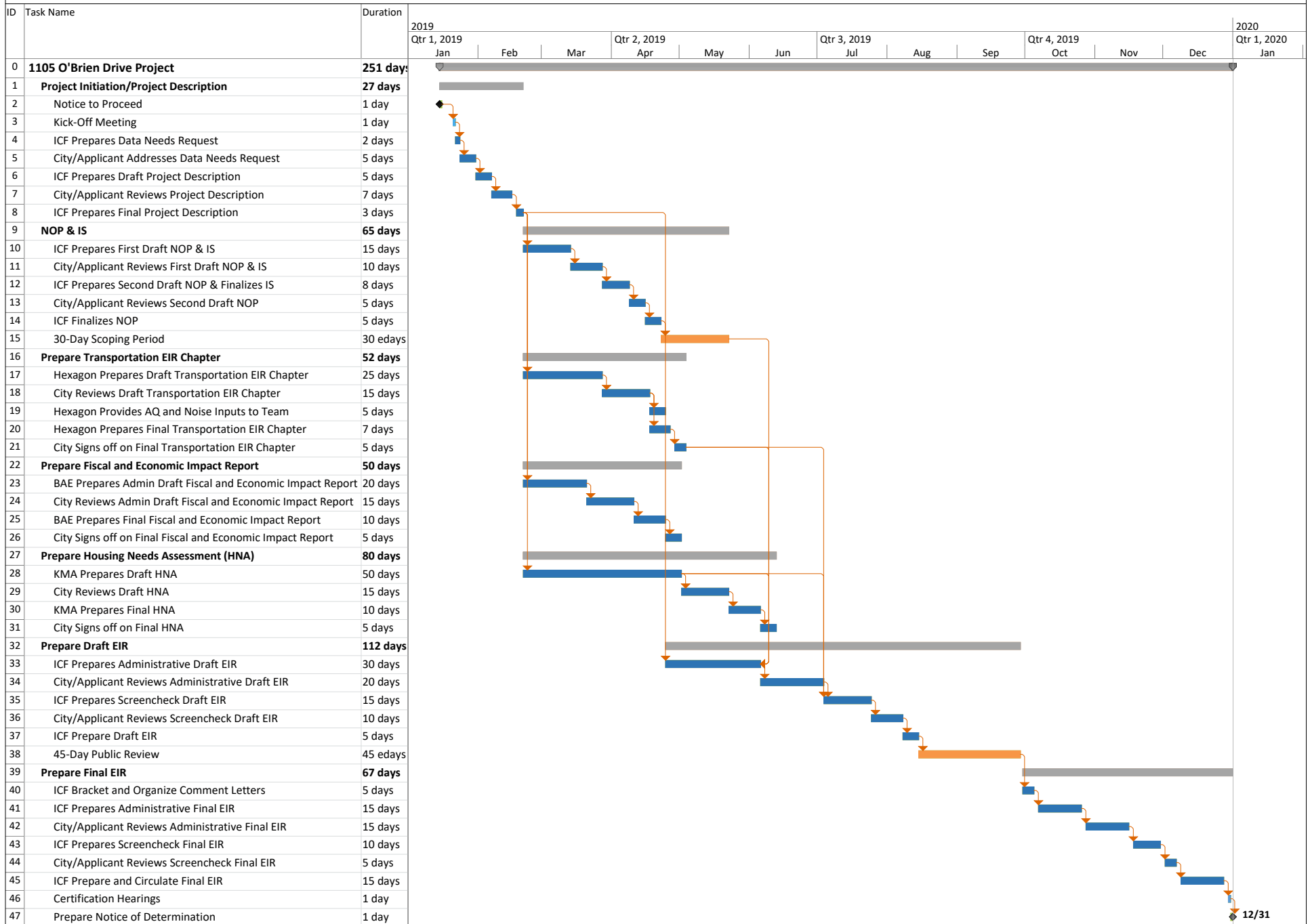
Assuming that BAE receives all requested data within the first two weeks following project start up, BAE will complete the Administrative Draft within four weeks following project start up. BAE will prepare a Public Review Draft within two weeks of receiving a single set of combined written comments on the Administrative Draft. BAE will prepare a Final report within two weeks of receiving a single set of combined written comments on the Public Review Draft.

Attachment D. Cost Estimate for 1105 O'Brien Project

Task	Employee Name	Consulting Staff																Subcontractor				Labor Total	Direct Expenses	Total Price						
		Efner Eri	Chapman Kir	Mena Leo	Vurlumis Car	Scott Eli	Buehler Dav	Hilyard Gre	Elder Jam	Edell Tor	Roberts Dia	Messick Tim	Mathias Joh	Yoon Lau	Ayala Hol	Matsui Cor	Hartley Set	Hexagon	KMA	BAE										
		Project Director	Project Manager	Deputy Project Manager	Planner	Noise	Sr Noise	Historic	Archeo	Biology	Haz/Geo	Graphics	Production	AQ/GHG Oversight	Hydro	AQ/GHG	AQ/GHG	Trans	Housing Needs	Fiscal Impact										
Labor Classification	Proj Dir	Sr Consult II	Assoc Consult I	Assoc Consult III	Assoc Consult II	Proj Dir	Sr Consult III	Sr Consult III	Sr Consult II	Sr Consult I	Assoc Consult III	Asst Consult	Sr Consult II	Assoc Consult III	Sr Consult I	Sr Consult II	Subtotal				Subtotal									
Task 1. Project Initiation		6	16	10	4																	\$5,660				\$0	\$5,660			
Task 2. Initial Study/EIR Project Description		4	6	12	32							2	2									\$7,384				\$0	\$7,384			
Task 3. Initial Study		8	28	48	32		44	28	8	24	8	8						8				\$36,536				\$0	\$36,536			
Task 4. Draft and Issue NOP/Scope Definition		6	12	16																		\$5,334				\$0	\$5,334			
Task 5. Administrative Draft EIR												16	32									\$6,000	\$28,000	\$29,000	\$14,310	\$71,310	\$77,310			
Air Quality		4	6	2										12				120		80		\$28,486				\$0	\$28,486			
Greenhouse Gas Emissions		4	6	2										6				60				\$10,010				\$0	\$10,010			
Impacts Found to be LTS		4	8	16	8																	\$5,076				\$0	\$5,076			
Population/Housing		2	16	32	4																	\$7,386				\$0	\$7,386			
Transportation/Traffic		8	12	24																		\$6,808				\$0	\$6,808			
Noise		4	8	2		52	6															\$10,158				\$0	\$10,158			
Task 6. Project Alternatives and Other CEQA		8	12	32	16							1	4	8				16		12		\$14,805				\$0	\$14,805			
Task 7. Screencheck Draft		8	16	40	24	2	1					2	16	4				32		8		\$19,972				\$0	\$19,972			
Task 8. Public Draft EIR		1	4	8	2													16				\$3,917				\$0	\$3,917			
Task 9. Public Review and Hearing		6	12	8																		\$4,350				\$0	\$4,350			
Task 10. Draft RTCs and Admin Final EIR		12	32	40	32	2	1	4	4	4	8	2	24	4				20				\$25,888				\$0	\$25,888			
Task 11. Final EIR		8	16	12	8	1		1	1	1	1	1	16	1				4				\$10,158				\$0	\$10,158			
Task 12. Certification Hearings, MMRP, SOC		4	8	16																		\$4,212				\$0	\$4,212			
Task 13. Project Management and Meetings		20	40	32		2								6				2		2		\$16,822				\$0	\$16,822			
Total hours		117	258	352	162	59	8	49	33	13	33	32	102	41	8	270	102													
ICF E&P 2018 Billing Rates*		\$245	\$158	\$123	\$108	\$117	\$264	\$206	\$160	\$143	\$131	\$149	\$113	\$156	\$108	\$115	\$133													
Subtotals		\$28,665	\$40,764	\$43,296	\$17,496	\$6,903	\$2,112	\$10,094	\$5,280	\$1,859	\$4,323	\$4,768	\$11,526	\$6,396	\$864	\$31,050	\$13,566	\$228,962	\$28,000	\$29,000	\$14,310	\$71,310	\$300,272							
Direct Expenses																														
523.02 Reproductions																														\$7,500
523.04 Postage and Delivery																														\$500
523.05 Travel, Auto, incld. Mileage at current IRS rate (.535/mile)																														\$500
523.07 Surveys and Reports																														\$1,500
Mark up on all non-labor costs and subcontractors: 5%																														\$4,066
Direct expense subtotal																														\$14,066
Total price																														\$314,338

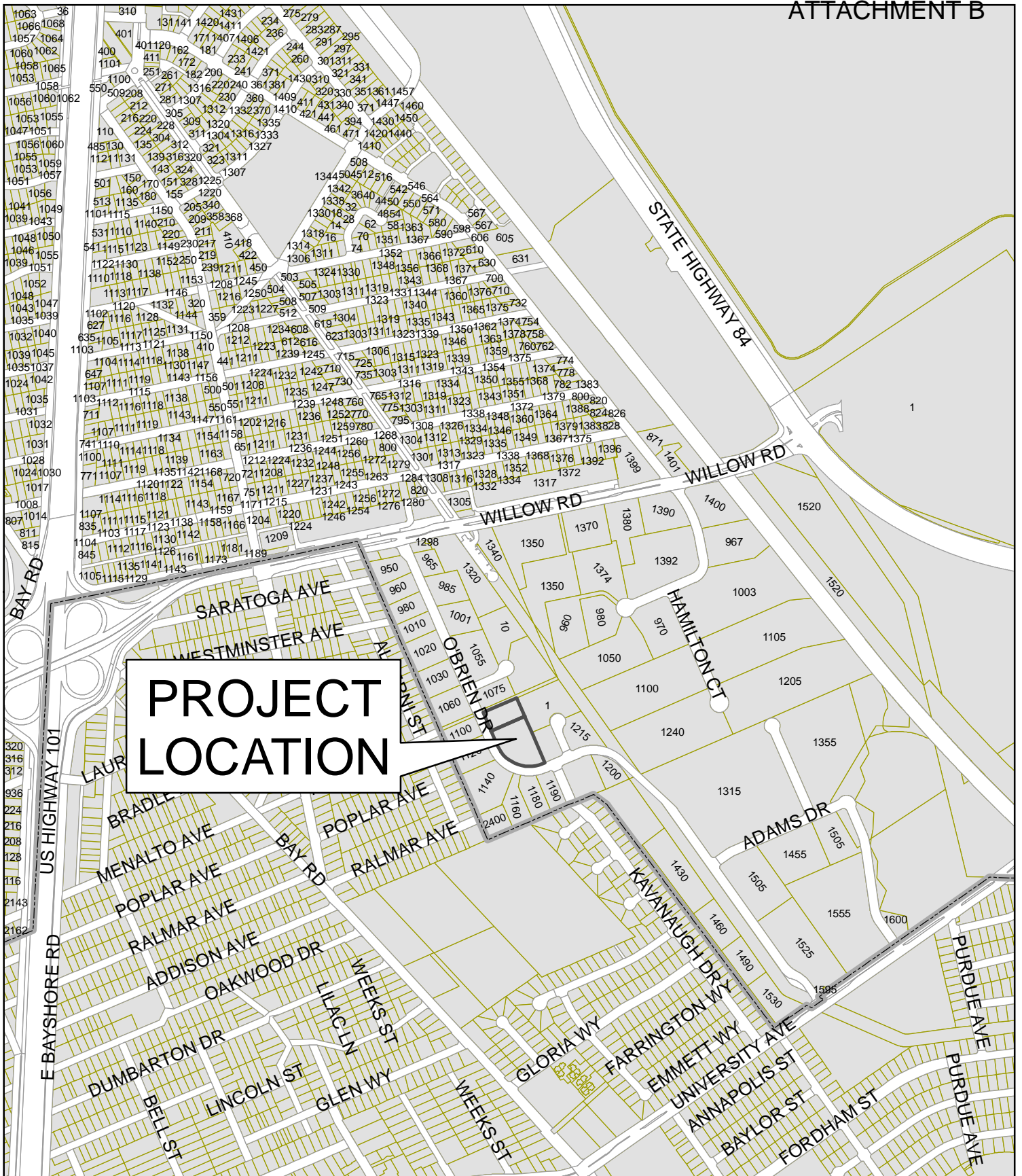
*Billing rates are subject to a 3% increase effective March 1 of each year.

E. 1105 O'Brien Drive Project Schedule



12/31

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**PROJECT
LOCATION**

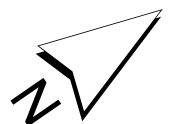


CITY OF MENLO PARK

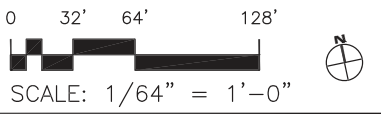
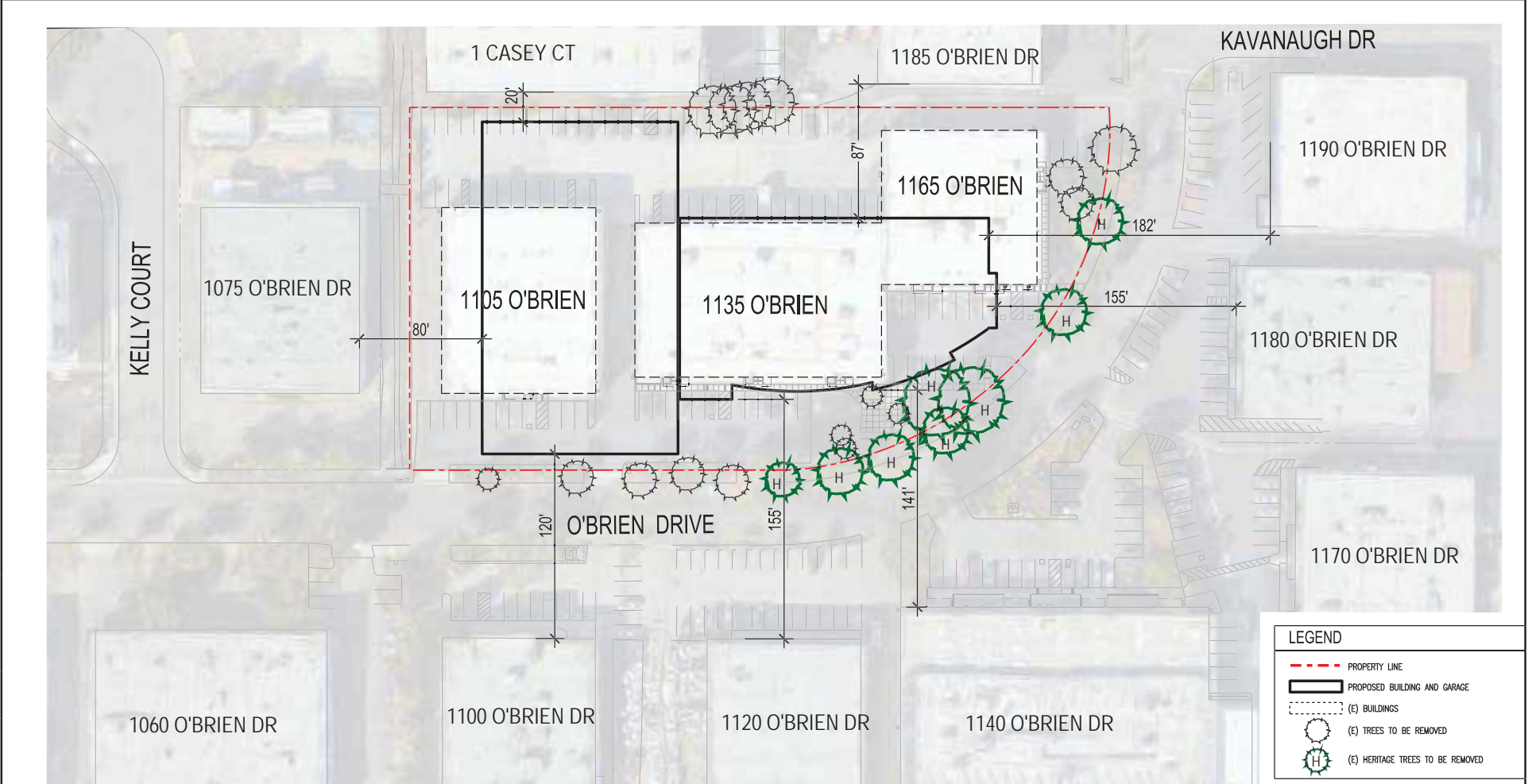
LOCATION MAP

1105-1135 O'BRIEN DRIVE

DRAWN: TAS CHECKED: KTP DATE: 12/04/18 SCALE: 1" = 300' SHEET: 1



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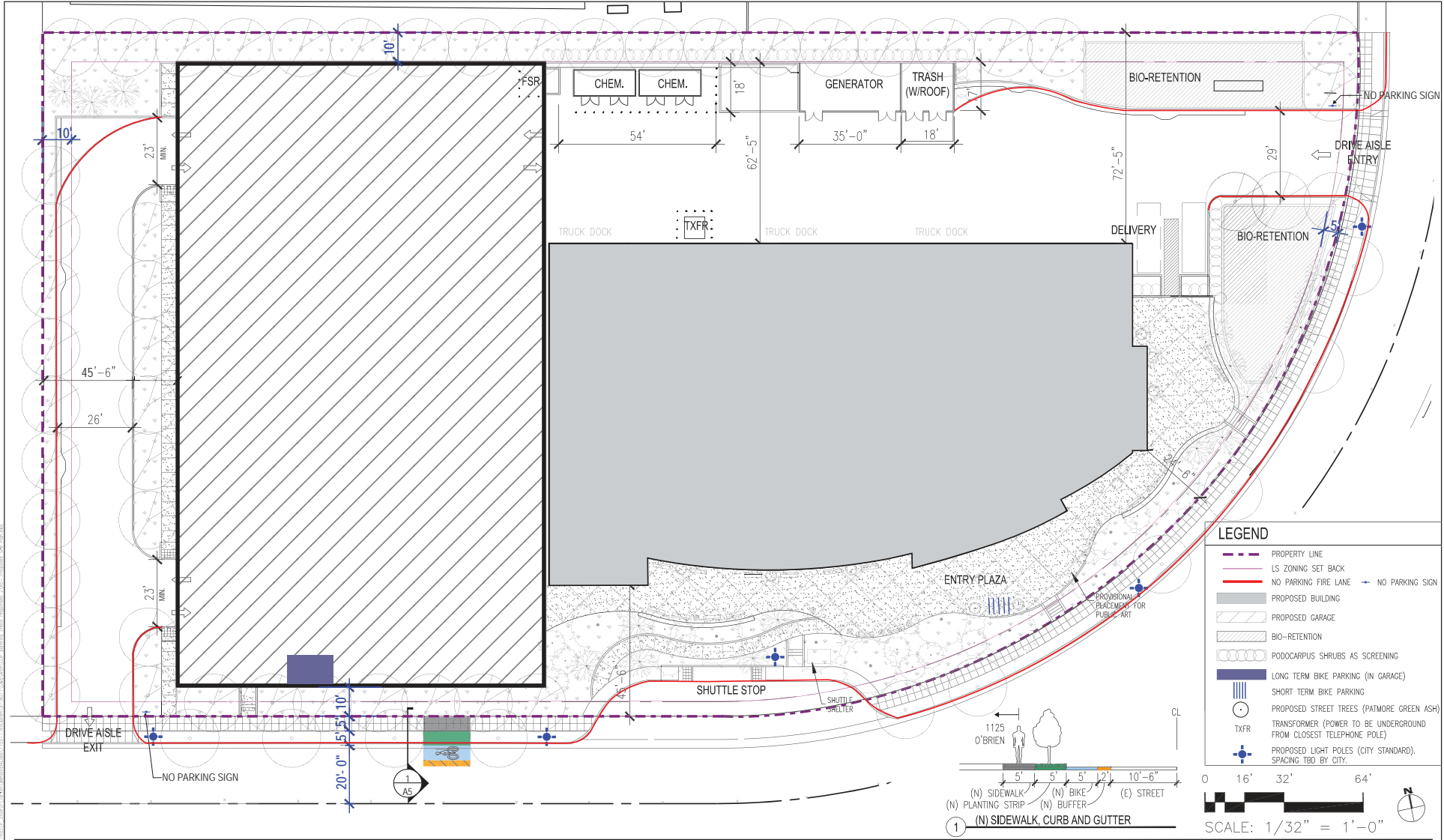
1105 -1165 O'BRIEN DR
 MENLO PARK, CA 94025

AREA PLAN
 03-13-2018 CUP SET
 05-08-2018 CUP COMMENTS
 07-10-2018 CUP COMMENTS 2

A1



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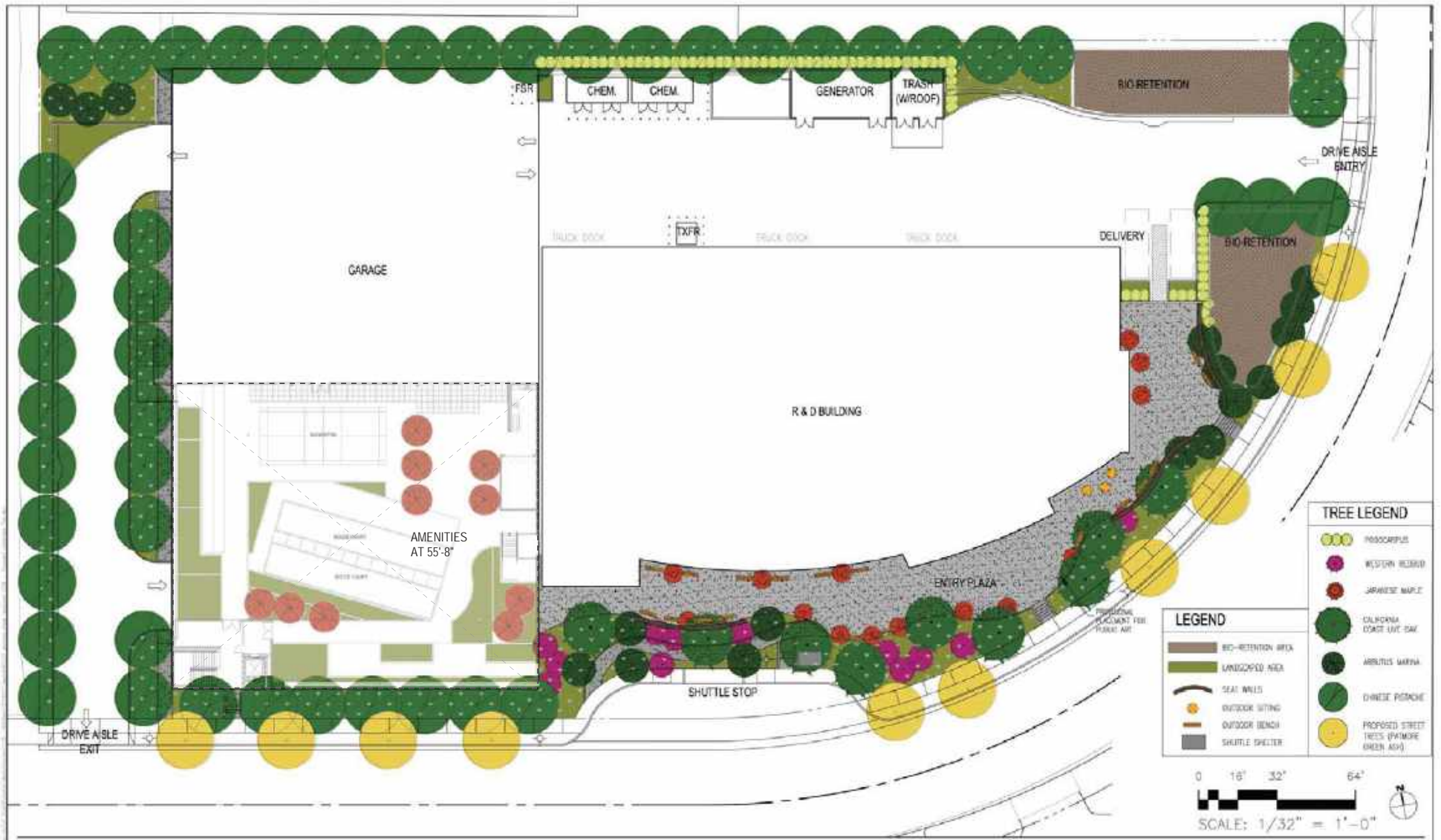
1105 -1165 O'BRIEN DR
 MENLO PARK, CA 94025

PROPOSED SITE PLAN
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 05-09-2018 CUP COMMENTS
 07-10-2018 CUP COMMENTS 2

A5



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TARLTON

1105 -1165 O'BRIEN DR
 MENLO PARK, CA 94025

PROPOSED LANDSCAPE PLAN

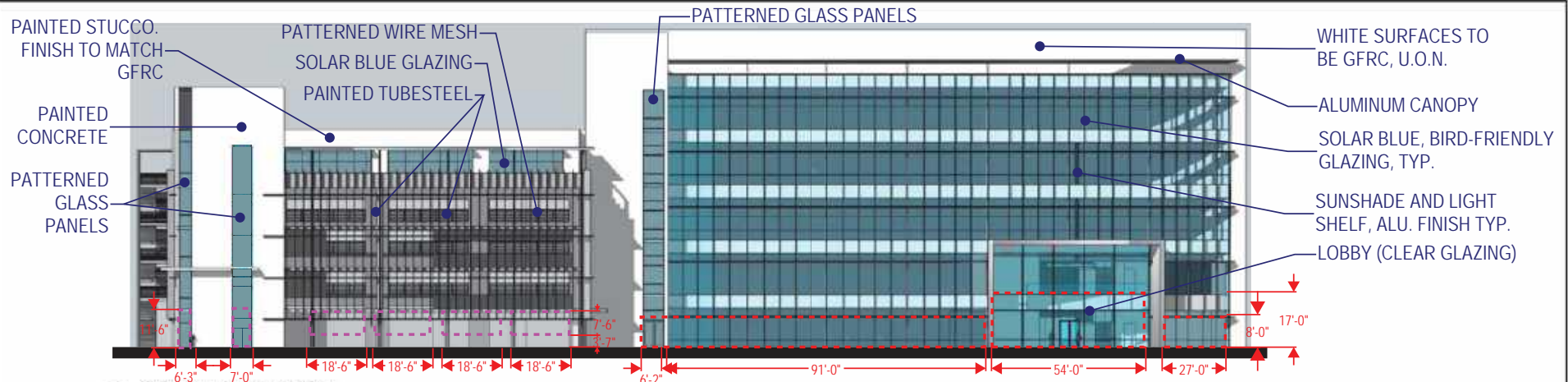
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CMP SET
 CMP COMMENTS
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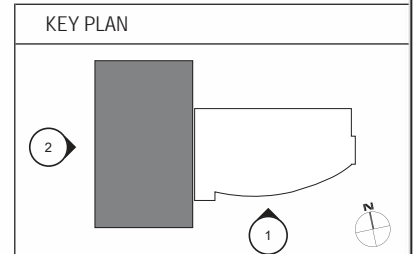
1 SOUTH ELEVATION
N.T.S.



2 WEST ELEVATION
N.T.S.

 GROUND FLOOR TRANSPARENCY ALONG BUILDING FRONTAGE
PROVIDED: 91%
REQUIRED: 25%

 GROUND FLOOR TRANSPARENCY ALONG GARAGE FRONTAGE
PROVIDED: 48%
REQUIRED: 25%



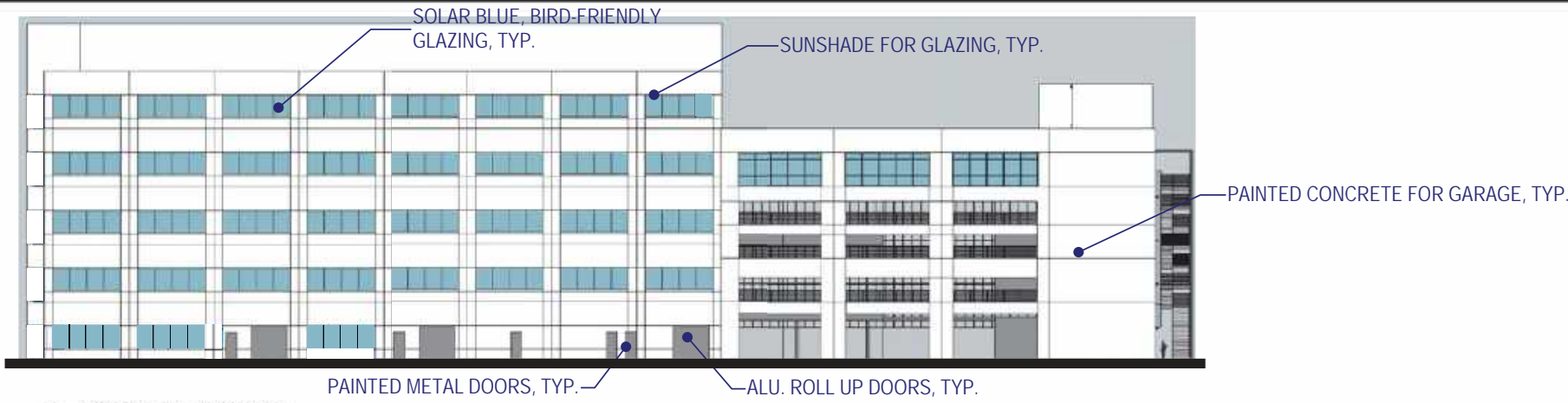
1105 -1165 O'BRIEN DR
MENLO PARK, CA 94025

PROPOSED BUILDING ELEVATIONS

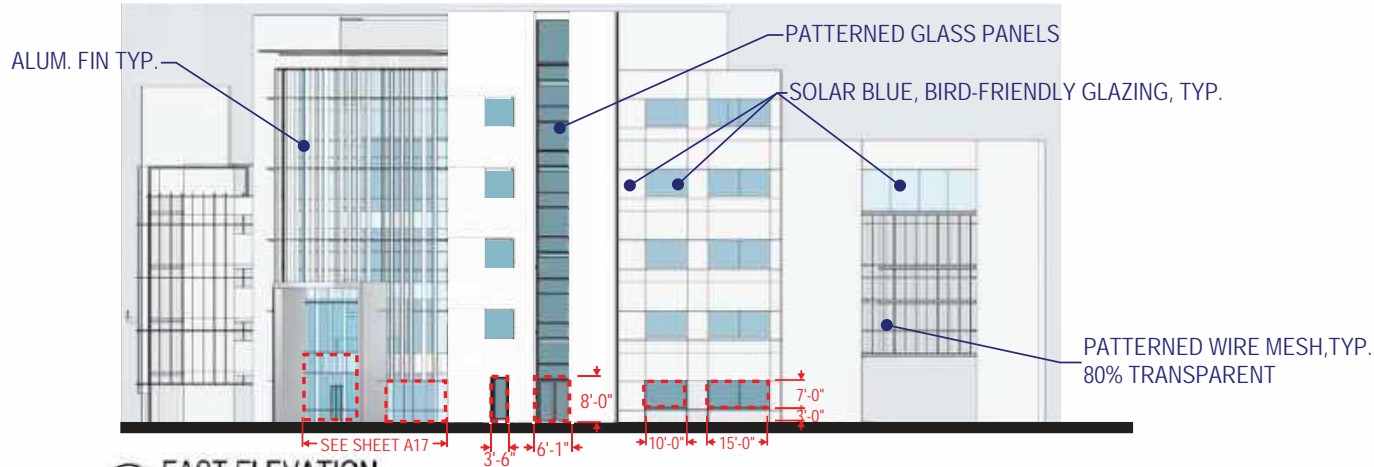
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05-09-2018 CUP COMMENTS
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A17

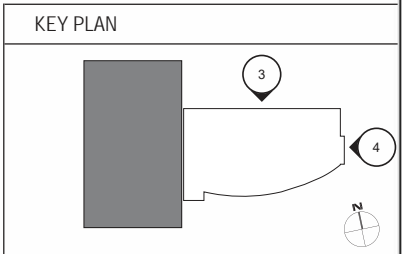




3 NORTH ELEVATION
N.T.S.



4 EAST ELEVATION
N.T.S.



1105 -1165 O'BRIEN DR
MENLO PARK, CA 94025

PROPOSED BUILDING ELEVATIONS

03-13-2018
05-29-2018
07-10-2018

CUP SET
CUP COMMENTS
CUP COMMENTS 2

A18





VIEW FROM SOUTH-EAST CORNER



1105 -1165 O'BRIEN DR
MENLO PARK, CA 94025

3D BUILDING MASS STUDY
03-13-2018 CUP SET
05-10-2018 CUP COMMENTS





VIEW FROM SOUTH-WEST CORNER



1105 -1165 O'BRIEN DR
MENLO PARK, CA 94025

3D BUILDING MASS STUDY

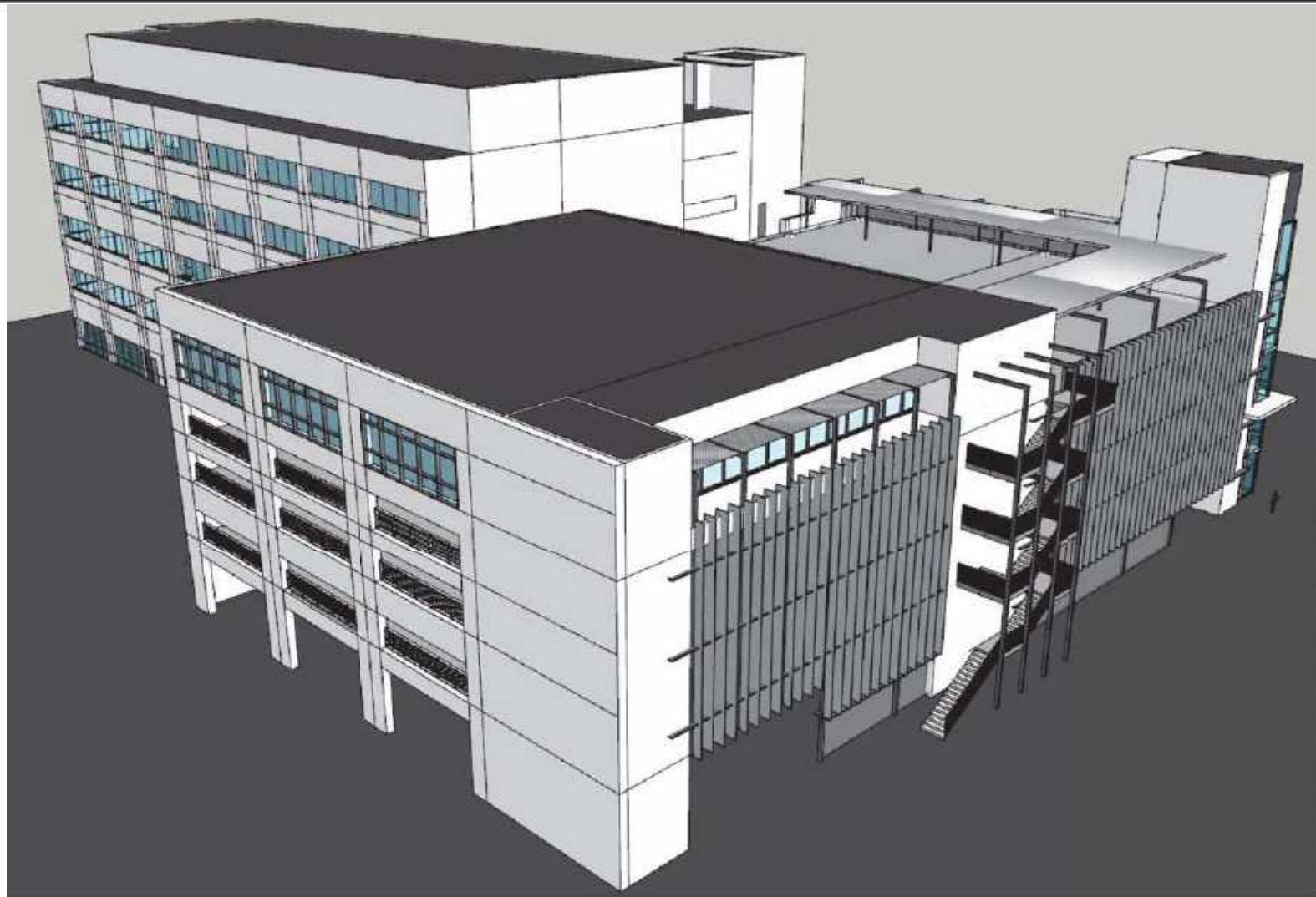
03-13-2018
06-10-2018

CUP SET
CUP COMMENTS

A21



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VIEW FROM NORTH-WEST CORNER



1105 -1165 O'BRIEN DR
MENLO PARK, CA 94025

3D BUILDING MASS STUDY

03-13-2018
05-10-2018

CUP SET
CUP COMMENTS



© 2017



VIEW FROM NORTH-EAST CORNER



1105 -1165 O'BRIEN DR
MENLO PARK, CA 94025

3D BUILDING MASS STUDY

03-13-2018
05-10-2018

CUP SET
CUP COMMENTS



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STAFF REPORT

City Council
Meeting Date: 12/4/2018
Staff Report Number: 18-222-CC

Regular Business: **Authorize the City Manager to execute an agreement with Dinsmore Landscape Company for median and right of way landscape maintenance services up to the annual budgeted amount**

Recommendation

Staff recommends that the City Council authorize the City Manager to execute an agreement with Dinsmore Landscape Company for median and right of way landscape maintenance services up to the annual budgeted amount and refuse collection service to Dinsmore Landscape Company for three and a half years with the option to extend the contract for four additional one-year terms and authorize spending up to the budgeted amount each year.

Policy Issues

This proposed action is consistent with City policy, and the City currently contracts out these maintenance services.

Background

On October 15, 2013, City Council awarded a contract for median strip and right of way landscape maintenance services and refuse collection to Gachina Landscape Management (Gachina) for four years with the option to extend the contract for four additional one-year terms and authorized spending up to the budgeted amount each year. Near the end of the original contract term, Gachina notified the City that they were not interested in extending the contract without a change to the scope of work and/or compensation. Based on this, staff has pursued the following:

- August 29, 2017 - the City Council authorized the City Manager to extend the contract term with Gachina through December 2017 while staff developed a request for proposals (RFP.)
- November 6, 2017 - the City released the RFP. The opportunity was posted on the City's website and the Federation of California Builders Exchange's website. Hard copies of the RFP were also mailed to 17 regional landscape maintenance contractors.
- January 9, 2018 - the RFP closed and no proposals were received. Staff reached out to Gachina to see if they would be interested in continuing to perform the work until the City can issue a new request for proposal. Gachina was willing to extend the existing contract at the cost of \$36,442 per month for a minimum of one-year. This 13-month extension ends January 31, 2019.
- October 8, 2018 - a new RFP was issued with a closing date of November 15, 2018. The City received bids from two companies for the work included in the RFP.

Analysis

Staff sent the RFP to over 18 landscape contractors. A mandatory pre-proposal meeting was held and six contractors attended. Proposals were due November 15, 2018 and a total of two proposals were received from Dinsmore Landscape Company and BrightView Landscape Services, Inc.

The proposals were evaluated on a “best value evaluation.” Criteria used in evaluating the contractor’s proposal included: cost, ability to provide service, previous performance and references, quality of service, responsiveness and unspecified value-added offerings by the contractor.

The proposals were reviewed by a team consisting of Public Works staff. Based upon the review of the proposals, Dinsmore Landscape Company is recommended due to the quality and completeness of their proposals, experience and qualifications, demonstration of understanding the scope of services requested and best value to the City.

Impact on City Resources

The fiscal year 2018-19 budget has sufficient funds for these services. Funding for future years will be requested during the budget process each year.

The table below reflects the Dinsmore Landscape Company’s four-year proposal for median island, right of way, downtown and Vintage Oaks subdivision landscape maintenance services and garbage and recycle collection services at city parks and facilities. The total cost for through fiscal year (FY) 2021-22 is \$1,726,213. For comparison the total cost for the same period from the second proposal received was \$3,096,394.

	FY 2018-19 February 4 - June 30	FY 2019-20 July 1 – June 30	FY 2020-21 July 1 – June 30	FY 2021-22 July 1 – June 30	Total
Total annual	\$210,868	\$492,285	\$505,990	\$517,070	\$1,726,213

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Report prepared by:
Brian Henry, Interim Assistant Public Works Director

Report reviewed by:
Justin Murphy, Public Works Director

**STAFF REPORT****City Council**

Meeting Date: 12/4/2018
Staff Report Number: 18-230-CC

Consent Calendar: **Adopt Resolution No. 6474 approving the City Council Community Funding Subcommittee's recommendations regarding the 2018-19 community funding allocation**

Recommendation

The City Council Community Funding Subcommittee recommends that the City Council adopt Resolution No. 6474 (Attachment A) approving the proposed 2018-19 Community Funding allocation in the amount of \$275,000.

Policy Issues

The Subcommittee's recommendation is consistent with the City Council's current Community Funding Program Policy, and well within the allowance for allocation of up to 1.7 percent of projected 2018-19 property tax revenue (roughly \$390,000.)

City Council subcommittee members Keith and Carlton both indicated they had no affiliations with any of the applicant organizations.

Background

The City of Menlo Park adopted a formal policy guiding allocation of general fund dollars to community organizations in 1996 (see "Community Funding Program Guidelines," Attachment B) to leverage City funds in response to the human service needs of Menlo Park residents.

The policy guidelines stipulate that eligible programs must address a verified community need and have a significant Menlo Park client base. Priority service areas include emergency assistance for those who are homeless or low-income; assistance to the disabled; help for seniors to be independent; senior day care support; youth services including recreational and summer academic support; crisis and family counseling; and substance abuse prevention. Applicants must maintain accounting records with an independent audit at least once every two years.

Each fiscal year, according to the policy, no more than 1.7 percent of projected general fund property tax revenue may be allocated to the Community Funding Program. This ceiling would amount to slightly over \$390,000 for the 2018-19 fiscal year adopted budget.

The general fund budget for fiscal year 2018-19 includes \$275,000 for eligible community programs selected for funding, \$9,000 more than the amount awarded last year. In addition, the City has previously funded several nonprofit housing programs each year that are now included in the community funding program budget.

Analysis

City Councilmembers Keith and Carlton were appointed as the Community Funding Subcommittee for fiscal year 2018-19. The Subcommittee is charged with evaluating funding requests and making recommendations to the full City Council as to the allocation of the funds budgeted for the community funding program.

This year, the City provided notice of the grant program to agencies that received funding in prior years as well as additional organizations referred by City Council members and staff. Twenty-six agencies responded with requests totaling \$564,717. Several new agencies submitted applications this year, as well as organizations that did not apply last year. The applicant agencies provide services such as counseling, crisis intervention, employment assistance, shelter, hospice services, community health, risk reduction education, and youth and senior services.

The Subcommittee reviewed the weighted criteria established to assess the applications against factors aligned with the Community Funding Policy such as: verified program results; impact on the Menlo Park community; percentage of total budget spent on administrative overhead; receipt of City funding in previous years; community need for the program; unduplicated service or, if duplicated, evidence of collaboration; and alignment with City Council goals for the program. Assessment criteria are included with the application packet each year in order to encourage applications that are more complete.

All agencies that applied for funding this year were allocated at least \$500 except six: Able Works, Fresh Approach, Home and Hope, Life Steps Founding, Inc., Renaissance Entrepreneurship Center, and The Crime Prevention Narcotics and Drugs Education Center. Those agencies which the subcommittee did not recommend receive funding were due to a lack of proven track record with Menlo Park residents, duplication of services, or the lack of a financial audit.

The largest grants, for \$35,000, were to Star Vista for youth counseling services at Menlo Atherton High School and \$25,000 to Peninsula Conflict Resolution Center for a youth restorative justice and leadership program in partnership with the Belle Haven School and library.

In total, the Subcommittee is recommending \$275,000 in funding awards for this year, given the outstanding needs in the community and the City's fiscal standing.

The table below outlines funding allocations approved by the City Council in fiscal year 2017-18, requests for fiscal year 2018-19, and the Subcommittee recommendation.

Agency	FY 2017-18 allocation	FY 2018-19 request	Subcommittee recommendation for FY 2018-19
Able Works	\$0	\$5,000	\$0
Acknowledge Alliance	\$20,000	\$30,000	\$20,000
Boys & Girls Clubs of the Peninsula	\$15,000	\$30,000	\$15,000
Center for Independence of Individuals with Disabilities	\$10,000	\$15,000	\$10,000

Community Overcoming Relationship Abuse (CORA)	\$7,500	\$7,500	\$7,500
Family Connections	\$10,000	\$15,000	\$10,000
Fresh Approach	\$0	\$23,452	\$0
Home & Hope	\$0	\$15,000	\$0
Human Investment Project	\$17,500	\$17,500	\$17,500
JobTrain	\$10,000	\$15,000	\$10,000
Legal Aid Society of San Mateo County	\$5,000	\$6,000	\$6,000
Life Steps Foundation, Inc.	\$0	\$20,000	\$0
LifeMoves	\$17,500	\$25,000	\$17,500
My New Red Shoes	\$500	\$1,500	\$500
Nuestra Casa de East Palo Alto	\$5,000	\$6,000	\$5,000
Ombudsman Services of San Mateo County, Inc.	\$2,000	\$3,000	\$2,000
Pathways Home Health & Hospice	\$7,500	\$10,000	\$7,500
Peninsula Conflict Resolution Center	\$25,000	\$50,000	\$25,000
Peninsula Volunteers, Inc.	\$22,000	\$40,000	\$20,000
Project WeHOPE	\$6,000	\$27,352	\$6,000
Ravenswood Education Foundation	\$10,000	\$10,000	\$10,000
Rebuilding Together Peninsula	\$10,000	\$10,000	\$10,000
Renaissance Entrepreneurship Center	\$0	\$50,000	\$0
Riekes Center for Human Enhancement	\$8,000	\$10,000	\$8,000
Samaritan House	\$0	\$27,500	\$10,000
San Mateo County Jobs for Youth	\$1,500	\$3,000	\$1,500
Service League of San Mateo County	\$3,000	\$3,000	\$3,000
StarVista	\$35,000	\$38,913	\$35,000
The Crime Prevention, Narcotics and Drugs Education Center	\$0	\$20,000	\$0
Vista Center for the Blind and Visually Impaired	\$10,000	\$15,000	\$10,000
Youth Community Service	\$8,000	\$15,000	\$8,000
Total	\$266,000	\$564,717	\$275,000

Additional information about each organization's application is available in the Administrative Services Department.

Impact on City Resources

The fiscal year 2018-19 adopted budget includes sufficient appropriations to fund the subcommittee's recommended grants. Any additional funding beyond a total of \$275,000 would require an appropriation from the undesignated General Fund balance.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Resolution No. 6747
- B. City Council policy on community funding

Report prepared by:

Nicole Casados, Executive Assistant to the City Manager
Dan Jacobson, Finance and Budget Manager
Adriane Lee Bird, Assistant Community Services Director
Derek Schweigart, Community Services Director

RESOLUTION NO. 6474

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO PARK
APPROVING THE CITY COUNCIL COMMUNITY FUNDING
SUBCOMMITTEE RECOMMENDATIONS REGARDING ALLOCATION
OF FISCAL YEAR 2018-19 COMMUNITY FUNDING**

The City of Menlo Park, acting by and through its City Council, having considered and been fully advised in the matter and good cause appearing therefore.

BE IT AND IT IS HEREBY RESOLVED by the City Council of the City of Menlo Park that the City Council does hereby approve the City Council Community Funding Subcommittee recommendations regarding the allocation of fiscal year 2018-19 community funding in the amount of \$275,000, as more particularly set forth in the staff report presented to the City Council on December 4, 2018.

I, Judi A. Herren, City Clerk of Menlo Park, do hereby certify that the above and foregoing City Council resolution was duly and regularly passed and adopted at a meeting by said City Council on the fourth day of December, 2018, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this fourth day of December, 2018.

Judi A. Herren, City Clerk

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COMMUNITY FUNDING PROGRAM

City Council Policy #CC-01-1996
Effective 06/04/1996

ATTACHMENT B



Purpose

To provide guidelines for the award of monetary support to local nonprofit agencies whose programs respond to the human service needs of Menlo Park residents. This funding is not intended for use as the sole support of any agency. All recipients of financial assistance grants enter into a contractual agreement with the City detailing the specific objectives to be accomplished as a result of the grant.

Policy

1. Goals and Philosophy

The City of Menlo Park recognizes that:

- 1.1 The availability of basic human service programs is a key determining factor in the overall quality of life of Menlo Park residents;
- 1.2 The most cost-effective and efficient manner to insure that these services are available to local residents is through the development of agreements with existing nonprofit agencies;
- 1.3 Contractual agreements with nonprofit agencies allow the City to influence the human service programs offered to Menlo Park residents; and
- 1.4 Financial assistance grants demonstrate the City's support of the activities of specific nonprofits and make it possible for these agencies to leverage additional funds that will benefit local residents.

2. Eligibility

- 2.1 All applicants must be formally incorporated nonprofit entities and must be tax exempt (under Section 501(c)(3) of the IRS Code, and Section 2370(d) of the California Revenue and Taxation Code).
- 2.2 All applicants must be agencies based in Menlo Park or agencies that provide services throughout the County of San Mateo who can demonstrate a significant Menlo Park client base.
- 2.3 All applications must provide a service that is not a duplication of an existing public sector program, OR if the service is duplicated, the applicant must show why it is not an unnecessary duplication of service.
- 2.4 All applicants shall maintain accounting records that are in accordance with generally accepted accounting practices. The agency must have an independent audit performed at least once every two years.
- 2.5 The agency must have bylaws that define the organization's purposes and functions, its organization and the duties, authority and responsibilities of its governing body and officers.
- 2.6 Governance of the agency should be vested in a responsible and active board that meets at least quarterly and establishes and enforces policies. The board should be large enough and so structured to be representative of the community it serves. It should have a specific written plan for rotation or other arrangements to provide for new members.

- 2.7 The agency must provide for adequate administration of the program to insure delivery of the services. The agency must provide that it has a written job description for each staff position and an organizational chart approved by the board. One individual should be designated as the full time director of the agency.
- 2.8 No less than 85 percent of City funds granted must be used for direct services as opposed to administrative costs.
- 2.9 City grants can represent no more that 20 percent of an applicant's total operating budget.
- 2.10 All recipients agree to actively participate in City efforts to coordinate and to improve human services within the City.
- 2.11 The program described must respond to a verified community need as defined by the City Council:

Disabled. Emphasizes support of programs that will allow the disabled to actively participate in their community and maintain independence from institutional support.

Emergency Assistance and Low Income Support. Emphasizes support of programs that can meet emergency needs for people in crisis such as victims of homelessness, rape, and domestic violence and the basic needs such as food, etc., for low-income residents.

Seniors. Emphasizes support of programs which serve predominantly low income, frail and minority seniors; and those programs which make it possible for seniors to continue to be independent and active community participants.

Youth. Emphasizes support of delinquency prevention services including recreation; crisis and family counseling; substance abuse prevention; child care and acculturation of ethnic minorities.

3. Procedure

Any agency requesting financial assistance must complete the required application and submit it to the Administrative Services Department. The City Council Community Funding Subcommittee is responsible for reviewing all proposals and submitting recommendations for funding to the City Council.

4. Funding

Grants are funded by the General Fund. Each fiscal year, no more than 1.7 percent of general fund property tax will be allocated to the Community Funding Program.



STAFF REPORT

City Council
Meeting Date: 12/4/2018
Staff Report Number: 18-232-CC

Informational Item: Quarterly financial review of general fund operations as of September 30, 2018

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

The quarterly budget-to-actual report is presented to facilitate better understanding of general fund operations and the overall state of the City's current fiscal affairs by the public and the City Council.

Background

In order to provide timely information to City Council and the public, the Administrative Services department prepares a quarterly report on general fund operations. The report provides a review of general fund revenues and expenditures for the most recently completed quarter of the current fiscal year. These results are presented alongside results from the same time period for the previous year, with material differences being explained in the appropriate section of the staff report.

Analysis

The report, which is included as Table 1 on the following page, was developed to apprise City Council of the year-to-date status of the general fund. It provides year-to-date first quarter comparable data for fiscal years 2017-18 and 2018-19. Information included in this report is intended to highlight some of the critical elements of Table 1 and supplement that information with explanations of significant differences between fiscal years 2017-18 and 2018-19.

Overall, revenues in the general fund for 2018-19 are 27 percent higher when compared to the same period in 2017-18. Year-to-date expenditures are also on track at 78 percent of the budget expended. It is important to note that the City's budget cycle is yearly and in order to prepare quarterly reports, a straight-line estimation method is used. As a result, the quarterly adopted budget shown is the annual budget divided evenly by four rather than representing a budget developed specifically for the first three months of the fiscal year.

Table 1: Q1 General fund budget to actuals						
	2017-18			2018-19		
	Adopted budget*	Actuals as of 9/30/17	Percentage of budget	Adopted budget*	Actuals as of 9/30/18	Percentage of budget
Revenues						
Property tax	4,923,750	103,318	2.10%	5,847,250	117,417	2.01%
Charges for services	2,332,102	2,614,894	112.13%	2,989,850	4,309,738	144.15%
Sales tax	1,290,000	874,461	67.79%	1,511,500	484,599	32.06%
Licenses and permits	1,608,875	3,027,831	188.20%	1,990,750	2,928,579	147.11%
Transient occupancy tax	1,802,250	-	0.00%	2,795,000	-	0.00%
Franchise fees	511,750	95,556	18.67%	511,750	222,405	43.46%
Fines	315,600	194,895	61.75%	315,600	228,445	72.38%
Utility users' tax	321,000	174,388	54.33%	302,750	202,515	66.89%
Inter-governmental revenue	287,321	3,531	1.23%	265,584	322,039	121.26%
Interest and rental income	224,550	143,944	64.10%	292,500	373,446	127.67%
Transfers and other	16,511	22,095	133.82%	17,762	23,976	134.99%
Use of assigned fund balance	462,500	-	0.00%	-	-	0.00%
Total revenues:	14,096,209	7,254,913	51.47%	16,840,295	9,213,159	54.71%
Expenditures						
Police	4,567,857	3,863,296	84.58%	4,704,490	3,787,509	80.51%
Public Works	2,589,240	2,042,565	78.89%	2,865,082	2,427,085	84.71%
Community Services	2,108,072	1,851,781	87.84%	2,344,752	2,028,273	86.50%
Community Development	1,806,364	1,106,790	61.27%	1,973,601	1,169,151	59.24%
Administrative Services	706,665	603,221	85.36%	741,962	618,463	83.36%
Library	751,303	702,763	93.54%	855,749	748,085	87.42%
City Manager's Office	549,113	317,386	57.80%	661,277	369,002	55.80%
City Council	135,937	60,797	44.72%	173,377	65,244	37.63%
City Attorney	151,612	61,148	40.33%	185,152	65,942	35.61%
Non-Departmental	54,875	-	0.00%	(6,328)	40,822	-645.09%
Total expenditures:	13,421,038	10,609,746	79.05%	14,499,114	11,319,575	78.07%

Transfers						
Transfers in	120,699	120,699	100.00%	131,775	131,775	100.00%
Transfers out	732,692	732,692	100.00%	1,710,375	1,710,375	100.00%

*The quarterly budget is calculated as the total adopted budget divided by four.

Revenue

Table 2 below shows a summary of first quarter budget-to-actual revenues for fiscal years 2017-18 and 2018-19.

Table 2: Revenues						
Revenues	2017-18			2018-19		
	Adopted budget*	Actuals as of 9/30/17	Percentage of budget	Adopted budget*	Actuals as of 9/30/18	Percentage of budget
Property tax	4,923,750	103,318	2.10%	5,847,250	117,417	2.01%
Charges for services	2,332,102	2,614,894	112.13%	2,989,850	4,309,738	144.15%
Sales tax	1,290,000	874,461	67.79%	1,511,500	484,599	32.06%
Licenses and permits	1,608,875	3,027,831	188.20%	1,990,750	2,928,579	147.11%
Transient occupancy tax	1,802,250	-	0.00%	2,795,000	-	0.00%
Franchise fees	511,750	95,556	18.67%	511,750	222,405	43.46%
Fines	315,600	194,895	61.75%	315,600	228,445	72.38%
Utility users' tax	321,000	174,388	54.33%	302,750	202,515	66.89%
Inter-governmental revenue	287,321	3,531	1.23%	265,584	322,039	121.26%
Interest and rental income	224,550	143,944	64.10%	292,500	373,446	127.67%
Transfers and other	16,511	22,095	133.82%	17,762	23,976	134.99%
Use of assigned fund balance	462,500	-	0.00%	-	-	0.00%
Total revenues:	14,096,209	7,254,913	51.47%	16,840,295	9,213,159	54.71%

*The quarterly budget is calculated as the total adopted budget divided by four.

Through the first quarter of fiscal year 2018-19, general fund revenues are \$1.96 million, which is a 27 percent increase over the same time period in 2017-18. This increase in charges for services and licenses and permits is primarily driven by the receipt of full year development agreement payments received at the beginning of the fiscal year. As the fiscal year progresses these amounts should trend closer toward the budgeted numbers.

Given the seasonality of many revenue sources, the overall revenue picture is on track and there does not appear to be any particular area of concern. For example, property taxes which is the City's largest revenue category is received primarily in December and April and receipts in the first five months of each fiscal year are minimal. Additionally, there are also timing delays in sales tax and transient occupancy tax receipts.

Expenditures

The first quarter of the fiscal year's General Fund expenditures budget demonstrated some savings when comparing budget to actual. Expenditures in the first quarter of 2018-19 are nearly identical to the same period in 2017-18 as a percentage of the City Council adopted budget. Total expenditures of \$13.0 million are greater than the \$11.3 amount from the previous year, but sit at 80 percent of the adopted budget which is identical to that of the prior year.

The lower than budgeted expenditures are driven in part by the City's high vacancy rate for staff, which results in salary savings when comparing budgeted expenditures to actual expenditures. In the first quarter of 2018-19, over 15 percent of the City's authorized full time equivalent positions was vacant. The City's budget includes an assumption of some staff vacancy, but the actual vacancy is higher and results in some savings above the planned savings. During the annual budget process the City budgeted a 4.2 percent vacancy factor into the non-departmental personnel budget, which is why a negative Adopted Budget for the 2017-18 and 2018-19 fiscal years is shown.

It is important to note that due to the asynchronous nature of payroll expenditures and the City's fiscal cycle, the personnel expenditures of the first quarter of 2018-19 understate the actual costs. Payroll payments are made biweekly, or 26 times, throughout the year and our accounting practices are to accrue payroll at the fiscal year-end rather than quarterly. The net result of this timing effect and the vacancy rate is a modest savings when viewed Citywide.

Table 3: Personnel expenditures							
Departments	2017-18				2018-19		
	Adopted budget*	Actuals as of 9/30/17	Percentage of budget	Adopted budget*	Actuals as of 9/30/18	Percentage of budget	
Police	3,601,338	3,103,110	86.17%	3,836,333	3,159,201	82.35%	
Public Works	1,458,512	1,101,707	75.54%	1,557,301	1,429,743	91.81%	
Community Services	1,496,827	1,358,414	90.75%	1,578,383	1,394,097	88.32%	
Community Development	1,135,920	879,980	77.47%	1,199,114	857,737	71.53%	
Administrative Services	508,258	465,421	91.57%	496,173	441,537	88.99%	
Library	522,489	391,842	75.00%	624,886	463,346	74.15%	
City Manager's Office	288,459	221,400	76.75%	402,070	301,175	74.91%	
City Council	44,262	39,523	89.29%	45,077	36,965	82.00%	
City Attorney	42,562	37,259	87.54%	39,427	38,662	98.06%	
Non-Departmental	(42,500)	-	0.00%	(232,672)	5,825	-2.50%	
Total expenditures:	9,056,127	7,598,657	83.91%	9,546,091	8,128,286	85.15%	

*The quarterly budget is calculated as the total adopted budget divided by four.

In non-personnel expenditures, all of the departments have comparable expenditures to the previous year. Expenditures for the library, which are comparable to the prior period but exceed the budgeted amount, reflect the timing of pre-payments relating to their computer catalog for the entire fiscal year and expenditures as a percentage will converge with the budget for the remainder of the year.

Departments	Table 4: Non-personnel expenditures					
	2017-18			2018-19		
	Adopted budget*	Actuals as of 9/30/17	Percentage of budget	Adopted budget*	Actuals as of 9/30/18	Percentage of budget
Police	966,520	760,186	78.65%	868,158	628,308	72.37%
Public Works	1,130,728	940,858	83.21%	1,307,781	997,342	76.26%
Community Services	611,245	493,366	80.71%	766,369	634,176	82.75%
Community Development	670,444	226,810	33.83%	774,487	311,415	40.21%
Administrative Services	198,407	137,800	69.45%	245,790	176,926	71.98%
Library	228,814	310,921	135.88%	230,863	284,739	123.34%
City Manager's Office	260,654	95,986	36.83%	259,207	67,827	26.17%
City Council	91,675	21,274	23.21%	128,300	28,280	22.04%
City Attorney	109,050	23,888	21.91%	145,725	27,280	18.72%
Non-Departmental	97,375	-	0.00%	226,344	34,997	15.46%
Transfers out	732,692	732,692	100.00%	1,710,375	1,710,375	100.00%
Total expenditures:	5,097,603	3,743,781	73.44%	6,663,398	4,901,664	73.56%

*The quarterly budget is calculated as the total adopted budget divided by four.

Overall, there are no areas of great concern regarding actual revenues and expenditures relative to the City Council adopted budget as of the end of the first quarter of 2018-19. Areas of note include revenue receipts as they occur and personnel costs as they relate to both vacancy rate and expenditures in overtime or temporary help to compensate.

Impact on City Resources

There is no impact on City resources.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting.

Staff Report #: 18-232-CC

Report prepared by:
Brandon Cortez, Management Analyst I

Report reviewed by:
Dan Jacobson, Finance and Budget Manager

Report approved by:
Lenka Diaz, Administrative Services Director



STAFF REPORT

City Council Meeting Date: 12/4/2018
Staff Report Number: 18-226-CC

Informational Item: Review of the City’s investment portfolio as of September 30, 2018

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

The City and the successor agency funds are invested in full compliance with the City’s investment policy and State law, which emphasize safety, liquidity and yield.

Background

The City’s investment policy requires a quarterly investment report to the City Council, which includes all financial investments of the City and provides information on the investment type, value and yield for all securities.

Analysis

Investment portfolio as of September 30, 2018

The City’s investment portfolio as of September 30, 2018 totaled \$131,586,365. As shown below in Table 1, the City’s investments by type are measured by the amortized cost as well as the fair value as of September 30, 2018. The Local Agency Investment Fund (LAIF) is considered a safe investment as it provides the liquidity of a money market fund. The majority of the remaining securities are prudent and secure short-term investments (1-3 years), bearing a higher interest rate than LAIF, and/or provide investment diversification.

Table 1: Recap of investments held as of September 30, 2018			
Security	Amortized cost basis	Fair value basis	Percentage of portfolio
Local agency investment fund	\$ 60,763,117	\$ 60,763,117	46.2%
Securities portfolio			
Corporate bonds	19,993,399	19,818,931	15.2%
Government agencies	37,377,786	37,092,113	28.4%
Government bonds	11,452,471	11,328,067	8.7%
Short-term bills and notes	1,999,592	1,997,500	1.5%
Total	\$ 131,586,365	\$ 130,999,727	100.0%

As shown in Table 1, the fair value of the City's securities was \$586,637 less than the amortized cost as of September 30, 2018. The difference between amortized cost and fair value is referred to as an unrealized loss or gain, and is due to market values fluctuating from one period to another. It is important to note that any unrealized loss or gain does not represent an actual cash transaction to the City, as the City generally holds securities to maturity to avoid market risk.

The consolidated portfolio report for the quarter ending September 30, 2018 is included as Attachment A and each component is described in greater detail below.

Local agency investment fund

As previously shown in Table 1, \$60.76 million or 46 percent of the portfolio resides in the City's account at the LAIF, a liquid fund managed by the California State Treasurer, yielding 2.05 percent for the quarter ended September 30, 2018. LAIF yields had been at historic lows for several recent years but the last three years have shown a small but steady trend upward. Due to the liquidity of LAIF and based on uncertainty surrounding rates for longer-term securities, the City has kept a large number of funds in LAIF in recent years, reaching the maximum allowed investment for the City within LAIF. However, the City does invest excess funds in other types of securities.

Securities portfolio

As of September 30, 2018, the City held a number of securities in corporate bonds, government agency notes and government bonds and reflect a diversified mix in terms of type but all at low risk. Insight Investment serves as the City's financial adviser on security investments and makes recommended trades of securities, purchase and sale that align market conditions to the City Council's adopted Investment Policy to the greatest extent possible. The Insight Investments quarterly statement for the period ended September 30, 2018 is provided in Attachment B. As shown on the quarterly statement, the return for the period ended September 30, 2018, on an amortized cost basis, was 0.46 percent. The positions the City held as of September 30, 2018 are included in Attachment C.

Impact on City Resources

Due to the liquidity of LAIF accounts, the City has more than sufficient funds available to meet its expenditure requirements for the next six months.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Insight Investments consolidated portfolio report for the quarter ended September 30, 2018
- B. Insight Investments advised funds quarterly report for the quarter ended September 30, 2018

Staff Report #: 18-226-CC

C. Securities positions held by the City of Menlo Park as of September 30, 2018

Report prepared by:
Dan Jacobson, Finance and Budget Manager

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City of Menlo Park

Quarterly Consolidated Portfolio Report

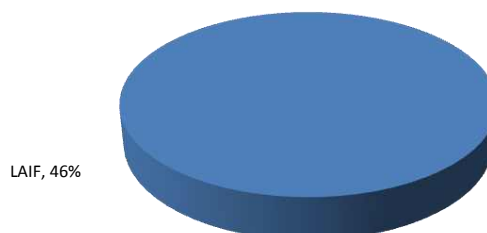
September 30, 2018

City Managed Assets

LAIF	\$	60,763,117	46%	2.05%
Total Internally Managed	\$	60,763,117	46%	

Weighted Average Yield **2.05%**

			Days	
Effective Average Duration - Internal			1	
Weighted Average Maturity - Internal			1	

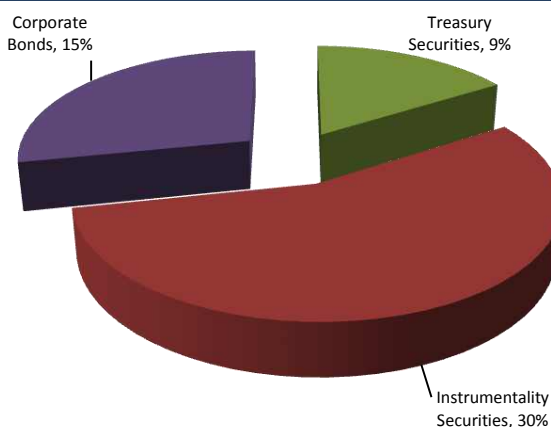


Advisor Managed Assets

Treasury Securities	\$	11,328,067	9%	1.78%
Instrumentality Securities	\$	39,089,613	30%	1.81%
Corporate Bonds	\$	19,818,931	15%	2.04%
Total Externally Managed	\$	70,236,610	54%	

Weighted Average Yield **1.87%**

			Years	
Effective Average Duration - External			1.09	
Weighted Average Maturity - External			1.09	

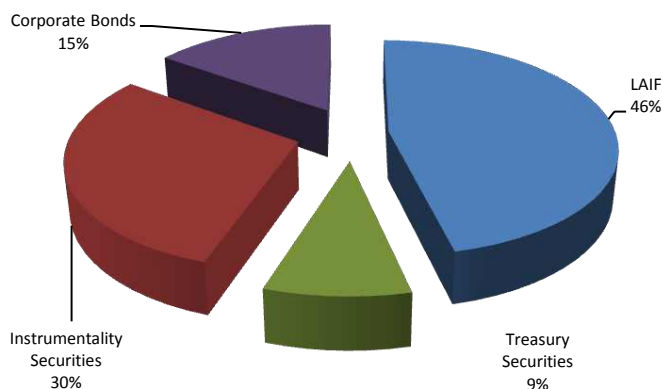


Total Portfolio Assets

LAIF	\$	60,763,117	46%	2.05%
Treasury Securities	\$	11,328,067	9%	1.78%
Instrumentality Securities	\$	39,089,613	30%	1.81%
Corporate Bonds	\$	19,818,931	15%	2.04%
Total Portfolio Assets	\$	130,999,727		

Weighted Average Yield **1.95%**

			Years	
Effective Average Duration - Total			0.59	
Weighted Average Maturity - Total			0.59	



Portfolio Change

Beginning Balance	\$	135,183,073
Ending Balance	\$	130,999,727

* Note: All data for external assets was provided by the client and is believed to be accurate.

Insight Investment does not manage the external assets and this report is provided for the client's use.

Market values are presented.

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CITY OF MENLO PARK

September 2018

Part of  BNY MELLON



ACTIVITY AND PERFORMANCE SUMMARY

For the period July 1, 2018 - September 30, 2018

<u>Amortized Cost Basis Activity Summary</u>		
Opening balance		70,820,681.92
Income received	281,124.09	
Total receipts		281,124.09
Expenses paid	(291.67)	
Total disbursements		(291.67)
Interportfolio transfers	(298,673.04)	
Total Interportfolio transfers		(298,673.04)
Realized gain (loss)		0.00
Total amortization expense		(21,608.53)
Total OID/MKT accretion income		42,014.94
Return of capital		0.00
Closing balance		70,823,247.71
Ending fair value		70,236,610.43
Unrealized gain (loss)		(586,637.28)

<u>Detail of Amortized Cost Basis Return</u>				
	Interest earned	Accretion (amortization)	Realized gain (loss)	Total income
Corporate Bonds	98,306.25	3,559.02	0.00	101,865.27
Government Agencies	152,963.54	10,526.25	0.00	163,489.79
Government Bonds	41,213.35	6,182.45	0.00	47,395.80
Short Term Bills and Notes	11,750.00	138.69	0.00	11,888.69
Total	304,233.14	20,406.41	0.00	324,639.55

<u>Comparative Rates of Return (%)</u>			
	* Twelve month trailing	* Six month trailing	* Three month trailing
Fed Funds	1.58	0.91	0.48
Overnight Repo	1.60	0.94	0.49
Merrill Lynch 3m US Treas Bill	1.64	0.96	0.51
Merrill Lynch 6m US Treas Bill	1.79	1.03	0.55
ML 1 Year US Treasury Note	2.05	1.18	0.62
ML 2 Year US Treasury Note	2.28	1.28	0.67
ML 5 Year US Treasury Note	2.54	1.39	0.70

* rates reflected are cumulative

<u>Summary of Amortized Cost Basis Return for the Period</u>	
	Total portfolio
Interest earned	304,233.14
Accretion (amortization)	20,406.41
Realized gain (loss) on sales	0.00
Total income on portfolio	324,639.55
Average daily amortized cost	70,827,615.89
Period return (%)	0.46
YTD return (%)	1.21
Weighted average final maturity in days	398

ACTIVITY AND PERFORMANCE SUMMARY

For the period July 1, 2018 - September 30, 2018

<u>Fair Value Basis Activity Summary</u>		
Opening balance		70,228,176.74
Income received	281,124.09	
Total receipts		281,124.09
Expenses paid	(291.67)	
Total disbursements		(291.67)
Interportfolio transfers	(298,673.04)	
Total Interportfolio transfers		(298,673.04)
Unrealized gain (loss) on security movements		0.00
Return of capital		0.00
Change in fair value for the period		26,274.31
Ending fair value		70,236,610.43

<u>Detail of Fair Value Basis Return</u>			
	Interest earned	Change in fair value	Total income
Corporate Bonds	98,306.25	29,970.09	128,276.34
Government Agencies	152,963.54	(650.40)	152,313.14
Government Bonds	41,213.35	(1,165.38)	40,047.97
Short Term Bills and Notes	11,750.00	(1,880.00)	9,870.00
Total	304,233.14	26,274.31	330,507.45

<u>Comparative Rates of Return (%)</u>			
	* Twelve month trailing	* Six month trailing	* Three month trailing
Fed Funds	1.58	0.91	0.48
Overnight Repo	1.60	0.94	0.49
ICE ML 3m US Treas Bill	1.59	0.95	0.49
ICE ML 6m US Treas Bill	1.58	0.98	0.50
ICE ML 1 Year US Treasury Note	1.08	0.81	0.41
ICE ML US Treasury 1-3	0.04	0.42	0.19
ICE ML US Treasury 1-5	(0.58)	0.18	0.05

* rates reflected are cumulative

<u>Summary of Fair Value Basis Return for the Period</u>	
	Total portfolio
Interest earned	304,233.14
Change in fair value	26,274.31
Total income on portfolio	330,507.45
Average daily total value *	70,547,416.47
Period return (%)	0.47
YTD return (%)	0.86
Weighted average final maturity in days	398

* Total value equals market value and accrued interest

ADDITIONAL INFORMATION

As of September 30, 2018

Past performance is not a guide to future performance. The value of investments and any income from them will fluctuate and is not guaranteed (this may partly be due to exchange rate changes) and investors may not get back the amount invested. Transactions in foreign securities may be executed and settled in local markets. Performance comparisons will be affected by changes in interest rates. Investment returns fluctuate due to changes in market conditions. Investment involves risk, including the possible loss of principal. No assurance can be given that the performance objectives of a given strategy will be achieved. The information contained herein is for your reference only and is being provided in response to your specific request and has been obtained from sources believed to be reliable; however, no representation is made regarding its accuracy or completeness. This document must not be used for the purpose of an offer or solicitation in any jurisdiction or in any circumstances in which such offer or solicitation is unlawful or otherwise not permitted. This document should not be duplicated, amended, or forwarded to a third party without consent from Insight. This is a marketing document intended for professional clients only and should not be made available to or relied upon by retail clients.

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INA is an investment adviser registered with the Securities and Exchange Commission (SEC), under the Investment Advisers Act of 1940, as amended. Registration with the SEC does not imply a certain level of skill or training. You may request, without charge, additional information about Insight. Moreover, specific information relating to Insights strategies, including investment advisory fees, may be obtained from INA's Form ADV Part 2A, which is available without charge upon request.

Where indicated, performance numbers used in the analysis are gross returns. The performance reflects the reinvestment of all dividends and income. INA charges management fees on all portfolios managed and these fees will reduce the returns on the portfolios. For example, assume that \$30 million is invested in an account with INA, and this account achieves a 5.0% annual return compounded monthly, gross of fees, for a period of five years. At the end of five years that account would have grown to \$38,500,760 before the deduction of management fees. Assuming management fees of 0.25% per year are deducted monthly from the account, the value at the end of the five year period would be \$38,022,447. Actual fees for new accounts are dependent on size and subject to negotiation. INA's investment advisory fees are discussed in Part 2A of its Form ADV.

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For trading activity the Clearing broker will be reflected. In certain cases the Clearing broker will differ from the Executing broker.

In calculating ratings distributions and weighted average portfolio quality, Insight assigns U.S Treasury and U.S agency securities a quality rating based on the methodology used within the respective benchmark index. When Moodys, S&P and Fitch rate a security, Bank of America and Merrill Lynch indexes assign a simple weighted average statistic while Barclays indexes assign the median statistic. Insight assigns all other securities the lower of Moodys and S&P ratings.

Information about the indices shown here is provided to allow for comparison of the performance of the strategy to that of certain well-known and widely recognized indices. There is no representation that such index is an appropriate benchmark for such comparison. You cannot invest directly in an index and the indices represented do not take into account trading commissions and/or other brokerage or custodial costs. The volatility of the indices may be materially different from that of the strategy. In addition, the strategies holdings may differ substantially from the securities that comprise the indices shown.

The BofA Merrill Lynch 3 Mo US T-Bill index is an unmanaged market index of U.S. Treasury securities maturing in 90 days that assumes reinvestment of all income.

The BofA Merrill Lynch 6 Mo US T-Bill index measures the performance of Treasury bills with time to maturity of less than 6 months.

The BofA Merrill Lynch Current 1-Year US Treasury Index is a one-security index comprised of the most recently issued 1-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 1-year note must be auctioned on or before the third business day before the last business day of the month.

The BofA Merrill Lynch Current 3-Year US Treasury Index is a one-security index comprised of the most recently issued 3-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 3-year note must be auctioned on or before the third business day before the last business day of the month.

The BofA Merrill Lynch Current 5-Year US Treasury Index is a one-security index comprised of the most recently issued 5-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 5-year note must be auctioned on or before the third business day before the last business day of the month.

The BofA Merrill Lynch 1-3 US Year Treasury Index is an unmanaged index that tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than three years.

The BofA Merrill Lynch 1-5 US Year Treasury Index is an unmanaged index that tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than five years.

Insight does not provide tax or legal advice to its clients and all investors are strongly urged to consult their tax and legal advisors regarding any potential strategy or investment.

ADDITIONAL INFORMATION

As of September 30, 2018

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CITY OF MENLO PARK

September 2018

Part of  BNY MELLON



Contents

Fixed income market review	3
Activity and performance summary	4
Recap of securities held	6
Maturity distribution of securities held	7
Securities held	8
GASB 40 - Deposit and investment risk disclosure	14
Securities purchased	18
Securities sold and matured	19
Transaction report	20
Additional information	21

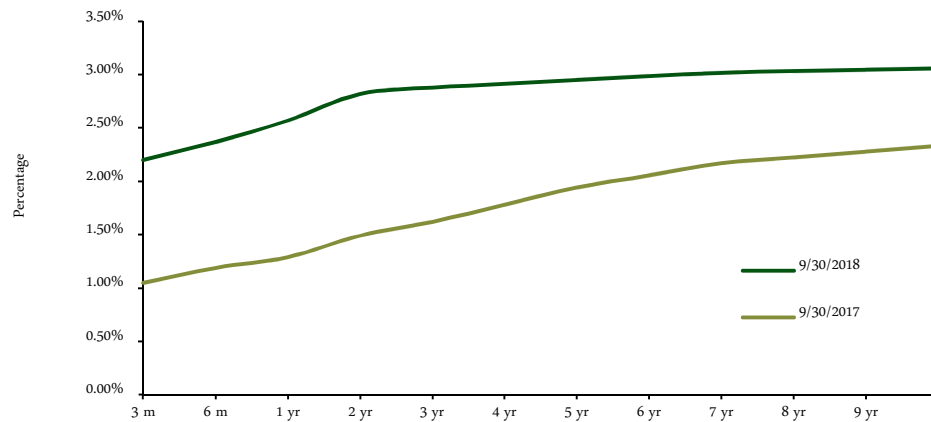
As of September 30, 2018

Chart 1: Consumer Price Index: 8/31/2013—8/31/2018



Source: Bloomberg Finance LP, September 30, 2018.

Chart 2: Treasury yield curve: 9/30/2017 and 9/30/2018



Source: Bloomberg Finance LP, September 30, 2018.

Economic Indicators and Monetary Policy

On September 26, the Federal Open Market Committee (FOMC) voted unanimously to increase the target range for the federal funds rate 25 basis points to 2.00% to 2.25%. The FOMC statement continued to describe a strengthening labor market, rising economic activity and steady longer-term inflation expectations.

Although the language in the FOMC statement was largely unchanged, it no longer characterizes the stance of monetary policy as accommodative. Removing that reference may enable the Committee to more freely adjust policy based on data in the future. In terms of forward guidance, the FOMC signaled it would continue pursuing a gradual hiking path in response to the fundamental backdrop.

The employment report released on September 7 showed employers hired 201,000 workers in August versus expectations for 190,000, and the July payroll report was revised downward by 10,000 jobs added to 147,000. The August unemployment rate was unchanged from the prior month at 3.9% while the underemployment rate fell 0.1% to 7.4%. Average hourly earnings increased to 2.9% year-over-year in August from 2.7% in July.

The Consumer Price Index (CPI) was released on September 13. Medical costs decreased in August and apparel prices fell by the most in nearly 70 years which led to a cooling in the inflation indicator. Gains in the CPI were seen in shelter costs, airfares, fuel costs and prices for used car and trucks. On a year-over-year basis, the CPI decreased to 2.7% in August from 2.9% in July; excluding food and energy the Index decreased 0.2% to 2.2% in August. (See Chart 1).

On September 27, the third and final estimate of second quarter Gross Domestic Product (GDP) was released. The report showed that GDP and personal consumption were 4.2% and 3.8% respectively in the second quarter, unchanged from the second estimate.

Interest Rate Summary

At the end of September, the 3-month US Treasury bill yielded 2.20%, the 6-month US Treasury bill yielded 2.37%, the 2-year US Treasury note yielded 2.82%, the 5-year US Treasury note yielded 2.95% and the 10-year US Treasury note yielded 3.06%. (See Chart 2).

ACTIVITY AND PERFORMANCE SUMMARY

For the period September 1, 2018 - September 30, 2018

<u>Amortized Cost Basis Activity Summary</u>	
Opening balance	70,833,743.44
Income received	93,353.26
Total receipts	93,353.26
Total disbursements	0.00
Interportfolio transfers	(111,193.88)
Total Interportfolio transfers	(111,193.88)
Realized gain (loss)	0.00
Total amortization expense	(7,111.80)
Total OID/MKT accretion income	14,456.69
Return of capital	0.00
Closing balance	70,823,247.71
Ending fair value	70,236,610.43
Unrealized gain (loss)	(586,637.28)

<u>Detail of Amortized Cost Basis Return</u>				
	Interest earned	Accretion (amortization)	Realized gain (loss)	Total income
Corporate Bonds	31,714.65	1,202.52	0.00	32,917.17
Government Agencies	49,687.71	3,504.29	0.00	53,192.00
Government Bonds	13,400.92	2,591.85	0.00	15,992.77
Short Term Bills and Notes	3,786.11	46.23	0.00	3,832.34
Total	98,589.39	7,344.89	0.00	105,934.28

<u>Comparative Rates of Return (%)</u>			
	* Twelve month trailing	* Six month trailing	* One month
Fed Funds	1.58	0.91	0.16
Overnight Repo	1.60	0.94	0.16
Merrill Lynch 3m US Treas Bill	1.64	0.96	0.17
Merrill Lynch 6m US Treas Bill	1.79	1.03	0.19
ML 1 Year US Treasury Note	2.05	1.18	0.21
ML 2 Year US Treasury Note	2.28	1.28	0.22
ML 5 Year US Treasury Note	2.54	1.39	0.23

* rates reflected are cumulative

<u>Summary of Amortized Cost Basis Return for the Period</u>	
	Total portfolio
Interest earned	98,589.39
Accretion (amortization)	7,344.89
Realized gain (loss) on sales	0.00
Total income on portfolio	105,934.28
Average daily amortized cost	70,828,238.53
Period return (%)	0.15
YTD return (%)	1.21
Weighted average final maturity in days	398

ACTIVITY AND PERFORMANCE SUMMARY

For the period September 1, 2018 - September 30, 2018

<u>Fair Value Basis Activity Summary</u>		
Opening balance		70,303,541.42
Income received	93,353.26	
Total receipts		93,353.26
Total disbursements		0.00
Interportfolio transfers	(111,193.88)	
Total Interportfolio transfers		(111,193.88)
Unrealized gain (loss) on security movements		0.00
Return of capital		0.00
Change in fair value for the period		(49,090.37)
Ending fair value		70,236,610.43

<u>Detail of Fair Value Basis Return</u>			
	Interest earned	Change in fair value	Total income
Corporate Bonds	31,714.65	(13,541.49)	18,173.16
Government Agencies	49,687.71	(22,922.00)	26,765.71
Government Bonds	13,400.92	(11,626.88)	1,774.04
Short Term Bills and Notes	3,786.11	(1,000.00)	2,786.11
Total	98,589.39	(49,090.37)	49,499.02

<u>Comparative Rates of Return (%)</u>			
	* Twelve month trailing	* Six month trailing	* One month
Fed Funds	1.58	0.91	0.16
Overnight Repo	1.60	0.94	0.16
ICE ML 3m US Treas Bill	1.59	0.95	0.15
ICE ML 6m US Treas Bill	1.58	0.98	0.14
ICE ML 1 Year US Treasury Note	1.08	0.81	0.06
ICE ML US Treasury 1-3	0.04	0.42	(0.12)
ICE ML US Treasury 1-5	(0.58)	0.18	(0.28)

* rates reflected are cumulative

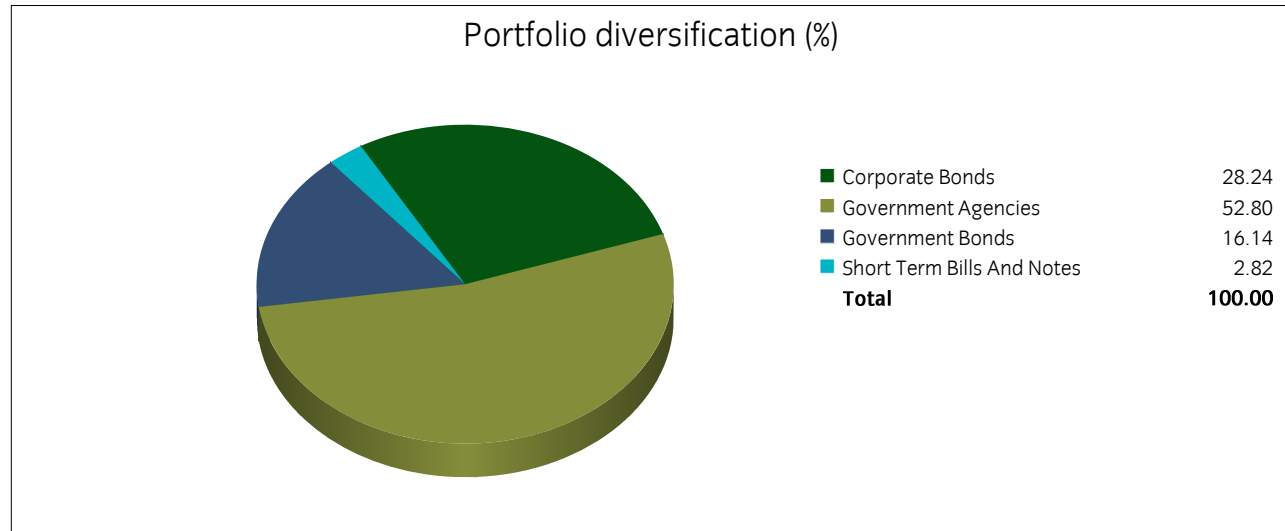
<u>Summary of Fair Value Basis Return for the Period</u>	
	Total portfolio
Interest earned	98,589.39
Change in fair value	(49,090.37)
Total income on portfolio	49,499.02
Average daily total value *	70,554,704.08
Period return (%)	0.07
YTD return (%)	0.86
Weighted average final maturity in days	398

* Total value equals market value and accrued interest

RECAP OF SECURITIES HELD

As of September 30, 2018

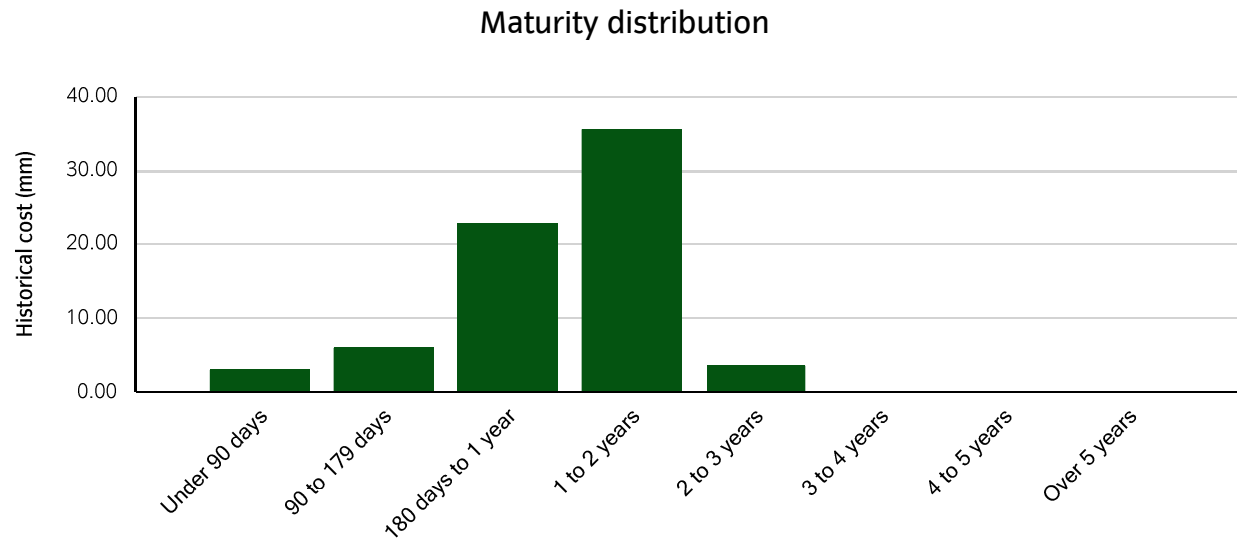
	Historical cost	Amortized cost	Fair value	Unrealized gain (loss)	Weighted average final maturity (days)	Percent of portfolio	Weighted average effective duration (years)
Corporate Bonds	20,008,850.80	19,993,398.67	19,818,930.93	(174,467.74)	425	28.24	1.18
Government Agencies	37,412,109.29	37,377,785.99	37,092,112.50	(285,673.49)	379	52.80	1.02
Government Bonds	11,435,371.11	11,452,471.41	11,328,067.00	(124,404.41)	432	16.14	1.21
Short Term Bills And Notes	1,999,436.00	1,999,591.64	1,997,500.00	(2,091.64)	270	2.82	0.72
Total	70,855,767.20	70,823,247.71	70,236,610.43	(586,637.28)	398	100.00	1.09



MATURITY DISTRIBUTION OF SECURITIES HELD

As of September 30, 2018

Maturity	Historic cost	Percent
Under 90 days	3,017,069.15	4.26
90 to 179 days	5,990,344.58	8.45
180 days to 1 year	22,720,721.95	32.07
1 to 2 years	35,440,264.02	50.02
2 to 3 years	3,687,367.50	5.20
3 to 4 years	0.00	0.00
4 to 5 years	0.00	0.00
Over 5 years	0.00	0.00
	70,855,767.20	100.00



SECURITIES HELD

As of September 30, 2018

Cusip/ Description	Coupon	Maturity/ Call date	Par value or shares	Historical cost/ Accrued interest purchased	Amortized cost/ Accretion (amortization)	Fair value/ Change in fair value	Unrealized gain (loss)	Interest received	Interest earned	Total accrued interest	% Port cost
Corporate Bonds											
17275RAR3 CISCO SYSTEMS INC 2.125% 01MAR2019	2.125	03/01/2019	1,470,000.00	1,486,743.30 0.00	1,473,393.61 (674.23)	1,467,778.83 (357.21)	(5,614.78)	15,618.75	2,516.35	2,516.35	2.10
0258MOEK1 AMERICAN EXPRESS CREDIT 1.875% 03MAY2019 (CALLABLE 03APR19)	1.875	05/03/2019 04/02/2019	800,000.00	794,480.00 0.00	796,243.58 529.08	796,246.40 (65.60)	2.82	0.00	1,208.33	6,125.00	1.12
191216BV1 COCA-COLA CO/THE 1.375% 30MAY2019	1.375	05/30/2019	1,000,000.00	993,640.00 0.00	998,087.22 239.10	992,218.00 677.00	(5,869.22)	0.00	1,145.83	4,583.33	1.40
89236TBP9 TOYOTA MOTOR CREDIT CORP 2.125% 18JUL2019	2.125	07/18/2019	1,000,000.00	995,480.00 0.00	996,653.57 348.58	995,812.00 (311.00)	(841.57)	0.00	1,711.81	4,250.00	1.40
69353REX2 PNC BANK NA 1.45% 29JUL2019 (CALLABLE 29JUN19)	1.450	07/29/2019 06/29/2019	1,000,000.00	991,350.00 0.00	996,872.61 313.78	989,315.00 (177.00)	(7,557.61)	0.00	1,168.05	2,456.94	1.40
084664CK5 BERKSHIRE HATHAWAY FIN 1.3% 15AUG2019	1.300	08/15/2019	1,500,000.00	1,485,345.00 0.00	1,494,960.34 495.96	1,481,911.50 (130.50)	(13,048.84)	0.00	1,570.83	2,437.50	2.10
24422ESS9 JOHN DEERE CAPITAL CORP 2.3% 16SEP2019	2.300	09/16/2019	1,000,000.00	999,890.00 0.00	999,935.16 5.81	996,713.00 796.00	(3,222.16)	11,500.00	1,852.77	894.44	1.41
713448DJ4 PEPSICO INC 1.35% 04OCT2019	1.350	10/04/2019	1,000,000.00	995,410.00 0.00	997,849.73 177.22	986,246.00 293.00	(11,603.73)	0.00	1,087.50	6,600.00	1.40
89236TDH5 TOYOTA MOTOR CREDIT CORP 1.55% 18OCT2019	1.550	10/18/2019	1,000,000.00	994,450.00 0.00	997,655.98 186.04	986,758.00 (582.00)	(10,897.98)	0.00	1,248.61	6,975.00	1.40

SECURITIES HELD

As of September 30, 2018

Cusip/ Description	Coupon	Maturity/ Call date	Par value or shares	Historical cost/ Accrued interest purchased	Amortized cost/ Accretion (amortization)	Fair value/ Change in fair value	Unrealized gain (loss)	Interest received	Interest earned	Total accrued interest	% Port cost
Corporate Bonds											
48127HAA7 JPMORGAN CHASE & CO 2.2% 22OCT2019	2.200	10/22/2019	1,000,000.00	990,620.00 0.00	992,581.45 582.61	993,174.00 (777.00)	592.55	0.00	1,772.23	9,655.56	1.40
717081EB5 PFIZER INC 1.7% 15DEC2019	1.700	12/15/2019	2,000,000.00	2,003,600.00 0.00	2,001,751.68 (120.80)	1,973,072.00 (5,444.00)	(28,679.68)	0.00	2,738.89	9,916.67	2.83
037833CK4 APPLE INC 1.9% 07FEB2020	1.900	02/07/2020	2,000,000.00	1,975,440.00 0.00	1,981,193.84 1,158.49	1,976,422.00 (2,394.00)	(4,771.84)	0.00	3,061.11	5,594.44	2.79
594918AY0 MICROSOFT CORP 1.85% 12FEB2020 (CALLABLE 12JAN20)	1.850	02/12/2020 01/12/2020	1,000,000.00	1,005,660.00 0.00	1,002,730.12 (166.47)	987,244.00 (1,864.00)	(15,486.12)	0.00	1,490.28	2,466.67	1.42
0258MODT3 AMERICAN EXPRESS CREDIT 2.375% 26MAY2020 (CALLABLE 25APR20)	2.375	05/26/2020 04/25/2020	1,000,000.00	1,003,500.00 0.00	1,002,289.79 (115.26)	987,612.00 (818.00)	(14,677.79)	0.00	1,913.20	8,180.56	1.42
931142CU5 WALMART INC 3.625% 08JUL2020	3.625	07/08/2020	1,500,000.00	1,579,455.00 0.00	1,544,505.96 (2,092.76)	1,518,957.00 (2,796.00)	(25,548.96)	0.00	4,380.21	12,385.42	2.23
90331HNG4 US BANK NA CINCINNATI 2.05% 23OCT2020 (CALLABLE 23SEP20)	2.050	10/23/2020 09/23/2020	1,725,000.00	1,713,787.50 0.00	1,716,694.03 335.37	1,689,451.20 408.82	(27,242.83)	0.00	2,848.65	15,421.98	2.42
Total Corporate Bonds			19,995,000.00	20,008,850.80 0.00	19,993,398.67 1,202.52	19,818,930.93 (13,541.49)	(174,467.74)	27,118.75	31,714.65	100,459.86	28.24
Government Agencies											
313376BR5 FEDERAL HOME LOAN BANK 1.75% 14DEC2018	1.750	12/14/2018	2,950,000.00	3,017,069.15 0.00	2,955,663.90 (2,296.18)	2,947,138.50 1,180.00	(8,525.40)	0.00	4,158.68	15,200.69	4.26

SECURITIES HELD

As of September 30, 2018

Cusip/ Description	Coupon	Maturity/ Call date	Par value or shares	Historical cost/ Accrued interest purchased	Amortized cost/ Accretion (amortization)	Fair value/ Change in fair value	Unrealized gain (loss)	Interest received	Interest earned	Total accrued interest	% Port cost
Government Agencies											
3135G0ZA4 FANNIE MAE 1.875% 19FEB2019	1.875	02/19/2019	2,000,000.00	1,995,388.00 0.00	1,998,097.72 410.56	1,996,218.00 (26.00)	(1,879.72)	0.00	3,020.83	4,270.83	2.82
3130A7L37 FEDERAL HOME LOAN BANK 1.25% 15MAR2019	1.250	03/15/2019	2,000,000.00	2,012,100.00 0.00	2,001,930.85 (351.06)	1,989,940.00 1,000.00	(11,990.85)	12,500.00	2,013.89	1,041.67	2.84
3137EADZ9 FREDDIE MAC 1.125% 15APR2019	1.125	04/15/2019	1,000,000.00	1,005,195.00 0.00	1,001,034.75 (159.20)	992,930.00 388.00	(8,104.75)	0.00	906.25	5,156.25	1.42
3134G9LD7 FREDDIE MAC 1.25% 24MAY2019 (CALLABLE 24NOV18) #0001	1.250	05/24/2019 11/24/2018	1,000,000.00	999,250.00 0.00	999,838.69 20.68	991,600.00 230.00	(8,238.69)	0.00	1,006.94	4,375.00	1.41
3137EADG1 FREDDIE MAC 1.75% 30MAY2019	1.750	05/30/2019	2,000,000.00	1,988,778.88 0.00	1,992,102.44 987.20	1,990,010.00 (268.00)	(2,092.44)	0.00	2,916.67	11,666.67	2.81
3134G44Y1 FREDDIE MAC 1.25% 24JUN2019 CALLABLE	1.250	06/24/2019	1,000,000.00	988,530.00 0.00	993,665.10 719.87	990,600.00 (80.00)	(3,065.10)	0.00	1,006.94	3,333.33	1.40
3130AEJ84 FEDERAL HOME LOAN BANK 2.375% 25JUN2019	2.375	06/25/2019	1,500,000.00	1,500,090.00 0.00	1,500,066.07 (7.48)	1,497,870.00 (1,530.00)	(2,196.07)	0.00	2,869.79	9,401.04	2.12
3135G0L76 FANNIE MAE 1.075% 11JUL2019 (CALLABLE 11JAN19)	1.075	07/11/2019 10/11/2018	2,000,000.00	1,995,000.00 0.00	1,998,688.14 140.05	1,976,820.00 420.00	(21,868.14)	0.00	1,731.95	4,718.06	2.82
3133EJPT0 FEDERAL FARM CREDIT BANK 2.35% 22JUL2019	2.350	07/22/2019	2,000,000.00	1,998,758.00 0.00	1,999,140.61 88.30	1,997,260.00 (660.00)	(1,880.61)	0.00	3,786.11	8,877.78	2.82

SECURITIES HELD

As of September 30, 2018

Cusip/ Description	Coupon	Maturity/ Call date	Par value or shares	Historical cost/ Accrued interest purchased	Amortized cost/ Accretion (amortization)	Fair value/ Change in fair value	Unrealized gain (loss)	Interest received	Interest earned	Total accrued interest	% Port cost
Government Agencies											
3135G0N33 FANNIE MAE 0.875% 02AUG2019	0.875	08/02/2019	1,000,000.00	997,960.00 0.00	999,429.56 56.67	985,967.00 342.00	(13,462.56)	0.00	704.86	1,409.72	1.41
3137EADM8 FREDDIE MAC 1.25% 02OCT2019	1.250	10/02/2019	2,000,000.00	1,968,300.00 0.00	1,975,215.12 2,054.00	1,972,442.00 (910.00)	(2,773.12)	0.00	2,013.89	12,361.11	2.78
3130A9MF5 FEDERAL HOME LOAN BANK 1.125% 03OCT2019 (CALLABLE 11OCT18)	1.125	10/03/2019	1,000,000.00	999,000.00 0.00	999,663.27 27.83	984,710.00 (750.00)	(14,953.27)	0.00	906.25	5,531.25	1.41
3136G4DA8 FANNIE MAE 1.2% 30DEC2019 (CALLABLE 30DEC18) #0001	1.200	12/30/2019 12/30/2018	1,000,000.00	998,750.00 0.00	999,517.17 32.19	979,530.00 (730.00)	(19,987.17)	0.00	1,000.00	3,000.00	1.41
3133ECEY6 FEDERAL FARM CREDIT BANK 1.45% 11FEB2020	1.450	02/11/2020	2,000,000.00	2,004,900.00 0.00	2,002,059.85 (125.85)	1,965,580.00 (1,700.00)	(36,479.85)	0.00	2,336.11	3,947.22	2.83
3134GAXC3 FREDDIE MAC 1.25% 28FEB2020 (CALLABLE 28NOV18)	1.250	02/28/2020 11/28/2018	1,500,000.00	1,487,625.00 0.00	1,494,626.92 317.30	1,468,530.00 (1,665.00)	(26,096.92)	0.00	1,510.42	1,666.67	2.10
3134G3K58 FREDDIE MAC 1.5% 19MAR2020 CALLABLE	1.500	03/19/2020	2,000,000.00	1,976,400.00 0.00	1,984,176.93 897.34	1,962,180.00 (3,000.00)	(21,996.93)	15,000.00	2,416.67	916.67	2.79
3133EJPV5 FEDERAL FARM CREDIT BANK 2.54% 23MAR2020	2.540	03/23/2020	2,000,000.00	1,999,116.00 0.00	1,999,262.64 41.50	1,992,860.00 (4,100.00)	(6,402.64)	16,933.33	4,092.22	987.78	2.82
3136FT5H8 FANNIE MAE 2% 27MAR2020 CALLABLE	2.000	03/27/2020	1,000,000.00	1,011,747.60 0.00	1,006,940.00 (387.71)	988,120.00 (1,470.00)	(18,820.00)	10,000.00	1,611.11	166.67	1.43

SECURITIES HELD

As of September 30, 2018

Cusip/ Description	Coupon	Maturity/ Call date	Par value or shares	Historical cost/ Accrued interest purchased	Amortized cost/ Accretion (amortization)	Fair value/ Change in fair value	Unrealized gain (loss)	Interest received	Interest earned	Total accrued interest	% Port cost
Government Agencies											
3134G8TY5 FREDDIE MAC 1.42% 30MAR2020 CALLABLE	1.420	03/30/2020	1,000,000.00	997,456.66 0.00	998,494.07 83.66	980,140.00 (1,600.00)	(18,354.07)	0.00	1,183.33	7,100.00	1.41
3133EJME6 FEDERAL FARM CREDIT BANK 2.5% 27APR2020	2.500	04/27/2020	2,000,000.00	1,996,440.00 0.00	1,996,978.26 159.88	1,990,820.00 (4,120.00)	(6,158.26)	0.00	4,027.78	21,250.00	2.82
313370U55 FEDERAL HOME LOAN BANK 2.875% 11SEP2020	2.875	09/11/2020	1,500,000.00	1,500,675.00 (1,677.08)	1,500,668.33 (6.67)	1,500,447.00 (228.00)	(221.33)	0.00	598.96	2,276.04	2.12
3136G0K75 FANNIE MAE 1.625% 09OCT2020 CALLABLE	1.625	10/09/2020	2,000,000.00	1,973,580.00 0.00	1,980,525.60 801.41	1,950,400.00 (4,440.00)	(30,125.60)	0.00	2,618.06	15,437.50	2.79
Total Government Agencies			37,450,000.00	37,412,109.29 (1,677.08)	37,377,785.99 3,504.29	37,092,112.50 (23,717.00)	(285,673.49)	54,433.33	48,437.71	144,091.95	52.80
Government Bonds											
912828P95 USA TREASURY 1% 15MAR2019	1.000	03/15/2019	500,000.00	496,113.28 0.00	499,118.59 159.30	496,836.00 137.00	(2,282.59)	2,500.00	410.98	207.18	0.70
912828D23 USA TREASURY 1.625% 30APR2019	1.625	04/30/2019	1,000,000.00	1,003,125.00 0.00	1,001,154.18 (163.33)	995,234.00 (39.00)	(5,920.18)	0.00	1,324.72	6,756.11	1.42
912828W55 USA TREASURY 1.625% 30JUN2019	1.625	06/30/2019	1,000,000.00	994,609.38 0.00	997,147.99 313.41	993,281.00 (157.00)	(3,866.99)	0.00	1,324.73	4,062.50	1.40
912828D80 USA TREASURY 1.625% 31AUG2019	1.625	08/31/2019	1,000,000.00	989,804.69 0.00	992,794.45 645.27	990,898.00 (704.00)	(1,896.45)	0.00	1,346.69	1,346.69	1.40
912828F39 USA TREASURY 1.75% 30SEP2019	1.750	09/30/2019	1,000,000.00	1,010,312.50 0.00	1,003,798.25 (312.18)	991,016.00 (1,054.00)	(12,782.25)	0.00	1,434.43	8,750.00	1.43

SECURITIES HELD

As of September 30, 2018

Cusip/ Description	Coupon	Maturity/ Call date	Par value or shares	Historical cost/ Accrued interest purchased	Amortized cost/ Accretion (amortization)	Fair value/ Change in fair value	Unrealized gain (loss)	Interest received	Interest earned	Total accrued interest	% Port cost
Government Bonds											
912828U32 USA TREASURY 1% 15NOV2019	1.000	11/15/2019	1,000,000.00	981,484.38 (3,396.74)	982,219.81 735.43	981,367.00 (117.38)	(852.81)	0.00	353.26	3,750.00	1.39
9128283H1 USA TREASURY 1.75% 30NOV2019	1.750	11/30/2019	1,000,000.00	991,953.13 0.00	994,352.61 397.71	989,102.00 (1,289.00)	(5,250.61)	0.00	1,434.42	5,833.33	1.40
912828H52 USA TREASURY 1.25% 31JAN2020	1.250	01/31/2020	1,500,000.00	1,492,382.81 0.00	1,496,789.99 197.33	1,470,937.50 (2,050.50)	(25,852.49)	0.00	1,528.54	3,108.02	2.11
912828UV0 USA TREASURY 1.125% 31MAR2020	1.125	03/31/2020	1,500,000.00	1,485,468.75 0.00	1,492,084.37 433.34	1,464,082.50 (2,226.00)	(28,001.87)	0.00	1,383.20	8,437.50	2.10
912828XE5 USA TREASURY 1.5% 31MAY2020	1.500	05/31/2020	1,000,000.00	1,000,468.75 0.00	1,000,276.35 (13.61)	979,063.00 (2,031.00)	(21,213.35)	0.00	1,229.51	5,000.00	1.41
912828Q2 USA TREASURY 1.5% 15AUG2020	1.500	08/15/2020	1,000,000.00	989,648.44 0.00	992,734.82 318.19	976,250.00 (2,383.00)	(16,484.82)	0.00	1,222.83	1,875.00	1.40
Total Government Bonds			11,500,000.00	11,435,371.11 (3,396.74)	11,452,471.41 2,710.86	11,328,067.00 (11,913.88)	(124,404.41)	2,500.00	12,993.31	49,126.33	16.14
Short Term Bills and Notes											
3133EJSQ3 FEDERAL FARM CREDIT BANK 2.35% 25JUN2019	2.350	06/25/2019	2,000,000.00	1,999,436.00 0.00	1,999,591.64 46.23	1,997,500.00 (1,000.00)	(2,091.64)	0.00	3,786.11	12,402.78	2.82
Total Short Term Bills and Notes			2,000,000.00	1,999,436.00 0.00	1,999,591.64 46.23	1,997,500.00 (1,000.00)	(2,091.64)	0.00	3,786.11	12,402.78	2.82
Grand total			70,945,000.00	70,855,767.20 (5,073.82)	70,823,247.71 7,463.90	70,236,610.43 (50,172.37)	(586,637.28)	84,052.08	96,931.78	306,080.92	100.00

GASB 40 - DEPOSIT AND INVESTMENT RISK DISCLOSURE

As of September 30, 2018

Cusip	Description	Coupon	Maturity date	Call date	S&P rating	Moody rating	Par value or shares	Historical cost	% Portfolio hist cost	Market value	% Portfolio mkt value	Effective dur (yrs)
Federal Home Loan Mortgage Corp												
3137EADZ9	FREDDIE MAC 1.125%	1.125	04/15/2019		AA+	Aaa	1,000,000.00	1,005,195.00	1.42	992,930.00	1.41	0.54
3134G9LD7	FREDDIE MAC 1.25%	1.250	05/24/2019	11/24/2018	AA+	Aaa	1,000,000.00	999,250.00	1.41	991,600.00	1.41	0.64
3137EADG1	FREDDIE MAC 1.75%	1.750	05/30/2019		AA+	Aaa	2,000,000.00	1,988,778.88	2.81	1,990,010.00	2.83	0.66
3134G44Y1	FREDDIE MAC 1.25%	1.250	06/24/2019		AA+	Aaa	1,000,000.00	988,530.00	1.40	990,600.00	1.41	0.72
3137EADM8	FREDDIE MAC 1.25%	1.250	10/02/2019		AA+	Aaa	2,000,000.00	1,968,300.00	2.78	1,972,442.00	2.81	1.06
3134GAXC3	FREDDIE MAC 1.25%	1.250	02/28/2020	11/28/2018	AA+	Aaa	1,500,000.00	1,487,625.00	2.10	1,468,530.00	2.09	1.39
3134G3K58	FREDDIE MAC 1.5%	1.500	03/19/2020		AA+	Aaa	2,000,000.00	1,976,400.00	2.79	1,962,180.00	2.79	1.44
3134G8TY5	FREDDIE MAC 1.42%	1.420	03/30/2020		AA+	Aaa	1,000,000.00	997,456.66	1.41	980,140.00	1.40	1.46
Issuer total							11,500,000.00	11,411,535.54	16.11	11,348,432.00	16.16	1.02
United States Treasury Note/Bond												
912828P95	USA TREASURY 1%	1.000	03/15/2019		AA+	Aaa	500,000.00	496,113.28	0.70	496,836.00	0.71	0.45
912828D23	USA TREASURY 1.625%	1.625	04/30/2019		AA+	Aaa	1,000,000.00	1,003,125.00	1.42	995,234.00	1.42	0.57
912828W55	USA TREASURY 1.625%	1.625	06/30/2019		AA+	Aaa	1,000,000.00	994,609.38	1.40	993,281.00	1.41	0.74
912828D80	USA TREASURY 1.625%	1.625	08/31/2019		AA+	Aaa	1,000,000.00	989,804.69	1.40	990,898.00	1.41	0.91
912828F39	USA TREASURY 1.75%	1.750	09/30/2019		AA+	Aaa	1,000,000.00	1,010,312.50	1.43	991,016.00	1.41	1.05
912828U32	USA TREASURY 1%	1.000	11/15/2019		AA+	Aaa	1,000,000.00	981,484.38	1.39	981,367.00	1.40	1.19
9128283H1	USA TREASURY 1.75%	1.750	11/30/2019		AA+	Aaa	1,000,000.00	991,953.13	1.40	989,102.00	1.41	1.22
912828H52	USA TREASURY 1.25%	1.250	01/31/2020		AA+	Aaa	1,500,000.00	1,492,382.81	2.11	1,470,937.50	2.09	1.39
912828UV0	USA TREASURY 1.125%	1.125	03/31/2020		AA+	Aaa	1,500,000.00	1,485,468.75	2.10	1,464,082.50	2.08	1.55
912828XE5	USA TREASURY 1.5%	1.500	05/31/2020		AA+	Aaa	1,000,000.00	1,000,468.75	1.41	979,063.00	1.39	1.71
9128282Q2	USA TREASURY 1.5%	1.500	08/15/2020		AA+	Aaa	1,000,000.00	989,648.44	1.40	976,250.00	1.39	1.91
Issuer total							11,500,000.00	11,435,371.11	16.14	11,328,067.00	16.13	1.21
Federal Farm Credit Banks												
3133EJSQ3	FEDERAL FARM CREDIT	2.350	06/25/2019		A-1+	P-1	2,000,000.00	1,999,436.00	2.82	1,997,500.00	2.84	0.72

GASB 40 - DEPOSIT AND INVESTMENT RISK DISCLOSURE

As of September 30, 2018

Cusip	Description	Coupon	Maturity date	Call date	S&P rating	Moody rating	Par value or shares	Historical cost	% Portfolio hist cost	Market value	% Portfolio mkt value	Effective dur (yrs)
Federal Farm Credit Banks												
3133EJPT0	FEDERAL FARM CREDIT	2.350	07/22/2019		AA+	Aaa	2,000,000.00	1,998,758.00	2.82	1,997,260.00	2.84	0.80
3133ECEY6	FEDERAL FARM CREDIT	1.450	02/11/2020		AA+	Aaa	2,000,000.00	2,004,900.00	2.83	1,965,580.00	2.80	1.34
3133EJPV5	FEDERAL FARM CREDIT	2.540	03/23/2020		AA+	Aaa	2,000,000.00	1,999,116.00	2.82	1,992,860.00	2.84	1.45
3133EJME6	FEDERAL FARM CREDIT	2.500	04/27/2020		AA+	Aaa	2,000,000.00	1,996,440.00	2.82	1,990,820.00	2.83	1.52
Issuer total							10,000,000.00	9,998,650.00	14.11	9,944,020.00	14.16	1.17
Federal Home Loan Banks												
313376BR5	FEDERAL HOME LOAN	1.750	12/14/2018		AA+	Aaa	2,950,000.00	3,017,069.15	4.26	2,947,138.50	4.20	0.21
3130A7L37	FEDERAL HOME LOAN	1.250	03/15/2019		AA+	Aaa	2,000,000.00	2,012,100.00	2.84	1,989,940.00	2.83	0.45
3130AEJ84	FEDERAL HOME LOAN	2.375	06/25/2019		A-1+	P-1	1,500,000.00	1,500,090.00	2.12	1,497,870.00	2.13	0.72
3130A9MF5	FEDERAL HOME LOAN	1.125	10/03/2019		AA+	Aaa	1,000,000.00	999,000.00	1.41	984,710.00	1.40	0.99
313370US5	FEDERAL HOME LOAN	2.875	09/11/2020		AA+	Aaa	1,500,000.00	1,500,675.00	2.12	1,500,447.00	2.14	1.93
Issuer total							8,950,000.00	9,028,934.15	12.74	8,920,105.50	12.70	0.72
Federal National Mortgage Association												
3135G0ZA4	FANNIE MAE 1.875%	1.875	02/19/2019		AA+	Aaa	2,000,000.00	1,995,388.00	2.82	1,996,218.00	2.84	0.39
3135G0L76	FANNIE MAE 1.075%	1.075	07/11/2019	10/11/2018	AA+	Aaa	2,000,000.00	1,995,000.00	2.82	1,976,820.00	2.81	0.77
3135G0N33	FANNIE MAE 0.875%	0.875	08/02/2019		AA+	Aaa	1,000,000.00	997,960.00	1.41	985,967.00	1.40	0.83
3136G4DA8	FANNIE MAE 1.2%	1.200	12/30/2019	12/30/2018	AA+	Aaa	1,000,000.00	998,750.00	1.41	979,530.00	1.39	1.23
3136FT5H8	FANNIE MAE 2%	2.000	03/27/2020		AA+	Aaa	1,000,000.00	1,011,747.60	1.43	988,120.00	1.41	1.46
3136G0K75	FANNIE MAE 1.625%	1.625	10/09/2020		AA+	Aaa	2,000,000.00	1,973,580.00	2.79	1,950,400.00	2.78	1.97
Issuer total							9,000,000.00	8,972,425.60	12.66	8,877,055.00	12.64	1.09
Toyota Motor Credit Corp												
89236TBP9	TOYOTA MOTOR CREDIT	2.125	07/18/2019		AA-	Aa3	1,000,000.00	995,480.00	1.40	995,812.00	1.42	0.79

GASB 40 - DEPOSIT AND INVESTMENT RISK DISCLOSURE

As of September 30, 2018

Cusip	Description	Coupon	Maturity date	Call date	S&P rating	Moody rating	Par value or shares	Historical cost	% Portfolio hist cost	Market value	% Portfolio mkt value	Effective dur (yrs)
Toyota Motor Credit Corp												
89236TDH5	TOYOTA MOTOR CREDIT	1.550	10/18/2019		AA-	Aa3	1,000,000.00	994,450.00	1.40	986,758.00	1.40	1.10
Issuer total							2,000,000.00	1,989,930.00	2.81	1,982,570.00	2.82	0.94
Apple Inc												
037833CK4	APPLE INC 1.9%	1.900	02/07/2020		AA+	Aa1	2,000,000.00	1,975,440.00	2.79	1,976,422.00	2.81	1.41
Issuer total							2,000,000.00	1,975,440.00	2.79	1,976,422.00	2.81	1.41
Pfizer Inc												
717081EB5	PFIZER INC 1.7%	1.700	12/15/2019		AA	A1	2,000,000.00	2,003,600.00	2.83	1,973,072.00	2.81	1.26
Issuer total							2,000,000.00	2,003,600.00	2.83	1,973,072.00	2.81	1.26
American Express Credit Corp												
0258M0EK1	AMERICAN EXPRESS	1.875	05/03/2019	04/02/2019	A-	A2	800,000.00	794,480.00	1.12	796,246.40	1.13	0.58
0258M0DT3	AMERICAN EXPRESS	2.375	05/26/2020	04/25/2020	A-	A2	1,000,000.00	1,003,500.00	1.42	987,612.00	1.41	1.67
Issuer total							1,800,000.00	1,797,980.00	2.54	1,783,858.40	2.54	1.19
US Bank NA/Cincinnati OH												
90331HNG4	US BANK NA CINCINNATI	2.050	10/23/2020	09/23/2020	AA-	A1	1,725,000.00	1,713,787.50	2.42	1,689,451.20	2.41	2.05
Issuer total							1,725,000.00	1,713,787.50	2.42	1,689,451.20	2.41	2.05
Walmart Inc												
931142CU5	WALMART INC 3.625%	3.625	07/08/2020		AA	Aa2	1,500,000.00	1,579,455.00	2.23	1,518,957.00	2.16	1.78
Issuer total							1,500,000.00	1,579,455.00	2.23	1,518,957.00	2.16	1.78
Berkshire Hathaway Finance Corp												
084664CK5	BERKSHIRE HATHAWAY	1.300	08/15/2019		AA	Aa2	1,500,000.00	1,485,345.00	2.10	1,481,911.50	2.11	0.86
Issuer total							1,500,000.00	1,485,345.00	2.10	1,481,911.50	2.11	0.86

GASB 40 - DEPOSIT AND INVESTMENT RISK DISCLOSURE

As of September 30, 2018

Cusip	Description	Coupon	Maturity date	Call date	S&P rating	Moody rating	Par value or shares	Historical cost	% Portfolio hist cost	Market value	% Portfolio mkt value	Effective dur (yrs)
Cisco Systems Inc												
17275RAR3	CISCO SYSTEMS INC	2.125	03/01/2019		AA-	A1	1,470,000.00	1,486,743.30	2.10	1,467,778.83	2.09	0.42
Issuer total							1,470,000.00	1,486,743.30	2.10	1,467,778.83	2.09	0.42
John Deere Capital Corp												
24422ESS9	JOHN DEERE CAPITAL	2.300	09/16/2019		A	A2	1,000,000.00	999,890.00	1.41	996,713.00	1.42	1.01
Issuer total							1,000,000.00	999,890.00	1.41	996,713.00	1.42	1.01
JPMorgan Chase & Co												
48127HAA7	JPMORGAN CHASE & CO	2.200	10/22/2019		A-	A3	1,000,000.00	990,620.00	1.40	993,174.00	1.41	1.11
Issuer total							1,000,000.00	990,620.00	1.40	993,174.00	1.41	1.11
Coca-Cola Co/The												
191216BV1	COCA-COLA CO/THE	1.375	05/30/2019		A+	Aa3	1,000,000.00	993,640.00	1.40	992,218.00	1.41	0.66
Issuer total							1,000,000.00	993,640.00	1.40	992,218.00	1.41	0.66
PNC Bank NA												
69353REX2	PNC BANK NA 1.45%	1.450	07/29/2019	06/29/2019	A	A2	1,000,000.00	991,350.00	1.40	989,315.00	1.41	0.82
Issuer total							1,000,000.00	991,350.00	1.40	989,315.00	1.41	0.82
Microsoft Corp												
594918AY0	MICROSOFT CORP 1.85%	1.850	02/12/2020	01/12/2020	AAA	Aaa	1,000,000.00	1,005,660.00	1.42	987,244.00	1.41	1.41
Issuer total							1,000,000.00	1,005,660.00	1.42	987,244.00	1.41	1.41
PepsiCo Inc												
713448DJ4	PEPSICO INC 1.35%	1.350	10/04/2019		A+	A1	1,000,000.00	995,410.00	1.40	986,246.00	1.40	1.07
Issuer total							1,000,000.00	995,410.00	1.40	986,246.00	1.40	1.07
Grand total							70,945,000.00	70,855,767.20	100.00	70,236,610.43	100.00	1.09

SECURITIES PURCHASED

For the period September 1, 2018 - September 30, 2018

Cusip / Description / Broker	Trade date Settle date	Coupon	Maturity/ Call date	Par value or shares	Unit cost	Principal cost	Accrued interest purchased
Government Agencies							
313370US5	09/24/2018	2.875	09/11/2020	1,500,000.00	100.05	(1,500,675.00)	(1,677.08)
FEDERAL HOME LOAN BANK 2.875% 11SEP2020	09/25/2018						
MORGAN STANLEY AND CO., LLC							
Total Government Agencies				1,500,000.00		(1,500,675.00)	(1,677.08)
Government Bonds							
912828U32	09/13/2018	1.000	11/15/2019	1,000,000.00	98.15	(981,484.38)	(3,396.74)
USA TREASURY 1% 15NOV2019	09/17/2018						
JPMORGAN CHASE BANK, N.A.							
Total Government Bonds				1,000,000.00		(981,484.38)	(3,396.74)
Grand total				2,500,000.00		(2,482,159.38)	(5,073.82)

SECURITIES SOLD AND MATURED

For the period September 1, 2018 - September 30, 2018

Cusip/ Description/ Broker	Trade date Settle date	Coupon	Maturity/ Call date	Par value or shares	Historical cost	Amortized cost at sale or maturity /Accr (amort)	Price	Fair value at sale or maturity / Chg.in fair value	Realized gain (loss)	Accrued interest sold	Interest received	Interest earned
Government Agencies												
3130A5M48 FEDERAL HOME LOAN BANK 1.25% 25SEP2018	09/25/2018 09/25/2018	1.250		(1,500,000.00)	1,500,000.00	1,500,000.00 0.00	0.00	1,500,000.00 795.00	0.00	0.00	9,375.00	1,250.00
Total (Government Agencies)				(1,500,000.00)	1,500,000.00	1,500,000.00 0.00		1,500,000.00 795.00	0.00	0.00	9,375.00	1,250.00
Government Bonds												
912828L40 UNITED STATES TREAS NTS DTD 09/15/2015 1% DUE 09-15-2018 REG	09/17/2018 09/17/2018	1.000		(1,000,000.00)	1,006,132.81	1,000,000.00 (119.01)	0.00	1,000,000.00 287.00	0.00	0.00	5,000.00	407.61
Total (Government Bonds)				(1,000,000.00)	1,006,132.81	1,000,000.00 (119.01)		1,000,000.00 287.00	0.00	0.00	5,000.00	407.61
Grand total				(2,500,000.00)	2,506,132.81	2,500,000.00 (119.01)		2,500,000.00 1,082.00	0.00	0.00	14,375.00	1,657.61

TRANSACTION REPORT

For the period September 1, 2018 - September 30, 2018

Trade date Settle date	Cusip	Transaction	Sec type	Description	Maturity	Par value or shares	Realized gain(loss)	Principal	Interest	Transaction total
09/01/2018 09/01/2018	17275RAR3	Income	Corporate Bonds	CISCO SYSTEMS INC 2.125%	03/01/2019	1,470,000.00	0.00	0.00	15,618.75	15,618.75
09/13/2018 09/17/2018	912828U32	Bought	Government Bonds	USA TREASURY 1% 15NOV2019	11/15/2019	1,000,000.00	0.00	(981,484.38)	(3,396.74)	(984,881.12)
09/15/2018 09/15/2018	3130A7L37	Income	Government Agencies	FEDERAL HOME LOAN BANK	03/15/2019	2,000,000.00	0.00	0.00	12,500.00	12,500.00
09/15/2018 09/15/2018	912828L40	Income	Government Bonds	UNITED STATES TREAS NTS	09/15/2018	1,000,000.00	0.00	0.00	5,000.00	5,000.00
09/15/2018 09/15/2018	912828P95	Income	Government Bonds	USA TREASURY 1% 15MAR2019	03/15/2019	500,000.00	0.00	0.00	2,500.00	2,500.00
09/16/2018 09/16/2018	24422ESS9	Income	Corporate Bonds	JOHN DEERE CAPITAL CORP	09/16/2019	1,000,000.00	0.00	0.00	11,500.00	11,500.00
09/17/2018 09/17/2018	912828L40	Capital Change	Government Bonds	UNITED STATES TREAS NTS	09/15/2018	(1,000,000.00)	0.00	1,000,000.00	0.00	1,000,000.00
09/19/2018 09/19/2018	3134G3K58	Income	Government Agencies	FREDDIE MAC 1.5% 19MAR2020	03/19/2020	2,000,000.00	0.00	0.00	15,000.00	15,000.00
09/23/2018 09/23/2018	3133EJPV5	Income	Government Agencies	FEDERAL FARM CREDIT BANK	03/23/2020	2,000,000.00	0.00	0.00	16,933.33	16,933.33
09/24/2018 09/25/2018	313370US5	Bought	Government Agencies	FEDERAL HOME LOAN BANK	09/11/2020	1,500,000.00	0.00	(1,500,675.00)	(1,677.08)	(1,502,352.08)
09/25/2018 09/25/2018	3130A5M48	Income	Government Agencies	FEDERAL HOME LOAN BANK	09/25/2018	1,500,000.00	0.00	0.00	9,375.00	9,375.00
09/25/2018 09/25/2018	3130A5M48	Capital Change	Government Agencies	FEDERAL HOME LOAN BANK	09/25/2018	(1,500,000.00)	0.00	1,500,000.00	0.00	1,500,000.00
09/27/2018 09/27/2018	3136FT5H8	Income	Government Agencies	FANNIE MAE 2% 27MAR2020	03/27/2020	1,000,000.00	0.00	0.00	10,000.00	10,000.00

ADDITIONAL INFORMATION

As of September 30, 2018

Past performance is not a guide to future performance. The value of investments and any income from them will fluctuate and is not guaranteed (this may partly be due to exchange rate changes) and investors may not get back the amount invested. Transactions in foreign securities may be executed and settled in local markets. Performance comparisons will be affected by changes in interest rates. Investment returns fluctuate due to changes in market conditions. Investment involves risk, including the possible loss of principal. No assurance can be given that the performance objectives of a given strategy will be achieved. The information contained herein is for your reference only and is being provided in response to your specific request and has been obtained from sources believed to be reliable; however, no representation is made regarding its accuracy or completeness. This document must not be used for the purpose of an offer or solicitation in any jurisdiction or in any circumstances in which such offer or solicitation is unlawful or otherwise not permitted. This document should not be duplicated, amended, or forwarded to a third party without consent from Insight. This is a marketing document intended for professional clients only and should not be made available to or relied upon by retail clients.

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INA is an investment adviser registered with the Securities and Exchange Commission (SEC), under the Investment Advisers Act of 1940, as amended. Registration with the SEC does not imply a certain level of skill or training. You may request, without charge, additional information about Insight. Moreover, specific information relating to Insights strategies, including investment advisory fees, may be obtained from INA's Form ADV Part 2A, which is available without charge upon request.

Where indicated, performance numbers used in the analysis are gross returns. The performance reflects the reinvestment of all dividends and income. INA charges management fees on all portfolios managed and these fees will reduce the returns on the portfolios. For example, assume that \$30 million is invested in an account with INA, and this account achieves a 5.0% annual return compounded monthly, gross of fees, for a period of five years. At the end of five years that account would have grown to \$38,500,760 before the deduction of management fees. Assuming management fees of 0.25% per year are deducted monthly from the account, the value at the end of the five year period would be \$38,022,447. Actual fees for new accounts are dependent on size and subject to negotiation. INA's investment advisory fees are discussed in Part 2A of its Form ADV.

Unless otherwise stated, the source of information is Insight. Any forecasts or opinions are Insights own at the date of this document (or as otherwise specified) and may change. Material in this publication is for general information only and is not advice, investment advice, or the recommendation of any purchase or sale of any security. Insight makes no implied or expressed recommendations concerning the manner in which an account should or would be handled, as appropriate investment strategies depend upon specific investment guidelines and objectives and should not be construed to be an assurance that any particular security in a strategy will remain in any fund, account, or strategy, or that a previously held security will not be repurchased. It should not be assumed that any of the security transactions or holdings referenced herein have been or will prove to be profitable or that future investment decisions will be profitable or will equal or exceed the past investment performance of the securities listed.

For trading activity the Clearing broker will be reflected. In certain cases the Clearing broker will differ from the Executing broker.

In calculating ratings distributions and weighted average portfolio quality, Insight assigns U.S Treasury and U.S agency securities a quality rating based on the methodology used within the respective benchmark index. When Moodys, S&P and Fitch rate a security, Bank of America and Merrill Lynch indexes assign a simple weighted average statistic while Barclays indexes assign the median statistic. Insight assigns all other securities the lower of Moodys and S&P ratings.

Information about the indices shown here is provided to allow for comparison of the performance of the strategy to that of certain well-known and widely recognized indices. There is no representation that such index is an appropriate benchmark for such comparison. You cannot invest directly in an index and the indices represented do not take into account trading commissions and/or other brokerage or custodial costs. The volatility of the indices may be materially different from that of the strategy. In addition, the strategies holdings may differ substantially from the securities that comprise the indices shown.

The BofA Merrill Lynch 3 Mo US T-Bill index is an unmanaged market index of U.S. Treasury securities maturing in 90 days that assumes reinvestment of all income.

The BofA Merrill Lynch 6 Mo US T-Bill index measures the performance of Treasury bills with time to maturity of less than 6 months.

The BofA Merrill Lynch Current 1-Year US Treasury Index is a one-security index comprised of the most recently issued 1-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 1-year note must be auctioned on or before the third business day before the last business day of the month.

The BofA Merrill Lynch Current 3-Year US Treasury Index is a one-security index comprised of the most recently issued 3-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 3-year note must be auctioned on or before the third business day before the last business day of the month.

The BofA Merrill Lynch Current 5-Year US Treasury Index is a one-security index comprised of the most recently issued 5-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 5-year note must be auctioned on or before the third business day before the last business day of the month.

The BofA Merrill Lynch 1-3 US Year Treasury Index is an unmanaged index that tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than three years.

The BofA Merrill Lynch 1-5 US Year Treasury Index is an unmanaged index that tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than five years.

Insight does not provide tax or legal advice to its clients and all investors are strongly urged to consult their tax and legal advisors regarding any potential strategy or investment.

ADDITIONAL INFORMATION

As of September 30, 2018

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STAFF REPORT

City Council

Meeting Date: 12/4/2018
Staff Report Number: 18-228-CC

Informational Item: Update on the Housing Commission public meeting regarding the San Mateo County Civil Grand Jury report regarding restricting smoking in multiunit housing properties

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

State law requires the City of Menlo Park to respond to grand jury findings and recommendations within the City's jurisdiction. The City Council approved its response on October 9, 2018.

Background

On July 26, 2018, the San Mateo County Civil grand jury ("Civil grand jury") filed the report "Smoke-Free Multiunit Housing: No Ifs, Ands or Butts" (Attachment A) with Honorable V. Raymond Swope, Judge of the Superior Court of the State of California. The report provides background, analysis, and recommendations on the laws passed to protect residents from secondhand smoke by restricting smoking in multiunit housing properties.

The report contained 14 findings and eight recommendations. Menlo Park was obligated to respond to the report's recommendation No. 7, which it did following City Council approval of the response letter at its October 9, 2018, meeting. The City of Menlo Park response letter is included as Attachment B.

Recommendation No. 7 provided that by December 31, 2018, the City should hold public hearings to evaluate issues and hear residents' views on restricting smoking in multiunit housing in the City's jurisdiction. The item was added to the November 14, 2018, Housing Commission meeting to further discuss the issue and receive public comment.

Analysis

At the November 14, 2018, Housing Commission meeting, only one member of the public spoke on the issue. That individual reported that their home was in a large multiunit development that already had a no smoking policy provided as part of the standard lease and that further regulation is not needed at this time.

During the discussion, several commissioners spoke in support of the intent of such a policy to reduce health hazards from secondhand smoke and lower maintenance/repairs generated by in-unit smoking. However, many raised concerns about enforcement, specifically the use of eviction as an enforcement mechanism, which could cause an increase in displacement, homelessness and housing discrimination.

Many similar comments were made in advance of the implementation of a final rule creating a nationwide ban on smoking in public housing effective July 31, 2018, by the federal Department of Housing and Urban Development.

Following its discussion, and by acclamation, the Housing Commission determined that this was not a pressing issue for Menlo Park and that no further action was needed at this time.

The placement of this item on the City Council's agenda for this meeting provides a second opportunity for public comment on the issue, as requested by the San Mateo County Civil Grand Jury, and completes Menlo Park's obligation in accordance with its previous response.

Impact on City Resources

Receiving this informational report has no direct impact on City resources.

Environmental Review

This item is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it proposes an organizational structure change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. San Mateo Civil Grand Jury Report: "Smoke-Free Multiunit Housing: No Ifs, Ands or Butts"
- B. Menlo Park response letter from October 9, 2018

Report prepared by:

Clay J. Curtin, Interim Housing and Economic Development Manager



STAFF REPORT

City Council

Meeting Date: 12/4/2018
Staff Report Number: 18-225-CC

Informational Item: Update on the citywide Safe Routes to School program

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

The development of a Citywide Safe Routes to School program (Program) is included as one of the top-six priority projects in the City Council's adopted 2018 work plan. The program is also an implementation program included in the 2016 general plan circulation element.

Background

On February 6, 2018, the City Council adopted its 2018 work plan, including the Citywide Safe Routes to school program and further prioritized it as one of the city's top-six priority projects. Accordingly, staff reprioritized work efforts and prepared a draft request for proposals for the program. The Safe Routes to School subcommittee of the Complete Streets Commission and advocates from Parents for Safe Routes reviewed the draft request for proposals. Staff incorporated this feedback and released the request for proposals May 2, 2018. Six proposals were received by the May 23, 2018, due date. A team of seven people comprised of City staff and Complete Streets Commission subcommittee members reviewed proposals and recommended Alta Planning + Design to initiate the program. Authorization for entering into an agreement with Alta Planning + Design was approved at the City Council meeting June 19, 2018.

A notice to proceed was given in July 2018, and this report serves as an update to the work that has been performed over the last five months.

Analysis

There are approximately 20 public and private schools (Attachment A) located within the City of Menlo Park or neighboring communities that serve Menlo Park residents. These either are private schools or part of one of four public districts that primarily serve Menlo Park residents: Las Lomas Elementary School District, Menlo Park City School District, Ravenswood City School District, and Sequoia Union High School District. A summary of these schools is listed in Table 1.

Currently, each school has varying levels of Safe Routes to school programs, from basic services to robust transportation programs. In addition, another challenge is the cross-jurisdictional coordination between the City of Menlo Park, City of East Palo Alto, Town of Atherton and San Mateo County (unincorporated lands) for infrastructural improvements. Therefore, creating a citywide Safe Routes to school program – one working with all stakeholders – will ensure equity to all students in the area through accessibility to safe

travel to school via bicycling or walking. This will increase independence and reduce the need for parents to drive children and congestion related to this traffic. However, the challenge will be communicating with each school stakeholder and other jurisdictional agencies in the area.

Table 1: Schools in Menlo Park area		
Public / private schools	Elementary / middle school grades	Middle / high school grades
Las Lomas Elementary School District	1. Las Lomas Elementary (K-3) 2. La Entrada School (4-8)	n/a
Menlo Park City School District	1. Encinal School (K-5) 2. Hillview Middle (6-8) 3. Laurel School Lower Campus (K-2) 4. Laurel School Upper Campus (3-5) 5. Oak Knoll School (K-5)	n/a
Ravenswood City School District ¹	1. Belle Haven School (K-8) 2. Willow Oaks School (K-8)	1. Ravenswood Middle School (6-8)
Sequoia Union High School District	N/A	1. Menlo-Atherton High (9-12) 2. TIDE Academy (9-12)
Private schools (Atherton)	N/A	1. Menlo School (6-12) 2. Sacred Heart Schools (P-12)
Private schools (Menlo Park)	1. Alto International School (P-12) 2. Beechwood School (K-8) 3. Nativity Catholic School (P-8) 4. Peninsula School (P-8) 5. Phillips Brooks School (P-5) 6. St. Raymond School (K-5) 7. Trinity School (P-5)	1. Mid-Peninsula High (9-12) 2. Lydian Academy (6-12)

¹Grades 6, 7, and 8 at Belle Haven School and Willow Oaks School are being phased out as Ravenswood Middle School enrolls its Grade 6, 7 and 8 classes.

The kick-off meeting with the Safe Routes to school program consultant, Alta Planning + Design, was conducted in July 2018. Based on the request for proposal scope of work and discussions, the consensus for next steps was to establish communication with every stakeholder for garnering feedback and data. The intent of reaching out to each stakeholder was to establish expectations from both parties while fostering the relationship and partnership necessary for the common goal of safety for children.

Over the course of Summer and Fall of 2018, Alta Planning + Design reached out to the four public school districts and a few private schools. The goal was to conduct a phased implementation, with public schools taking precedence and slowly integrating private schools. However, public schools are not prioritized over private schools; the end goal is that every school in and/or serving Menlo Park is equally important. Opening the lines of communication yielded valuable feedback along with the acquisition of data from schools. This data, along with data from the City of Menlo Park, was used to create draft Walk and Roll maps (Attachment B). These maps offer a tangible resource to parents and children with suggestions on how to safely travel to school via bicycle or walking.

These individual meetings culminated in a quarterly check-in with community stakeholders in November 2018. Three meetings were held, one with the technical stakeholders and two with the community. The

technical stakeholder meeting was imperative for the program's success, in that many important stakeholders were able to discuss issues in the same room together.

Attendees at this meeting included representatives from:

- Atherton Police Department
- California Highway Patrol
- City of Menlo Park Transportation
- Complete Streets Commission
- Menlo Park Fire District
- Menlo Park Police Department
- Parents for Safe Routes
- Private schools
- Public school districts
- SamTrans
- San Mateo County Office of Education
- San Mateo County Public Works
- San Mateo County Sheriff's Office
- San Mateo Health System
- Stanford Health Care

In addition, two community meetings were held at Hillview Middle School and the Menlo Park Senior Center. These meetings allowed the public to understand the programs' goals and objectives, along with offering them a chance to ask questions in person.

Community input will be invaluable as the program begins its next steps (Table 2). As the walk and roll maps are developed for both public and private schools, feedback from the community will leverage their knowledge of the neighborhoods. Community review of the maps with local knowledge will complement prescribed best practices to enable a more powerful resource tool in the map. However, fundamental to this and the program in general is having a conduit between the City/Alta Planning + Design and residents/schools. By February 2019, Alta Planning + Design should hire a Safe Routes to School Coordinator to conduct Phase 2 of the contract.

The Safe Routes to School Coordinator will work approximately 20 hours per week to sustain Safe Routes Program operations. Anticipated tasks include developing an advisory committee/task force which includes representatives from various schools, community groups, adjacent cities and other stakeholders; preparing community engagement materials to promote the program; assisting with grant writing; planning safety demonstration and biking/walking themed events; developing an educational curriculum and other educational materials. An option to extend the Phase 2 contract, depending on consultant performance and future funding availability, was included for up to two additional fiscal years, through June 2021.

Having the Safe Routes to School Coordinator on board as the bridge between the community and City of Menlo Park will allow parallel goals to be accomplished in the coming months. Additional community events are planned, such as a bike party that includes a town hall meeting, a mobile repair station, and ride-along to foster encouragement and excitement for the Safe Routes to School program. This will lead up to the participation in National Biking Month in May 2019, along with Bike to Work Day/Bike to School days. Alta Planning + Design will also be developing bicycling and walking curriculum, in coordination with the San Mateo County Office of Education, to offer to schools as a resource guide. The San Mateo County Office of Education curriculum is anticipated to be integrated into existing school topics, such as science and

social studies. The City-developed curriculum will focus primarily on safety and streets smarts of bicycling and walking.

By the end of the 2018-19 school year when the current contract with Alta Planning + Design ends, the City of Menlo Park will be able to offer resources to each school and district in the area. The Walk and Roll maps will be finalized, along with curriculum that teachers will have available as a resource to educate parents and students. These are anticipated to be distributed in Summer 2019 in preparation for the 2019-20 school year. While the long-term goal is that schools will be able to independently operate their individual Safe Routes to School programs, a coordinator is anticipated as necessary to offer resources to schools and act as liaison between the City and County Safe Routes to School programs. This coordinator will offer both resources and continuity to schools, especially schools whose Safe Routes to School specialists leave their positions. Thus, the coordinator will be essential for ensuring the longevity and success of the Menlo Park Safe Routes to School program on a citywide level.

As part of their tasks, Alta Planning + Design is currently working on a memorandum that will recommend prioritization of SRTS activities for each school and district as part of next steps with the Safe Routes to School program. The results of the school prioritization will be reviewed with the community stakeholders along with the walk and roll maps.

Table 2: Next steps and schedule	
Future tasks	Schedule
Memorandum from Alta Planning + Design with program updates, school prioritization	December 2018
Review draft walk and roll maps with community	December 2018 to February 2019
Hire Safe Routes to School coordinator	January to February 2019
Safe Routes to School coordinator works with schools	February 2019 to June 2019
Community event to update project status with fun biking-related activities	Late Winter 2019 to Spring 2019
Develop Task Force to advise Safe Routes to School Program	Spring 2019
Promote National Biking Month, possible joint Bike to School and Bike to Work Day	May 2019
Phases 1 and 2 completion	June 2019
Release walk and roll maps, materials to schools for 2019-2020 school year	Summer 2019
Optional phase 2 extensions	2019-20, 2020-21

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification to comply with the Mitigation Fee Act is achieved by posting the annual report on November 19, 2018, 15 days before the meeting at which the City Council is anticipated to make required findings as outlined in the recommendation.

Attachments

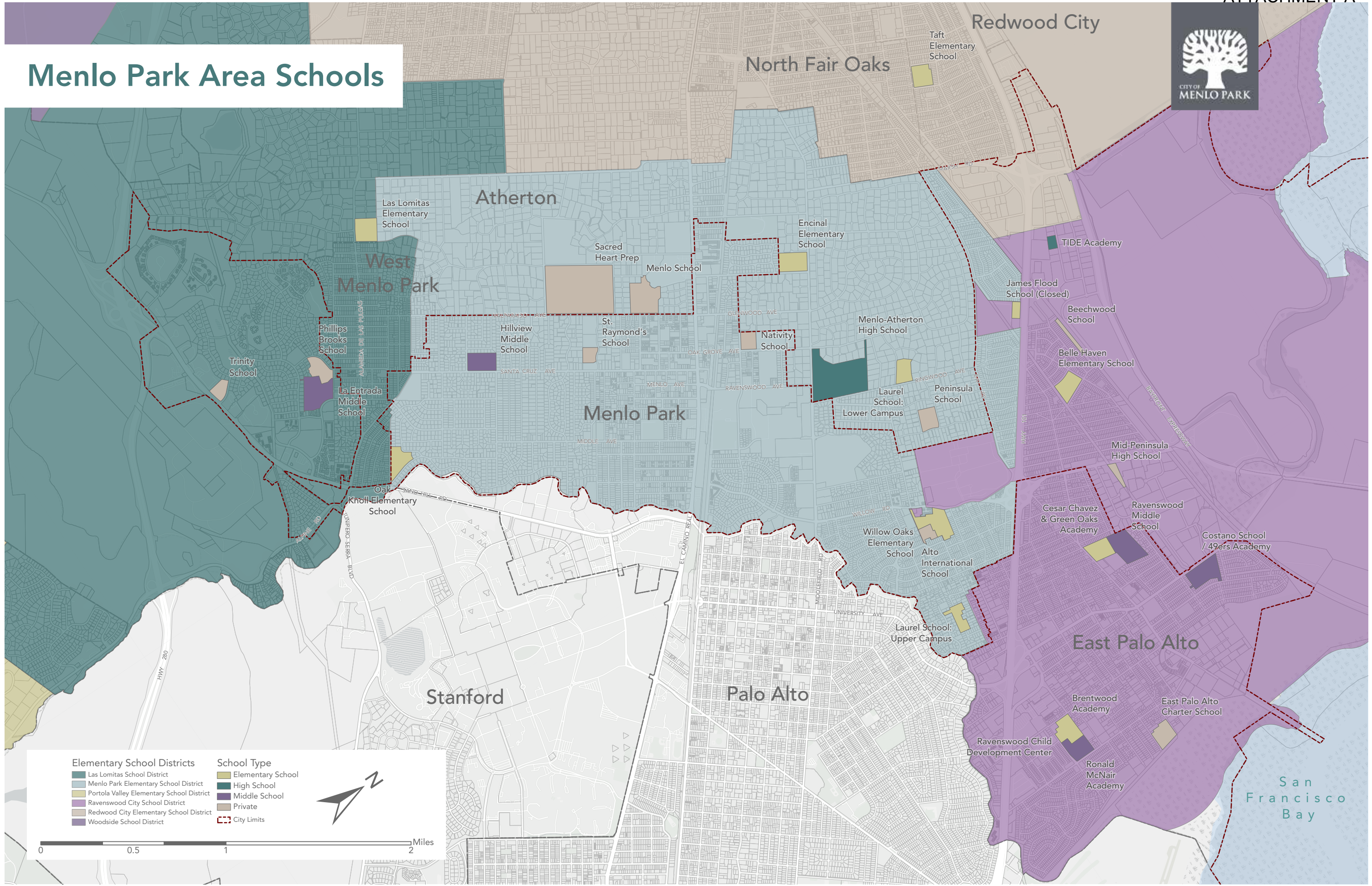
- A. Map of school locations in Menlo Park
- B. Draft Belle Haven School walk and roll map

Report prepared by:
Nicholas Yee, Transportation Demand Management Coordinator

Report reviewed by:
Kristiann Choy, Senior Transportation Engineer

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Menlo Park Area Schools



Elementary School Districts	School Type
Las Lomas School District	Elementary School
Menlo Park Elementary School District	High School
Portola Valley Elementary School District	Middle School
Ravenswood City School District	Private
Redwood City Elementary School District	City Limits
Woodside School District	



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WALKING SAFETY



Stop
at the curb's edge



Look
left, right, and
behind you



**Make
Eye Contact**
with drivers



Cross
with heads up and
looking around

BIKING SAFETY



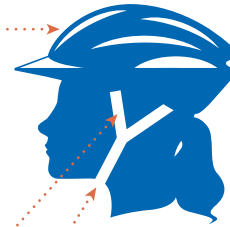
Be Predictable

Use hand signals and yield to pedestrians. Ride single file in the direction of traffic. Use lights when riding at night.

Wear Your Helmet

Your helmet should cover your forehead and rest just above your eyebrows.

Straps should form a V under ears when buckled.



Tighten the strap so it is snug under your chin.

DRIVING TIPS



Slow Down: Watch and stop for students and families crossing, especially when other vehicles block your view.

Park Safely: Park, stop, and load students only in designated spaces.

Follow Traffic Laws: Avoid mid-block U-turns and keep crosswalks, accessible parking spaces, fire hydrants, bus stops, and driveways clear.



DATE 2018

BELLE HAVEN ELEMENTARY SUGGESTED WALK & ROLL MAP



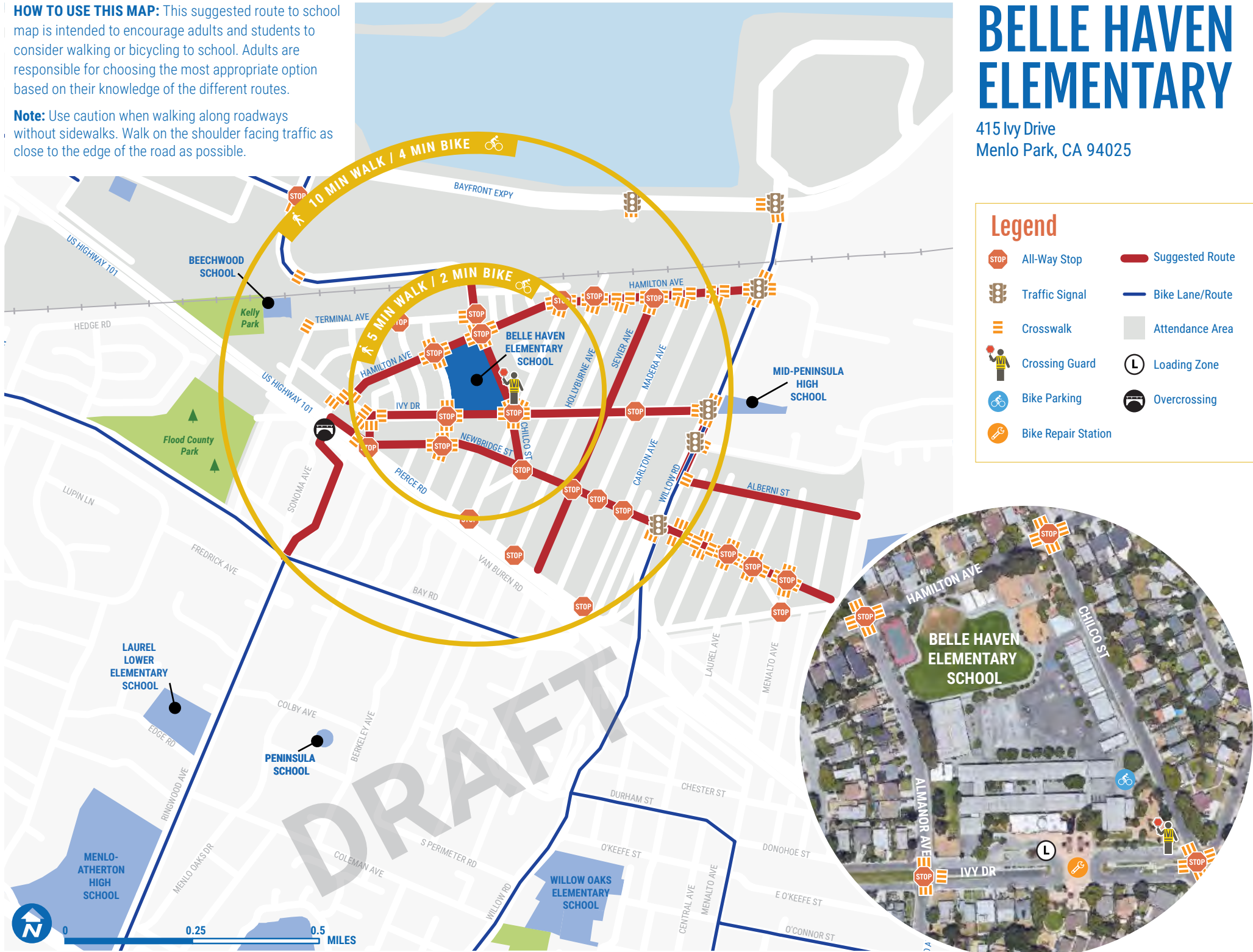
The City of Menlo Park supports children and families in walking and bicycling to school through safety education, fun events, and traffic safety improvements around schools.

HOW TO USE THIS MAP: This suggested route to school map is intended to encourage adults and students to consider walking or bicycling to school. Adults are responsible for choosing the most appropriate option based on their knowledge of the different routes.

Note: Use caution when walking along roadways without sidewalks. Walk on the shoulder facing traffic as close to the edge of the road as possible.

BELLE HAVEN ELEMENTARY

415 Ivy Drive
Menlo Park, CA 94025





STAFF REPORT

City Council
Meeting Date: 12/4/2018
Staff Report Number: 18-223-CC

Informational Item: Update on municipal regional stormwater permit requirement to implement a new Polychlorinated Biphenyls Building Demolition Program

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

The proposed project is consistent with Municipal Code Chapter 7.42, Ordinance No. 859 (Stormwater Management Program) which protects and enhances the water quality of our watercourses, water bodies and wetlands in a manner pursuant to and consistent with the Clean Water Act. Specifically, the stormwater management program ensures the future health, safety and general welfare of City residents by

1. Eliminating non-stormwater discharges to the storm sewer
2. Controlling the discharge to storm sewers from spills, dumping or disposal of materials other than stormwater
3. Reducing pollutants in stormwater discharges to the maximum extent practicable

Background

The Federal Clean Water Act, Section 402(p), as amended by the Water Quality Act of 1987, requires National Pollutant Discharge Elimination System (NPDES) permits for stormwater discharges from municipal separate storm sewer systems, stormwater discharges associated with industrial activity including construction activities, and designated stormwater discharges, which are considered significant contributors of pollutants to waters of the United States.

The San Francisco Bay Municipal Regional Stormwater NPDES Permit Order No. R2-2015-0049 (MRP) outlines the State's requirements for municipal agencies to address the water quality and flow-related impacts of stormwater runoff. It is a comprehensive permit with required activities related to construction sites, industrial sites, illegal discharges, new development and municipal operations. It also requires a public education program, implementing targeted pollutant reduction strategies, and a monitoring program to help characterize local water quality conditions and to begin evaluating the overall effectiveness of the permit's implementation. Provision C.12 of the MRP (Attachment A) requires Bay Area local agencies to develop a program to keep polychlorinated biphenyls (PCBs) from building materials out of storm drains during building demolition. Requirements include:

- Developing methods to identify applicable structures and priority materials before demolition
- Developing protocols to ensure that PCBs are not discharged to the storm drain during demolition of these structures
- Establishing the necessary authority for the protocol via municipal ordinance or other mechanism

Specifically, Provision C.12.f requires each local agency to develop an assessment protocol methodology for managing materials with PCBs in applicable structures that are planned for demolition, so that PCBs do not enter municipal storm drain systems. Each agency is required to adopt a legal mechanism, if legal authority does not already exist, in order to implement a PCBs Building Demolition Program no later than July 1, 2019.

The Bay Area Stormwater Management Agencies Association (BASMAA) is assisting Bay Area local agencies to address these stormwater permit requirements. They have developed guidance and tools, including a pre-demolition protocol for assessing PCBs in buildings, model language for municipal adoption of the new program, and model demolition permit materials. BASMAA's protocol for evaluating priority PCBs-containing materials before building demolition (Attachment B) details an evaluation methodology and guidance on data collection including priority building materials to be tested, sampling procedures and frequencies, laboratory analyses and reporting. The PCBs Building Demolition Program will focus on requiring sampling prior to demolition for these four priority building materials:

- Caulks and sealants
- Thermal/fiberglass insulation and other insulating materials
- Adhesive/mastic
- Rubber window seals/gaskets

Sampling will be a requirement for commercial, public, institutional, and industrial structures constructed or remodeled between January 1, 1950 and December 31, 1980. Single-family homes and wood-frame structures will be exempt.

If PCBs are found to be greater than or equal to 50 parts per million (ppm) in any of the priority building materials, applicants will be required to follow all applicable federal and state requirements for notification and abatement prior to demolition, similar to abatement requirements for asbestos. This may include reporting to the U.S. Environmental Protection Agency and/or the San Francisco Bay Regional Water Quality Control Board. These agencies will be meeting in December to discuss their process in assisting applicants if PCB levels exceed 50 ppm.

Analysis

The City is required to adopt a legal mechanism, if legal authority does not already exist, in order to implement a PCBs Building Demolition Program. The City already has legal authority through Section 7.42.170 of Municipal Code Chapter 7.42 Stormwater Management Program which states the following:

“Any authorized enforcement official may request that any person engaged in any activity and/or owning or operating any facility which may cause or contribute to storm water pollution or contamination, illicit discharges, and/or discharge of non-storm water to the storm water system, undertake such monitoring activities and/or analyses and furnish such reports as the official may specify. The burden, including costs, of these activities, analyses and reports shall bear a reasonable relationship to the need for the monitoring, analyses and reports and the benefits to be obtained. The recipient of such request shall undertake and provide the monitoring, analyses and/or reports requested.”

Staff anticipates that the following Community Development and Public Works staff will be responsible for implementing the following tasks for the PCBs Building Demolition Program:

- Receive applications for demolition permit (Building)
- Provide assessment form for the PCBs Building Demolition Program (Building)

- Review sampling data and reports (Engineering)
- Issue demolition permits (Building)

Staff will provide sufficient advance outreach to notify the public of this new program via the City's website, a Building handout, a public notice in a local newspaper, and targeted outreach to the development community.

The majority of the City's stormwater activities are funded by the general fund. Staff time to review sampling data and reports would be considered a development-related fee. Staff is investigating the staff time required to review assessment forms for the PCBs Building Demolition Program, and will return to City Council in the near future to recommend adopting development-related fees for the PCBs Building Demolition Program and updating the master fee schedule.

Staff anticipates implementing the PCBs Building Demolition Program starting in Spring 2019, before the July 1, 2019, deadline.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it is a minor change that will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Provision C.12 of the San Francisco Bay Municipal Regional Stormwater NPDES Permit No. R2-2015-0049
- B. BASMAA's PCBs in Priority Building Materials: Model Screening Assessment Applicant Package

Report prepared by:
Pam Lowe, Senior Civil Engineer

Report viewed by:
Justin Murphy, Public Works Director

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C.12. Polychlorinated Biphenyls (PCBs) Controls

The Permittees shall implement the following control program for PCBs. The Permittees shall implement PCBs control measures (source control, treatment control, and pollution prevention strategies) in areas where benefits are most likely to accrue (focused implementation) and report on those control measures according to the provisions below. The provisions implement the urban runoff requirements of the PCBs TMDL. Permittees shall reduce PCBs loads by a specified amount during the term of the Permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan. The allocation, on an aggregate and regionwide basis, is 2 kg/yr (1.6 kg/yr allocated to Permittees) to be achieved by March 2030. This wasteload allocation represents a load reduction from all urban runoff sources to the Bay of approximately 18 kg/yr (14.4 kg/yr from Permittees) compared to loads estimated using data collected in 2003. The Permittees may comply with any requirement of this Provision through a collaborative effort.

C.12.a. Implement Control Measures to Achieve PCBs Load Reductions.

- i. Task Description** – Permittees shall implement PCBs source and treatment control measures and pollution prevention strategies to achieve PCBs load reductions in Table 12.1 throughout the area covered by this Permit (permit-area).
- ii. Implementation level** –To comply with this provision element, Permittees shall:
 - (1) Identify the watersheds or portions of watersheds (management areas) in which PCBs control measures are currently being implemented and those in which new control measures will be implemented during the term of this permit;
 - (2) Identify the control measures that are currently being implemented and those that will be implemented in each watershed and management area;
 - (3) Submit a schedule of control measure implementation; and
 - (4) Implement sufficient control measures to achieve the permit-area-wide reduction stated below or the county-specific load reduction performance criteria shown in Table 12.1. The Permittees shall demonstrate achievement of these load reductions as required in provision C.12.b. Load reductions from control measures implemented prior to the effective date of this Permit may be counted toward the required reductions of this Permit term if these control measures were established or implemented during the Previous Permit term, but load reductions from the activity were not realized or credited during the Previous Permit term (e.g., they were implemented after the 2014 Integrated Monitoring Report was submitted).

For all Permittees combined, these county-specific average annual PCBs load reduction performance criteria shall total 0.5 kg/yr by June 30, 2018, and 3.0 kg/yr by June 30, 2020. The June 30, 2020, deadline shall be extended to December 31, 2020, if the Permittees provide documentation that control measures that will attain the load reduction will be implemented by December 31, 2020. The Fact Sheet describes the amount of PCBs load reduction benefit associated with implementing a number of control measures.

The Permittees may meet the load reductions as a group. The load reduction requirements summed over all Permittees within each county are set forth in Table 12.1. If neither the permit-area-wide total load reduction criteria nor the county-specific load reduction criterion is achieved, Permittees shall achieve load reductions consistent with their share of the county total. The individual Permittee share of the county load reduction performance criteria is the proportion of county population in each municipality.

If all the Permittees in a county wish to use an alternative method of distributing the county load reductions, these Permittees shall report through their countywide stormwater programs on their alternative method (if different from default population-based method) for assigning Permittee-specific load fractions in the 2017 Annual Report. This can be determined by the Permittees within the counties and may be different from one county to the next, but all Permittees within a county shall use the same method of distributing the county load reductions. Any acceptable alternative load reduction criteria must be approved through an amendment of this Permit.

Table 12.1 PCBs Load Reductions Performance Criteria by County

County	PCBs load reduction (g/yr) by June 30, 2018	PCBs Load Reduction (g/yr) by June 30, 2020
Alameda Permittees	160	940
Contra Costa Permittees	90	560
San Mateo Permittees	60	370
Santa Clara Permittees	160	940
Solano Permittees: Suisun City, Vallejo, Fairfield	30	190
Totals	500	3000

iii. Reporting

- (1) The Permittees shall report by April 1, 2016, progress toward developing a list of the watersheds and management areas where PCBs control measures are currently being implemented and those in which control measures will be implemented (C.12.a.ii(1)) during the term of this Permit as well as the monitoring data and other information used to select these watersheds and management areas. This list should include watersheds containing contaminated sites referred to the Water Board as well.
- (2) The Permittees shall report in their 2016 Annual Report the list of watersheds and management areas where control measures are currently being implemented or will be implemented during the term of the Permit (C.12.a.ii(1)) along with the specific control measures (C.12.a.ii(2)) that are currently being implemented and those that will be implemented in these watersheds and management areas

and an implementation schedule (C.12.a.ii(3)) for these control measures. In addition to the list of watersheds and management areas, this report shall include:

- a. The number, type, and locations and/or frequency (if applicable) of control measures;
 - b. A cumulative listing of all potentially PCB-contaminated sites Permittees have discovered and referred to the Water Board to date, with a brief summary description of each site and where to obtain further information;
 - c. The description, scope, and start date, of PCBs control measures;
 - d. For each structural control and non-structural BMP, interim implementation progress milestones (e.g., construction milestones for structural controls or other relevant implementation milestones for structural controls and non-structural BMPs) and a schedule for milestone achievement; and
 - e. Clear statements of the roles and responsibilities of each participating Permittee for implementation of pollution prevention or control measures identified under C.12.a.ii(2).
- (3) Beginning with the 2017 Annual Report and continuing in all Annual Reports, Permittees shall update all the information required under C.12.a.iii(2) as necessary to account for new control measures implemented but not described in the 2016 Annual Report.
 - (4) All Permittees in a county may submit, in the 2017 Annual Report, an alternative (different from the default described in C.12.a.ii(4)) and supporting information to derive Permittee-specific proportions of load reduction criteria.

C.12.b. Assess PCBs Load Reductions from Stormwater

- i. Task Description** – The Permittees shall develop, document, and implement an assessment methodology and data collection program to quantify in a technically sound manner PCBs loads reduced through implementation of pollution prevention, source control, and treatment control measures, including PCBs source control, stormwater treatment, green infrastructure and other measures. The Permittees shall use the assessment methodology to demonstrate progress toward achieving the load reductions required in this Permit term and the program area wasteload allocations.

A reasonable and technically sound load reduction accounting system is described in the Fact Sheet and is based on information submitted by Permittees in the January 2014 Integrated Monitoring Report. This task consists of documenting the method described in the Fact Sheet or any alternative methodology, updating and refining the accounting system to account for new information, justifying assumptions, analytical methods, sampling schemes and parameters used to quantify the load reduction for each type of control measure, and indicating what information will be collected and submitted to confirm the calculated load reduction for each unit of activity.

- ii. Implementation Level** – The Permittees shall adequately quantify the PCBs load reductions achieved through all the pollution prevention, source control, and

treatment control measures Permittees will implement in this Permit term, except for measures to manage PCB-containing materials and wastes during building demolitions (C.12.f).

For this Permit term, the Permittees will receive a total of 2000 g/yr (2 kg/yr) PCBs load reduction value if they have developed and implemented effective protocols for managing PCB-containing materials during demolition so that PCBs do not drain into the MS4 as required in provision C.12.f. The 2000 g/yr PCBs load reduction value shall be in furtherance of meeting the June 30, 2020, 3000 g/yr requirement in Table 12.1.

The Permittee-specific portion of the 2000 g/yr PCBs load reduction value shall be based on the proportion of county population in each municipality. If all the Permittees in a county wish to use an alternative method of distributing the county load reductions for managing PCB-containing materials during demolition, these Permittees shall report through their countywide stormwater programs on their alternative method (if different from default population-based method) for assigning Permittee-specific load fractions in the 2019 Annual Report. This can be determined by the Permittees within the counties and may be different from one county to the next, but all Permittees within a county shall use the same method of distributing the county load reductions. Any acceptable alternative load reduction criteria must be approved through an amendment of this Permit.

iii. Reporting

- (1) In their 2016 Annual Report the Permittees shall submit for approval by the Executive Officer the assessment methodology and data collection program required in C.12.b.i. and described in C.12.b.ii.
- (2) Beginning with the 2017 Annual Report, Permittees shall report annually the loads reduced using the default (from the Fact Sheet) or alternative approved assessment methodology to demonstrate cumulative PCBs load reduced from each control measure implemented since the beginning of the Permit term. Permittees shall submit all supporting data and information necessary to substantiate the load reduction estimates, including appropriate reference to the control measures described in the reporting required under C.12.a.
- (3) In their 2018 and subsequent Annual Reports, the Permittees shall submit, for Executive Officer approval, any refinements, if necessary, to the measurement and estimation methodologies to assess PCBs load reductions in the subsequent Permit.
- (4) All Permittees in a county may submit, in the 2019 Annual Report, an alternative (different from the default population-based method) and supporting information to derive Permittee-specific shares of load reduction value associated with implementation of C.12.f.

C.12.c. Plan and Implement Green Infrastructure to reduce PCBs loads

- i. **Task Description** – Permittees shall implement green infrastructure projects during the term of the Permit to achieve PCBs load reduction performance criteria in Table

12.2 in furtherance of meeting the 3000 g/year load reduction criteria required in C.12.a.ii.(4) and Table 12.1. Green infrastructure projects on both public and private land can serve to achieve this load reduction requirement. Additionally, Permittees shall prepare a reasonable assurance analysis (see below and the Fact Sheet) to demonstrate quantitatively that PCBs load reductions of at least 3 kg/yr will be achieved by 2040 through implementation of green infrastructure throughout the permit-area.

Table 12.2 PCBs Load Reduction Performance Criteria via Green Infrastructure Implementation by County

County Permittees	PCBs Load Reduction (g/yr) by June 30, 2020, through green infrastructure
Alameda Permittees	37
Contra Costa Permittees	23
San Mateo Permittees	15
Santa Clara Permittees	37
Solano Permittees: Suisun City, Vallejo, Fairfield	8
Totals	120

ii. Implementation Level

- (1) The Permittees shall implement green infrastructure projects so that PCBs loads are collectively reduced by 120 g/yr by June 30, 2020, which shall be extended to December 31, 2020, if the Permittees provide documentation that control measures that will attain the load reduction will be implemented by December 31, 2020. Permittees shall demonstrate achievement of these load reductions by using the accounting methods approved under provision C.12.b.iii(1). Load reductions from green infrastructure projects implemented prior to the effective date of this Permit may be counted toward the required green infrastructure reductions of this Permit term if these projects were established and implemented during the Previous Permit term, but load reductions from the activity were not realized or credited during the Previous Permit term.

The Permittees may meet the load reduction as a group. The load reduction requirements summed over all Permittees within each county are set forth in Table 12.2. If neither the permit-area-wide total load reduction nor the county-specific load reduction is achieved, Permittees shall achieve load reductions consistent with their share of the county total under provision C.12.a.ii(4).

- (2) Permittees shall prepare a reasonable assurance analysis that demonstrates how green infrastructure will be implemented in order to achieve a PCBs load reduction of 3 kg/yr across the permit-area by 2040. This analysis shall include the following:
 - a. Quantify the relationship between areal extent of green infrastructure implementation and PCBs load reductions, taking into consideration the scale of contamination of the treated area as well as the pollutant removal effectiveness of likely green infrastructure strategies;
 - b. Estimate the amount and characteristics of land area that will be treated through green infrastructure by 2020, 2030, and 2040;
 - c. Estimate the amount of PCBs load reductions that will result from green infrastructure implementation by 2020, 2030, and 2040;
 - d. Quantitatively demonstrate that PCBs reductions of at least 3 kg/yr will be realized by 2040 through implementation of green infrastructure projects; and
 - e. Ensure that the calculation methods, models, model inputs and modeling assumptions used to fulfill C.12.c.ii(2)a-d have been validated through a peer review process.

iii. Reporting

- (1) The Permittees shall submit in their 2018 Annual Report, as part of reporting for C.12.b.iii(3), the quantitative relationship between green infrastructure implementation and PCBs load reductions. This submittal shall include all data used and a full description of models and model inputs relied on to establish this relationship.
- (2) The Permittees shall submit in their 2020 Annual Report an estimate of the amount and characteristics of land area that will be treated through green infrastructure implementation by 2020, 2030, and 2040. This submittal shall include all data used and a full description of models and model inputs relied on to generate this estimate.
- (3) The Permittees shall submit in their 2020 Annual Report a reasonable assurance analysis to demonstrate quantitatively that PCBs reductions of at least 3 kg/yr will be realized by 2040 through implementation of green infrastructure projects. This submittal shall include all data used and a full description of models and model inputs relied on to make the demonstration and documentation of peer review of the reasonable assurance analysis.
- (4) The Permittees shall submit as part of reporting for C.12.b.iii(4), beginning with their 2019 Annual Report an estimate of the amount of PCBs load reductions resulting from green infrastructure implementation during the term of the Permit. This submittal shall include all data used and a full description of models and model inputs relied on to generate this estimate.

C.12.d. Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations

- i. Task Description** – Permittees shall prepare a plan and schedule for PCBs control measure implementation and reasonable assurance analysis demonstrating that sufficient control measures will be implemented to attain the PCBs TMDL wasteload allocations by 2030.
- ii. Implementation level** – Permittees shall prepare a PCBs control measures implementation plan and corresponding reasonable assurance analysis that demonstrates quantitatively that the plan will result in PCBs load reductions sufficient to attain the PCBs TMDL wasteload allocations by 2030. The plan must:
 - (1) Identify all technically and economically feasible PCBs control measures to be implemented (including green infrastructure projects); and
 - (2) Include a schedule according to which these technically and economically feasible control measures will be fully implemented; and
 - (3) Provide an evaluation and quantification of the PCBs load reduction of such measures as well as an evaluation of costs, control measure efficiency and significant environmental impacts resulting from their implementation.

iii. Reporting

Permittees shall submit the plan and schedule in the 2020 Annual Report.

C.12.e. Evaluate PCBs Presence in Caulks/Sealants Used in Storm Drain or Roadway Infrastructure in Public Rights-of-Way

- i. Task Description** –Permittees shall collect samples of caulk and other sealants used in storm drains and between concrete curbs and street pavement and investigate whether PCBs are present in such material and in what concentrations. PCBs are most likely present in material applied during the 1970s, so the focus of the investigations should be on structures installed during this era.

ii. Implementation Level

Permittees shall collect at least 20 composite samples (throughout the permit-area) of the caulks and sealants used in storm drains or roadway infrastructure in public rights-of-way and analyze this material for PCBs in such a way as to be able to detect a minimum PCBs concentration of 200 parts per billion. This sampling and analysis will count toward partial fulfillment of the monitoring effort aimed at finding PCBs sources (see management information need in C.8.f).

iii. Reporting

Permittees shall report on the results (including all data gathered) of this investigation no later than the 2018 Annual Report.

C.12.f. Manage PCB-Containing Materials and Wastes During Building Demolition Activities So That PCBs Do Not Enter Municipal Storm Drains

- i. Task Description** – Permittees shall develop and implement or cause to be developed and implemented an effective protocol for managing materials with PCBs concentrations of 50 ppm or greater in applicable structures at the time such structures undergo demolition so that PCBs do not enter MS4s. PCBs from these structures can enter storm drains during and/or after demolition through vehicle track-out, airborne releases, soil erosion, or stormwater runoff.

Applicable structures include, at a minimum, commercial, public, institutional and industrial structures constructed or remodeled between the years 1950 and 1980 with building materials with PCBs concentrations of 50 ppm or greater. Single-family residential and wood frame structures are exempt.

A Permittee is exempt from this requirement if it provides evidence acceptable to the Executive Officer that the only structures that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame structures.

ii. Implementation Level

- (1) The Permittees shall develop a protocol by June 30, 2019, that includes each of the following components, at a minimum:
 - a. The necessary authority to ensure that PCBs do not enter MS4s from PCB-containing materials in applicable structures at the time such structures undergo demolition;
 - b. A method for identifying applicable structures prior to their demolition; and
 - c. Method(s) for ensuring PCBs are not discharged to the storm drain from demolition of applicable structures.
- (2) By July 1, 2019, and thereafter, the Permittees shall implement or cause to be implemented the PCBs management protocol for ensuring PCBs are not discharged to MS4s from demolition of applicable structures via vehicle track-out, airborne releases, soil erosion, or stormwater runoff.
- (3) By July 1, 2019, Permittees shall develop an assessment methodology and data collection program to quantify in a technically sound manner PCBs loads reduced through implementation of the protocol for controlling PCBs during demolition of applicable structures.

iii. Reporting

- (1) In their 2016, 2017, and 2018 Annual Reports, the Permittees shall summarize the steps they have taken to begin implementing this requirement, which could include working with State and local agencies on inter-agency coordination regarding building demolitions, developing ordinances or policies, obtaining information materials, updating or supplementing permit application materials, developing a tracking tool for potential PCB-containing structures, and training relevant staff as needed to comply with this sub-provision.

- (2) Each Permittee seeking exemption from C.12.f requirements must submit in its 2017 Annual Report documentation, such as historic maps or other historic records, that clearly demonstrates that the only structures that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame structures.
- (3) In their 2020 Annual Report, the Permittees shall provide documentation demonstrating implementation with each of the minimum requirements in C.12.f.ii(1)(a)-(c).
- (4) In their 2020 Annual Report and thereafter, the Permittees shall provide documentation of each of the following items:
 - a. The number of applicable structures that applied for a demolition permit during the reporting year; and
 - b. A running list of the applicable structures that applied for a demolition permit (since the date the PCBs control protocol was implemented) that had material(s) with PCBs at 50 ppm or greater, with the address, demolition date, and brief description of PCBs control method(s) used.
- (5) In their 2020 Annual Report, Permittees shall submit an assessment methodology and data collection program to quantify PCBs loads reduced through implementation of the protocol for controlling PCBs during building demolition. This should be reported at the regional level on behalf of all Permittees.

C.12.g. Fate and Transport Study of PCBs: Urban Runoff Impact on San Francisco Bay Margins

- i. Task Description** – The Permittees shall conduct or cause to be conducted studies concerning the fate, transport, and biological uptake of PCBs discharged from urban runoff to San Francisco Bay margin areas.
- ii. Implementation Level** – The specific information needs include understanding the in-Bay transport of PCBs discharged in urban runoff, the sediment and food web PCBs concentrations in margin areas receiving urban runoff, the influence of urban runoff on the patterns of food web PCBs accumulation, especially in Bay margins, and the identification of drainages where urban runoff PCBs are particularly important in food web accumulation.
- iii. Reporting** – The Permittees shall submit in their 2017 Annual Report a workplan describing the specific manner in which these information needs will be accomplished and describing the studies to be performed with a preliminary schedule. The Permittees shall report on status of the studies in their 2018 Annual Report. The Permittees shall report in the March 15, 2020, Integrated Monitoring Report the findings and results of the studies completed, planned, or in progress as well as implications of studies on potential control measures to be investigated, piloted or implemented in future permit cycles.

C.12.h. Implement a Risk Reduction Program

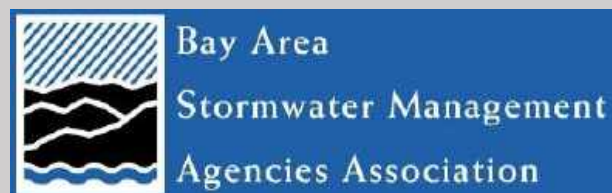
- i. Task Description** – The Permittees shall conduct an ongoing risk reduction program to address public health impacts of PCBs in San Francisco Bay/Delta fish. The fish risk reduction program shall take actions to reduce actual and potential health risks in those people and communities most likely to consume San Francisco Bay-caught fish, such as subsistence fishers and their families. The risk reduction framework developed in the Previous Permit term, which funded community-based organizations to develop and deliver appropriate communications to appropriately targeted individuals and communities, is an appropriate approach. Permittees should work with local health departments, the Bay Area Clean Water Agencies, and the Western States Petroleum Association to leverage resources for this program and to appropriately target at-risk populations.
- ii. Implementation Level**

 - (1) At a minimum, Permittees shall conduct or cause to be conducted an ongoing risk reduction program with the potential to reach 3,000 individuals annually who are likely consumers of San Francisco Bay-caught fish. Permittees are encouraged to collaborate with San Francisco Bay industrial and wastewater discharger agencies in meeting this requirement.
 - (2) In year four of the Permit term, Permittees shall evaluate the effectiveness of their risk reduction program.
- iii. Reporting** – The Permittees shall report on the status of the risk reduction program in each of their Annual Reports, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish. The Permittees shall report the findings of the effectiveness evaluation of their risk reduction program in their 2020 Annual Report.

PCBs in Priority Building Materials: Model Screening Assessment Applicant Package



Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training



August 2018

This document is a deliverable of the Bay Area Stormwater Management Agencies Association (BASMAA) project *Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training*. BASMAA developed guidance, tools, and outreach and training materials to assist with San Francisco Bay Area municipal agencies’ efforts to address the requirements of Provision C.12.f. of the Bay Area Municipal Regional Stormwater Permit (referred to as the MRP). Provision C.12.f of the MRP requires Permittees to manage PCBs–containing building materials during demolition.

We gratefully acknowledge the BASMAA Steering Committee for this project, which provided overall project oversight, including during the development of this and other project deliverables:

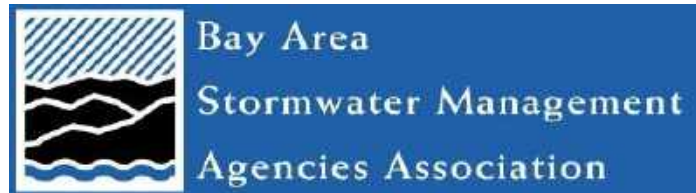
- Reid Bogert, Stormwater Program Specialist, San Mateo Countywide Water Pollution Prevention Program (BASMAA Project Manager)
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- Kevin Cullen, Program Manager, Fairfield-Suisun Urban Runoff Management Program
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- Gary Faria, Supervisor, Inspection Services, Building Inspection Division, Contra Costa County
- Napp Fukuda, Deputy Director - Watershed Protection Division, City of San José
- Ryan Pursley, Chief Building Official, Building Division, City of Concord
- Pam Boyle Rodriguez, Manager, Environmental Control Programs – Stormwater, City of Palo Alto
- Jim Scanlin, Program Manager, Alameda Countywide Clean Water Program
- Melody Tovar, Regulatory Programs Division Manager, City of Sunnyvale

We also gratefully acknowledge the project Technical Advisory Group, which provided feedback from a variety of project stakeholders during development of selected project deliverables:

Stakeholder Group	Representative(s)
Regulatory – stormwater/PCBs	Luisa Valiela and Carmen Santos, U.S. EPA Region 9
Regulatory – stormwater/TMDL	Jan O’Hara, San Francisco Bay Regional Water Quality Control Board
Regulatory – experience with related program (asbestos management)	Ron Carey and Richard Lew, Bay Area Air Quality Management District
Industry – demolition contractors	Avery Brown, Ferma Corporation
Industry – remediation consultants	John Martinelli, Forensic Analytical Consulting John Trenev, Bayview Environmental Services, Inc.
MRP Permittee – large municipality	Patrick Hayes, City of Oakland
MRP Permittee – medium municipality	Kim Springer, San Mateo County Office of Sustainability
MRP Permittee – small municipality	Amanda Booth, City of San Pablo

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Prepared by:

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Larry Walker Associates
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David J. Powers & Associates, Inc.



MEMORANDUM

TO: BASMAA Board of Directors

FROM: BASMAA Project Team: EOA, Inc., Larry Walker Associates, Geosyntec Consultants, Stephanie Hughes, and David J. Powers & Associates, Inc.

DATE: August 13, 2018

SUBJECT: Supplemental Demolition Permit Application Materials - Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training

This memorandum transmits a deliverable for Task 5 (Supplemental Demolition Permit Application Materials) of the Bay Area Stormwater Management Agencies Association (BASMAA) project *Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training*. BASMAA developed guidance, tools, and outreach and training materials to assist with San Francisco Bay Area municipal agencies’ efforts to address the requirements of Provision C.12.f. of the Bay Area Municipal Regional Stormwater Permit (SFBRWQCB 2015, referred to as the MRP). The MRP is issued by the San Francisco Bay Regional Water Quality Control Board¹ (Regional Water Board). Provision C.12.f requires Permittees to manage PCBs–containing building materials during demolition.

OBJECTIVES OF THIS TECHNICAL MEMORANDUM

MRP Provision C.12.f.ii (2) requires that by July 1, 2019 Permittees “implement or cause to be implemented the PCBs management protocol for ensuring PCBs are not discharged to MS4s from demolition of applicable structures via vehicle track-out, airborne releases, soil erosion, or stormwater runoff.” This memorandum was developed to assist Permittees to comply with Provision C.12.f.ii (2) by transmitting a *PCBs in Priority Building Materials: Model Screening Assessment Applicant Package*.

PCBS IN PRIORITY BUILDING MATERIALS SCREENING ASSESSMENT APPLICANT PACKAGE

The attached *PCBs in Priority Building Materials Screening Assessment Applicant Package (Applicant Package)* contains model supplemental demolition permit application materials that incorporate the PCBs in building materials control program requirements in the MRP. It includes supplemental demolition permit application model materials, including an overview of the process, forms, applicant instructions, and process flow charts. The starting point was the model process flowcharts and forms developed for the PCBs in Caulk Project in 2011.²

The *Applicant Package* incorporates the steps outlined in the *Protocol for Evaluating Priority PCBs–Containing Materials before Building Demolition* (BASMAA 2018), which was developed via Task 3 of this BASMAA regional project, and converts those steps into appropriate application questions and submittals. In addition, the *Applicant Package* incorporates gathering tracking and assessment

¹ The MRP was reissued November 19, 2015, with an effective date of January 1, 2016. There are 77 Phase I municipal stormwater Permittees in five Bay Area counties, which are among the over 90 local agencies represented by BASMAA.

² <http://www.sfestuary.org/taking-action-for-clean-water-pcbs-in-caulk-project>

information related to the MRP Provision C.12.f.ii (3) requirement to develop an assessment methodology and data collection program to quantify reductions in PCBs loads to MS4s through the new program for controlling PCBs during demolition. Task 7 of this BASMAA regional project developed a conceptual approach to developing the assessment methodology and data collection program that is coordinated with the *Applicant Package*.

The *Applicant Package* summarizes the typical process that a local agency will need to follow to implement a new program to manage PCBs-containing materials during building demolition. It is anticipated that each jurisdiction's approach to implementing the new program will vary depending upon that agency's current procedures and needs. Potential approaches include using the model materials as a stand-alone program, or incorporating questions in the model materials into existing demolition permit or building permit applications, Construction and Demolition (C&D) applications and plan development guidance, and/or information management systems such as GreenHalo™. However, the *Applicant Package* was developed as a stand-alone package in order to provide a complete overview of a model process.

REFERENCES

California Regional Water Quality Control Board, San Francisco Bay Region (SFBRWQCB) 2015. Municipal Regional Stormwater NPDES Permit, Order R2–2015–0049, NPDES Permit No. CAS612008. November 19, 2015.

BASMAA 2018. Protocol for Evaluating Priority PCBs–Containing Materials before Building Demolition. Prepared for Bay Area Stormwater Management Agencies Association (BASMAA). August 2018.

PCBs in Priority Building Materials: Model Screening Assessment Applicant Package

Contents

DISCLAIMER	iv
Process Overview	1
Applicant Instructions for Completing the PCBs Screening Assessment Form	2
Part 1. Owner and project information	2
Part 2. Is building subject to the screening requirement based on type, use, and age of the building?	2
Part 3. Report concentrations of PCBs in priority building materials	3
Part 4. Certification	4
Notices to Applicants Regarding Federal and State PCBs Regulations	5
Agency Contacts	6
Attachment A Process Flow Chart	A-1
Attachment B PCBs in Priority Building Materials Screening Assessment Form	B-1
Attachment C Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition	C-1

DISCLAIMER

Information contained in BASMAA products is to be considered general guidance and is not to be construed as specific recommendations for specific cases. BASMAA is not responsible for the use of any such information for a specific case or for any damages, costs, liabilities or claims resulting from such use. Users of BASMAA products assume all liability directly or indirectly arising from use of the products.

The material presented in this document is intended solely for the implementation of a municipal regulatory program required by the San Francisco Bay Area Regional Water Quality Control Board Municipal Regional Stormwater Permit for the protection of water quality under the Clean Water Act.

BASMAA prepared the tools and guidance herein to assist MRP Permittees' efforts to address the requirements of Provision C.12.f. of the MRP. The project team received input from a variety of stakeholders during development of the tools and guidance, including regulators (San Francisco Bay Regional Water Quality Control Board, U.S. EPA, and Bay Area Air Quality Management District staff), Bay Area municipal agency staff, and industry representatives.

This document does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; and abatement at sites with PCBs (or other contaminants). The applicant is responsible for knowing and complying with all relevant laws and regulations.

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Process Overview

This document provides a model PCBs in Priority Building Materials Screening Assessment process to be conducted by demolition project proponents (applicants). A flow chart illustrating the above processes is provided in **Attachment A**.

Applicants proposing to demolish buildings must conduct the PCBs screening assessment. Through the PCBs screening assessment applicants will:

- 1) Determine whether the building proposed for demolition is likely to have PCBs-containing building materials (see discussion of applicable structure); and
- 2) Determine whether PCBs are present at a concentration equal to or greater than 50 parts per million (ppm) in building materials.

Use the *PCBs Screening Assessment Form (Attachment B)* to summarize and certify the information required by the municipality to issue the demolition permit. The form is divided into four parts:

- **Part 1** provide applicant information and project location.
- **Part 2** complete the questions to identify whether the project involves an applicable structure. If the demolition does not involve an applicable structure, the form may be certified and submitted without completing Part 3.
- **Part 3** complete the questions to provide the concentrations of PCBs in any priority building materials.
- **Part 4** certify the information being submitted.

Note that fluorescent light ballasts, polyurethane foam furniture, and Askarel fluid used in transformers, all of which may contain PCBs, are typically managed during pre-demolition activities under current regulations and programs that require removal of universal waste and outdated transformers. For this process it is assumed that those materials will be evaluated and managed under those existing programs.

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the MRP.¹ It does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; or abatement at sites with PCBs (or other contaminants). **The applicant is responsible for complying with all relevant laws and regulations. See the Notices to Applicants section for additional information.**

Water quality within the San Francisco Bay Region is regulated by the San Francisco Bay Area Regional Water Quality Control Board (Regional Water Board).

In 2015, the Regional Water Board reissued the Municipal Regional Permit (MRP)¹ that regulates discharges of stormwater runoff. The MRP includes provisions for reducing discharges of polychlorinated biphenyls (PCBs) in stormwater runoff and requires municipalities to develop a program to manage priority PCBs-containing building materials during demolition and implement the program by July 1, 2019.

Existing federal and state regulations create the framework for managing PCBs in building materials once those PCBs are identified through this program and for disposing of wastes containing PCBs.

¹ A National Pollutant Discharge Elimination System (NPDES) permit, Order No. R2-2015-0049, issued to municipalities in the counties of Alameda, Contra Costa, San Mateo, and Santa Clara, and the Cities of Fairfield, Suisun City, and Vallejo.

Applicant Instructions for Completing the PCBs Screening Assessment Form

Applicants for demolition permits or other permits that involve the complete demolition of a building must conduct an assessment to screen for PCBs in priority building materials. Use the *PCBs Screening Assessment Form*, to summarize and certify the information needed by the municipality to issue a demolition permit. The form is provided in **Attachment B**. If the project includes the demolition of multiple buildings complete one form for each building to be demolished.

Part 1. Owner and project information

Complete the owner and consultant information and the project location information.

For the Type of Construction select one of the following options:

- **Wood Frame** (Buildings constructed with lumber or timbers, which make up the studs, plates, joists, and rafters.)
- **Masonry Construction** (Buildings constructed with concrete blocks or bricks as the load bearing walls typically with the floors and ceilings constructed with wooden joists.)
- **Steel Frame Construction** (Buildings constructed with steel studs or steel columns and steel joists or trusses to support floors and roofs. Includes light gauge steel construction and high-rise steel construction.)
- **Concrete Frame** (Buildings constructed with reinforced concrete columns, concrete beams, and concrete slabs.)
- **Pre-Engineered** (Buildings constructed with pre-engineered parts bolted together.)

Part 2. Is building subject to the screening requirement based on type, use, and age of the building?

Part 2 documents the determination of whether the proposed demolition will affect an applicable structure. If the demolition does not affect an applicable structure, then the assessment is complete, and the form can be certified.

This determination screens out buildings that are a lower priority with regard PCBs-containing materials and provides an off-ramp from the rest of the screening process.

Key Definitions

Demolition means the wrecking, razing, or tearing down of any building. The definition is intended to be consistent with the demolition activities undertaken by contractors with a C-21 Building Moving/Demolition Contractor's License.

Priority Building Materials are:

1. Caulk;
2. Thermal insulation;
3. Fiberglass insulation;
4. Adhesive mastics; and
5. Rubber window gaskets.

Buildings are structures with a roof and walls standing more or less permanently in one place. Buildings are intended for human habitation or occupancy.

Applicable Structures are defined as buildings constructed or remodeled between January 1, 1950 and December 31, 1980. Wood framed buildings and single-family residential buildings are not applicable structure regardless of the age of the building.

Question 2.a: Is the building to be demolished wood framed and/or single family residential?

- If YES the PCBs Screening Assessment is complete, skip to the certification in Part 4.
- If NO, continue to Question 2.b.

Question 2.b: Was the building to be demolished constructed or remodeled between January 1, 1950 and December 31, 1980?

- If YES continue to Question 2.c.
- If NO, the PCBs Screening Assessment is complete, skip to the certification in Part 4.

Question 2.c: Is the proposed demolition a complete demolition of the building (as defined in key definitions of this document)?

- If YES continue to Part 3.
- If NO, the PCBs Screening Assessment is complete, skip to the certification in Part 4.

Studies have found the highest concentrations of PCBs in building materials in buildings that were built or remodeled from 1950 to 1980.

For this process, the date that the building permit was issued will be used to determine applicability.

Part 3. Report concentrations of PCBs in priority building materials

Part 3 documents the results of the assessment of PCBs concentrations in priority building materials. Part 3 is only required for proposed demolition of an applicable structure, as determined in Part 2. Check the option used.

- **Option 1** Conduct representative sampling and analysis of the priority building materials per the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition* (August 2018) provided in **Attachment C**.
- **Option 2** Use existing sampling results of the priority building materials. Applicants who have conducted sampling prior to the publication of the protocol may use that data provided it is consistent with the protocol (e.g., analytical methods, sample collection frequency, QA/QC). It is anticipated that prior sampling results will rarely be available and that most Applicants will need to use Option 1.

3.a Option 1 – Conduct representative sampling

Check this box if you conducted representative sampling and analysis of the priority building materials per the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition* (August 2018) (**Attachment C**).

- Complete the applicable tables for each priority building material.
- Attach the contractor's report² documenting the evaluation results.
- Attach (or include in the contractor's report) the QA/QC checklist (see **Attachment C**, Section 3.2.4).
- Attach copies of the analytical data reports.

² The contractor's report of the findings of the PCBs building material evaluation. See section 3 of Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (Attachment C).

3.a Option 2 – Use existing sampling records

In some cases, a property owner may have conducted sampling of the priority building materials for PCBS. If such data exist, you may use these data to demonstrate the concentration of PCBs in the priority building materials for the PCBs screening. However, if the sampling must be consistent with the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition*.

- Complete the applicable tables for each priority building material.
- Attach the contractor's report/statement that the results are consistent with the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition*.
- Attach copies of the analytical data reports.

Part 3 Tables Summarize concentrations of PCBs in priority building materials

Use these tables to summarize the concentrations of PCBs in the priority building materials.

- Each page of the table is for a different material. Duplicate the pages as needed to report all concentration data.
- A blank page is provided. Applicants have the option of submitting PCBs concentration data on other materials in addition to the priority building materials.

Column 1: required for all priority building material PCBs concentrations

- Use column 1 to report all PCBs concentrations in the priority building materials. Provide short description of the sample location, concentration.

Column 2: only required for PCBs concentrations ≥ 50 ppm

- Use column 2 to estimate the amount of material associated with each sample.

Part 4. Certification

- Complete the certification. The certification must be signed by the property owner or the owner's agent or legal representatives and the consultant who complete the application form.

Notices to Applicants Regarding Federal and State PCBs Regulations

Applicants that determine PCBs exist in priority building materials must follow applicable federal and state laws. This may include reporting to U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs.

Depending on the approach for sampling and removing building materials containing PCBs, you may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under Toxic Substances Control Act (TSCA).

Additionally, the disposal of PCBs waste is subject to California Code of Regulations (CCR) California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

Building owners and employers need to consider worker and public safety during work involving hazardous materials and wastes including PCBs.

Federal and State Regulations

Building materials containing PCBs at or above 50 ppm that were manufactured with PCBs (e.g., caulk, joint sealants, paint) fall under the category of PCBs bulk product wastes. See 40 Code of Federal Regulations (CFR) 761.3 for a definition of PCBs bulk product wastes.

Building materials such as concrete, brick, metal contaminated with PCBs are PCBs remediation wastes (e.g., concrete contaminated with PCBs from caulk that contains PCBs). 40 CFR 761.3 defines PCBs remediation wastes.

Disposal of PCBs wastes are subject to TSCA requirements such as manifesting of the waste for transportation and disposal. See 40 CFR 761 and 40 CFR 761, Subpart K.

TSCA-regulated does not equate solely to materials containing PCBs at or above 50 ppm. There are circumstances in which materials containing PCBs below 50 ppm are subject to regulation under TSCA. See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

Disposal of PCBs wastes are subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

California hazardous waste regulatory levels for PCBs are 5 ppm based on the Soluble Threshold Limit Concentration test and 50 ppm based on the Total Threshold Limit Concentration test, see CCR, Title 22, Section 66261.24, Table III.

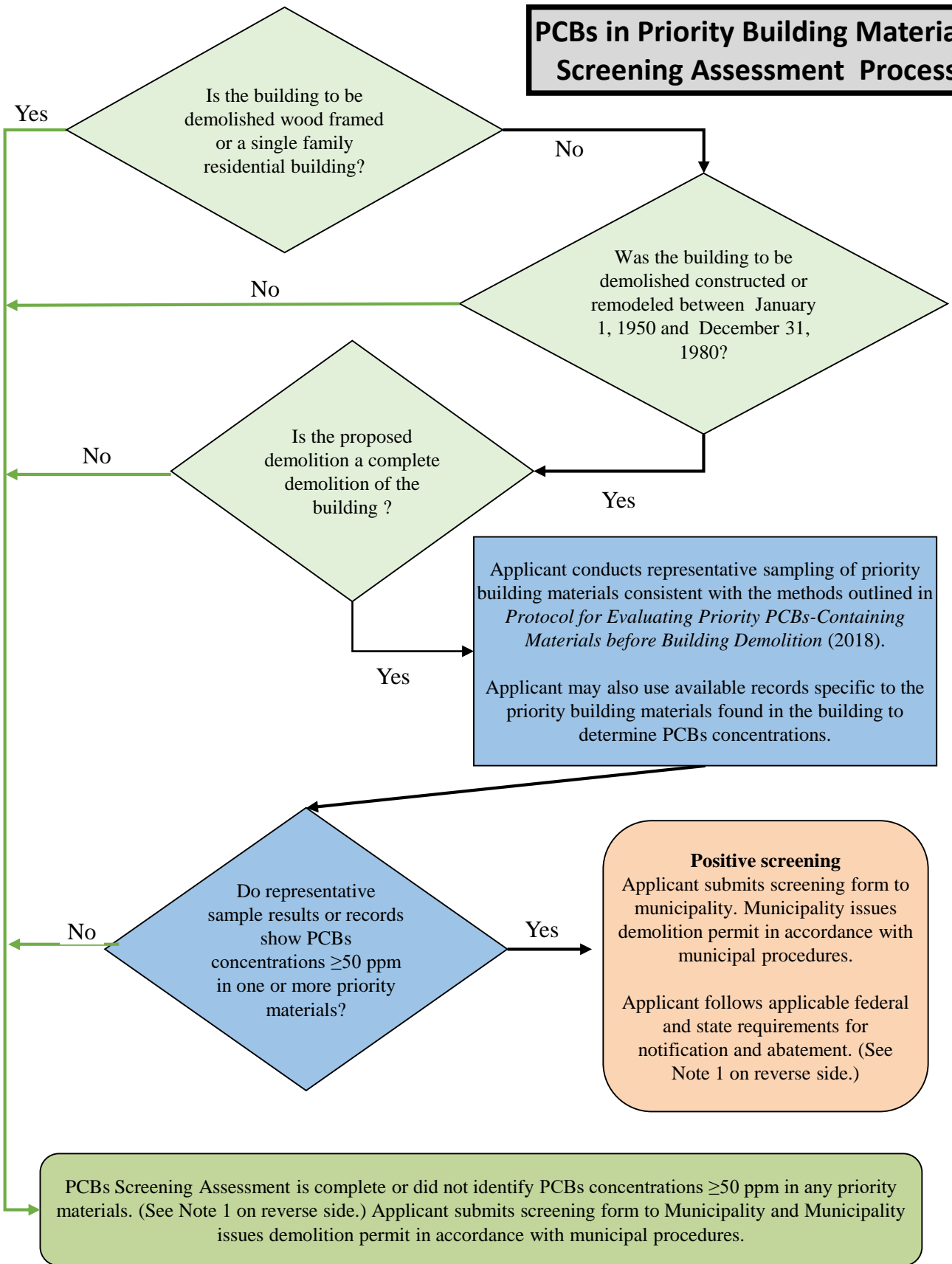
Agency Contacts

Applicants should contact the appropriate agencies and review the relevant guidance and information about PCBs in building materials. Municipal staff are not able to advise you on the requirements of the applicable federal and state laws.

Agency	Contact	Useful Links
US Environmental Protection Agency	Steve Armann (415) 972-3352 armann.steve@epa.gov	https://www.epa.gov/pcbs (EPA PCB website) https://www.epa.gov/pcbs/questions-and-answers-about-polychlorinated-biphenyls-pcbs-building-materials (PCBs in Building Materials Fact Sheet and Q/A Document) https://www.epa.gov/pcbs/pcb-facility-approval-streamlining-toolbox-fast-streamlining-cleanup-approval-process (USEPA PCB Facility Approval Streamlining Toolbox (PCB FAST)) https://www.epa.gov/pcbs/polychlorinated-biphenyls-pcbs-building-materials#Test-Methods (See Information for Contractors Working in Older Buildings that May Contain PCBs)
San Francisco Bay Regional Water Quality Control Board	Jan O'Hara (510) 622-5681 Janet.O'Hara@waterboards.ca.gov Cheryl Prowell (510) 622-2408 Cheryl.Prowell@waterboards.ca.gov	https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sfbaypcbstmdl.shtml https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/sitecleanupprogram.html
Department of Toxic Substances Control	Regulatory Assistance Office 1-800-72TOXIC RAO@dtsc.ca.gov	http://www.dtsc.ca.gov/SiteCleanup/Brownfields/upload/PUB_SMP_Guide-to-Selecting-a-Consultant.pdf
California Division of Occupational Safety and Health (known as Cal/OSHA)	CalOSHA Consultations Services 1-800-963-9424	https://www.dir.ca.gov/dosh/consultation.html

Attachment A
Process Flow Chart

PCBs in Priority Building Materials Screening Assessment Process



Note 1

- ❖ Building materials containing PCBs at or above 50 ppm that were manufactured with PCBs (e.g., caulk, joint sealants, paint) fall under the category of PCBs bulk product wastes. See 40 Code of Federal Regulations (CFR) 761.3 for a definition of PCBs bulk product wastes.
- ❖ Building materials such as concrete, brick or metal contaminated with PCBs are PCBs remediation wastes (e.g., concrete contaminated with PCBs from caulk that contains PCBs). 40 CFR 761.3 defines PCBs remediation wastes.
- ❖ Disposal of PCBs wastes are subject to TSCA requirements such as manifesting of the waste for transportation and disposal. See 40 CFR 761 and 40 CFR 761, Subpart K.
- ❖ TSCA-regulated does not equate solely to “materials containing PCBs at or above “50 mg/kg.” There are circumstances in which materials containing PCBs below 50 mg/kg are subject to regulation under TSCA. See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).
- ❖ Disposal of PCBs wastes are subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.
- ❖ California hazardous waste regulatory levels for PCBs are 5 ppm based on the Soluble Threshold Limit Concentration test and 50 ppm based on the Total Threshold Limit Concentration test, see CCR, Title 22, Section 66261.24, Table III.

Attachment B
PCBs in Priority Building Materials Screening
Assessment Form

PCBs Screening Assessment Form

For Municipality Use Only

Date Received	
File #	

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the Bay Area regional municipal stormwater NPDES permit (referred to as the Municipal Regional Permit). This process **does not** address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; or abatement at sites with PCBs or other contaminants). **The applicant is responsible for knowing and complying with all relevant laws and regulations. See Notices to Applicants section in the Applicant Instructions and at the end of this form.**

Complete all applicable parts of the PCBs Screening Assessment Form and submit with your demolition permit application.

All Applicants must complete Part 1 and Part 2.

Part 1. Owner/Consultant and project information		
Owner Information		
Name		
Address		
City	State	Zip
Contact (Agent)		
Phone	Email	
Consultant Information		
Firm Name		
Address		
City	State	Zip
Contact Person		
Phone	Email	
Project Location		
Address		
City	State CA	Zip
APN (s)		
Year Building was Built	Type of Construction	
Estimated Demolition Date		

Part 2. Is building subject to the PCBs screening requirement based on type, use, and age of the building?

2.a	Is the building to be demolished wood framed and/or single family residential?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If the answer to question 2.a is Yes , the PCBs Screening Assessment is complete, skip to Part 4. If the answer is No , continue to Question 2.b.			
2.b	Was the building to be demolished constructed or remodeled between January 1, 1950 and December 31, 1980?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
➤ If the answer to Question 2.b is No the PCBs Screening Assessment is complete, skip to Part 4. If the answer is Yes , continue to Question 2.c.			
2.c	Is the proposed demolition a complete demolition of the building?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
➤ If the answer to Question 2.c is No the PCBs Screening Assessment is complete, skip to Part 4. If the answer is Yes , complete Part 3.			

All applications affecting applicable structures and demolitions must complete Part 3 and the Part 3 Tables.

Part 3. Report concentrations of PCBs in priority building materials

Option 1. Applicants conducted representative sampling and analysis of the priority building materials per the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

Option 2. Applicants possess existing sample results that are that are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

3.a Select option and report PCBs concentrations in the priority building materials and the source of data for each of the priority building materials. Provide the required supporting information

<input type="checkbox"/> Option 1 Conduct Representative Sampling <ul style="list-style-type: none"> • Summarize results on Part 3 Tables; and • Provide the following supporting information: <ul style="list-style-type: none"> <input type="checkbox"/> Contractor’s report documenting the assessment results; <input type="checkbox"/> QA/QC checklist (see Attachment C, section 3.2.4); and <input type="checkbox"/> Copies of the analytical data reports. 	<input type="checkbox"/> Option 2 Use Existing Sampling Records <ul style="list-style-type: none"> • Summarize results on Part 3 Tables; and • Provide the following supporting information: <ul style="list-style-type: none"> <input type="checkbox"/> Contractor’s report/statement that the results are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition. <input type="checkbox"/> Copies of the analytical data reports.
--	---

All Applicants must complete Part 4.

Part 4. Certification

I certify that the information provided in this form is, to the best of my knowledge and belief, true, accurate, and complete. I further certify that I understand my responsibility for knowing and complying with all relevant laws and regulations related to reporting, abating, and handing and disposing of PCBs materials and wastes. I understand there are significant penalties for submitting false information. I will retain a copy of this form and the supporting documentation for at least 5 years.

Signature: _____ Date: _____
 (Property Owner//Agent/Legal Representative)

Print/Type: _____
 (Property Owner/Agent/Legal Representative Name)

Signature: _____ Date: _____
 (Consultant Completing Application Form)

Print/Type: _____
 (Consultant Completing Application Form)

Notices to Applicants Regarding Federal and State PCBs Regulations

Applicants that determine PCBs exist in building materials must follow applicable federal and state laws. This may include reporting to U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs. Depending on the approach for sampling and removing building materials containing PCBs, you may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under TSCA and the California Code of Regulations. (See Note 1)

Note 1 - Federal and State Regulations

Building materials containing PCBs at or above 50 ppm that were manufactured with PCBs (e.g., caulk, joint sealants, paint) fall under the category of PCBs bulk product wastes. See 40 Code of Federal Regulations (CFR) 761.3 for a definition of PCBs bulk product wastes.

Building materials such as concrete, brick, metal contaminated with PCBs are PCBs remediation wastes (e.g., concrete contaminated with PCBs from caulk that contains PCBs). 40 CFR 761.3 defines PCBs remediation wastes.

Disposal of PCBs wastes are subject to TSCA requirements such as manifesting of the waste for transportation and disposal. See 40 CFR 761 and 40 CFR 761, Subpart K.

TSCA-regulated does not equate solely to materials containing PCBs at or above 50 ppm. There are circumstances in which materials containing PCBs below 50 ppm are subject to regulation under TSCA. See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

Disposal of PCBs wastes are subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

California hazardous waste regulatory levels for PCBs are 5 ppm based on the Soluble Threshold Limit Concentration test and 50 ppm based on the Total Threshold Limit Concentration test, see CCR, Title 22, Section 66261.24, Table III.

Agency	Contact	Useful Links
US Environmental Protection Agency	Steve Armann (415) 972-3352 armann.steve@epa.gov	https://www.epa.gov/pcbs (EPA PCBs website) https://www.epa.gov/pcbs/questions-and-answers-about-polychlorinated-biphenyls-pcbs-building-materials (PCBs in Building Materials Fact Sheet and Q/A Document) https://www.epa.gov/pcbs/pcb-facility-approval-streamlining-toolbox-fast-streamlining-cleanup-approval-process (USEPA PCB Facility Approval Streamlining Toolbox (PCB FAST)) https://www.epa.gov/pcbs/polychlorinated-biphenyls-pcbs-building-materials#Test-Methods (See Information for Contractors Working in Older Buildings that May Contain PCBs)
San Francisco Bay Regional Water Quality Control Board	Jan O'Hara (510) 622-5681 Janet.O'Hara@waterboards.ca.gov Cheryl Prowell (510) 622-2408 Cheryl.Prowell@waterboards.ca.gov v	https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sfbaypcbstmtl.shtml https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/sitecleanupprogram.html
Department of Toxic Substances Control	Regulatory Assistance Office 1-800-72TOXIC RAO@dtsc.ca.gov	http://www.dtsc.ca.gov/SiteCleanup/Brownfields/upload/PUB_SMP_Guide-to-Selecting-a-Consultant.pdf
California Division of Occupational Safety and Health (Cal/OSHA)	CalOSHA Consultations Services 1-800-963-9424	https://www.dir.ca.gov/dosh/consultation.html

Part 3 Caulk Applications Table

Column 1. Report all PCBs concentrations for each homogenous area of caulking area (see Attachment C, Section 3.2.2). Use sample designators/descriptions from laboratory report.

Column 2. Complete for each concentration ≥ 50 ppm

<u>Caulk Application Sample Description</u>	<u>Concentration (mg/kg)</u>	<u>Estimate Amount of Material</u>	<u>Units</u>
<i>Example:</i>			
<i>Caulk Sample 1</i>	320	48	Linear Feet
1. _____	_____	_____	Linear Feet
2. _____	_____	_____	Linear Feet
3. _____	_____	_____	Linear Feet
4. _____	_____	_____	Linear Feet
5. _____	_____	_____	Linear Feet
6. _____	_____	_____	Linear Feet
7. _____	_____	_____	Linear Feet
8. _____	_____	_____	Linear Feet
9. _____	_____	_____	Linear Feet
10. _____	_____	_____	Linear Feet

Duplicate page if additional space is needed.

Part 3 Fiberglass Insulation Applications Table

Column 1. Report all PCBs concentrations for each homogenous area of fiberglass insulation (see Attachment C, Section 3.2.2). Use sample designators/descriptions from laboratory report.

Column 2. Complete for each concentration ≥ 50 mg/kg

<u>Fiberglass Insulation Application Sample Description</u>	<u>Concentration (mg/kg)</u>	<u>Estimate Amount of Material</u>	<u>Units</u>
<i>Example:</i>			
<i>Fiberglass Insulation Sample 1</i>	78	86	Square Feet
1. _____	_____	_____	Square Feet
2. _____	_____	_____	Square Feet
3. _____	_____	_____	Square Feet
4. _____	_____	_____	Square Feet
5. _____	_____	_____	Square Feet
6. _____	_____	_____	Square Feet
7. _____	_____	_____	Square Feet
8. _____	_____	_____	Square Feet
9. _____	_____	_____	Square Feet
10. _____	_____	_____	Square Feet

The area of insulation wrapped around a pipe may be estimated using the following formula:
 Area (square feet) = $2\pi rh$; where r is the pipe radius (feet) and h is the pipe length (feet). Duplicate page if additional space is needed.

Part 3 Thermal Insulation Applications Table

Column 1. Report all PCBs concentrations for each homogenous area of thermal insulation (see Attachment C, Section 3.2.2). Use sample designators/descriptions from laboratory report.

Column 2. Complete for each concentration ≥ 50 mg/kg

<u>Thermal Insulation Application Sample Description</u>	<u>Concentration (mg/kg)</u>	<u>Estimate Amount of Material</u>	<u>Units</u>
<i>Example:</i>			
<i>Thermal Insulation Sample 1</i>	20	_____	Square Feet
1. _____	_____	_____	Square Feet
2. _____	_____	_____	Square Feet
3. _____	_____	_____	Square Feet
4. _____	_____	_____	Square Feet
5. _____	_____	_____	Square Feet
6. _____	_____	_____	Square Feet
7. _____	_____	_____	Linear Feet
8. _____	_____	_____	Square Feet
9. _____	_____	_____	Square Feet
10. _____	_____	_____	Square Feet

The area of of insulation wrapped around a pipe may be estimated using the following formula:

Area (square feet) = $2\pi rh$, where r is the pipe radius (feet) and h is the pipe length (feet).

Duplicate page if additional space is needed.

Part 3 Adhesive Mastic Applications Table

Column 1. Report PCBs concentrations for each homogenous area of mastic (see Attachment C, Section 3.2.2. Use sample designators/descriptions from laboratory report.)

Column 2. Complete for each concentration ≥ 50 mg/kg

<u>Adhesive Mastic Application Sample Description</u>	<u>Concentration (mg/kg)</u>	<u>Estimate Amount of Material</u>	<u>Units</u>
<i>Example:</i>			
<i>Adhesive Mastic Sample 1</i>	87.4	800	Square Feet
1. _____	_____	_____	Square Feet
2. _____	_____	_____	Square Feet
3. _____	_____	_____	Square Feet
4. _____	_____	_____	Square Feet
5. _____	_____	_____	Square Feet
6. _____	_____	_____	Square Feet
7. _____	_____	_____	Linear Feet
8. _____	_____	_____	Square Feet
9. _____	_____	_____	Square Feet
10. _____	_____	_____	Square Feet

Duplicate page if additional space is needed.

Part 3 Rubber Window Gasket Applications Table

Column 1. Report PCBs concentrations for each gasket (see Attachment C, Section 3.2.2). Use sample designators/descriptions from laboratory report.

Column 2. Complete for each concentration ≥ 50 mg/kg

<u>Rubber Window Gasket Application Sample Description</u>	<u>Concentration (mg/kg)</u>	<u>Estimate Amount of Material</u>	<u>Units</u>
<i>Example:</i>			
<i>Window Gasket Sample 1</i>	70	75	Linear Feet
1. _____	_____	_____	Linear Feet
2. _____	_____	_____	Linear Feet
3. _____	_____	_____	Linear Feet
4. _____	_____	_____	Linear Feet
5. _____	_____	_____	Linear Feet
6. _____	_____	_____	Linear Feet
7. _____	_____	_____	Linear Feet
8. _____	_____	_____	Linear Feet
9. _____	_____	_____	Linear Feet
10. _____	_____	_____	Linear Feet

Duplicate page if additional space is needed.

Part 3 Other Materials Table

Column 1. *Optional: Use this form to report PCBs concentration data from materials other than priority building materials. Report PCBs concentrations for each material and homogeneous area. Use sample designators/descriptions from laboratory report.*

Column 2. *Complete for each concentration ≥ 50 mg/kg*

<u>Material Sample Description</u>	<u>Concentration (mg/kg)</u>	<u>Estimate Amount of Material</u>	<u>Units</u>
<i>Example:</i>			
<i>Wall paint Sample 1</i>	<i>228</i>	<i>1500</i>	<i>Square Feet</i>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____

Duplicate page if additional space is needed.

Attachment C
Protocol for Evaluating Priority PCBs-Containing
Materials before Building Demolition

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition



Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training



August 2018

This document is a deliverable of the Bay Area Stormwater Management Agencies Association (BASMAA) project *Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training*. BASMAA developed guidance, tools, and outreach and training materials to assist with San Francisco Bay Area municipal agencies’ efforts to address the requirements of Provision C.12.f. of the Bay Area Municipal Regional Stormwater Permit (referred to as the MRP). Provision C.12.f of the MRP requires Permittees to manage PCBs–containing building materials during demolition.

We gratefully acknowledge the BASMAA Steering Committee for this project, which provided overall project oversight, including during the development of this and other project deliverables:

- Reid Bogert, Stormwater Program Specialist, San Mateo Countywide Water Pollution Prevention Program (BASMAA Project Manager)
- Amanda Booth, Environmental Program Analyst, City of San Pablo
- Kevin Cullen, Program Manager, Fairfield-Suisun Urban Runoff Management Program
- Matt Fabry, Program Manager, San Mateo Countywide Water Pollution Prevention Program
- Gary Faria, Supervisor, Inspection Services, Building Inspection Division, Contra Costa County
- Napp Fukuda, Deputy Director - Watershed Protection Division, City of San José
- Ryan Pursley, Chief Building Official, Building Division, City of Concord
- Pam Boyle Rodriguez, Manager, Environmental Control Programs – Stormwater, City of Palo Alto
- Jim Scanlin, Program Manager, Alameda Countywide Clean Water Program
- Melody Tovar, Regulatory Programs Division Manager, City of Sunnyvale

We also gratefully acknowledge the project Technical Advisory Group, which provided feedback from a variety of project stakeholders during development of selected project deliverables:

Stakeholder Group	Representative(s)
Regulatory – stormwater/PCBs	Luisa Valiela and Carmen Santos, U.S. EPA Region 9
Regulatory – stormwater/TMDL	Jan O’Hara, San Francisco Bay Regional Water Quality Control Board
Regulatory – experience with related program (asbestos management)	Ron Carey and Richard Lew, Bay Area Air Quality Management District
Industry – demolition contractors	Avery Brown, Ferma Corporation
Industry – remediation consultants	John Martinelli, Forensic Analytical Consulting John Trenev, Bayview Environmental Services, Inc.
MRP Permittee – large municipality	Patrick Hayes, City of Oakland
MRP Permittee – medium municipality	Kim Springer, San Mateo County Office of Sustainability
MRP Permittee – small municipality	Amanda Booth, City of San Pablo

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TABLE OF CONTENTS

DISCLAIMER	iv
1. INTRODUCTION	1
2. CURRENTLY ESTABLISHED BUILDING MATERIAL EVALUATION PROTOCOLS	3
2.1 Asbestos Containing Material Evaluation Procedures.....	3
2.1.1 Asbestos-Containing Materials in Schools Rule	3
2.2 Lead-Based Paint (LBP) Evaluation Procedures	7
2.2.1 LBP Sampling Procedures: Test Kits	7
2.2.2 LBP Sampling Procedures: XRF Devices	8
2.2.3 LBP Sampling Procedures: Laboratory Testing of Paint Chips	10
3. PCBs BUILDING MATERIAL EVALUATION PROTOCOL.....	13
3.1 Priority Building Materials to be Tested.....	13
3.2 PCBs Sampling Procedures	15
3.2.1 Sampling Equipment.....	16
3.2.2 Sample Collection Frequency	16
3.2.3 Sample Analysis and Preservation.....	18
3.2.4 Quality Assurance and Quality Control.....	19
3.3 Reporting and Notifications.....	19
4. REFERENCES	21

LIST OF APPENDICES

- Appendix A: PCBs Building Material Prioritization Worksheet**
- Appendix B: Priority Building Materials Photographic Log**

DISCLAIMER

Information contained in BASMAA products is to be considered general guidance and is not to be construed as specific recommendations for specific cases. BASMAA is not responsible for the use of any such information for a specific case or for any damages, costs, liabilities or claims resulting from such use. Users of BASMAA products assume all liability directly or indirectly arising from use of the products.

The material presented in this document is intended solely for the implementation of a municipal regulatory program required by the San Francisco Bay Area Regional Water Quality Control Board Municipal Regional Stormwater Permit for the protection of water quality under the Clean Water Act.

BASMAA prepared the tools and guidance herein to assist MRP Permittees' efforts to address the requirements of Provision C.12.f. of the MRP. The project team received input from a variety of stakeholders during development of the tools and guidance, including regulators (San Francisco Bay Regional Water Quality Control Board, U.S. EPA, and Bay Area Air Quality Management District staff), Bay Area municipal agency staff, and industry representatives.

This document does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; and abatement at sites with PCBs (or other contaminants). The applicant is responsible for knowing and complying with all relevant laws and regulations.

The mention of commercial products, their source, or their use in connection with information in BASMAA products is not to be construed as an actual or implied approval, endorsement, recommendation, or warranty of such product or its use in connection with the information provided by BASMAA.

This disclaimer is applicable to all BASMAA products, whether information from the BASMAA products is obtained in hard copy form, electronically, or downloaded from the Internet

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

1. INTRODUCTION

The San Francisco Bay Region Municipal Regional Stormwater NPDES permit, referred to as the Municipal Regional Permit (MRP)¹, includes provisions that implement stormwater-related aspects of the Total Maximum Daily Load (TMDL) for polychlorinated biphenyls (PCBs) in the Bay. Provision C.12.f. requires that Permittees develop and implement or cause to be developed and implemented an effective protocol for managing materials with PCBs concentrations of 50 milligrams per kilogram (mg/kg) (equivalent to parts-per-million, or ppm), the target management level, or greater in applicable structures at the time such structures undergo demolition², so that PCBs do not enter municipal storm drain systems. Applicable structures include, at a minimum, non-residential structures constructed or remodeled between the years 1950 and 1980 with building materials such as caulking and thermal insulation with PCBs concentrations of 50 ppm or greater. Single-family residential and wood frame structures are exempt. Also, a Permittee is exempt from this requirement if it provided evidence acceptable to the Executive Officer in its 2016/17 Annual Report that the only structures that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame structures.³

Permittees are required to develop a protocol by June 30, 2019 that includes each of the following components, at a minimum:

1. The necessary authority to ensure that PCBs do not enter municipal storm drains from PCBs-containing materials in applicable structures at the time such structures undergo demolition;
2. A method for identifying applicable structures prior to their demolition; and
3. Method(s) for ensuring PCBs are not discharged to the municipal storm drain from demolition of applicable structures.

By July 1, 2019 and thereafter, Permittees are required to:

- Implement or cause to be implemented the PCBs management protocol for ensuring PCBs are not discharged to municipal storm drains from demolition of applicable structures via vehicle track-out, airborne releases, soil erosion, or stormwater runoff.
- Develop an evaluation methodology and data collection program to quantify in a technically sound manner PCBs loads reduced through implementation of the protocol for controlling PCBs during demolition of applicable structures.

¹ The Municipal Regional Stormwater Permit, Order No. R2-2015-0049, was adopted November 19, 2015.

² Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations (40 CFR., Part 61, Subpart M).

³ The City of Clayton provided evidence to support an exemption from the requirement.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

On behalf of MRP Permittees, the Bay Area Stormwater Management Agencies Association (BASMAA) is conducting a regional project to assist MRP Permittees to achieve compliance with Provision C.12.f. The regional project is developing guidance materials, tools, protocols and training materials and conducting outreach. The goal is to assist Permittees to develop local programs to prevent PCBs from being discharged to municipal storm drains due to demolition of applicable buildings. Local agencies will need to tailor the BASMAA products for local use and train local staff to implement the new program.

This document is the deliverable for Task 3 of the regional project, which is to develop a protocol for the assessment of prioritized PCBs-containing building materials prior to demolition. The full scope of work for the regional project is presented in the Project team's *Proposal for Tools, Protocol, Outreach & Training Work Plan: PCBs Materials Management during Building Demolition Project* (dated January 31, 2017; revised March 2017). If materials are found or known to contain PCBs, those materials must be managed appropriately and according to all applicable local, state, and federal requirements. Management of PCBs-containing materials is beyond the scope of this document.

To establishing the PCBs protocol, current established protocols were evaluated that are widely accepted in the building demolition industry for other Federal- and State-regulated constituents of concern. This document provides applicable examples of sampling and evaluation procedures for building materials potentially contaminated with asbestos-containing material (ACM)⁴ and lead-based paint (LBP)⁵, which are summarized and referenced to provide the foundation for the PCBs protocol. These components include guidance on sampling frequencies, laboratory sample analysis, quality assurance and quality control procedures, and reporting.

⁴ Asbestos-containing material (ACM) means any material or product which contains more than one percent asbestos.

⁵ Lead-based paint (LBP) is any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF device or laboratory analysis, or 0.5 percent by weight (5,000 ppm or 5,000 mg/kg) as measured by laboratory analysis.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

2. CURRENTLY ESTABLISHED BUILDING MATERIAL EVALUATION PROTOCOLS

This section presents evaluation protocols for ACM and LBP, which provide a foundation for the PCBs protocol summarized in Section 3. This section includes guidance on sampling frequencies, laboratory sample analysis, quality assurance and quality control procedures derived from regulatory procedures for ACM and LBP.

2.1 Asbestos Containing Material Evaluation Procedures

Asbestos bulk sampling procedures are specified in several Federal regulations, implemented primarily by the United States Environmental Protection Agency (EPA) as well as the Occupational Safety and Health Administration (OSHA). The Consumer Product Safety Commission (CPSC) and the Mine Safety and Health Administration (MSHA) specify additional regulations and procedures, but these are generally less applicable to evaluation procedures.

The foundational regulations pertaining to asbestos sampling in buildings are the Asbestos Hazard Emergency Response Act (AHERA; Toxic Substances Control Act [TSCA] Title II) (15 U.S.C. § 2641-2656) as well as the Asbestos School Hazard Abatement Reauthorization Act (ASHARA). EPA promulgated regulations under AHERA to require inspection of schools for asbestos-containing building materials, and to perform resultant corrective actions. Furthermore, AHERA tasked the EPA with developing a plan for accreditation of asbestos inspectors. ASHARA extended funding for asbestos programs at schools and expanded accreditation requirements to cover asbestos abatement at commercial buildings other than schools.

Pursuant to AHERA, the Asbestos-Containing Materials in Schools rule (40 CFR Part 763, Subpart E) details specific requirements for building material inspections at schools, preparation of asbestos management plans, and implementation of response actions. EPA regulation on asbestos related to structure demolition is specified in subpart M of the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations (40 CFR Part 61, Subpart M).

The following sections summarize the evaluation procedures specified in the Asbestos-Containing Materials in Schools rule as well as the Asbestos NESHAP regulations. Both OSHA and EPA worker protection requirements are also discussed.

2.1.1 Asbestos-Containing Materials in Schools Rule

The following sections summarize the inspection, re-inspection, sampling, analysis, and evaluation procedures specified in the Asbestos-Containing Materials in Schools rule (40 CFR Part 763, Subpart E).

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

Evaluation

For each inspection and re-inspection of asbestos-containing building material (ACBM)⁶, the local education agency shall have an accredited inspector provide a written evaluation of all friable known or assumed ACBM. The evaluation shall consider the following:

- Location and amount of material, both in total quantity and as a percentage of the functional space;
- Condition of the material, specifying:
 - Type of damage or significant damage (e.g., flaking, blistering, water damage, or other signs of physical damage);
 - Severity of damage (e.g., major flaking, severely torn protective jackets, as opposed to occasional flaking, minor tears to jackets);
 - Extent or spread of damage over large areas or large percentages of the homogeneous⁷ area;
- Whether the material is accessible;
- The material's potential for disturbance;
- Known or suspected causes of damage or significant damage (e.g., air erosion, vandalism, vibration, water); and
- Preventive measures that could potentially eliminate the reasonable likelihood of undamaged ACBM from becoming significantly damaged.

The inspector shall classify and give reasons in the written evaluation for classifying the ACBM and suspected ACBM assumed to be ACM into one of the following categories:

1. Damaged or significantly damaged thermal system insulation ACM;
2. Damaged friable surfacing ACM;
3. Significantly damaged friable surfacing ACM;
4. Damaged or significantly damaged friable miscellaneous ACM;
5. ACBM with potential for damage;
6. ACBM with potential for significant damage; and
7. Any remaining friable ACBM or friable suspected ACBM.

⁶ Asbestos-containing building material (ACBM) means surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.

⁷ Homogenous refers to a substance or area that is uniform in texture, color, and general physical appearance and properties.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

Inspection and Re-inspection

Inspect any building that is to be used as a school, prior to such use, by an accredited inspector. In emergency situations, inspect the building within 30 days of commencement of such use.

For each area of the building, complete the following inspection procedure:

- Visually inspect the area to identify suspected ACBM;
- Touch suspected ACBM to determine friability (Friable material is material that may be crumbled or pulverized by hand pressure alone. Note that thermal system insulation that has retained its structural integrity and that has an undamaged protective jacket or wrap that prevents fiber release shall be treated as non-friable.);
- Categorize all areas into homogenous areas of friable suspected ACBM and non-friable suspected ACBM;
- Assume that some or all the homogeneous areas are ACBM, and for each homogeneous area that is not assumed to be ACBM, collect and submit samples for bulk analysis. Do not sample areas that an accredited inspector assumes to contain ACBM. For uncertain areas, collect and bulk samples and submit for analysis (see Sampling below);
- Assess friable material in areas where samples are collected, in areas where samples are not collected but ACBM is assumed to be present, and in areas identified in previous inspections;
- Record the following information and submit a copy for inclusion in an asbestos management plan, within 30 days of the inspection:
 - An inspection report including the signature, state of accreditation, and accreditation number of each inspector, as well as the date of the inspection;
 - A comprehensive inspection inventory, including the date and locations of samples, locations of areas assumed to contain friable ACBM, and locations of areas assumed to contain non-friable ACBM;
 - A description of the manner used to determine sampling locations;
 - A list of all categorized and identified homogenous areas into surfacing material, thermal system insulation, or miscellaneous material; and
 - Evaluations made of friable material.

Repeat this process as a re-inspection at least once every 3 years after a management plan is in effect. Reassess the condition of friable known or assumed ACBM previously identified. Identify any homogenous areas with material that has become friable since the last inspection or re-inspection and collect and submit samples of the material.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

Sampling

Collect samples in a statistically random manner that is representative of each homogeneous area.

- For surfacing material, the number of samples to be collected is as follows:
 - Collect at least three samples from each homogenous area less than 1,000 square feet;
 - Collect at least five samples from each homogenous area between 1,000 and 5,000 square feet; and
 - Collect at least seven samples from each homogenous area greater than 5,000 square feet.
- For thermal system insulation:
 - Collect at least one bulk sample from each homogeneous area that is not assumed to be ACM;
 - Collect at least one bulk sample from each homogeneous area of patched insulation that is not assumed to be ACM, if the patched section is less than six linear or square feet;
 - Where cement or plaster is used on fittings such as tees, elbows or valves, collect samples to determine if material is ACM or not;
 - If the accredited inspector determines that the thermal system insulation is fiberglass, foam glass, rubber, or other non-ACBM, samples are not required to be collected;
- For miscellaneous material, collect bulk samples from each homogeneous area of friable material that is not assumed to be ACM.

Analysis

Samples should be analyzed by laboratories accredited by the National Bureau of Standards (NBS). The laboratories must have received interim accreditation for polarized light microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Analysis Quality Assurance Program until the NBS PLM laboratory accreditation program for PLM is operational.

Samples should be analyzed for asbestos content by PLM using the “Interim Method for the Bulk Determination of Asbestos in Bulk Insulation Samples”, found at Appendix E to Subpart E of 40 CFR Part 763. Samples should not be composited.

A homogenous area is considered not to contain ACM only if the results of all samples from that area show asbestos in concentrations of 1 percent or less. An area is considered to contain ACM if at least one sample from the area shows asbestos in concentrations greater than 1 percent.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

Submit the name and address of each laboratory performing the analysis, the date of the analysis, and the person performing the analysis for inclusion into the management plan within 30 days of the analysis.

2.2 Lead-Based Paint (LBP) Evaluation Procedures

Lead-Based Paint (LBP) evaluation procedures are codified in various federal and state regulations.

Title IV of the Toxic Substances Control Act (TSCA) as well as other authorities in the Residential Lead-Based Paint Hazard Reduction Act of 1992 directs the EPA to regulate lead-based paint hazards. The primary Federal regulations and guidelines related to LBP evaluation procedures include:

- The Lead Renovation, Repair and Painting Program (RRP) Rule (40 CFR 745, Subpart E);
- The National Lead Laboratory Accreditation Program (TSCA Section 405(b)); and
- The Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Edition) (pursuant to Section 1017 of the Residential Lead-Based Paint Hazard Reduction Act of 1992, A.K.A. “Title X”)

Furthermore, the California Department of Public Health (CDPH) Title 17, California Code of Regulations, Division 1, Chapter 8 “Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards,” specifies some LBP evaluation procedures as part of the accreditation program.

The HUD Guidelines provide the most comprehensive procedures for LBP evaluations and are referenced by many other regulations.

There are three primary methods of performing LBP evaluation: test kits, X-ray Fluorescence (XRF) devices, and laboratory testing of paint chips. Sampling procedures for each method are detailed in the following sections.

Under CDPH Title 17, certified Lead Inspector/Assessors are required to use XRF devices or laboratory analysis, and not test kits.

2.2.1 LBP Sampling Procedures: Test Kits

In 2008, the EPA published the RRP rule, which, among other things, established criteria for lead test kits for use in LBP evaluation. Lead test kits recognized by EPA before September 1, 2010, must meet only the negative response criterion outlined in 40 CFR 745.88(c)(1):

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

For paint containing lead at or above the regulated level, 1.0 mg/cm² or 0.5% by weight, a demonstrated probability (with 95% confidence) of a negative response less than or equal to 5% of the time must be met.

Lead test kits recognized after September 1, 2010, must meet both the negative response and positive response criteria outlined in 40 CFR 745.88(c)(1) and (2). The positive-response criterion states:

For paint containing lead below the regulated level, 1.0 mg/cm² or 0.5% by weight, a demonstrated probability (with 95% confidence) of a positive response less than or equal to 10% of the time must be met.

To date, no lead test kit has met both criteria⁸. However, three lead test kits recognized before September 1, 2010, exist and are recognized by EPA:

- 3M™ LeadCheck™, manufactured by the 3M Company, for use on wood, ferrous metal, drywall, and plaster surfaces;
- D-Lead®, manufactured by ESCA Tech, Inc., for use on wood, ferrous metal, drywall, and plaster surfaces; and
- The Commonwealth of Massachusetts lead test kit, for use only on drywall and plaster surfaces.

Test kits cannot determine the concentration of lead, only presence or absence at best. For this reason, test kits are best used by homeowners or other non-professionals as a preliminary evaluation before using an XRF device or laboratory analysis of paint chips.

There are currently no detailed sampling procedures for test kits that would be applicable to PCBs evaluation. However, test kit technology may be a useful paradigm for PCBs evaluation if a kit can be developed to test PCBs at an acceptable concentration that uses a repeatable methodology to meet the data quality objectives.

2.2.2 LBP Sampling Procedures: XRF Devices

The following sections summarize LBP evaluation procedures for XRF devices, including description of sampling equipment, collection techniques and frequency, sample analysis, and quality assurance.

⁸ US EPA, Lead Test Kits, <https://www.epa.gov/lead/lead-test-kits>, accessed September 19, 2017.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

LBP Analyzers

According to the HUD Guidelines, portable XRF devices are the most common primary analytical method for inspections in housing because of their versatility in analyzing a wide variety of surface types, non-destructive measurement, high speed, and low cost per sample. Each XRF device must have a HUD-issued XRF Performance Characteristic Sheet (PCS), which contains information about XRF readings taken on specific surface types, calibration check tolerances, and interpretation of XRF readings.

Collection Techniques and Frequency

HUD Guidelines provide separate sampling techniques for single- and multi-family housing. However, the general approach to sampling is the following seven-step procedure:

- List all testing combinations of building components and substrates (e.g., wood doors, metal doors, plaster walls, concrete walls);
- Select testing combinations. A numbering system, floor plan, sketch or other system may be used to document which testing combinations were tested;
- Perform XRF testing, including calibration;
- Collect and analyze paint-chip samples as needed;
- Classify XRF and paint-chip results;
- Evaluate the work and results to ensure the quality of the inspection; and
- Document the findings in a summary and in a complete technical report.

Because of the large surfaces and quantities of paint involved, and the potential for spatial variation, HUD Guidelines recommend taking at least four readings per room, with special attention paid to surfaces that clearly have different painting history. The selection of test locations should be representative of locations most likely to be coated with old paint or other lead-based coatings, such as areas with thick paint; areas with worn or scraped off paint should be avoided.

For large buildings with many similar units, HUD Guidelines recommend testing a designated sample of units to provide 95% confidence that most units are below the lead standard. The sample size should be carefully chosen using statistical techniques (see HUD Guidelines, Table 7.3).

Sample Analysis

Portable XRF devices expose a surface to X-ray or gamma radiation and measure the emission of characteristic X-rays from each element in the analyzed surface. The XRF reading is compared with a range specified in the PCS for the specific XRF device being used and the specific substrate beneath the painted surface.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

When discrepancies exist between the PCS, HUD Guidelines, and the XRF device's manufacturer's instructions, the most stringent guideline should be followed.

Quality Assurance

HUD Guidelines provide several techniques for evaluation of inspection quality.

A knowledgeable observer independent of the inspection firm should be present for as much XRF testing as possible, especially if they have knowledge of LBP evaluation and/or the paint history of the facility.

The client should ask the inspector to provide copies of the results as soon as possible, or daily, allowing for immediate review.

Data from HUD's private housing lead-based paint hazard control program show that it is possible to successfully retest painted surfaces without knowing the exact spot which was tested. Therefore, the client may consider selecting 10 testing combinations for retesting at random from the already compiled list of all testing combinations, using the XRF device used for the original measurements, if possible. The average of the 10 repeat XRF results should not differ from the 10 original XRF results by more than the retest tolerance limit. The procedure for calculating the retest tolerance limit is specified in the PCS. If the limit is exceeded, the procedure should be repeated using 10 different testing combinations. If the retest tolerance limit is exceeded again, the original inspection is considered deficient.

Currently XRF technology and methods are not applicable to PCBs building material evaluation, as the precision is not adequate to provide a concentration that could be relied upon for this program.

2.2.3 LBP Sampling Procedures: Laboratory Testing of Paint Chips

The following sections summarize LBP evaluation procedures for XRF devices, including the description of sampling equipment, collection techniques and frequency, sample analysis, and quality assurance.

Laboratory analysis of paint chip samples is only recommended by HUD for inaccessible areas or building components with irregular (non-flat) surfaces that cannot be tested using XRF devices, for confirmation of inconclusive XRF results, or for additional confirmation of conclusive XRF results.

Unlike XRF analysis, paint chip collection techniques may be more directly applicable to potential PCBs collection techniques.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

Sampling Equipment

Common hand tools can be used to scrape paint chips from a surface; specialized equipment is not necessary. However, HUD Guidelines recommend that samples should be collected in sealable rigid containers rather than plastic bags, which generate static electricity and make laboratory transfer difficult.

Collection Techniques

HUD Guidelines, which are consistent with ASTM E1729, Standard Practice for Field Collection of Dried Paint Samples for Subsequent Lead Determination, recommend that only one paint chip needs to be taken for each testing combination, although additional samples are recommended for quality control.

The paint chip sample should be taken from a representative area that is at least 4 square inches in size. The dimensions of the surface area must be accurately measured to the nearest 1/16th of an inch so that laboratory results can be reported in units of mg/cm². Paint chip collection should include collection of all the paint layers from the substrate, but collection of actual substrate should be minimized. Any amount of substrate included in the sample may cause imprecise results.

Sample Analysis

A laboratory used for LBP analysis must be recognized under EPA's National Lead Laboratory Accreditation Program (NLLAP) for the analysis of lead paint; however, States or Tribes may operate an EPA-authorized lead-based paint inspection certification program with different requirements.

There are several standard laboratory techniques to quantify lead in paint chip samples, including Atomic Absorption Spectroscopy, Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES), Anodic Stripping Voltammetry, and Potentiometric Stripping Analysis.

For analytical methods that require sample digestion, samples should be pulverized so there is adequate surface area to dissolve the sample before laboratory instrument measurement. In some cases, the amount of paint collected from a 4-square-inch area may exceed the amount of paint that can be analyzed successfully. It is important that the actual sample mass analyzed not exceed the maximum mass the laboratory has successfully tested using the specified method. If subsampling is required to meet analytical method specifications, the laboratory must homogenize the paint chip sample (unless the entire sample will eventually be analyzed, and the results of the subsamples combined). Without homogenization, subsampling would likely result in biased, inaccurate lead results. If the sample is properly homogenized and substrate inclusion is negligible, the result can be reported as a loading, in milligrams per square centimeter (mg/cm²), the preferred unit, or as percent by weight, or both.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

Quality Assurance

Laboratory reference materials processed with the paint chip samples for quality assurance purposes should have close to the same mass as those used for paint-chip samples (refer to ASTM methods E1645, E1613, E2051, and E1775).

Reporting

The laboratory report for analysis of paint chip samples should include at a minimum, the information outlined in the EPA National Lead Laboratory Accreditation Program Laboratory Quality System Requirements, Revision 3.0, section 5.10.2, Test Reports⁹. In addition to those minimum requirements, test reports containing the results of sampling must include specified sampling information, if available.

⁹ National Lead Laboratory Accreditation Program: Laboratory Quality System Requirements <https://www.epa.gov/sites/production/files/documents/lqsr3.pdf>, accessed September 20, 2017.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

3. PCBs BUILDING MATERIAL EVALUATION PROTOCOL

This section presents the evaluation protocol for identifying building materials in structures constructed or remodeled between the years 1950 and 1980¹⁰ that may contain a significant mass of PCBs. Once identified as containing PCBs at concentrations exceeding 50 ppm, these materials should be properly managed prior to building demolition, to ensure PCBs are not discharged to the municipal storm drain system.

This protocol is not intended to address all PCBs-containing materials that may be disturbed during building demolition. Additional sampling is likely to be required to comply with EPA and Cal/OSHA regulations pertaining to the management, removal and disposal of PCBs-containing materials.

For this program, it is assumed that organizations and staff qualified to sample, test, remediate, and dispose of PCBs at the building site will coordinate processes for other hazardous building materials at the building site, to ensure proper sampling, testing, remediation, and disposal of all statutorily-required hazardous materials handling.

3.1 Priority Building Materials to be Tested

A prioritized list of PCBs-containing materials is provided in Appendix A. Building materials were evaluated based upon the following criteria:

- **Source Material** – Does the building material contain PCBs through the original product manufacturing process or was the building material contaminated (impregnated) with PCBs from an adjacent building material that already contained PCBs? For the evaluation, building materials originally manufactured with PCBs at or above 50 mg/kg were prioritized.
- **Concentration** – Building materials were evaluated based on readily available existing data regarding ranges of PCBs concentrations identified in the materials.
- **Prevalence** – A prevalence factor was assigned based upon best professional judgement of the prevalence of occurrence of the PCBs-containing materials in buildings, which ranged from highly prevalent to low prevalence.
- **Ease of Removal** – Building materials were evaluated based on their attachment to the building, which ranged from “very easily removed” to “difficult to remove,” under the assumption that higher ease of removal results in higher feasibility and lower costs for removing a material before demolition.

¹⁰ Single-family residential and wood frame structures are exempt.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

- **Flaking/Crumbling** – Building materials were evaluated based on their tendency to flake or crumble during disturbance or demolition, which could lead to a higher likelihood of entering stormwater as a result of building demolition.
- **PCBs Removed by Other Waste Program** – This factor addresses materials that are removed from buildings because of other waste management programs (e.g., Universal Waste Rule). Fluorescent light ballasts¹¹, polyurethane foam furniture, and Askarel fluid used in transformers, all of which may contain PCBs, are typically managed during pre-demolition activities under current regulations and programs that require removal of universal waste and outdated transformers. For this program it is assumed that those materials will be evaluated and managed under those existing programs.

Material prioritization was conducted by assigning a score on a scale of 1 to 5 (low to high) for each criterion. The final score for each material type was calculated as the average of the scores assigned to the six criteria. The materials given the highest scores through the prioritization analysis are shown below, along with their typical locations in a building. For this evaluation, thermal insulation and fiberglass insulation were grouped together as they tend to be co-located and are typically managed together. The materials listed below (along with typical locations where they are found) are the materials that should be sampled using the protocols described in Section 3.2.

1. Caulks and Sealants:
 - a. Around windows or window frames;
 - b. Around door frames; and
 - c. Expansion joints between concrete sections (e.g., floor segments).
2. Thermal/Fiberglass Insulation and Other Insulating Materials:
 - a. Around HVAC systems,
 - b. Around heaters,
 - c. Around boilers,
 - d. Around heated transfer piping, and
 - e. Inside walls or crawls spaces.
3. Adhesive/Mastic:
 - a. Below carpet and floor tiles;

¹¹ Fluorescent light ballasts that contain PCBs are not required to be managed under the Universal Waste Rule Program but are recommended by the EPA to be identified in a pre-demolition survey of a structure and to be managed with the removal of other required wastes in the abatement process.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

- b. On, under, or between roofing materials and flashing.
4. Rubber Window Seals/Gaskets:
 - a. Around windows or window frames.

Examples of the prioritized PCBs-containing building materials and what they may look like in a building planned for demolition are provided in Appendix B.

3.2 PCBs Sampling Procedures

Many building materials may contain PCBs. The building owner is responsible for identifying and handling all hazardous materials in accordance with all applicable laws, including all materials with 50 ppm or more PCBs. For purposes of obtaining a demolition permit, the City requires a building owner to sample the limited number of materials shown below:

1. Caulks and Sealants:
 - a. Around windows or window frames;
 - b. Around door frames; and
 - c. Expansion joints between concrete sections (e.g., floor segments).
2. Thermal/Fiberglass Insulation and Other Insulating Materials:
 - a. Around HVAC systems,
 - b. Around heaters,
 - c. Around boilers,
 - d. Around heated transfer piping, and
 - e. Inside walls or crawls spaces.
3. Adhesive/Mastic:
 - a. Below carpet and floor tiles;
 - b. On, under, or between roofing materials and flashing.
4. Rubber Window Seals/Gaskets:
 - a. Around windows or window frames.

It should be noted that some materials that are being evaluated for PCBs in this protocol may also be associated with asbestos, lead, or other hazardous substances. Since this protocol follows pre-established asbestos management program guidelines and procedures, the sampling frequency, types of building materials, and surveying techniques overlap with the PCBs survey protocol. If a

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

material has been determined to contain asbestos, lead or other hazardous substances and will be abated under an associated waste program, that material need not be sampled for PCBs under this program.

3.2.1 Sampling Equipment

Building materials that are planned to be collected for laboratory analysis should be placed in laboratory-supplied glass jars with Teflon-sealed lids. Samples should be collected with either factory-sealed or decontaminated equipment that will be used to remove a representative building material sample (i.e., scissors, tweezers, pliers, spoons, or putty knife).

For sampling equipment (i.e., scissors, tweezers, pliers, spoons, putty knife, etc.) that will be decontaminated, the following three bucket wash procedure should be performed, which is in general accordance with standard decontamination procedures defined in SESDPROC-205-R3 (EPA, 2015):

- In the first bucket, mix a residue free cleaning detergent (e.g., Alconox®), with distilled water to generate the recommended detergent concentration specified in the product directions;
- Fill the second bucket with distilled water;
- Fill the third bucket with distilled water;
- Clean the equipment in the first bucket with the cleaning detergent, then rinse in the second and then the third bucket. If the second bucket becomes slightly discolored during the rinse, change the contents of the second bucket with distilled water. Change the third bucket, if any dirt or material is observed in the water, since the third bucket needs to stay clean as it is the final rinse; and
- At the end of cleaning, let the equipment air dry in a clean area before use in sample collection. The rinse water should then be drummed and sampled for disposal. The planned disposal facility should be contacted to determine the required sample analysis for the rinse water characterization and profiling and that the disposal procedures comply with state and federal regulations.

If disposable sampling tools are used, the above decontamination procedures do not apply.

3.2.2 Sample Collection Frequency

For the four prioritized building materials, the following collection techniques and frequency should be followed.

Caulking

Three different types of caulking should be evaluated:

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

1. Window caulking;
2. Door frame caulking; and
3. Floor and expansion joint caulking.

For each type of caulking material identified, the following number of samples should be collected:

- Collect at least one sample from each homogenous area that contains less than 50 linear feet of caulking;
- Collect at least three samples from each homogenous area that contains between 50 and 250 linear feet of caulking;
- Collect at least five samples from each homogenous area that contains between 250 and 1,000 linear feet of caulking;
- Collect at least seven samples from each homogenous area that contains between 1,000 and 2,500 linear feet of caulking; and
- Collect at least nine samples from each homogenous area that contains greater than 2,500 linear feet of caulking.

If homogenous caulking material is found throughout the building, samples should be spatially distributed so as to not collect the required number of samples from one area. In addition, the width or cross-sectional area of the caulking bead is not relevant for determining the linear footage to be sampled. It is also recommended that the sampler performing the evaluation inspect the entire building prior to sample collection to insure proper distribution is performed.

Thermal/Fiberglass Insulation

For thermal/fiberglass insulation:

- Collect at least one bulk sample from each homogeneous area.

Adhesive/Mastic

For each type of adhesive/mastic material identified, the following number of samples should be collected:

- Collect at least three samples from each homogenous area less than 1,000 square feet;
- Collect at least five samples from each homogenous area between 1,000 and 5,000 square feet; and
- Collect at least seven samples from each homogenous area greater than 5,000 square feet.

If homogenous adhesive/mastic material is found throughout the building, samples should be spatially distributed so as to not collect the required number of samples from one area. It is

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

recommended that the sampler performing the evaluation inspect the entire building prior to sample collection to insure proper distribution is performed.

Rubber Window Seals/Gaskets

For rubber window seals/gaskets identified, the following number of samples should be collected:

- Collect at least one sample from each homogenous area that contains less than 50 linear feet of caulking (of any width or cross-sectional are of bead);
- Collect at least three samples from each homogenous area that contains between 50 and 250 linear feet of caulking;
- Collect at least five samples from each homogenous area that contains between 250 and 1,000 linear feet of caulking;
- Collect at least seven samples from each homogenous area that contains between 1,000 and 2,500 linear feet of caulking; and
- Collect at least nine samples from each homogenous area that contains greater than 2,500 linear feet of caulking.

If homogenous rubber window seals/gaskets are found throughout the building, samples should be spatially distributed so as to not collect the required number of samples from one area. It is also recommended that the sampler performing the evaluation inspect the entire building prior to sample collection to insure proper distribution is performed.

3.2.3 Sample Analysis and Preservation

Samples collected to evaluate building materials for PCBs should be analyzed for Aroclors by EPA Method 8082/8082A¹² by an accredited analytical laboratory. The minimum reporting limit should be 50 micrograms per kilogram ($\mu\text{g}/\text{kg}$) and the laboratory should be contacted before sampling to confirm minimum material volume required to meet the reporting limit objectives. A sample reporting limit of 50 $\mu\text{g}/\text{kg}$ is well below the target management level of 50 mg/kg.

Samples should immediately be chilled in an ice cooler and then kept at 4 degrees Celsius (39.2 degrees Fahrenheit) or colder during storage and transportation to the laboratory. Proper chain-of-custody¹³ procedures should be followed from the time the samples are collected until they are delivered to the laboratory for analysis. Holding times for EPA Method 8082/8082A are sample extraction within 14 days of sample collection and analysis of the extract within 40 days of

¹² Provision C.12.f. requires that Permittees develop and implement or cause to be developed and implemented an effective protocol for managing materials with PCBs concentrations of 50 ppm. EPA Method 8082/8082A is an acceptable method to quantify PCBs. Analysis of PCBs congeners is not required to meet the permit requirement.

¹³ Chain-of-custody is the procedure to document, label, store, and transfer samples to personnel and laboratories. For a detailed list of procedures, refer to the *Sample and Evidence Management, Operating Procedure* (SESDFPROC-005-R2), January 29, 2013

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

extraction. However, PCBs are very stable in a variety of matrices and holding times may be extended to as long as one year. Once extracted, analysis of the extract should take place within 40 days.

3.2.4 Quality Assurance and Quality Control

For this program, general quality assurance and quality control (QA/QC) procedures will be utilized. The following checklist should be used by the contractor performing the evaluation:

- QA/QC Checklist:
 - Proper specified sampling equipment was used (pre-cleaned or other, stainless steel);
 - Proper decontamination procedures were followed;
 - Sampling collection spatial frequency was met;
 - A National Environmental Laboratory Accreditation Program (NELAP) laboratory was utilized;
 - Samples were received by the laboratory within proper temperature range;
 - Samples were extracted and analyzed within the method holding time for EPA Method 8082/8082A; and
 - Sample reporting limit met data quality objectives.

3.3 Reporting and Notifications

The following considerations are applicable to reporting and notification:

- Assessment results must be submitted to the applicable Permitting Authority by the project applicant;
- Applicants that determine PCBs exist in priority building materials must follow applicable federal and state laws. This may include reporting to USEPA, the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs.
- Depending on the approach for sampling and removing building materials containing PCBs, applicants may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under TSCA.
- The disposal of PCBs waste is subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

- Building owners and employers need to consider worker and public safety during work involving hazardous materials and wastes including PCBs.

For further information, applicants should refer to the *PCBs in Priority Building Materials Screening Assessment Applicant Package*, BASMAA, July 2018.

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition

4. REFERENCES

Guidelines for Asbestos Sampling:

- <https://www.epa.gov/asbestos/asbestos-laws-and-regulations>

Guidelines for Lead-Based Paint Evaluations:

- Environmental Protection Agency (EPA) - Created the Renovation, Repair, and Painting (RRP) Rule which requires training and certification for anyone working for compensation in pre-1978 residential structures, day care centers, and schools where known or assumed lead-based paint is impacted. The EPA website with complete information on this regulation is <https://www.epa.gov/lead/renovation-repair-and-painting-program>.
- California Department of Public Health (CDPH) - Created "Title 17" which includes lead testing and abatement provisions in residential and public structures in California. Several important definitions are contained in Title 17 including Abatement, Clearance Inspection, Containment, Lead-Based Paint.
- Lead Contaminated Dust and Soil, Lead Hazard, and Lead Hazard Evaluation. Title 17 establishes that lead testing be performed using XRF equipment or by paint chip sample analysis in California. Lead test kits are not accepted. It also establishes testing in California be performed by a State certified lead inspector/assessor if the testing is related to a project involving compensation.
- Department of Housing and Urban Development (HUD) - Created the HUD Guidelines which contain protocols for lead testing and abatement.

EPA Method 8082A – Polychlorinated Biphenyls (PCBs) by Gas Chromatography

- <https://www.epa.gov/sites/production/files/2015-07/documents/8082a.pdf>

SESDPROC-205-R3, *Field Equipment Cleaning and Decontamination*, replaces SESDPROC-205-R2. December 18, 2015

- https://www.epa.gov/sites/production/files/2016-01/documents/field_equipment_cleaning_and_decontamination205_af.r3.pdf

SESDPROC-005-R2, *Sample and Evidence Management*, Operating Procedure, January 29, 2013

- <https://www.epa.gov/sites/production/files/2015-06/documents/Sample-and-Evidence-Management.pdf>

APPENDIX A

PCBs Building Material Prioritization Worksheet

Appendix A - PCBs Building Materials Prioritization

Material	Material Class	Median/Average/Single Reported Concentration (ppm)	Minimum (ppm)	Maximum (ppm)	PCBs Source Material? (Rating values: source = 5, or not source = 1)	Concentration (Rating values: 1 to 5, higher value means higher concentration)	Prevalence of PCBs Containing Material in Buildings (Rating values: high = 5, medium = 3, or low = 1)	Ease of Removal (Rating values: 1 to 5, higher value means easier to remove)	Flaking/ Crumbling (Rating values: 1 to 5, higher value means more likely to flake/crumble)	PCBs Removed by Other Waste Program? (Rating values: not removed by other = 5, or removed = 1)	Prioritization Score
Caulking (sealant, plaster)	Caulk/sealant/tape/glue		0.001	752,000	5	5	5	3	5	5	4.67
Thermal insulation	Insulation			73,000	5	5	5	4	4	5	4.67
Fiberglass insulation	Insulation			39,158	5	4	5	4	4	5	4.50
Adhesives/mastic	Caulk/sealant/tape/glue			3,100	5	3	5	3	5	5	4.33
Rubber gaskets	Gaskets/Rubber			84,000	5	5	3	3	4	5	4.17
Wool felt gaskets	Gaskets/Rubber			688,498	5	5	3	3	4	5	4.17
Cloth/paper insulating material	Insulation			12,000	5	4	3	4	4	5	4.17
Foam rubber insulation	Insulation			13,100	5	4	3	4	4	5	4.17
Ceiling tiles coated w/ flame resistant sealant	Internal nonstructural surface		53	110,000	5	5	5	3	2	5	4.17
Backer rod	Caulk/sealant/tape/glue			99,000	1	5	5	3	5	5	4.00
Roofing/siding material	External nonstructural surface		0	30,000	5	4	5	3	2	5	4.00
Paint (complete removal)	Paint/pigment/coatings		0.001	97,000	5	5	5	1	3	5	4.00
Insulating materials in electric cable	Electrical		0	280,000	5	5	3	4	1	5	3.83
Adhesive tape	Caulk/sealant/tape/glue			1,400	5	3	1	3	5	5	3.67
Surface coating	Paint/pigment/coatings			255	5	3	5	1	3	5	3.67
Coal-tar enamel coatings	Paint/pigment/coatings			1,264	5	3	5	1	3	5	3.67
Grout	Caulk/sealant/tape/glue			9,100	5	4	1	2	5	5	3.67
Cove base	Internal nonstructural surface			170	5	3	3	4	2	5	3.67
Plastics/plasticizers	Electrical			13,000	5	4	3	3	1	5	3.50
GE silicones	Caulk/sealant/tape/glue	<1.9	0	1.8	5	1	3	2	5	5	3.50
Glazing	Caulk/sealant/tape/glue	Up to 100% liquid PCBs		51	5	2	3	3	3	5	3.50
Flooring and floor wax/sealant	Internal nonstructural surface	Maximum likely >50		51	5	2	3	3	2	5	3.33
Light ballast	Light ballasts	Minimum likely <50	49	1,200,000	5	5	3	5	1	1	3.33
Anti-fouling compounds	Paint/pigment/coatings			59,000	5	4	1	1	3	5	3.17
Polyurethane foam (furniture)	Caulk/sealant/tape/glue			50	5	2	1	5	5	1	3.17
Askarel fluid/cutting oils/hydraulic fluid	Oils/dielectric fluids			450,000	5	5	1	5	2	1	3.17
Fire retardant coatings	Paint/pigment/coatings			59,000	5	4	1	1	3	5	3.17
Waterproofing compounds	Paint/pigment/coatings			59,000	5	4	1	1	3	5	3.17
Electrical wiring	Electrical			14	5	1	3	4	1	5	3.17
Concrete	Concrete/stone	2.5	0.001	17,000	1	4	3	1	4	5	3.00
Foam rubber	Gaskets/Rubber			1,092	1	3	1	3	4	5	2.83
Soil/sediment/sand	Soil/dust	0.15	0.001	581	1	3	1	2	5	5	2.83
Brick/mortar/cinder block	Concrete/stone			1,100	1	3	3	1	4	5	2.83
Wood	Wood			380	1	3	3	3	2	5	2.83
Door frame	Internal nonstructural surface			102	1	2	3	4	2	5	2.83
Metals surfaces in contact with caulk/sealant	Metal surfaces	448	51	448	1	3	1	2	4	5	2.67

Appendix A - PCBs Building Materials Prioritization

Material	Material Class	Median/Average/Single Reported Concentration (ppm)	Minimum (ppm)	Maximum (ppm)	PCBs Source Material? (Rating values: source = 5, or not source = 1)	Concentration (Rating values: 1 to 5, higher value means higher concentration)	Prevalence of PCBs Containing Material in Buildings (Rating values: high = 5, medium = 3, or low = 1)	Ease of Removal (Rating values: 1 to 5, higher value means easier to remove)	Flaking/ Crumbling (Rating values: 1 to 5, higher value means more likely to flake/crumble)	PCBs Removed by Other Waste Program? (Rating values: not removed by other = 5, or removed = 1)	Prioritization Score
Asphalt	Concrete/stone			140	1	2	1	2	4	5	2.50
Carpet	Internal nonstructural surface		0.46	9.7	1	1	1	5	2	5	2.50
Stone (granite, limestone, marble, etc.)	Concrete/stone			130	1	2	1	1	4	5	2.33
Air handling system	Air system		0.46	9.7	1	1	1	3	1	5	2.00

APPENDIX B

Priority Building Materials

Photographic Log

Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 1

Window Caulking:

Damaged caulking around a window.



Photograph 2

Window Caulking:

Worn and potentially friable caulking around a window.



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 3

Door Frame Caulking:

**Damaged, friable
caulking on an interior
door frame.**



Photograph 4

**Floor and Expansion
Joint Caulking:**

**Joint compound between
flooring segments.**



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 5

Thermal Insulation:

Foam insulation material in an attic.



Photograph 6

Thermal Insulation:

Damaged floor foam insulation.



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 7

Thermal Insulation:

Damaged pipe foam insulation.



Photograph 8

Thermal Insulation:

Exposed/damaged pipe insulation.



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 9

Thermal Insulation:

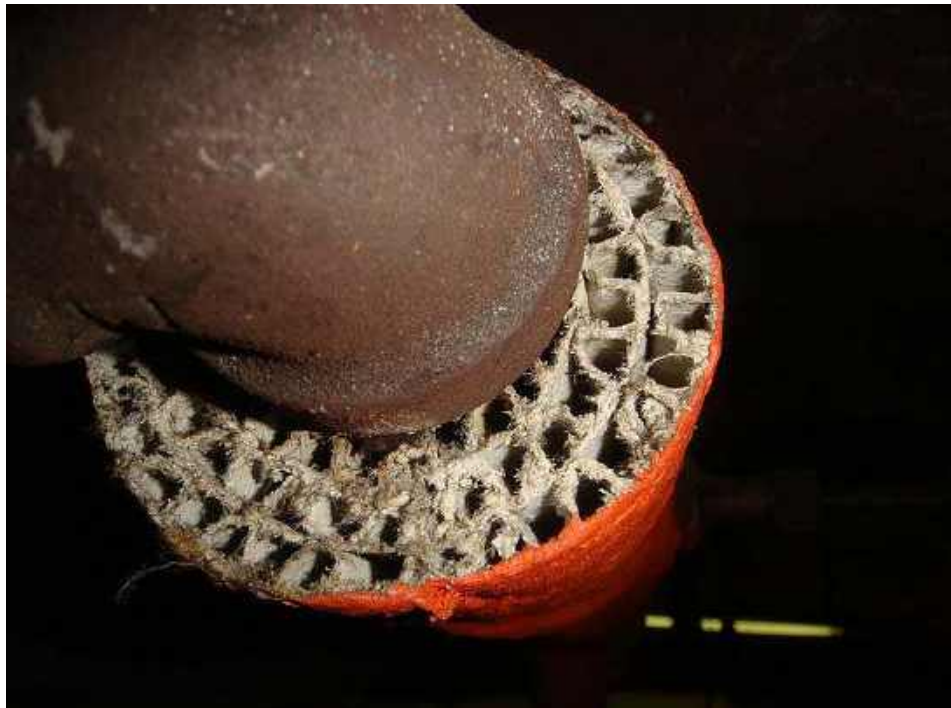
Damaged pipe insulation.



Photograph 10

Thermal Insulation:

Exposed pipe insulation.



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 11

Adhesive / Mastic:

Friable adhesive on a cement surface.



Photograph 12

Adhesive / Mastic:

Adhesive beneath a carpet.



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 13

Adhesive / Mastic:

Adhesive remnants on flooring.



Photograph 14

Adhesive / Mastic:

Exposed adhesive on roofing.



Appendix B

Priority Building Materials to be Tested for PCBs

Photograph 15

**Rubber Window
Seal/Gasket:**

Grey rubber window seal/gasket in a wood type frame.



Photograph 16

**Rubber Window
Seal/Gasket:**

Off white rubber window seal/gasket in an aluminum type frame.



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STAFF REPORT

City Council

Meeting Date:

12/4/2018

Staff Report Number:

18-224-CC

Informational Item:

Update and public release of draft project study report for the Ravenswood Avenue railroad crossing study and draft scope for additional studies

Recommendation

This is an Informational Item and therefore does not require any actions by the City Council.

Policy Issues

The project is included in the 2018 City Council's work plan that was approved February 6, 2018. In addition, during discussion of the work plan January 27, 2018, the City Council also requested that the recommended action include options to explore safety improvements that could allow for a quiet zone at any crossings not grade separated as part of a chosen alternative.

The project is consistent with the City Council rail policy and with the 2016 general plan goals to increase mobility options to reduce traffic congestion and greenhouse gas emissions; increase safety; improve Menlo Park's overall health, wellness, and quality of life through transportation enhancements; support local and regional transit that is efficient, frequent, convenient and safe; provide a range of transportation choices for the Menlo Park community; and to promote the safe use of bicycles as a commute alternative and for recreation.

Background

In March 2016, City Council awarded a contract to a consultant team to perform the Ravenswood Avenue railroad crossing project study report (PSR.) The following meetings were held for the project and feedback received was incorporated into the project analysis:

- Community meetings
 - May 2, 2016
 - October 4, 2016
 - June 7, 2017
- Rail Subcommittee meetings
 - March 20, 2017
 - April 17, 2018
- Chamber of Commerce
 - September 29, 2016
- Property/business owners
 - More than 25 meetings from May 2016 – September 2017

- Ongoing City staff coordination
 - Caltrain
 - Atherton including City Council study session, December 6, 2017
 - Palo Alto including Rail Committee, November 8, 2017
- Commission meetings
 - Parks and Recreation Commission – May 25, 2016
 - Library Commission – June 13, 2016
 - Transportation Commission – November 9, 2016
 - Bicycle Commission – November 14, 2016
 - Planning Commission – December 5, 2016
 - Planning Commission – September 11, 2017
 - Atherton Transportation Committee – September 12, 2017
 - Complete Streets Commission – September 13, 2017
- City Council meetings
 - February 7, 2017
 - April 4, 2017
 - October 10, 2017
 - January 16, 2018 – informational item
 - May 8, 2018

On May 8, 2018, the City Council approved the following motion:

- Move forward with Alternative A which provides for an underpass crossing at Ravenswood Avenue and keeps Oak Grove, Glenwood and Encinal Avenues open to all modes of traffic as existing
- Appropriate \$31,000 from the undesignated fund balance to complete the project
- Authorize the City Manager to amend the agreement with AECOM

Additionally, City Council provided general direction to staff to bring back the following additional items at a future meeting:

- Letters to Palo Alto, Atherton, Redwood City, Mountain View and Sunnyvale to request consideration of a multi-city trench or tunnel
- Letter to Caltrain to request a bicycle/pedestrian path adjacent to the rail within Caltrain right-of-way
- Additional scope of work and appropriation request to prepare (1) a financial assessment of a trench/tunnel; (2) a conceptual design, noise, tree, and visual impact assessment of a fully elevated alternative

Analysis

The project is near completion of the PSR phase and a draft PSR document has been prepared incorporating the community's feedback and City Council directions received to date. This Informational Item is an update on the additional items requested by City Council at the May 8, 2018, meeting as well as an opportunity to review the draft PSR document.

City Council selected preferred alternative

The alternative selected by City Council as the preferred alternative is described briefly below. Exhibits are included as Attachment A.

Alternative A: Ravenswood Avenue underpass

Under this alternative, the rail tracks would remain at the existing elevation and Ravenswood Avenue would be lowered approximately 22 feet below existing elevation to run under the railroad tracks. Existing at-grade crossings at Oak Grove, Glenwood and Encinal avenues would continue to provide vehicular access.

Draft PSR

A PSR is the documentation of the study process, analyses performed, outreach performed, feedback received and the selection of the preferred alternative. The project team has developed a draft PSR for review and is included as Attachment B. The discussion in the document includes recommendations to evaluate potential safety improvements for the crossings that are not proposed for grade separations that could potentially establish quiet zones. The community is invited to review and provide staff with comments before January 3, 2019. Staff will incorporate as appropriate and return to City Council for approval of the final PSR document.

Letters to adjacent cities

On June 15, 2018, letters were sent to the mayors of Atherton, Mountain View, Palo Alto, Redwood City and Sunnyvale from Mayor Ohtaki, inquiring about their interest in considering a railroad trench/tunnel alternative for the Caltrain corridor. Attachment C is a template of this letter. Responses received to date are summarized below.

Table 1: Summary of City responses	
City	Response
Town of Atherton	Interested in meeting on issue; not interested in financially supporting due to limited revenue opportunities and other priorities
City of Mountain View	Interested in dialogue on the corridor; not interested in pursuing “trench/tunnel” option at this time due to City Council-adopted plans for both Rengstorff Avenue and Castro Street
City of Palo Alto	No formal response received to date. Grade separation study is currently underway.
City of Redwood City	Interested in coordinating; will follow up with us as part of their Whipple Avenue grade separation study; their City Council discussed in October 2018 and there is generally not support for trench/tunnel options
City of Sunnyvale	In January 2018, City Council removed trenching from consideration and remaining options leave the current railroad at grade

Letter to Caltrain

On June 15, 2018, a letter was sent to the Chair of the Peninsula Joint Powers Board from Mayor Ohtaki indicating the City’s interest in improve regional and local circulation options including exploring the possibility of a pedestrian and bicycle pathway along the Caltrain right-of-way.

The Manager’s Mobility Partnership is developing the concept of a Peninsula Bikeway that connects cities in the mid-peninsula. This effort will develop three potential alignment options; along El Camino Real, along Middlefield Avenue and along the Caltrain corridor. These alignments will then be included in a feasibility study to develop a recommended alignment to be advanced into the design phase. Menlo Park is one of the partner agencies of this effort and staff will keep the City Council updated on the progress of this effort.

Additional scope of work

On May 8, 2018, City Council directed staff to return with an additional scope of work and appropriation

request to prepare (1) a financial assessment of a trench/tunnel; (2) a conceptual design, noise, tree, and visual impact assessment of a fully elevated alternative. A draft scope of work has been prepared by the consultant team in order to complete the additional studies requested. Prior to returning to City Council for approval of the scope and appropriation of additional funding to complete the additional scope, a draft version of the scope of work is being presented for community and City Council review to provide opportunities to ask questions, obtain clarifications and provide feedback. The draft scope of work is included as Attachment D. The community is invited to ask questions and provide comments to staff before January 3, 2019. Staff will incorporate as appropriate and return to City Council for approval of the scope of work and appropriation of needed funding.

Next steps

Staff will review all feedback on the above items and incorporate as appropriate. Staff will return to City Council in early 2019 to present and request approval of the final PSR document, the final scope of work and an appropriation request. Approval of the final PSR document closes the existing San Mateo County Transportation Authority grant and will allow staff to begin applications for transportation grant opportunities to fund the next phase of work which includes environmental studies and design. Based upon typical planning level estimates, the environmental study and design phase could take approximately 3-5 years depending upon funding availability, followed by securing funding for construction and approximately 3-5 years of construction. Depending upon availability of funding sources, this schedule could be potentially accelerated or delayed.

Per City Council's direction at the City Council annual goal setting January 27, 2018, the next phase of work following the selection of a preferred alternative for this project would include evaluation of and proposals for safety improvements that could allow for a quiet zone at any crossings not grade separated as part of a chosen alternative.

Key remaining milestones for the project are summarized below:

Preferred alternative selection by City Council	May 8, 2018
Community review of draft PSR and draft scope of work	November 2018 – January 2019
Approval of final PSR and direction regarding additional scope of work by City Council	Early 2019
Staff to begin applying for environmental/design funding	Upon final PSR completion
Completion of additional scope of work	Summer/Fall 2019

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 notifications are being made through the project webpage, a Public Works Project List email blast, a NextDoor post and a City Council Digest article.

Attachments

- A. Alternative A exhibits
- B. Draft PSR document

Staff Report #: 18-224-CC

C. Template of letter to adjacent cities

D. Draft additional scope of work

Report prepared by:

Angela R. Obeso, Senior Transportation Engineer

Report reviewed by:

Justin I.C. Murphy, Public Works Director

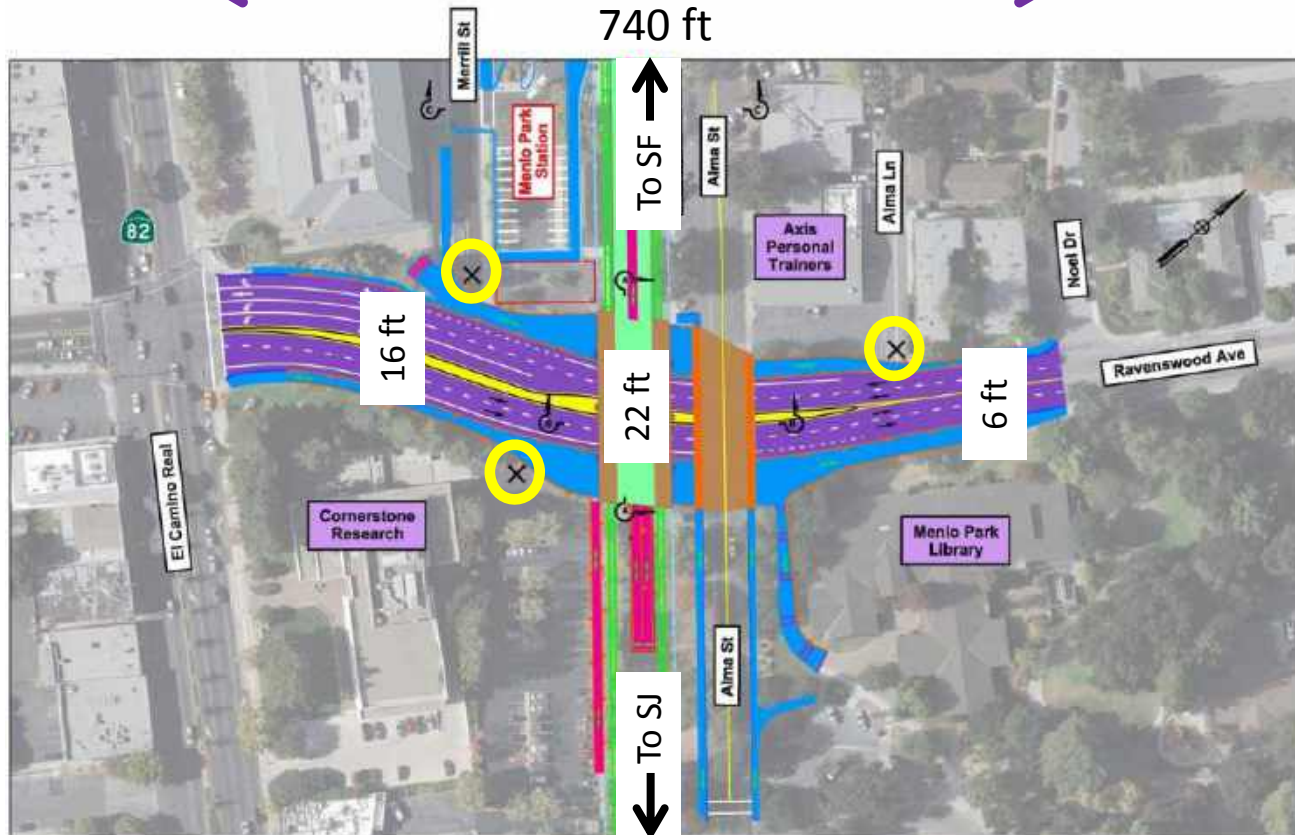
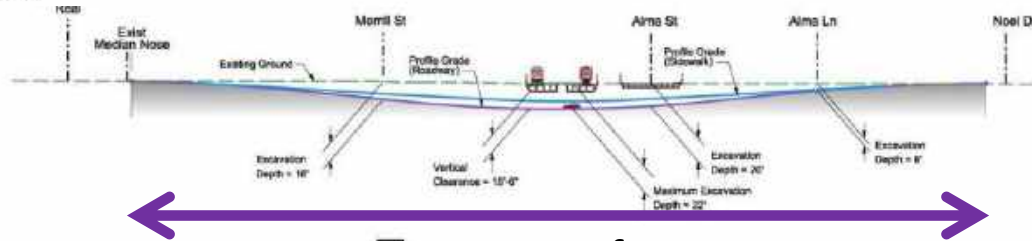
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Alternative A

Ravenswood Ave

ALTERNATIVE A: UNDERPASS
(RAVENSWOOD ONLY)



Ravenswood Avenue Railroad Crossing Project



Alternative A

Photo Simulation Looking East along Ravenswood



Ravenswood Avenue Railroad Crossing Project

DRAFT

ATTACHMENT B
AECOM



Ravenswood Avenue Railroad Crossing Project

City Contract No. 1854
Project Study Report

City of Menlo Park

November 2018

DRAFT

Project Study Report (PSR)

To

Request Approval to Proceed to the Project Approval and Environmental Document Phase

On Ravenswood Avenue in the City of Menlo Park, CA

Between El Camino Real and Noel Drive

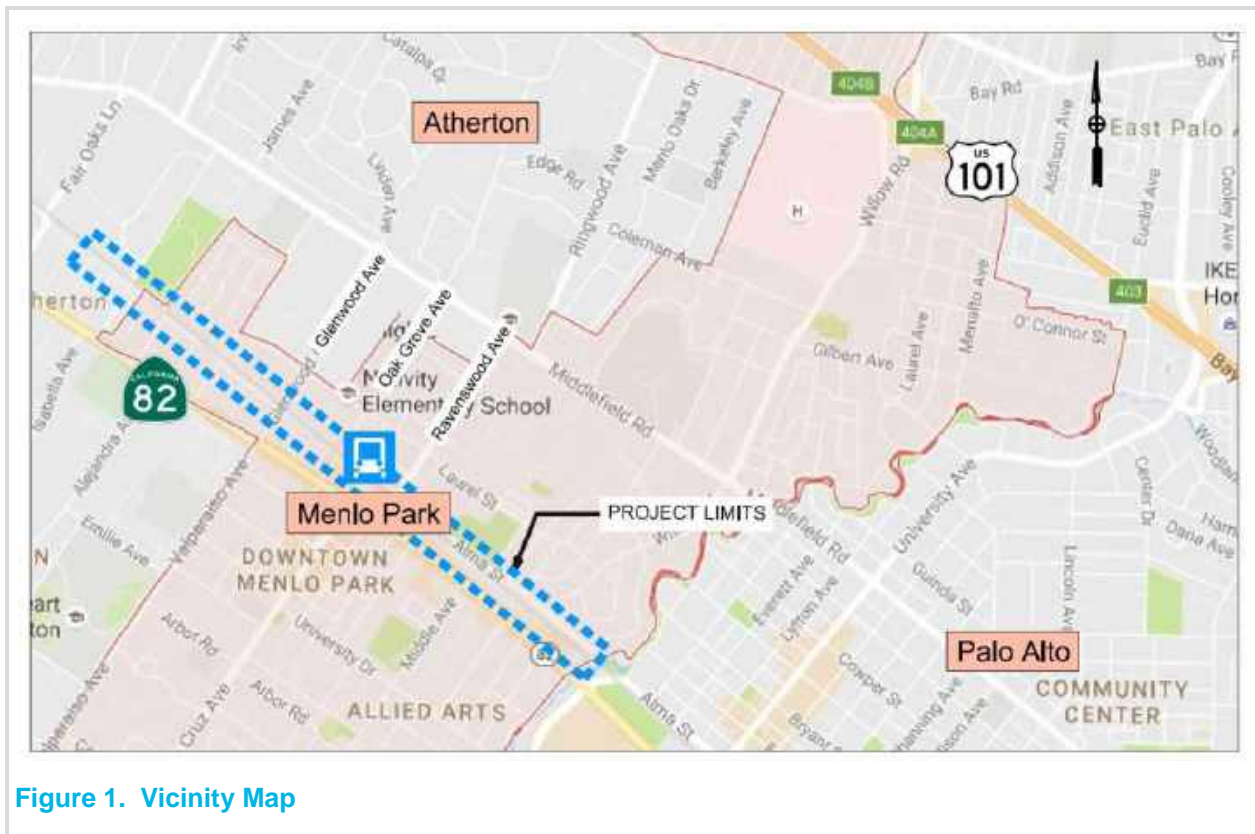


Figure 1. Vicinity Map

DRAFT

1. Executive Summary

Ravenswood Avenue, Oak Grove Avenue, Glenwood Avenue and Encinal Avenue are the four Caltrain rail crossings, all at-grade, in the City of Menlo Park. Ravenswood Avenue is considered the most critical of the four crossings due to its higher traffic volumes than the other crossings along the Caltrain corridor.

This report describes and evaluates two Build alternatives for a grade separation that eliminates, at a minimum, the Ravenswood Avenue at-grade crossing. Three design alternatives were initially evaluated and two alternatives, Alternative A – Underpass; Railroad At-Grade and Lower Roadway (Ravenswood Avenue only and leave Oak Grove, Glenwood, and Encinal Avenues open as existing), and Alternative C – Hybrid; Partially Elevate Railroad and Partially Lower Three (3) Roadways (Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue and leave Encinal Avenue open as existing), were chosen by City Council in April 2017 for final evaluation. At the same council meeting, City Council voted in favor of including a reconfigured station with a center boarding platform and an outside passing track, if required in the future, into the study alternatives.

A comparison of the alternatives was made to the community and City Council based on project issues and concerns such as construction costs, right of way impacts and impacts to the adjacent properties. In May 2018, City Council voted in support of Alternative A as the preferred alternative to complete the PSR. The City Council also requested additional studies be prepared; these are currently being initiated and will be prepared as a supplemental document to this PSR when completed.

DRAFT

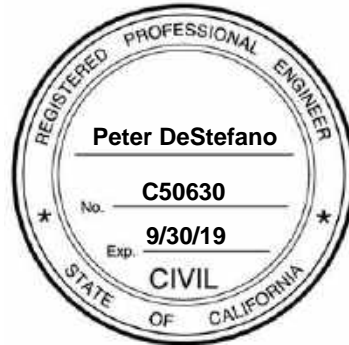
This project study report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



REGISTERED CIVIL ENGINEER

11/9/2018

DATE



2. Table of Contents

Table of Contents

1.	Executive Summary	I
2.	Table of Contents	III
3.	Introduction	1
4.	Background	1
	4.1 Existing Conditions.....	1
	4.2 Previous Studies	3
5.	Purpose and Need	4
6.	Corridor and System Coordination.....	5
7.	Alternatives	7
	7.1 Roadway Design Criteria	7
	7.2 Railroad Design Criteria	7
	7.3 No-Build Alternative.....	8
	7.4 Viable Alternatives.....	8
	7.4.1 Alternative A: Underpass - Railroad At-Grade and Lower Roadway	8
	7.4.2 Alternative C: Hybrid - Partially Elevate Railroad and Partially Lower Roadways.....	10
	7.5 Rejected Alternatives	12
	7.5.1 Alternative B: Partially Elevate Railroad and Partially Lower Roadway	12
	7.6 Construction Staging.....	14
	7.7 Right of Way Needs	23
	7.8 Utilities.....	24
8.	Evaluation of Traffic Conditions	24
9.	Community Involvement.....	26
10.	Evaluation	29
11.	Environmental Determination/Document	30
12.	Funding	31
	12.1 Capital Outlay Project and Support Estimate	31
	12.2 Potential Funding Sources.....	31
	12.2.1 Federal	31
	12.2.2 State	33
	12.2.3 Regional/Local	33
13.	Schedule	34
14.	Caltrain Coordination	34
15.	Project Reviews	34
16.	Project Personnel.....	35
17.	Attachments	35

- A. Alternative A – Preliminary Plans, Profiles and Typical Sections
- B. Alternative C – Preliminary Plans, Profiles and Typical Sections
- C. Preliminary Utility Plans and Relocation Costs
- D. Preliminary Project Cost Estimates
- E. 3D Renderings
- F. Traffic Analysis Technical Memorandum

Figures

Figure 1. Vicinity Map..... i
 Figure 2. Ravenswood Avenue Rail Crossing, facing East..... 2
 Figure 3. Rail Profiles for the Build Alternatives..... 13
 Figure 4. Typical Section of Temporary Platforms 14
 Figure 5. Schematic of Stage 1..... 16
 Figure 6. Schematic of Stage 2..... 17
 Figure 7. Schematic of Stage 3..... 18
 Figure 8. Schematic of Stage 4..... 19
 Figure 9. Schematic of Stage 5..... 20
 Figure 10. Schematic of Stage 6..... 21
 Figure 11. Schematic of Stage 7 22
 Figure 12. Typical Section of Shoofly Tracks (Looking North) 23
 Figure 13. Alma Street/Ravenswood Avenue Signalized Intersection Configuration (Alternative C) 26
 Figure 14. Alternative Matrix 30

Tables

Table 1. Project Summary 1
 Table 2. Rail Accident Summary 5
 Table 3. Capital Outlay Project and Support Estimate..... 31
 Table 4. Milestone Schedule 34

DRAFT**3. Introduction**

The City of Menlo Park, in cooperation with the San Mateo County Transportation Authority (SMCTA), and Caltrain, which is governed by the Peninsula Corridor Joint Powers Board (JPB), proposes to grade separate the Ravenswood Avenue railroad crossing (Milepost 28.98) in the City of Menlo Park.

Table 1. Project Summary

Project Limits	<i>On Ravenswood Avenue between El Camino Real to Noel Drive. On the Caltrain corridor between Encinal Avenue and San Francisquito Creek (See Figure 1)</i>
Number of Alternatives	<i>Two Build and One No-Build</i>
Current Capital Outlay Support Estimate for PA&ED	<i>\$33.5M-\$57.6M*</i>
Current Capital Outlay Construction Cost Range	<i>\$90.2M-\$150.6M*</i>
Current Capital Outlay Right-of-Way Cost Range	<i>\$21.8M-\$60.8M*</i>
Funding Source	<i>Federal, State and Local (SMCTA Measure A)</i>
Type of Facility	<i>Ravenswood Avenue – “Avenue – Mixed Use” classification, # of lanes vary from 4 to 6 within project limits</i>
Number of Structures	<i>Two (for Alternative A) – Caltrain Underpass at Ravenswood Avenue and Alma Street Undercrossing Three (for Alternative C) – Caltrain Underpasses at Ravenswood, Oak Grove and Glenwood Avenues</i>
Anticipated Environmental Determination or Document	<i>CEQA Statutory Exemption (SE) and NEPA Categorical Exemptions (CEs) or an EA to support approval of a FONSI (See Section 11)</i>

* Cost range includes both Build alternatives.

4. Background**4.1 Existing Conditions**

The Caltrain commuter rail runs north and south from San Francisco to Gilroy. The Peninsula Corridor Joint Powers Board (JPB) manages the Caltrain commuter rail operations on the San Francisco Peninsula corridor. As of 2018, Caltrain currently operates 92 passenger trains every weekday (both directions combined), 36 every Saturday and 36 every Sunday. When the Peninsula Corridor Electrification Project (PCEP) is complete, which is expected by 2022, the weekday train volume is projected to be 114 passenger trains. The weekday train volume is expected to more than double the current volume in 2030 after high speed rail trains go into service as part of the corridor’s blended system.

In addition to Caltrain service, Union Pacific Railroad (UPRR) operates freight trains in the corridor. Approximately six UPRR freight trains run daily for five days per week and generally operate at night when Caltrain is not in operation, but they also run at other times of the day when Caltrain can accommodate them.

Within the City of Menlo Park, the Caltrain rail traverses east of and parallel to El Camino Real stopping at the Menlo Park Transportation Center, located near the intersection of El Camino Real and Santa Cruz Avenue. There are four at-grade railroad crossings in the City of Menlo Park (Ravenswood Avenue, Oak Grove Avenue, Glenwood Avenue, and Encinal Avenue).

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The Ravenswood Avenue crossing experiences the highest traffic congestion conditions of the four at-grade crossings. Ravenswood Avenue is located in the center of Menlo Park and serves as a main east-west connector between US 101 and El Camino Real, as well as providing local access to the City's Civic Center, Burgess Park, numerous local businesses and services, and Menlo-Atherton High School. This crossing accommodates high vehicular traffic volumes; approximately 24,000 daily. It also has a large volume of bicycle and pedestrian traffic due to its proximity to the Menlo Park Caltrain Station and Transit Center; and is within walking and bicycling distance to many employment centers and local schools. Additionally, many local residents use this crossing location to travel between their homes, schools, shopping, and recreational venues.

In the existing condition, two railroad tracks cross Ravenswood Avenue. The existing at-grade crossing is currently protected by gates with flashing lights and warning bells, a separate gate for pedestrians, and a cantilever signal facing eastbound traffic. The center island gates are protected by a raised median.

Within the vicinity of the railroad crossing, Ravenswood Avenue has four lanes; two eastbound (EB) and two westbound (WB). See Figure 2. The two westbound lanes transition to four lanes as they approach El Camino Real.

In the westbound direction, Ravenswood Avenue contains a Class III bike route between Noel Drive and El Camino Real. In the eastbound direction, there is a Class II bike lane between El Camino Real and the tracks. East of the tracks, eastbound Ravenswood Avenue contains a Class III bike route. The existing roadway through the project limits has sidewalks on each side and a variable width median island.



Figure 2. Ravenswood Avenue Rail Crossing, facing East

The intersection of Alma Street with Ravenswood Avenue is immediately east of the rail crossing and has a high pedestrian volume due to trips from/to the rail station and to/from the nearby Menlo Park Library, City Hall, Arrillaga Family Recreation Center, and Burgess Park southeast of the intersection.

Ravenswood Avenue intersects with Alma Lane and Noel Drive at unsignalized T-intersections at approximately 220 feet and 370 feet respectively, east of the railroad crossing. Ravenswood Avenue intersects with Merrill Street at an unsignalized T-intersection approximately 140 feet west of the railroad crossing.

Approximately 370 feet west of the railroad crossing, Ravenswood Avenue intersects with El Camino Real at a signalized intersection. East of the intersection, Ravenswood Avenue contains two WB left turn lanes, one WB through, one WB right turn, and two EB through lanes. West of the intersection, Ravenswood

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Avenue becomes Menlo Avenue and contains one WB through lane, one EB through/left turn, and one EB through/right turn lane. Just east of the tracks at Noel Drive, the two EB lanes merge into one lane.

At Laurel Street, both directions of Ravenswood Avenue contain a single left turn lane, one through lane, and a Class II bike lane.

4.2 Previous Studies

While numerous past efforts exploring grade separation of the railroad crossings have been prepared, this summary focuses on the prior efforts completed by the City of Menlo Park over the past 15 years. The studies described below are listed in chronological order highlighting the natural progression of these grade separation studies.

In June 2003, BKF Engineers (BKF) completed a preliminary grade separation study for this corridor of the Caltrain railroad tracks and roadways in Menlo Park. The report investigated four alternatives for grade separating the crossings:

- Alternative 1: Trench – Keep roads at their present elevation and lower the tracks
- Alternative 2: Overpass – Keep the tracks at their present elevation and raise the roads
- Alternative 3: Underpass – Keep the tracks at their present elevation and lower the roads
- Alternative 4: Split – Partially lower the roads and partially raise the tracks

The study included preliminary information regarding the general impact of the alternatives. In 2003, City Council affirmed the City staff's recommendation of the Split option as the preferred alternative. The council also requested that the Underpass Option be studied further; and to consider the practicality of closing Encinal Avenue and Glenwood Avenue.

In September 2004, a Feasibility Study Supplement was prepared by BKF. The following is a summary of the findings of the 2003-2004 studies:

- Trench Alternative
 - A fully-depressed trench not possible if work must be contained within the City's limits; this translates into a Split/Hybrid-like option
 - Not aesthetically-pleasing, a tall security fence would be required along the rail corridor
 - Drainage/flooding and long-term maintenance concerns of the tracks
 - Impact on the train station; station platforms must be constructed to a new elevation
- Road Overpass Alternative
 - Least impact to the railroad, no temporary (shoofly) track needed
 - Largest footprint, major visual impacts
 - Greatest community impacts, such as:
 - Disruptions to existing roadway network (for example, Alma Lane may no longer be directly connected to Ravenswood Avenue)
 - Disruptions to existing private driveway accesses
 - Greatest number of property impacts and acquisitions
- Road Underpass Alternative
 - Road/driveway connection impacts, but less (in quantity and magnitude) than the Road Overpass Alternative

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- Tall retaining walls would create an undesirable “tunnel effect”
- Temporary (shoofly) tracks would be needed
- Challenging construction staging
- Property acquisitions are required, but less than the Road Overpass Alternative
- Split/Hybrid (Rail over Road) Alternative
 - Maintains the most existing road/driveway connections compared to other alternatives
 - Requires raised track embankment
 - Some visual impact due to the elevated rail, but the overall height of the proposed infrastructure is lower than the Road Overpass Alternative
 - Less impact to adjacent properties, compared to the Road Overpass and Road Underpass Alternatives
 - Impact on the train station; station platforms must be constructed to a new elevation

In 2013, the City was awarded a \$750,000 grant from the San Mateo County Transportation Authority (SMCTA) Call for Grade Separation Projects to complete a project study report (PSR) for Ravenswood Avenue. The report process was scoped to include preparation of conceptual designs, assessment of local circulation and property impacts, community engagement, and identification of a preferred alternative.

At the time of grant award, the California High Speed Rail Authority (HSR) was considering a number of passing track alternatives, one of which included adding a third track through Menlo Park (Long Middle option). In order to account for this possible future scenario, the grant required that the project consider alternatives that would not preclude the addition of a third track through Menlo Park, but would not require the project to construct the infrastructure for a third track. In spring 2017, HSR removed from the current environmental analysis of the passing track option that would install a third track through Menlo Park. In late 2017, the HSR Authority announced its preliminary preferred passing track option to add two tracks (for a total of four tracks) between San Mateo and approximately Whipple Avenue in Redwood City, which would not include the addition of a third track in Menlo Park. Caltrain has not yet concurred with this preferred alternative and the HSR Authority is expected to finalize this decision through the environmental review of the San Jose to San Francisco segment in the coming years. The PSR reflects the original grant requirement.

In 2015, the City Council provided direction on two potential alternatives that should be evaluated as part of the project study report: 1) Undercrossing alternative: maintain the existing Caltrain tracks, and lower Ravenswood Avenue to pass under the tracks and 2) Hybrid or split alternative: partially raise the Caltrain tracks and partially lower the roadways under the tracks considering all four Menlo Park crossings for potential impacts. This report summarizes the results of this study.

5. Purpose and Need

There are operational and safety needs for grade separations at all four of Menlo Park’s Caltrain rail crossings, and especially at Ravenswood Avenue.

Of the City’s four at-grade railroad crossings, the Ravenswood Avenue crossing experiences the highest traffic congestion. Ravenswood Avenue is designated as an east-west truck route, accommodates several SamTrans bus lines, and provides access to key destinations including the Menlo Park Caltrain Station, downtown Menlo Park, Burgess Park, Civic Center, and Menlo-Atherton High School. Ravenswood Avenue also serves as a key multi-modal, east-west connection between US 101 and El Camino Real via Willow Road and Middlefield Road.

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Congestion at the rail crossings at Ravenswood Avenue and the City's other east-west connections (Oak Grove, Glenwood and Encinal Avenues) is expected to increase in the future as rail service increases. An evaluation of the traffic conditions is discussed in more detail in Section 8 of this PSR.

Ravenswood Avenue has the highest traffic volume and it also has the highest frequency of rail incidents of the four crossings in Menlo Park. The incident history at the Ravenswood Avenue rail crossing provided by the Federal Railroad Administration (FRA), shows that three incidents occurred over a 10-year period from August 2003 to August 2013.

Of these incidents, one resulted in a pedestrian fatality and one resulted in injuries to a single occupant inside a vehicle. The remaining incident involved a stalled vehicle on the tracks. The driver was able to exit the vehicle to avoid injury by the oncoming train.

Table 2 below is a summary of the accidents in the FRA database that have occurred at the four at-grade crossings within Menlo Park for the 10-year period between August 2003 and August 2013.

Table 2. Rail Accident Summary

At-Grade Crossing Intersection	Total	Fatalities	Injuries	No Injuries	Accidents Involving Pedestrians
Ravenswood Avenue	3	1	1	1	1
Oak Grove Avenue	0	0	0	0	0
Glenwood Avenue	1	1	0	0	1
Encinal Avenue	2	0	0	2	0

Based on collision data from the City since August 2013, three additional collisions occurred at the four crossings, including a fatality of a pedestrian at Encinal Avenue and a fatality of a driver on westbound Ravenswood Avenue stopped in the traffic queue waiting for the signal at El Camino Real.

The purpose of the grade separation proposed at the Ravenswood Avenue railroad crossing is to:

- Remove the at-grade crossing and replace it with a grade separation structure, which will increase the safety of pedestrians, bicyclists, and motor vehicles by eliminating the conflict with the trains.
- Improve traffic operations, reduce queuing and thus, reduce the overall travel times, and improve east/west connectivity in the City.
- Reduce overall traffic congestion and stop-and-go movements, which will result in a reduction of motor vehicle emissions.
- Improve access to/from local destinations including the residential and business communities within the project area.

6. Corridor and System Coordination

The project has not yet been programmed in the Federal Transportation Improvement Program (FTIP). The project would be programmed into FTIP in the next phase, Project Approval & Environmental Document (PA&ED phase).

The proposed project is consistent with the City of Menlo Park Rail Policy which was modified on May 5, 2015 to allow consideration of an elevated rail option as part of the City's Ravenswood Avenue Grade Separation Project. The project is also consistent with the most recent update of the City's Rail policy in May 2018, which updated the policy to reflect updates to the current High Speed Rail proposals and presentation information. In addition, the project is consistent with the following local planning documents which support a railroad grade separation and bicycle facilities at Ravenswood Avenue:

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- City of Menlo Park General Plan Circulation Element, adopted by Council on November 29, 2016.
- El Camino Real and Downtown Specific Plan, dated July 12, 2012.
- City of Menlo Park Sidewalk Master Plan, dated January 28, 2009.
- Menlo Park Comprehensive Bicycle Development Plan, dated January 2005.

The project is also being coordinated closely with the City's Transportation Master Plan, currently in development. The project is also consistent with the JPB and High Speed Rail blended system operation. The California High Speed Rail Authority (HSR Authority) is currently preparing environmental documents for the San Jose to San Francisco segment. According to the HSR Authority's Revised Business Plan (dated June 1, 2018), environmental completion of all segments is expected by 2022 and a Record of Decision for the San Jose to San Francisco segment is scheduled for completion in 2020. One of the items being evaluated is the length and location of potential passing track options. At the time this grade separation study began in 2016, the HSR Authority and Caltrain were considering a potential passing track (a third track) running through Menlo Park. As such, and as required by the funding requirements of the grant received to conduct this study, this project evaluated alternatives that were consistent with the proposals for blended system operations, with a potential passing track running continuously within Menlo Park (city limit to city limit).

In late 2017, the HSR Authority announced its preliminary preferred passing track option to add two tracks (for a total of four tracks) between San Mateo and approximately Whipple Avenue in Redwood City, which would not include the addition of a third track in Menlo Park. Caltrain has not yet concurred with this preferred alternative and the HSR Authority is expected to finalize this decision through the environmental review of the San Jose to San Francisco segment in the coming years.

The grade separation project would not be required to construct any such third (passing) track, only to not preclude its future construction. With Council's approval and as required by this study's funding to not preclude to third track within Menlo Park, the City has decided to move forward with the option that includes two mainline tracks and a center-loading station platform, with the future ability to add a passing track to the east (Alma Street) side of the station.

Additional right-of-way acquisition would be necessary to accommodate a third (passing) track on the east side of the station. As the next phases of design and environmental review are completed for this grade separation project, the following evaluations may be considered to respond to the needs of the City, HSR Authority, and Caltrain:

- Remove the proposed third track from the grade separation designs, with the possible impact that any structures built with grade separation may need to be modified or reconstructed to accommodate a third track. This could cause duplicative costs and additional construction impacts if a third track is ever deemed necessary in the future.
- Accommodate space within the existing Caltrain right-of-way, but not construct a third track within the project area. This would reduce future costs and construction impacts if a third track were to be added in the future. However, this would have greater right-of-way impacts (to build the shoofly, for example) and up-front costs that would be a throw-away if the passing track were never built.
- Placement of the station platforms, outboard or center-boarding, may also be reconsidered at that time.

The project has also coordinated with the proposed bicycle/pedestrian grade-separation structure at Middle Avenue, near the 500 El Camino Real Development Project in the City of Menlo Park, currently in the study and conceptual design phase.

7. Alternatives

Two Build alternatives and the No-Build were evaluated for the grade separation to determine conformance with the project's purpose and need. See Attachments A and B for the preliminary plans of the Build alternatives. Engineering design features, construction staging, right-of-way, and utilities associated with the Build alternatives are discussed in this section.

7.1 Roadway Design Criteria

The roadway design criteria (lane widths, shoulder widths, sidewalk widths, taper lengths, stopping sight distance, etc.) for the project's alternatives was based on the 6th Edition of the Caltrans' Highway Design Manual (HDM), updated July 2, 2018.

The only exception is for the design of the sag vertical curves. Instead of designing for headlight sight distance, the sag vertical curves were designed for passenger comfort based on the following formula on page 3-160 in the 2011 (6th Edition) American Association of State Highway Transportation Official (AASHTO) Green Book, "A Policy on Geometric Design of Highways and Streets". This criteria for sag vertical curves reduces the overall project footprint, which eliminates direct impacts to the El Camino Real intersection. This criteria is very commonly used for roadway underpasses and since lighting will be provided, drivers will not have to rely on their headlights at night to see objects ahead on the sag curve.

Minimum Length of Sag Vertical Curve = $AV^2 / 46.5$ where A is the algebraic difference in grades (in percent). For example, for $A_1 = -5\%$ and $A_2 = +5\%$, and a design speed of 25 mph:

$$L_{(\text{minimum})} = |-5 - 5| * (25)^2 / 46.5 = 134.4 \text{ feet}$$

The following assumptions were included in the design of the Build Alternatives:

- Through Lane Width = 12 feet
- Turning Pocket Lane Width = 11 feet (Minimum)
- Right Shoulder/Bike Lane Width = 5 feet (Minimum)
- Sidewalk Width = 6 feet (Minimum)
- Crosswalk Width = 10 feet
- Minimum Vertical Clearance over Roadway or Shoulder = 15'-6"
- Minimum Vertical Clearance over Sidewalk = 9'-0"
- Minimum Vertical Curve Length = 50 feet
- The length of the crest vertical curves was based on a stopping sight distance of 150 feet (design speed of 25 mph).
- Roadway profile grade = 5% (Maximum, preferred) ; 10% (Maximum) (See Note)
- Railroad structure depth: 0.11 * Span Length

Note: To avoid direct impacts to the El Camino Real intersection, the Ravenswood Avenue profile, for Alternative A, exceeds 5%, but the sidewalks were designed on a separate profile from the roadway, and a maximum grade of 5% was used for the sidewalks. See Attachment A.

7.2 Railroad Design Criteria

Railroad design assumptions were based on Caltrain's Design Criteria (dated September 30, 2011) and the California High-Speed Train Project technical memorandums TM 1.1.21 – Typical Cross Sections for 15% Design, and TM 2.1.2 – Alignment Design Standards for High-Speed Train Operation. The horizontal

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track geometry is designed for 90 mph and FRA Class 5 track standards. The Railroad Design Criteria for this project was reviewed and approved by Caltrain staff in July 2016. Since that time, Caltrain has begun updating their standards and the next phase of the project will incorporate any necessary criteria such as horizontal track geometry being designed for 110 mph and FRA Class 6 track standards.

The maximum continuous profile (vertical) grade along the main line track is 1%. Grades exceeding 1% would be a design exception and may be approved by Caltrain on a case-by-case basis. In order to identify mitigations for any operational and maintenance impacts, the design exception review process may require additional supporting studies, such as power simulations. Depending on the complexity of the design exception request, the design exception request process can take anywhere from 3 to 12 months and still may result in design exception rejection.

At the proposed Menlo Park Station (with a 1,000 foot long platform), no vertical curves are permitted within the limits of the platform. The platform must fall within a single vertical tangent (maximum grade of 1%) on the rail profile. A 0% grade along the platform is preferred by Caltrain.

Vertical curves of the rail were governed by the 60 mph design speed for freight.

7.3 No-Build Alternative

The No-Build alternative proposes no improvements within the project limits. The at-grade railroad crossing would remain as it exists today. However, if the No-Build is ultimately chosen or if there is a significant delay in the project, the City will consider near-term improvements, such as:

- A traffic signal with railroad preemption at the Ravenswood Avenue/Alma Street intersection.
- A four quadrant (quad) gate system. This system would have gate mechanisms on both sides of the tracks in both directions of Ravenswood Avenue. This would deter drivers from illegally driving their vehicles around lowered gates to cross the tracks before the train arrives.
- Quiet zone designation application. Based on federal rule, local government agencies may acquire a quiet zone designation that would restrict the usage of train horns at railroad crossings which meet specified criteria.

7.4 Viable Alternatives

7.4.1 Alternative A: Underpass - Railroad At-Grade and Lower Roadway

7.4.1.1 Road and Rail Geometry

Alternative A (see Attachment A) proposes to maintain the railroad at its existing grade (elevation) and construct one grade separation by lowering Ravenswood Avenue to a maximum excavation depth of approximately 22 feet. The profile of Ravenswood Avenue would be modified/lowered for a total length of 740 feet. The maximum grade on Ravenswood Avenue would be 10%.

The proposed, two-track railroad structure over Ravenswood Avenue would be comprised of four spans with a total length of approximately 160 feet. Retaining walls would be constructed on each side of Ravenswood Avenue to minimize/avoid impact to adjacent roads, properties and buildings.

Sidewalks are proposed on each side of Ravenswood Avenue and would be on a separate profile from Ravenswood Avenue, elevated slightly above the roadway, and would have a maximum grade of 5%. Pedestrian ramps and stairways are proposed on each side of Ravenswood Avenue to allow direct access to the Caltrain station platform above Ravenswood Avenue.

Except for the sidewalks and addition of bike facilities, the modified/lowered Ravenswood Avenue would have cross section dimensions very similar to the existing conditions. Ravenswood Avenue would be comprised of two westbound lanes, two eastbound lanes, a variable-width curbed median, and an 8-foot

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wide shoulder in each direction. The shared-use sidewalks on each side of the roadway will be 10-feet wide on the approach to the underpass, then widen out to a maximum of 34 feet under the railroad structure. Bicyclists can use the roadway shoulder, or the shared-use sidewalk to pass under the railroad structure.

Alma Street would maintain its existing elevation to allow Ravenswood Avenue to pass under it via a two-span structure. The Ravenswood Avenue/Alma Street grade separation would remove the direct vehicular connection between the two streets, and thus would change vehicular travel patterns. This will require a right-turn pocket on eastbound Ravenswood Avenue, approaching Laurel Street. This is discussed in more detail in Section 8 (Evaluation of Traffic Conditions).

Pedestrian and bicycle connectivity between Ravenswood Avenue and Alma Street would be maintained via shared-use ramps on each side of Ravenswood Avenue. For example, bicyclists travelling northbound on Alma Street from Burgess Park can access the south side of Ravenswood Avenue by descending on a shared-use path just west of the library.

Due to the roadway excavation required to lower Ravenswood Avenue and the depth of the sidewalk (elevated above the lowered Ravenswood Avenue), direct vehicular access to Merrill Street and Alma Lane on the north side of Ravenswood Avenue would be removed. Similarly, direct access to the Cornerstone Research driveway on the south side of Ravenswood Avenue would be removed. Access to/from Axis Personal Trainers would be maintained from/to Alma Street.

Oak Grove Avenue, Glenwood Avenue, and Encinal Avenue would maintain their existing at-grade crossing condition except that the crossings would have to be modified slightly during construction to accommodate a temporary (shoofly) track alignment. Each crossing would stay open during and after construction. No current CPUC, Caltrain, or HSR policy would require closure of any of these crossings due to the train frequency/speeds expected in the future. However, an increase in train frequency in the future will increase gate downtime and traffic congestion on these three streets.

See Attachment A for plan, profile and typical section exhibits and Attachment E for 3D renderings of Alternative A. At the time the 3D renderings for Alternative A were completed in late 2016, the alternative's station configuration consisted of outboard platforms. In April 2017, City Council selected a center-boarding platform as the preferred configuration; however, in order to be efficient with the project budget, the 3D renderings were not reconstructed for Alternative A. The exhibits included in Attachment A show a center-boarding platform.

7.4.1.2 Station Configuration and Future Passing Track

The Caltrain Station between Oak Grove and Ravenswood Avenues would also be modified and include the following improvements:

- A 1,000-foot long platform to accommodate longer Caltrain (10-car) trains in the future.
- A 32-foot wide, center-boarding passenger platform area to meet current Caltrain standards.
- A center-boarding platform would allow entry/exit of either train from a single platform.

Although a center-boarding platform was chosen as the City Council's preference at the April 4, 2017, City Council meeting, the platform configuration will be re-evaluated and can be revised during the next phase of the project (environmental studies and design).

The parking lot on the west side of the tracks would have to be modified as a result of the platform reconfiguration. A stairway and ramps and/or elevator would be placed from at least one box structure under the tracks and platform to allow for access to/from a center platform from/to either side of the tracks; from/to Alma Street or from/to the parking lot adjacent to Merrill Street. A layout of the entire station would be determined in the next phase of the project.

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A passing track, if constructed in the future, could be accommodated by widening the railroad structure to the east towards Alma Street. The gap between the outside face of the concrete barrier of the future widening and the outside face of the concrete barrier of the Alma Street Undercrossing would be slightly more than 4 feet. Constructability of the widening would have to be evaluated during final design.

7.4.1.3 Opportunities and Constraints

Opportunities presented under this alternative include:

- A grade separation at the City's highest priority crossing location.
- Little/no change in the visual and noise impacts, compared to Alternative C.
Note: Noise impacts will be evaluated in detail in the next phase of work, with strategies to mitigate impacts during the environmental review process.
- Grade separation of Alma Street improves north/south pedestrian and bicycle connectivity and safety on Alma Street.
- Restoration of the vehicular through movement on Alma Street at Ravenswood Avenue.
- Lesser construction impacts compared to Alternative C.
- Least costly Build alternative.

The constraints of this alternative include:

- Limitation of future grade separation options at the City's other rail crossings in this corridor.
- Elimination of direct access from/to Ravenswood Avenue to/from Alma Street.
- Restriction of access from/to Ravenswood Avenue to/from Alma Lane and Merrill Street.
- Greatest impact to Ravenswood Avenue and access to adjacent properties due to the excavation depth required.
- 10% roadway grade on Ravenswood Avenue. This grade avoids impact to the El Camino Real intersection, and still allows motor vehicles to navigate the roadway comfortably. However, a 10% grade can be challenging for bicyclists, so the shared sidewalk will likely be used by the casual bicyclist.

7.4.2 Alternative C: Hybrid - Partially Elevate Railroad and Partially Lower Roadways

7.4.2.1 Road and Rail Geometry

Under Alternative C (see Attachment B), grade separation structures would be constructed at three crossings: Ravenswood Avenue, Oak Grove Avenue, and Glenwood Avenue. This alternative partially elevates the railroad approximately 10 feet (maximum) above existing rail elevation at Ravenswood and Oak Grove Avenues, and approximately 5 feet at Glenwood Avenue as it transitions back to existing grade before reaching Encinal Avenue.

As in Alternative A, the Encinal Avenue crossing would stay open during and after construction. No current CPUC, Caltrain, or HSR policy would require closure of this crossing due to the train frequency/speeds expected in the future. However, an increase in train frequency in the future will increase gate downtime and traffic congestion on Encinal Avenue. Other alternatives could be considered in the future for Encinal Avenue, such as a closure or a conversion to a pedestrian/bicycle only crossing (closed to vehicles).

The roadways would be lowered partially, by approximately 12 feet (maximum) at Ravenswood Avenue, by approximately 11 feet (maximum) at Oak Grove Avenue, and by approximately 15 feet (maximum) at

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Glenwood Avenue. The aforementioned dimensions are measured at the rail crossing. All road profiles would have a maximum grade of 7%.

The Ravenswood Avenue profile would be modified/lowered for a length of approximately 630 feet, Oak Grove Avenue would be modified/lowered for a length of approximately 510 feet and Glenwood Avenue would be modified/lowered for a length of approximately 590 feet.

The railroad profile would be modified/raised for a length of approximately 5,800 feet (1.1 miles) from just south of Encinal Ave to just north of San Francisquito Creek at the border with the City of Palo Alto. The maximum grade of the railroad would be 1%.

Similar to Alternative A, the two-track railroad structure over Ravenswood Avenue would be comprised of four spans with a total length of approximately 160 feet. The two-track railroad structures over Oak Grove Avenue and Glenwood Avenue would be comprised of two spans with a total length of approximately 80 feet. An intermediate column/bent would be placed in the median of each roadway. Retaining walls would be constructed on each side of the railroad and on each side of the roadways, where feasible, to minimize impacts to adjacent roads, properties and buildings. See Attachment B for plan, profile and typical section exhibits and Attachment E for 3D renderings of Alternative C.

There are several differences at Ravenswood Avenue when compared to Alternative A:

- Alma Street would be lowered to match the elevation of a lowered Ravenswood Avenue, resulting in an intersection that resembles the existing Ravenswood Avenue/Alma Street intersection, providing the ability to restore full vehicular access (i.e., left-turns and through movements for all approaches).
- Merrill Street would also be lowered to tie into the elevation of a lowered Ravenswood Avenue.
- The adjacent sidewalks would follow the roadway profiles (not elevated above the roadway).

Except for the sidewalks and addition of bike facilities, the modified/lowered roadways would have cross section dimensions very similar to the existing conditions. Ravenswood Avenue would be comprised of two westbound lanes, two eastbound lanes, a variable-width curbed median, and an 8-foot wide shoulder in each direction. The shared-use sidewalks on each side of the roadway would be 10-feet wide on the approach to the underpass, then widen out to a maximum of 34 feet under the railroad structure. Bicyclists can use the roadway shoulder, or the shared-use sidewalk to pass under the railroad structure.

Pedestrian ramps and stairways would be placed on each side of Ravenswood Avenue to allow direct access to the Caltrain station platform above Ravenswood Avenue.

Oak Grove Avenue and Glenwood Avenue would be comprised of one lane in each direction, a variable-width median, an 8-foot wide shoulder or Class II bike lane in each direction and a 10-foot wide sidewalk on each side of the roadway. Similar to Ravenswood Avenue, bicyclists can use the bike lane or sidewalk to pass under the railroad structure.

Merrill Street and Alma Street would be modified/lowered to match the lowered profile for Ravenswood and Oak Grove Avenues. Garwood Way, San Antonio Street, and Mills Court would be modified/lowered to match the lowered profile of Glenwood Avenue. Driveways and entrances to fronting properties would be modified in coordination with property owners, where feasible, to match the elevation of the adjoining roadway.

7.4.2.2 Station Configuration and Future Passing Track

Similar to Alternative A, the Caltrain Station between Oak Grove and Ravenswood Avenues would be modified and include the following improvements:

- A 1,000-foot long platform to accommodate longer Caltrain (10-car) trains in the future.

DRAFT

- A 32-foot wide, center-boarding passenger platform area to meet current Caltrain standards.
- A center-boarding platform would allow entry/exit of either train from a single platform.

The parking lot on the west side of the tracks would have to be modified as a result of the platform reconfiguration. A stairway and ramps and/or elevator would be placed from at least one box structure under the tracks and platform to allow for access to/from a center platform from/to either side of the tracks, from/to Alma Street or from/to the parking lot adjacent to Merrill Street. A layout of the entire station will be determined in the next phase of the project.

A passing track, if constructed in the future, could be accommodated on the east side of the rail alignment.

7.4.2.3 Opportunities and Constraints

The opportunities presented with this alternative include:

- Grade separations for three of the four road crossings within the City's limits, which would improve east/west mobility across the City and decrease three rail conflict points.
- Additional grade separations without a substantial additional amount of construction time (54 to 66 months, compared to 42 to 48 months for Alternative A).
- Maintenance of access for all travel modes at the intersections of Ravenswood Avenue with Alma Street, Alma Lane and Merrill Street.
- Better local street connectivity including the ability to restore full access at the intersection of Ravenswood Avenue and Alma Street.
- Maximum grades on roadways are less than Alternative A due to a reduction in the roadway excavation depth.

The constraints of this alternative include:

- Funding could be more challenging; Alternative C is more costly than Alternative A.
- More overall impacts than Alternative A; to roadways, properties, and utilities; however impacts at Ravenswood Avenue are less severe.
- Longer construction duration and greater disruption during construction (more public utilities need to be relocated).
- Greater visual impacts, compared to Alternative A.
Note: Both alternatives incorporate strategies to minimize such visual impacts (an open plaza under the railroad structure at Ravenswood, for example, and there is a potential for other visual enhancements in the station area that will be evaluated during final design.
- Potential increase in noise due to the elevated tracks. However, noise impacts will be evaluated in the next phase of work, with strategies to mitigate impacts during the environmental review process.

7.5 Rejected Alternatives

7.5.1 Alternative B: Partially Elevate Railroad and Partially Lower Roadway

Alternative B is a modified version of Alternative C, the hybrid alternative that would partially elevate the railroad tracks and lower the crossing roadways. Instead of grade separating three roadways, this alternative proposes grade separation of two roadways (Ravenswood and Oak Grove Avenues), while maintaining at-grade crossings at Encinal and Glenwood Avenues.

DRAFT

This alternative proposed to lower Ravenswood Avenue by approximately 8 feet and lower Oak Grove Avenue by approximately 15 feet below existing ground. In order to maximize an elevation gain at Ravenswood Avenue for this alternative, the rail profile was placed on a constant grade of 0.75% through the 1,000-foot long station between Oak Grove Avenue and Ravenswood Avenue. This introduced an apex (the point of maximum elevation) of the railroad profile about 800 feet south of Ravenswood Avenue near the Arrillaga Family Gymnasium to 17 feet maximum above existing rail elevation,. Figure 3 below shows a comparison of the proposed railroad profile for Alternatives A, B and C. Point (a) on the figure is the location of the aforementioned apex, which is about 7 feet higher than the highest elevation for Alternative C.

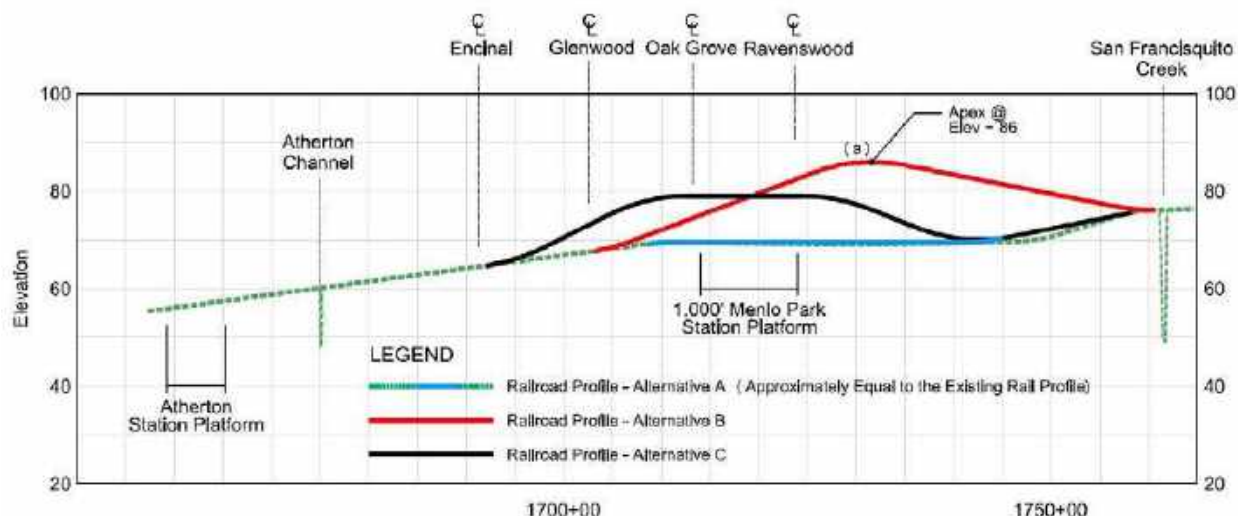


Figure 3. Rail Profiles for the Build Alternatives

The rail tracks would be raised approximately 14 feet from the existing rail elevation at Ravenswood Avenue and approximately 6 feet at Oak Grove Avenue. The railroad would be raised for a length of approximately 5,400 feet (1 mile) from just south of Glenwood Avenue to just north of San Francisquito Creek. Ravenswood Avenue would be modified/lowered for a length of approximately 460 feet and Oak Grove Avenue would be modified/lowered for a length of approximately 600 feet.

Similar to Alternative C, the roads joining Ravenswood Avenue and Oak Grove Avenue would be lowered to match the elevation of Ravenswood and Oak Grove Avenues.

The opportunities presented with this alternative include:

- Grade separations at the two rail crossings with the highest traffic volumes.
- The ability to maintain access between Ravenswood Avenue and Alma Street, Alma Lane, and Merrill Street.
- The least impact to Ravenswood Avenue, compared to Alternatives A & C.

The constraints of this alternative include:

- The highest railroad elevation of the Build alternatives (approximately 17 feet above existing rail elevation just north of Arrillaga Family Gymnasium); thus introducing potentially greater noise and visual impacts. As noted for Alternatives A and C, a noise study will be conducted during the next phase of the project when the environmental studies will be completed.

Due to general concerns about the maximum height of the railroad and a desire to maximize the number of street crossings addressed with the hybrid option, on April 4, 2017, City Council directed staff to advance Alternative C (over Alternative B) as the chosen hybrid option. Thus, Alternative B was dropped from further consideration. The vote was 3-1-1; three (3) in favor of Alternative C, one (1) in favor of Alternative B, and one (1) councilmember abstained. In addition to the aforementioned Council meeting,

DRAFT

several community outreach meetings were held describing the proposed Build alternatives. See Section 9 (Community Involvement) for more information.

7.6 Construction Staging

To minimize disruption to rail and vehicular traffic during construction, either of the Build alternatives would be constructed in several stages. Construction of the railroad structures and new track alignment would require temporary (shoofly) tracks around the limits of the work zone in order to maintain train service at all times, except during weekend closures, when needed.

Shoofly alignments were considered on both sides of the rail corridor. A westerly alignment along Garwood Way, the existing Caltrain parking lot, and Merrill Street is likely the most feasible option because it occurs primarily on public right-of-way and avoids direct impact to Alma Street and the private residences north of Oak Grove Avenue.

A temporary station with 12-foot wide outboard platforms would be provided while the new platform and tracks are being constructed. See Figure 3 below for a typical section of the temporary platforms. The shoofly tracks would impact the existing parking lot. Details of the temporary station will be finalized during the next phase of the project and replacement parking will be included to the greatest extent feasible and mutually agreed upon by the City and Caltrain.

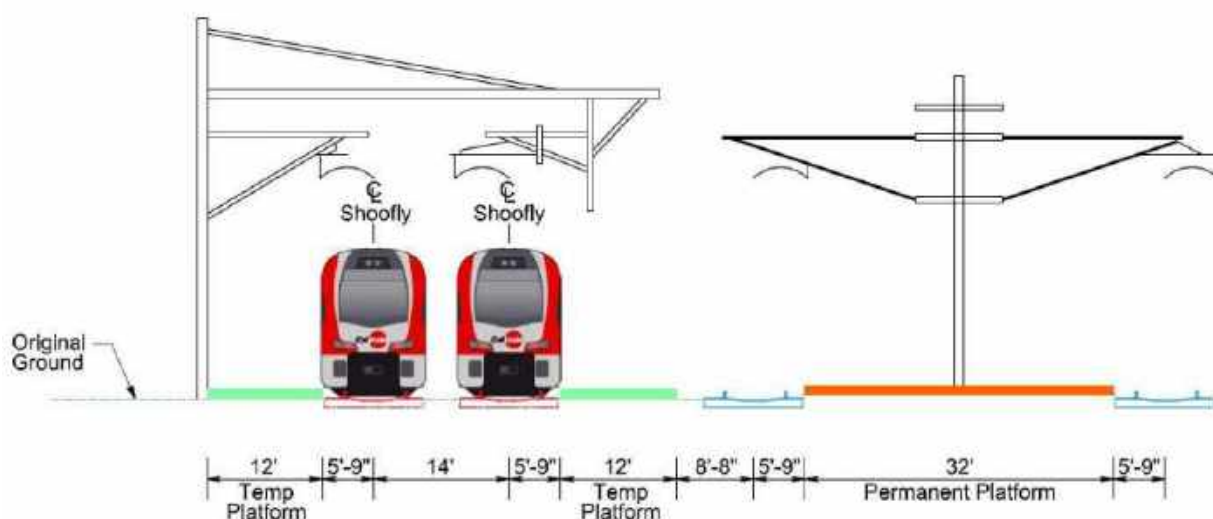


Figure 4. Typical Section of Temporary Platforms

Retaining walls and/or temporary shoring will be used, where required, to allow for construction activity adjacent to the shoofly tracks.

Traffic handling of vehicular traffic on Ravenswood Avenue and other local streets will be evaluated in more detail during the next phase of the project (preliminary design and environmental review). Existing turning movements and access to existing properties will be considered and maintained, wherever feasible. However, short-term closures of the streets will be required; for example, Ravenswood Avenue would be closed over a single weekend while the shoofly tracks and temporary gates are placed across the road. This is noted in Stage 2 below.

One method to reduce the duration of local street closures is to construct a temporary bridge for the railroad on the shoofly alignment at Ravenswood Avenue. This provides the benefit of a shorter duration of closure of Ravenswood Avenue.

The following is a conceptual construction staging plan for Alternative A. A similar concept could be applied to Alternative C. The estimated duration of construction for Alternative A is 42 to 48 months.

DRAFT

Alternative C, due to its additional scope of work (more utility work, grade separations and an elevated rail alignment), would require approximately an additional 12 to 18 months to complete. Given the early stage of engineering design completed at this stage in the project, these estimates are meant to be conservative and provide an order-of-magnitude duration of construction stages. As the project advances through design and other future stages, every effort would be made to reduce the length of construction and consider strategies to mitigate construction impacts.

During the community engagement efforts for this study, participants generally favored considering greater impacts to shorten the overall construction timeline. The construction strategy would continue to be refined as the next phases of the project continue.

DRAFT

Stage 1 Traffic Handling:

- Vehicular traffic maintained on existing roads
- Rail traffic maintained on existing tracks

Stage 1 Construction:

- Relocate utilities
- Construct temporary pavement for a detour on the south side of Ravenswood Avenue
- Begin construction of shoofly tracks

Estimated Duration of Stage 1:

9 to 10 months

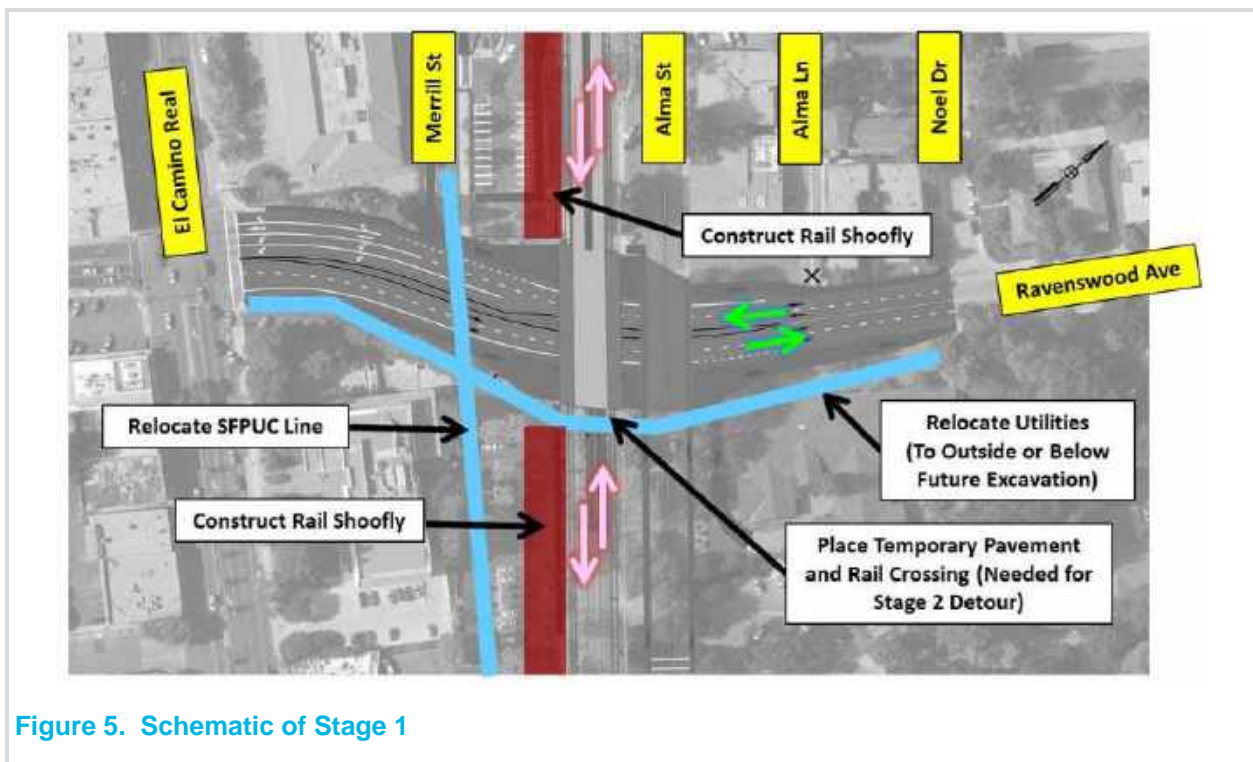


Figure 5. Schematic of Stage 1

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Stage 2 Traffic Handling:

- Vehicular traffic shifted onto south side of Ravenswood Avenue
 - Note:** Temporary closure of Alma Street would commence when excavation of Ravenswood Avenue (at Alma Street) begins.
- Rail traffic maintained on existing tracks

Stage 2 Construction:

- Install temporary shoring to prepare for Stage 3 excavation
- Complete shoofly track work across Ravenswood Avenue
- Install temporary at-grade crossing on the south side of Ravenswood Avenue

Estimated Duration of Stage 2:

4 months

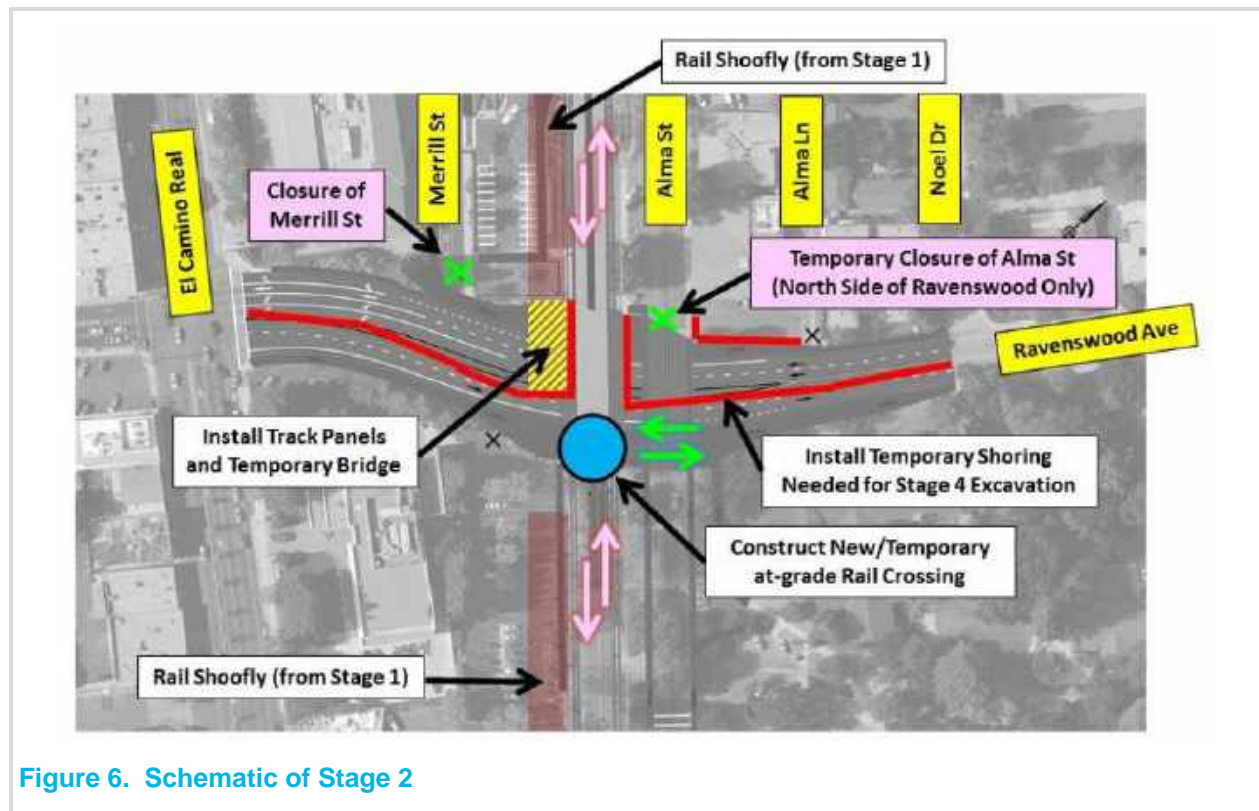


Figure 6. Schematic of Stage 2

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Stage 3 Traffic Handling:

- Ravenswood Avenue temporarily closed
- Rail traffic maintained on existing tracks

Stage 3 Construction:

- Place temporary rail crossing and gates on Ravenswood Avenue

Estimated Duration of Stage 3:

One weekend

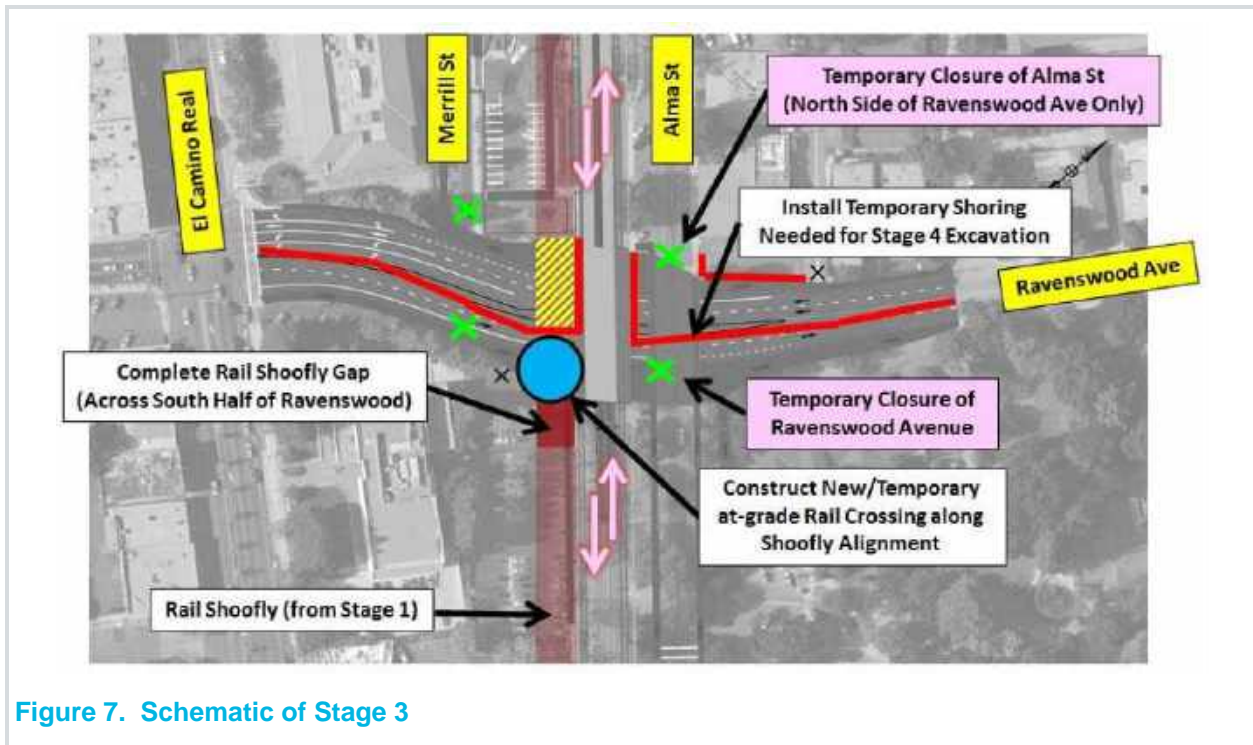


Figure 7. Schematic of Stage 3

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Stage 4 Traffic Handling:

- Shift rail traffic onto shoofly tracks (with temporary platforms at the Menlo Park Station)
- Place vehicular traffic back onto the south side of Ravenswood Avenue

Stage 4 Construction:

- Begin roadway excavation on the north side of Ravenswood Avenue
- Construct foundations for both structures (railroad and Alma Street)
- Begin permanent track work
- Begin construction of new Menlo Park Caltrain station

Estimated Duration of Stage 4:

5 to 6 months

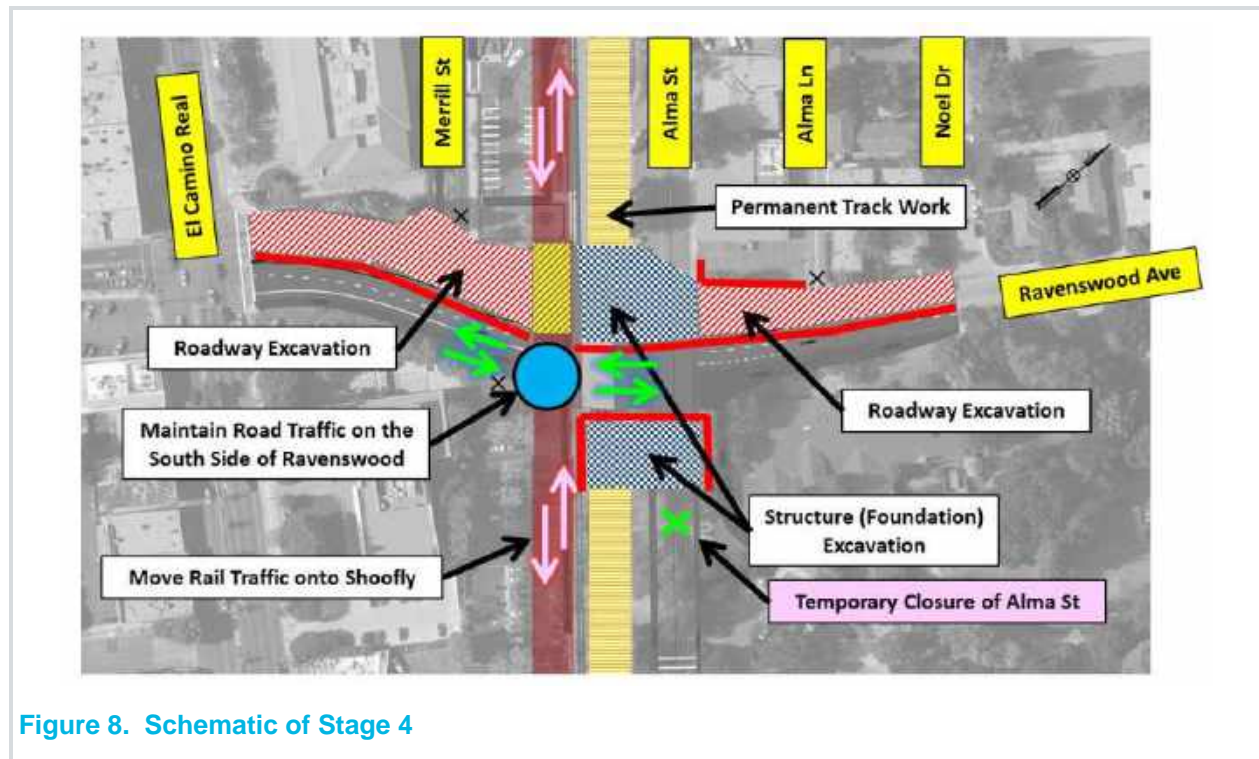


Figure 8. Schematic of Stage 4

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Stage 5 Traffic Handling:

- Maintain rail traffic on the shoofly track alignment
- Maintain vehicular traffic on the south side of Ravenswood Avenue

Stage 5 Construction:

- Complete north half of the railroad and Alma Street bridges

Estimated Duration of Stage 5:

3 to 4 months

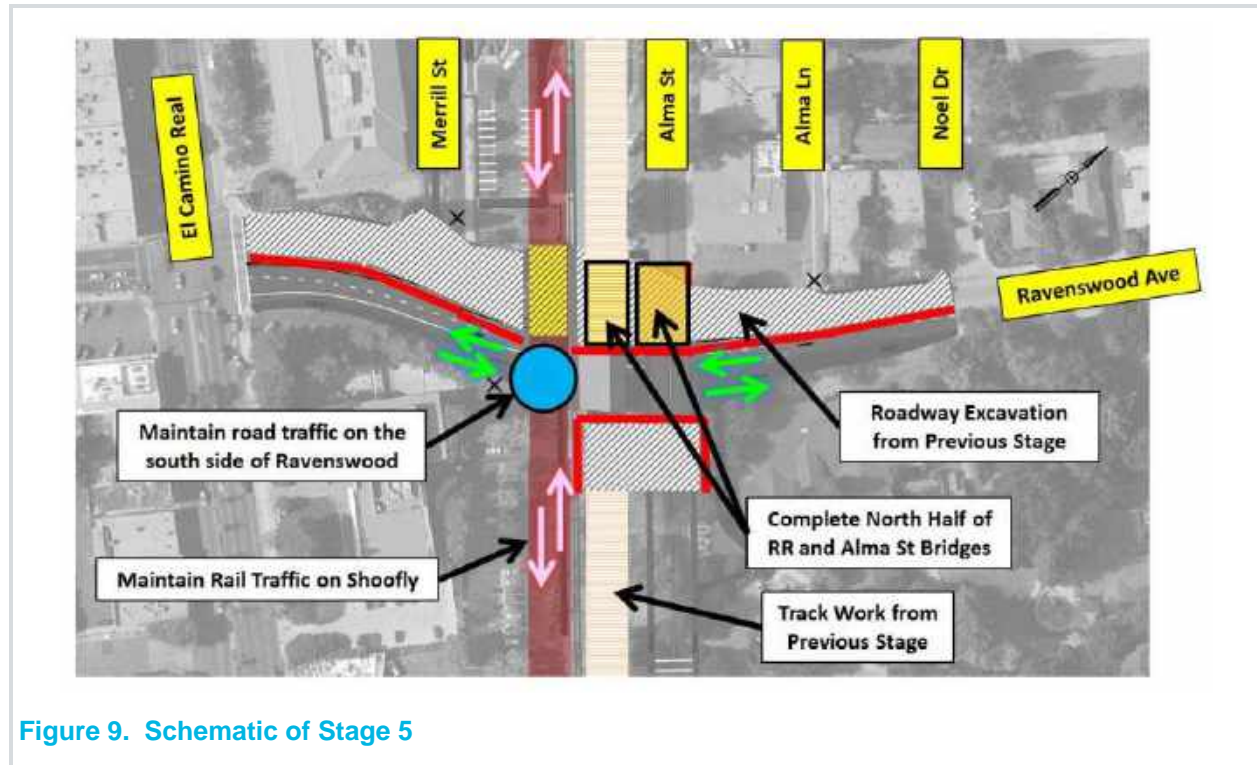


Figure 9. Schematic of Stage 5

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Stage 6 Traffic Handling:

- Maintain rail traffic on the shoofly track alignment
- Vehicular traffic shifted onto the north side of Ravenswood Avenue

Stage 6 Construction:

- Complete south half of railroad and Alma Street bridges
- Complete permanent track work

Estimated Duration of Stage 6:

3 to 4 months

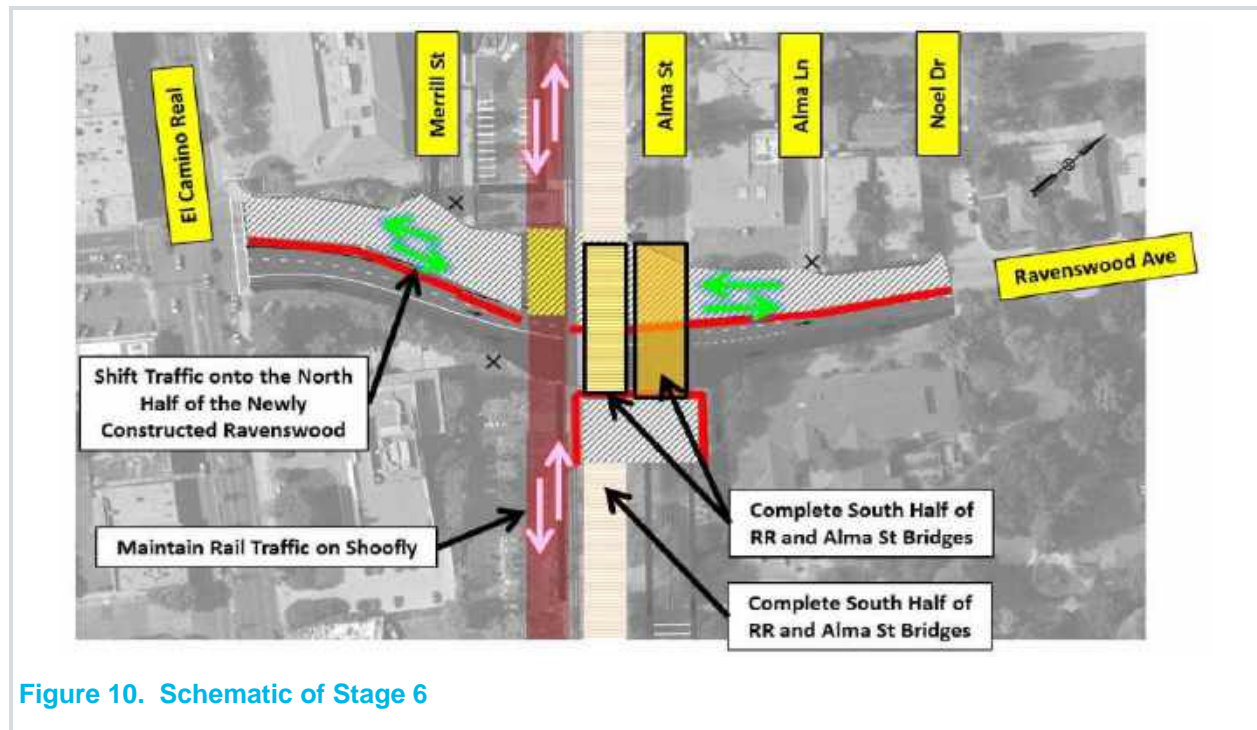


Figure 10. Schematic of Stage 6

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Stage 7 Traffic Handling:

- Shift rail traffic onto permanent track alignment
- Open Alma Street bridge to vehicular traffic
- Vehicular traffic maintained on the north side of Ravenswood Avenue
- Remove shoofly tracks and temporary railroad structure

Stage 7 Construction:

- Complete roadway excavation and retaining walls on the south side of Ravenswood Avenue
- Complete new station
- Complete final paving and striping

Estimated Duration of Stage 7:

18 to 20 months

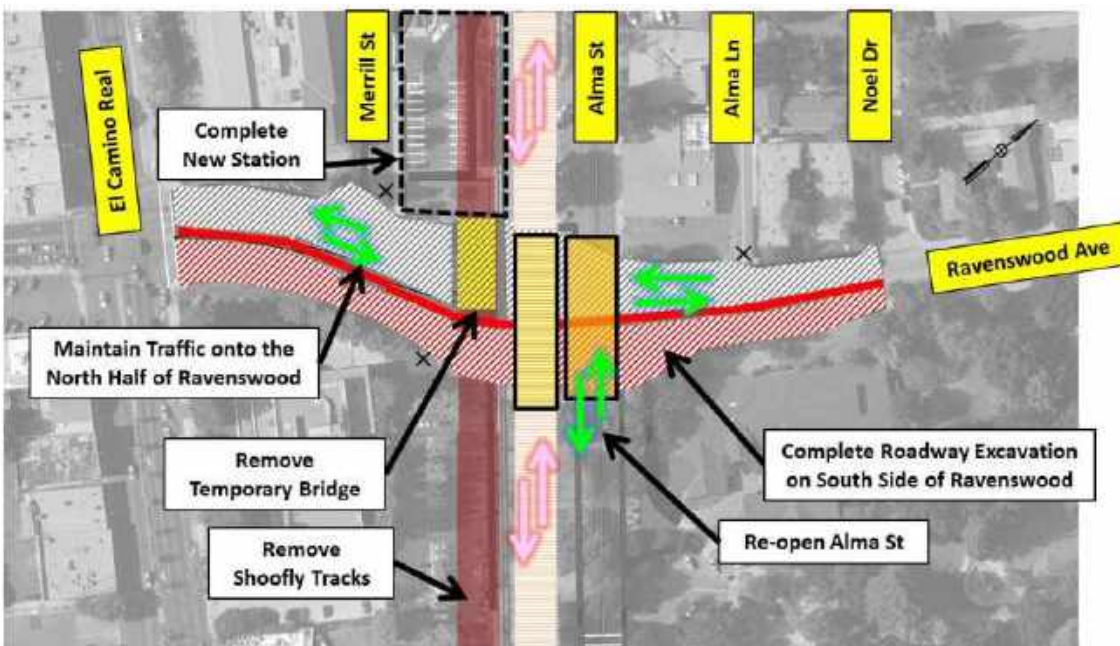


Figure 11. Schematic of Stage 7

7.7 Right of Way Needs

The right-of-way impacts for roadways, pedestrians, and bicycles vary with each alternative. The degree of each impact can vary from a minor driveway modification to a complete driveway/entrance reconstruction to some form of parcel acquisition. Both Build alternatives require permanent property acquisitions, mostly partial sliver acquisitions, and temporary construction easements.

Alternative A would require partial acquisitions of approximately four parcels fronting Ravenswood Avenue adjacent to the crossing to allow for installation of retaining walls and associated structures required to lower Ravenswood Avenue and for bicycle and pedestrian facilities. The temporary (shoofly) tracks would create temporary impacts to parcels fronting the west side of the Caltrain right-of-way. See Figure 12 below for a typical section of the shoofly tracks. Alternative C is shown, but Alternative A is similar.

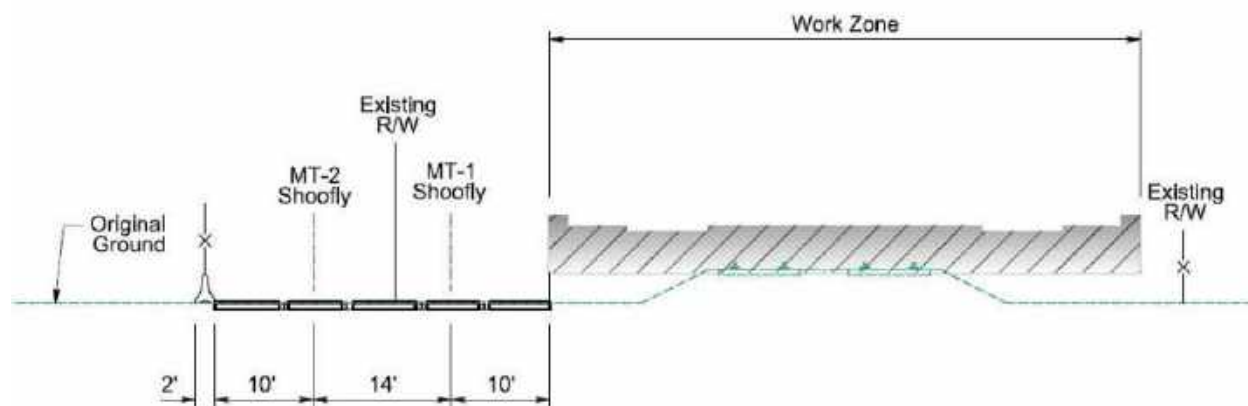


Figure 12. Typical Section of Shoofly Tracks (Looking North)

Alternative C would have similar impacts to the aforementioned parcels impacted by Alternative A. However, Alternative C would also impact parcels along the segments of Oak Grove and Glenwood Avenues, which would also be lowered to create a grade separation at those crossings. Parcels adjacent to the lowered intersections of Oak Grove and Glenwood Avenues may also be impacted including Merrill Street, Alma Street, San Antonio Street, Mills Street, and Mills Court. The temporary (shoofly) track impacts would be similar to Alternative A.

In general, properties and their access to City streets will be impacted more significantly the closer they are to the railroad crossing locations because the local roads must be lowered (below current elevation) most greatly under the railroad to establish enough elevation difference for a grade separation structure. Conversely, properties and driveways further away from the railroad would be impacted less severely. Vehicular and pedestrian access to properties will be modified where feasible and property acquisitions will be minimized as much as possible as the project progresses into the next phase of design and environmental studies.

All potentially affected property owners have been contacted by the City during this phase of the project to discuss strategies to minimize impacts and keep each owner's circumstances, and future needs under consideration. Outreach to all potentially affected property owners will continue throughout the project process.

The access impacts are shown with X marks in Attachments A and B. The access impacts are the predominant cause of right-of-way impacts. The estimated right-of-way costs for Alternative A are \$15.2M and for Alternative C, \$41.6M.

DRAFT

7.8 Utilities

Depending on the Build alternative, the following utilities may be impacted:

- 36-inch Water (SFPUC)
- 8-inch Water (California Water Service Co.)
- 6-inch Water (California Water Service Co.)
- Wave Broadband TV
- Comcast Overhead Cable
- Comcast TV Underground
- Comcast Overhead Fiber Optic
- 12 kV PG&E Overhead Electrical
- PG&E Underground Electrical
- PG&E Gas
- Verizon and Sprint Underground Telecommunication and Fiber Optic Lines
- AT&T Cable

The San Francisco Public Utilities Commission (SFPUC) has listed the replacement of the Palo Alto water distribution line on their 10-year capital improvement program. This 36-inch line was built in 1937 and runs parallel to the Caltrain corridor, between the railroad and El Camino Real within the project limits.

The SFPUC's current plan is to replace this line due to its age and condition. The SFPUC is anticipating to begin the design work in 2022 and to start construction between 2026 and 2028. The current budget for the replacement is \$90M. During the next phase of the project, the project team will coordinate with the SFPUC about the design of this line.

For the purpose of this study and to estimate potential future costs, it is assumed this line will be replaced in its current alignment. The cost for its replacement is included in the overall cost of this project.

Utility location (potholing) will be conducted during the next phase to determine the exact location of the utilities. A summary of utility relocations and costs are included under Attachment C.

8. Evaluation of Traffic Conditions

For the traffic operational analysis, two Build alternatives were considered: Alternatives A and C.

Alternatives A and C, as described below, were analyzed for the existing and future 2040 No-Build and Build conditions. The 2040 conditions include all planned development as proposed within the El Camino Real/Downtown Specific Plan area, as well as the Bayfront area as re-zoned under the Connect Menlo General Plan update.

A more detailed traffic analysis and operations report will be developed during the next phase of the project (preliminary engineering and environmental review), and will include any additional development projects (through amendments to the Downtown Specific Plan or the City's General Plan).

Each of the Build alternatives were evaluated for the future year (2040) conditions. A summary of the conclusions of the traffic operational analyses for each Build alternative is presented below. The full Traffic Analysis Technical Memorandum can be found in Attachment F.

DRAFT**Alternative A**

1. **Alma Street and Ravenswood Avenue** - Since Alma Street would be grade separated, no vehicular movement was assumed between Alma Street and Ravenswood Avenue. Therefore, traffic from Ravenswood Avenue to Alma Street and vice-versa was re-routed via Laurel Street for the traffic operational analysis.
2. **Laurel Street and Ravenswood Avenue** - The eastbound approach at the intersection of Laurel Street and Ravenswood Avenue is modified to include a 300 foot-foot long right turn lane between Noel Street and Laurel Street. Signal timing modifications would be proposed as a result of the re-routing traffic from Alma Street.

As a result of the above changes, the intersections along Ravenswood Avenue would operate at acceptable levels (level of service [LOS] D or better) compared to the No-Build conditions. In addition, the proposed changes would reduce the delay and the travel time for vehicles traveling along Ravenswood Avenue between El Camino Real and Middlefield Road. See Attachment F for more information.

Alternative C:

1. **Alma Street and Ravenswood Avenue** – This intersection is proposed to be a full-access intersection under this alternative with the following modifications along each approach. See Figure 11 below:
 - ***Eastbound & westbound approaches (Ravenswood Avenue)*** - Modification from a single through, shared through/right lane to a single left-turn pocket, single through lane, and single shared through/right lane on both the eastbound and westbound (Ravenswood Avenue) approaches.

Note: If the lane configuration on Ravenswood Avenue noted above were implemented, the road and bridge geometry shown in Attachment B would have to be altered slightly to accommodate the additional lane.
 - ***Northbound approach & southbound approach (Alma Street)*** – Modification from a single right-in/right-out only approach to a single shared left/through/right approach on both the northbound and southbound (Alma Street) approaches.
 - ***Signalization of the intersection.***

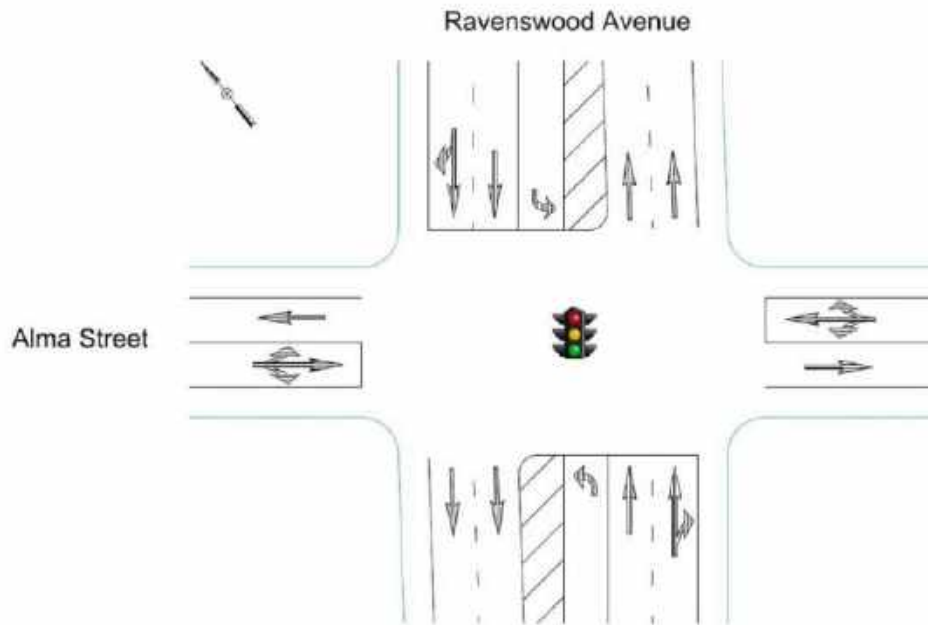
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Figure 13. Alma Street/Ravenswood Avenue Signalized Intersection Configuration (Alternative C)

2. **Laurel Street and Glenwood Avenue** – In future 2040 conditions, this intersection operates unacceptably with the current control (All-Way Stop Control) and is anticipated to meet the peak hour traffic signal warrants. Therefore, a signal is proposed at this intersection. This intersection is within the Town of Atherton’s jurisdiction, therefore concurrence from the Town would be required and the project will continue to coordinate with the Town on this item as the project progresses.
3. **Middlefield Road and Glenwood Avenue** – In future 2040 conditions, this intersection operates unacceptably with the current control (Two-Way Stop Control) and is anticipated to meet the peak hour traffic signal warrants. Therefore, a signal is proposed at this intersection. This intersection is within the Town of Atherton’s jurisdiction, therefore concurrence from the Town would be required and the project will continue to coordinate with the Town on this item as the project progresses.

As a result of the above changes, the intersections along Ravenswood, Oak Grove, and Glenwood Avenues that were operating at unacceptable levels under the No-Build conditions would operate at acceptable levels under the Build conditions with the recommended improvements. In addition, the proposed changes would reduce the delay and travel time for vehicles traveling along Ravenswood Avenue, Oak Grove Avenue, and Glenwood Avenue between El Camino Real and Middlefield Road.

No-Build Alternative:

The future year (2040) No Build alternative was also evaluated. The average delay at each of the study intersections is expected to increase in 2040, when compared to the existing (2018) conditions. In addition, travel times along Ravenswood Avenue, in both the eastbound and westbound directions; between El Camino Real and Middlefield Road, are expected to increase in 2040.

9. Community Involvement

Multiple public meetings and stakeholder meetings have been held to present the project and receive feedback from the community. The outreach included three community workshops, four City Council meetings, seven Commission meetings, and more than 25 stakeholder meetings with local property owners, Police Department, Fire District, and developer representatives. A summary of all outreach

DRAFT

events is described in this section. Details from the various public outreach activities, including presentations and handout materials, can be found on the Menlo Park City webpage for the project (www.menlopark.org/ravenswood).

Three community workshops were held for the project. On May 2, 2016, the first Community Meeting was held at the Arrillaga Family Recreation Center. The project team presented the purpose of the project, existing conditions, and information regarding railroad crossing options and potential aesthetic treatments. The meeting's purpose was to hear from the community about their preferences and concerns prior to the start of the initial engineering. The questions and feedback received at that meeting is documented in a Meeting Summary that is available on the City's project webpage along with all presentation materials.

On October 4, 2016, the second Community Meeting was held at the Menlo Church Social Hall in downtown Menlo Park. The purpose of this meeting was to present the three Build alternatives (Alternatives A, B, and C) described above and receive additional feedback on preferences and concerns. A presentation was given by the project team covering background information, how the community input from the first meeting was incorporated into the project, and details of the three Build alternatives. After a question and answer period, attendees were invited to visit the four stations and provide specific feedback. A meeting summary was prepared to document this feedback and can be found along with all presented materials on the City's project webpage.

On June 7, 2017, the third Community Meeting was held in the Arrillaga Family Recreation Center. During this meeting, the community reviewed Alternatives A and C in greater detail. The following was presented at the meeting:

- Three-dimensional (3D), CAD-generated animations and renderings for each alternative. These were presented both as videos and at a virtual reality station. See Attachment E.
- Exhibits showing various details for each alternative, including temporary (shoofly) track layouts, typical sections, lane configurations, project footprints and construction impacts.

In addition, a handout was provided to the community members to enable them to provide their general feedback of the alternatives. Over 85% of those attending expressed their support for Alternative C due to the increase of east-west connectivity from the three grade separations. They also cited more grade separations would be better long-term and expressed a desire to keep full access at the Alma Street/Ravenswood Avenue intersection.

Those in favor of Alternative A expressed a desire to not have the rail elevated (concern about noise) and its construction would not be as impactful to the community. There was also support for the lower construction cost and grade separating at the crossing with the highest volumes of all travel modes.

City Council Rail Subcommittee information meetings were held on the following dates:

- October 26, 2016
- March 20, 2017
- April 14, 2018

Other community outreach performed as part of the study includes:

- Informational presentation by staff at Parks and Recreation Commission, May 25, 2016
- Informational presentation by staff at Library Commission, June 13, 2016
- Meeting with Fire District and Police Department representatives, September 27, 2016
- Presentation to Chamber of Commerce, Business and Transportation Issues Committee meeting, September 29, 2016
- Transportation Commission meeting presentation on November 9, 2016
- Bicycle Commission meeting presentation on November 14, 2016
- Planning Commission meeting presentation on December 5, 2016

DRAFT

- Planning Commission meeting presentation on September 11, 2017
- Complete Streets Commission meeting presentation on September 13, 2017
- More than 25 meetings with individual stakeholders including local schools, local residential neighborhoods and adjacent property and business owners

The following are some of the key comments and questions received at the Commission meetings:

- On September 11, 2017, the Planning Commission approved a motion to support Alternative A.
- On September 13, 2017, the Complete Streets Commission approved a motion to support Alternative C.
- An open plaza area or breezeway is welcomed and could be used for community events.
- Avoid a “Berlin wall” look.
- Can Ravenswood Avenue be grade separated from El Camino Real also?
- Be open to other options (viaduct and tunnel, for example) and recommend studying them further.
- Provide renderings of the various options.
- More grade separations are preferred, and consider grade separating Encinal Avenue.
- Bicycle and pedestrian access should be given high priority.
- Vehicular/pedestrian access and safety at the Alma Street/Ravenswood Avenue intersection should be given priority.

Recurring themes of the community feedback at all outreach events included the following:

- More Grade Separations
- Minimize Height of the Railroad
- Improve Pedestrian & Bicycle Access and Safety
- Improve Connectivity between Alma Street & Ravenswood Avenue
- Coordinate with other Projects
- Minimize Driveway Impacts
- Inform owners about Property Impacts
- Station Configuration
- Aesthetics

Project presentations were made to the Menlo Park City Council on the following dates:

- February 7, 2017, Study Session
- April 4, 2017, Study Session
- October 10, 2017, Regular Business
- May 8, 2018, Regular Business

At the April 4, 2017 meeting, City Council voted in favor of Alternative C (over Alternative B) to be studied further (with Alternative A); and also voted in favor of including a reconfigured station with a center boarding platform and an outside passing track, if required in the future, into this study (for Alternatives A and C).

On May 8, 2018, City Council voted in support of Alternative A as the preferred alternative. Although, Alternative C provides more long-term benefits, there was concern about moving forward with an alternative that was more costly and would have impacts to the community and the travelling public at more locations during construction. The motion to move forward with Alternative A passed 3-1-1 (with one council member dissenting, and one council member abstaining).

In addition, City Council directed staff to draft letters to Palo Alto, Atherton, Redwood City, Mountain View and Sunnyvale to request consideration of a multi-city trench or tunnel; and to draft a letter to Caltrain to request a bicycle/pedestrian path adjacent to the rail within Caltrain right-of-way. City Council also requested an additional scope of work and appropriation request to prepare (1) Financial assessment of a trench/tunnel and; (2) Conceptual design, noise, tree, and a visual impact assessment of a fully elevated

alternative.

10. Evaluation

Alternatives A and C were evaluated based on potential benefits and impacts including rail/vehicle conflict, traffic and local street connectivity, pedestrian/bicycle access, anticipated changes in train horn noise, visual impacts, property/driveway impacts, disruption during construction, estimated construction costs, and traffic operations. These criteria were established based on feedback received during the community engagement process conducted as part of this study, as summarized in Section 9 above.

An impact matrix was developed and utilized a color-coded rating system based on qualitative and quantitative assessment of the specific impact. The color-coded system is shown below.

Impact Matrix Color Coding System

Greatest Improvement
Significant Improvement
Some Improvement
Some Impact
Significant Impact
Greatest Impact

The results were presented at the May 8, 2018, Menlo Park City Council meeting and are displayed in the following matrix (See Figure 12).

Alternative A would grade separate the City’s most heavily-traveled, east-west connector (Ravenswood Avenue), have the least overall impact to the community (shorter construction duration, fewer utility relocations and property impacts compared to Alternative C), and is estimated at a lower cost (\$160 to \$200 million for Alternative A, versus \$310 to \$380 million for Alternative C).

Alternative C would have higher short-term impacts (construction cost, disruption during construction, permanent and temporary right of way impacts), but it also would provide greater long-term improvements (east/west connectivity for three streets, pedestrian/bicycle access, less potential rail/vehicle conflicts, less potential horn and gate noise, maintaining Ravenswood Avenue/Alma Street connectivity).

DRAFT

Alternatives →	A	C	Notes
Reduce Potential Rail/Vehicle Conflict			Three grade separations for Alt C vs. one for Alt A
Improve East/West Connectivity			More grade separations, better east/west mobility across town
Improve East/West Ped/Bike Access			Increased safety and connectivity for Alt C
Reduce Potential Horn & Gate Noise			With elimination of at-grade crossings, horn or gate noise will potentially be reduced
Maintain Alma St/Ravenswood Ave Connection			No direct access to/from Ravenswood from/to Alma St for Alt A
Increase Visual Impacts			Railroad profile remains at current elevation for Alt A
Minimize Property/Driveway Impacts			More impacts to properties with 3 grade separations, Alt C
Minimize Disruption During Construction			Fewer roads and properties impacted during construction for Alt A
Improve Traffic Pattern Predictability			Improved traffic circulation for Alt C
Order of Magnitude Cost	\$160-200M*	\$310-380M*	Lower overall cost for Alt A

* Preliminary (Subject to Change)

Figure 14. Alternative Matrix

11. Environmental Determination/Document

Grade separation projects are generally exempt from the requirements of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). A CEQA Statutory Exemption typically applies to railroad grade separation projects that eliminate or reconstruct an existing at-grade crossing (California Public Resources Code Section 21080.13 and Title 14 California Code of Regulations Section 15282(g)). This Statutory Exemption was enacted by the State and became effective in 2016. Unlike categorical exemptions, statutory exemptions are not subject to any exceptions that might require environmental review. Statutory exemptions are absolute; the exemption applies if the project fits within the language of the exemption. This proposed project squarely fits within the statutory exemption. The proposed project appears to meet the definition of this Statutory Exemption, making it exempt from CEQA. Caltrain, as the owner of the rail facility and right-of-way, will likely be the lead agency for this approval.

If the project involves federal transportation funding, NEPA includes Categorical Exclusions (CEs) that also may apply. Caltrain or the Federal Railroad Administration would function as the NEPA Lead Agency and would determine and approve the appropriate documentation. A CE defined under Title 23 Code of Federal Regulations (CFR) Section 771.117(c)(28) is “Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.” Restrictions on the use of this CE category are outlined in 23 CFR 771.117(e) and include the acquisition of more than a minor amount of right-of-way or residential or non-residential displacements.

If Ravenswood Avenue is lowered substantially, the design would require retaining walls and/or right-of-way acquisition to accommodate the slopes and supporting embankments, or retaining wall structures, depending on the alternative and design. If a NEPA CE under 23 CFR 771.117(c)(28) is not applicable, a CE under 23 CFR 771.117(d) could be considered, but use of this CE would require additional environmental review and documentation (technical studies or memos) to demonstrate that no substantial or significant impacts would occur. If the project does not qualify for a CE, the next appropriate

DRAFT

environmental document would be an Environmental Assessment (EA) to support approval of a Finding of No Significant Impact (FONSI).

Key environmental studies to support a NEPA CE or EA for this project would likely involve technical reports for cultural resources, biological resources, hazardous materials, noise, visual/aesthetics, and community impacts.

12. Funding

The current PSR level phase of the project is funded through San Mateo County Transportation Authority's Measure A (voter-approved half-cent sales tax for countywide transportation projects and programs) and a contribution provided from local City funds. The City intends to request additional Measure A, regional, State and federal grade separation funds in future programming years for subsequent milestones.

12.1 Capital Outlay Project and Support Estimate

Table 1 summarizes order of magnitude construction, right-of-way and support cost estimates for each Build Alternative. Capital outlay project cost estimates for each alternative are included in Attachment D.

Table 3. Capital Outlay Project and Support Estimate

Cost Estimate (Values shown in Millions)					
Alternative	Construction	R/W & Utility	Support	Escalation [^]	Range #
A	\$90.2	\$21.8	\$33.5	\$33.4	\$160 to \$210
C	\$150.6	\$60.8	\$57.6	\$61.8	\$310 to \$380

[^] Escalation to estimated mid-point of construction (2025)

Range is based on +/- 10%, rounded up to the nearest \$10M.

The level of detail available to develop these capital outlay project estimates is only accurate to within the above ranges and is useful for long-range planning purposes only.

12.2 Potential Funding Sources

Funding for transportation and other major infrastructure projects has been increasingly difficult to obtain due to limited availability of funds as well as the greater demand and competition for the funding that is available. Moreover, the funding environment is highly volatile, and changes in administration priorities and the economy can affect the type and availability of funds. For instance, changes in energy prices can alter gasoline-tax funded opportunities, while changes in administration priorities can change project selection criteria for existing funds. Additionally, many funding partners will only evaluate "shovel ready" projects for funding consideration. Together these factors recommend proceeding with project design and environmental compliance completion as the project's capital funding strategy is developed, refined and implemented.

There are three major categories of potential project funding sources:

12.2.1 Federal

The Highway Safety Improvement Program (HSIP) is a federal aid program under the FAST Act. The California apportionment of over \$200 million is administered by the Caltrans Division of Local Assistance

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through a competitive call for projects every two years. The maximum federal reimbursement amount per project is \$10 million and may be used for preliminary engineering, right-of-way and construction. The ninth and most recent call for projects was announced on April 30, 2018, with a submission deadline of August 30 2018. A small percentage of the HSIP funds are set aside for the Railway-Highway Crossing (Section 130) Program specifically for use in grade crossing projects. California apportionment of the Section 130 Program is approximately \$16 million per year and the maximum federal reimbursement level may be up to 100% of project work to eliminate the identified hazards at an eligible crossing. It is administered by the Caltrans Division of Rail and CPUC, and requires CPUC Priority and FSTIP listings. Obtaining the CPUC Priority and FTIP listings are important next steps for the project. Caltrans prepares the FSTIP every two years in cooperation with the regional transportation agencies. Applications for the Draft 2021 FSTIP occur in 2020 and authorized by December 2020.

California apportionment of federal funds from the Surface Transportation Program (STP) / Congestion Mitigation and Air Quality Improvement Program (CMAQ) and other FAST Act Programs are now distributed across the nine Bay Area Counties through the One Bay Area Grant Program (OBAG).

On November 18, 2015, the Metropolitan Transportation Commission (MTC) adopted the funding and policy framework for the second round of the OBAG program. Known as OBAG 2 for short, the OBAG 2 County Program of Projects was approved by the MTC Commission at the end of 2017 with \$386 million in federal funds earmarked for 180 transportation projects located in 95 jurisdictions within Bay Area region's nine counties. However, the majority of OBAG 2 funds are for active transportation projects oriented to bicycle access and walkability, but also include streetscape improvements, road diets, or transit elements. The City received funding for repaving parts of Santa Cruz Avenue and Middle Avenue, with an expected completion in the summer 2020.

Other potential federal contribution to project funding can be expected to be limited and from highly competitive grants. Until recently the Transportation Investment Generating Economic Recovery (TIGER) grant program provided an annual opportunity for transportation projects to compete for federal grant funding. Another similar federal grant program Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies (FASTLANE) was however more focused on providing financial assistance (both in the form of grants or credit assistance) to nationally and regionally significant freight and highway projects. While those grants were highly selective, grade separation projects have been successful in securing funding through these mechanisms under the previous TIGER programs.

Recently the federal government has discontinued and in effect replaced those grant programs with its Infrastructure for Rebuilding America (INFRA) and Better Utilizing Investments to Leverage Development (BUILD) grants programs. These are nationally competitive grants and are expected to offer an annual call for applications. The INFRA grant program has completed two rounds of funding and awarded both large (\$45 million for a City of Seattle) and small (\$5 million for Tukwila, WA) grants for their grade separation and railroad safety projects. The INFRA program is specifically focused on projects where the local sponsor is majorly invested and well-positioned for the project's construction and completion. The last INFRA funding opportunity submission deadline was November 2, 2017. Although no announcement for a FY 2018 round has occurred it is expected that additional future opportunities for INFRA program funding will be likely.

Similar to its predecessor TIGER, the BUILD Transportation grant program awards grant funding on a competitive basis for projects that have a significant or local regional impact. The BUILD program incorporates many of the TIGER criteria and requirements but has a greater focus on infrastructure that will make a positive impact on the country and also gives special consideration to projects located in rural areas. The maximum grant award under the BUILD program is \$25 million and the submission deadline for its first funding round was July 19, 2018. Although no formal commitments have been made, it is considered likely that there will additional opportunities for BUILD program funding in the future.

Generally, the maximum federal reimbursement ratio for projects in non-rural areas is 80%, although it can be lower. Non-federal funding is required to cover the other 10% or more of the development cost for the project. If a project uses multiple counter measures which have different maximum federal reimbursement ratios, the lowest ratio applies. Among the various federal funds identified for this project, the maximum reimbursement ratio is 80%, and as such state and/or regional funding will be required and

DRAFT

is identified below. Furthermore, the federal government increasingly favors projects that leverage financial support from other agencies and/or the private sectors.

The federal government also offers two loan assistance programs for transportation projects similar to the Ravenswood Avenue Railroad Crossing Project. The DOT sponsored Transportation Infrastructure Finance and Innovation Act (TIFIA) provides low cost credit assistance for qualified projects of regional and national significance in the form of direct loans, loan guarantees, and standby lines of credit. However, given the requirements to qualify and restrictions in use of the loan funding, TIFIA lending is best suited in conjunction with other funding mechanisms that can obtain investment grade ratings (e.g. from dedicated sales revenues).

The Railroad Rehabilitation & Improvement Financing (RRIF) program, established by the Transportation Equity Act for the 21st Century can be used to obtain federal loans to refinance debt for railroad projects. However, loan recipients must be able to secure the loan to offset the loan default risk. RRIF also favors projects that result in economic revitalization and safety improvements. It also provides a limited number of large loans (averaging \$165 million) for major railroad redevelopment projects.

12.2.2 State

Successful project development will require obtaining substantial state funding to supplement the federal contribution. Section 190 Streets and Highway Code, required Caltrans to include \$15 million in each budget for grade separation projects on state highways and local streets and roads. This Grade Separation Program is jointly administered by Caltrans and CPUC. CPUC develops the priority list of projects that would be eligible for funding, which receive funding allocations from Caltrans. The application will be completed when the project approaches the latter stages of the final design phase.

In addition to the Grade Separation Program (Section 190) funds, a potential state funding is the California High Speed Rail Authority (through Prop 1A), which has made substantial funding contributions to key grade separation projects and has committed up to 50% of total project funds for other grade separation projects in San Mateo County. However, the lack of passing track or other project-related changes at the location requiring grade separation for its operations makes an Authority funding contribution unlikely.

The State Road Repair and Accountability Act (SB 1) was passed in 2017 and provides funding for numerous transportation programs and purposes. The project may be expected to be best-aligned with the Road Maintenance and Rehabilitation Program through its Local Street & Road Funding Program. Its 2018-2019 Program has \$1.1 Billion in funding and its initial list of Eligible Cities and Counties was adopted in June 2018 with project applications due August 2018. However, future funding cycles are anticipated.

12.2.3 Regional/Local

Significant regional and local funding contribution will also be necessary. San Mateo County Transportation Authority's Measure A Grade Separation Program has been identified as a key funding source for the project. The fund has \$235 million pending commitment and will be allocated to grade separation projects throughout the county on a rolling basis, and may be used to fund pre-construction and construction related activities.

In addition, the City of Menlo Park will also likely need to contribute to the project's design and construction either from general or other local funds. Coordination with the City's Transportation Master Plan and Fee Program Update is ongoing and will incorporate the findings of this PSR. Potential contributions to the project may also be obtained from future development projects that may create additional traffic impacts on the rail crossing(s). To supplement City General Funds and other local contributions, it could be worthwhile to investigate the potential for some limited project funding support from innovative funding mechanisms, including transportation impact fees and value capture funding if future project related development (e.g. transportation oriented residential or retail development) can be expected to occur.

DRAFT

Other tax based potential local funding sources (e.g. increased parcel, add-on sales or transient occupancy taxes) would require city-wide voter approval. Further analysis of the applicable funding program requirements, their funding potential and likelihood of success will be necessary to develop and implement an effective funding strategy to obtain capital funding required for future project development.

Funding contributions from Caltrain may also offer some potential funding opportunities particularly if the agency is successful in future efforts to obtain the necessary voter, county, and city approvals for a future ballot measure for up to a one-eight-cent dedicated funding sales tax increase in San Francisco, San Mateo and Santa Clara counties. If successful, the Caltrain sales tax initiative could raise more than \$100 million in annual revenues that would exceed its annual operations and maintenance costs. In which case, some capital funding for grade separation projects such as the Ravenswood Avenue Railroad Crossing Project may be possible.

13. Schedule

Table 4. Milestone Schedule

Project Milestones	Estimated Scheduled Delivery Date (Month Year)
Draft PSR	August 2018
Final PSR	December 2018
*Preliminary Engineering and Environmental Review	March 2021
*PS&E (Final Design)	June 2023
*Begin Construction	October 2023
*End Construction	September 2027

*Assuming funding is available/secured

14. Caltrain Coordination

All railroad involvement will be coordinated with Caltrain. Caltrain staff has attended monthly project meetings and has participated in the three public outreach workshops as well as reviewed the design criteria and the PSR.

15. Project Reviews

Caltrain: Melissa Reggiardo, Hok Lai & Bin Zhang
City of Menlo Park: Angela Obeso & Nicole Nagaya

Date: October 2018
 Date: August 2018

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16. Project Personnel

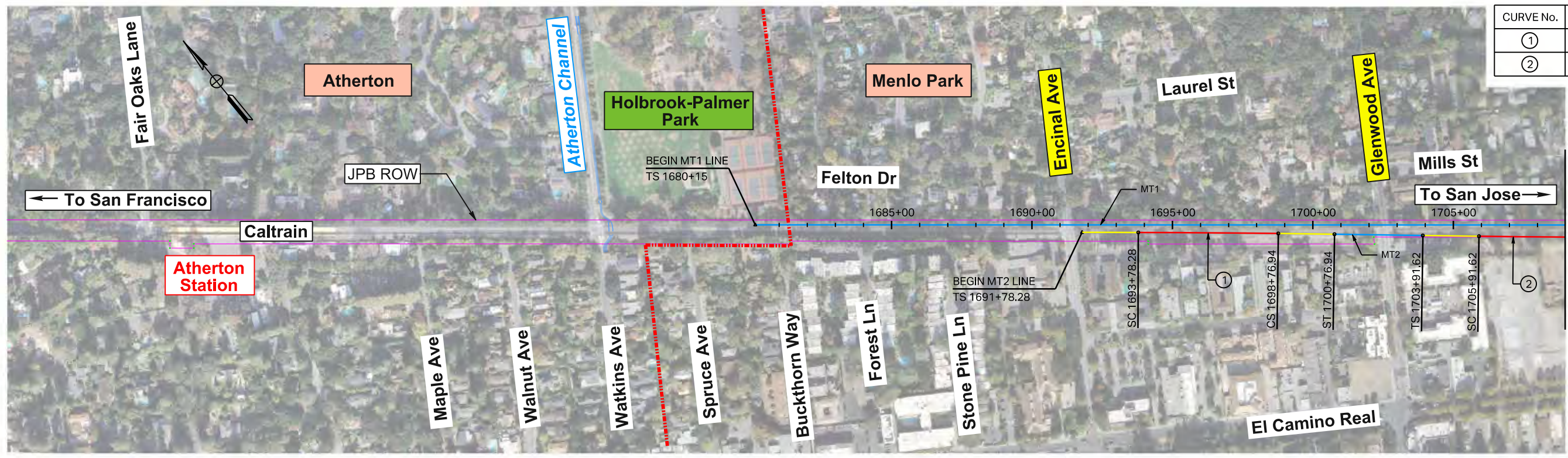
Nicole Nagaya, Assistant Public Works Director, City of Menlo Park	(650) 330-6770
Angela Obeso, Project Manager, City of Menlo Park	(650) 330-6739
Melissa Reggiardo, Caltrain, Principal Planner	(650) 508-6283
Ety Mercurio, Project Manager, AECOM	(510) 874-1773
Millette Litzinger, Deputy Project Manager, AECOM	(408) 961-8417
Peter DeStefano, Project Engineer, AECOM	(510) 874-3143

17. Attachments

- A. Alternative A – Preliminary Plans, Profiles and Typical Sections
- B. Alternative C – Preliminary Plans, Profiles and Typical Sections
- C. Preliminary Utility Plans and Relocation Costs
- D. Preliminary Project Cost Estimates
- E. 3D Renderings
- F. Traffic Analysis Technical Memorandum

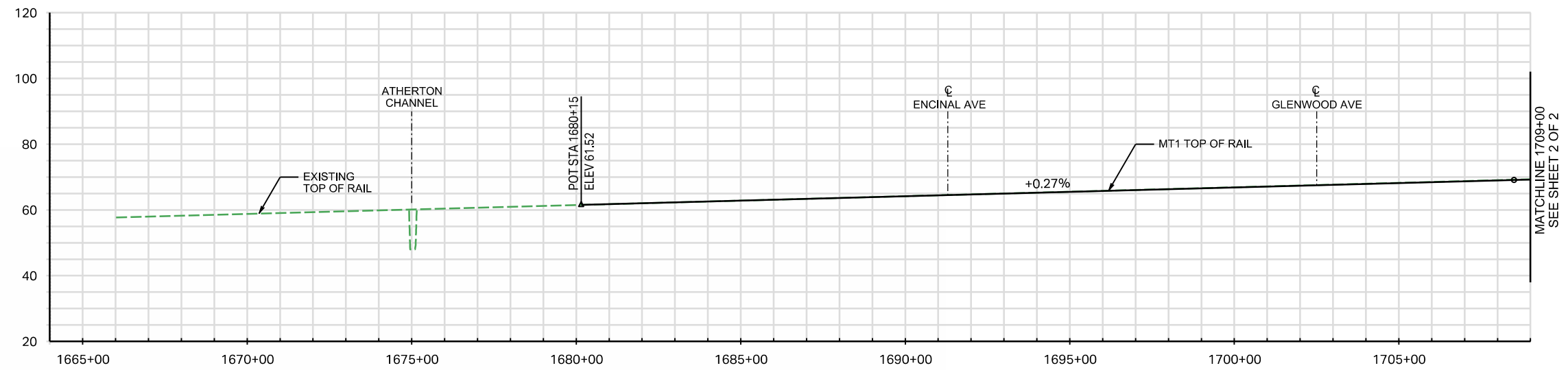
ATTACHMENT A

Alternative A – Preliminary Plans, Profiles and Typical Sections



CURVE DATA			
CURVE No.	Dc	R	L
①	0° 07' 00"	49,110.66'	498.66'
②	0° 07' 00"	49,110.66'	500.00'

PLAN

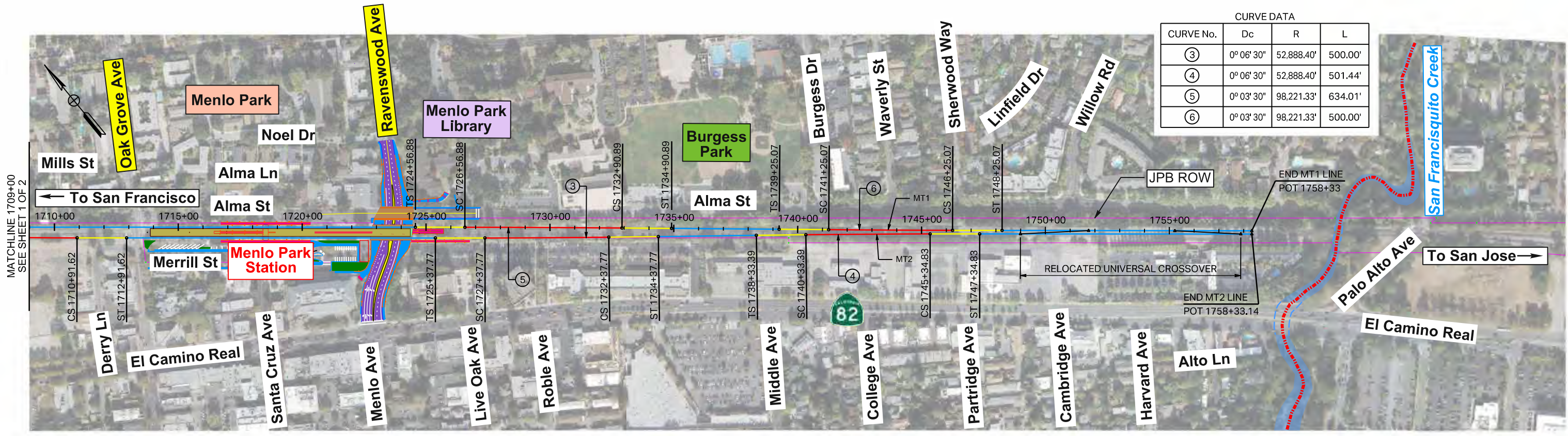


PROFILE



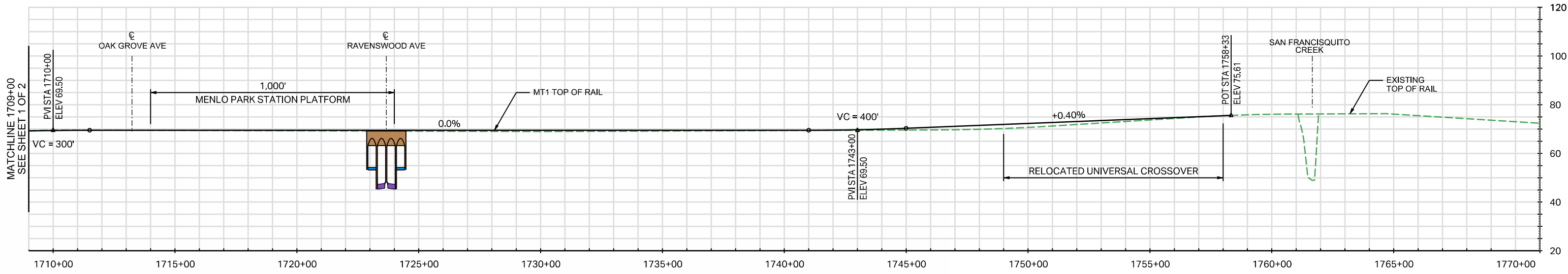
**Ravenswood Avenue
Railroad Crossing
Project**

Alternative A
Track Plan and Profile
Sheet 1 of 2



CURVE DATA			
CURVE No.	Dc	R	L
③	0° 06' 30"	52,888.40'	500.00'
④	0° 06' 30"	52,888.40'	501.44'
⑤	0° 03' 30"	98,221.33'	634.01'
⑥	0° 03' 30"	98,221.33'	500.00'

PLAN

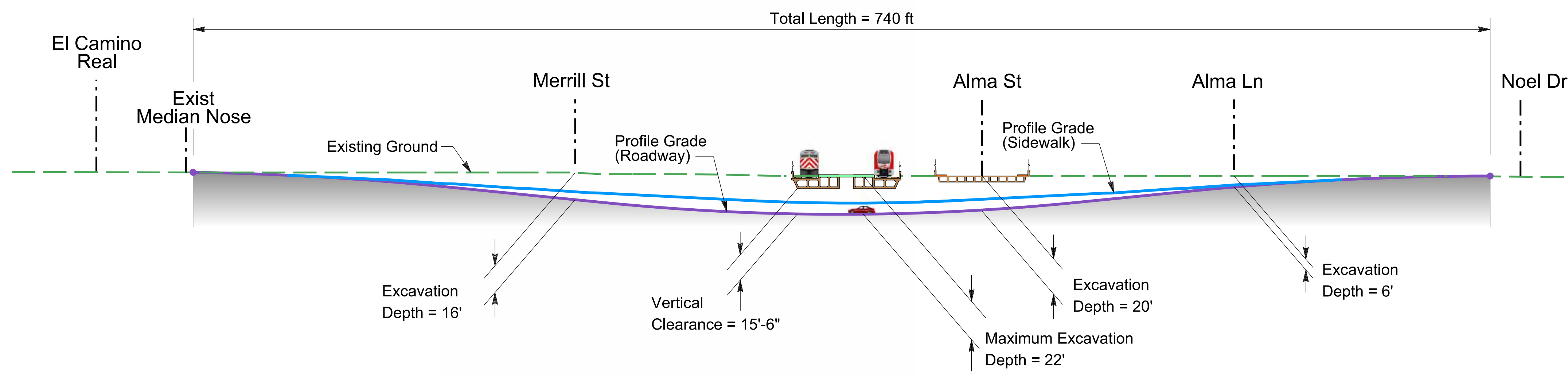


PROFILE

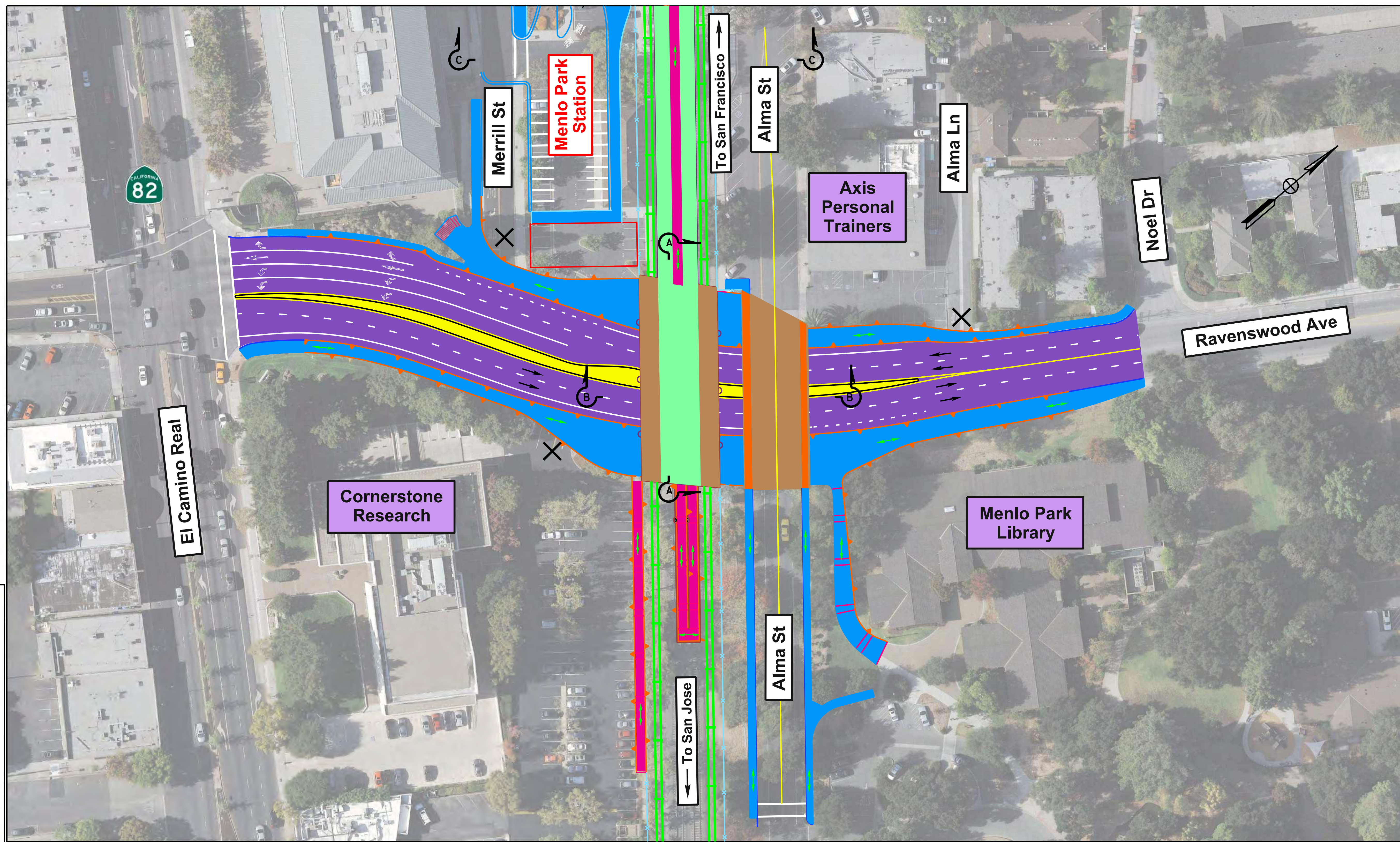


**Ravenswood Avenue
Railroad Crossing
Project**

Alternative A
Track Plan and Profile
Sheet 2 of 2



RAVENSWOOD AVENUE
PROFILE



PLAN

- LEGEND:**
- Track
 - Retaining Wall
 - Structure
 - Driveway Access
 - Limits of Roadway Modifications
 - Median / Curbed Island
 - Sidewalk Modifications
 - Sidewalk on Structure
 - Station Platform
 - Pedestrian Ramps (ADA Compliant)
 - Access Modification or Restriction

Plan & Profile - Ravenswood Avenue (Alternative A)

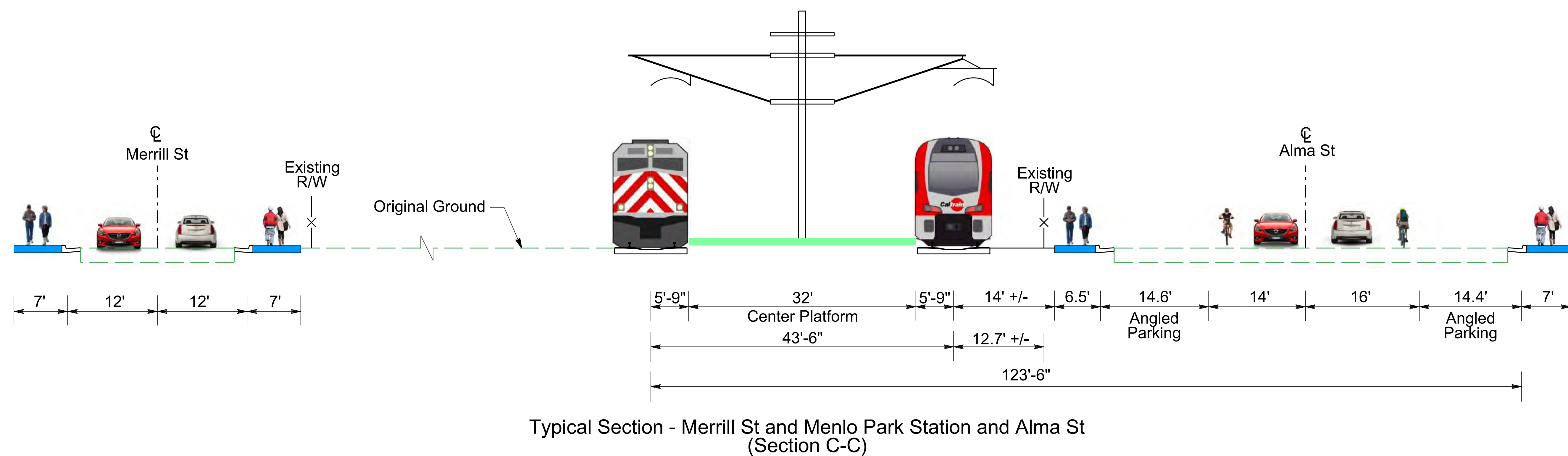
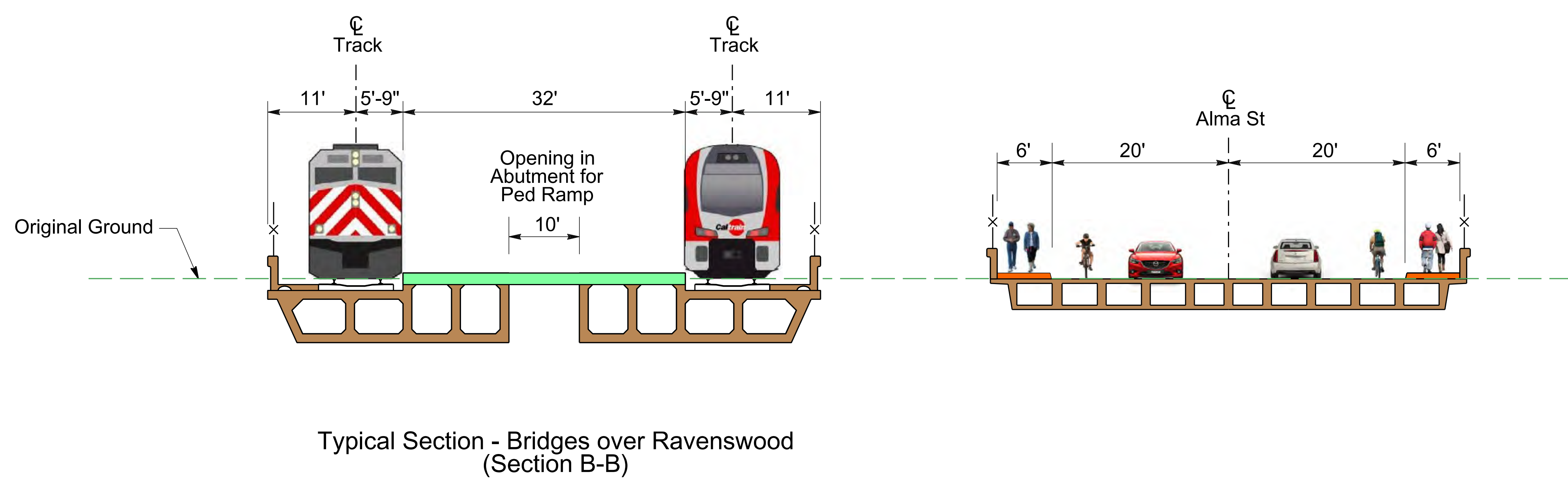
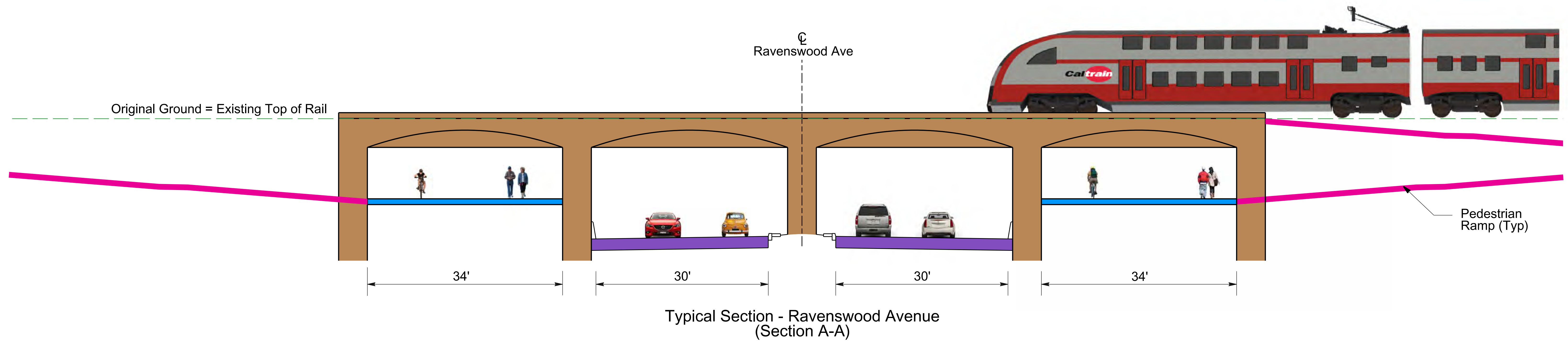
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PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017



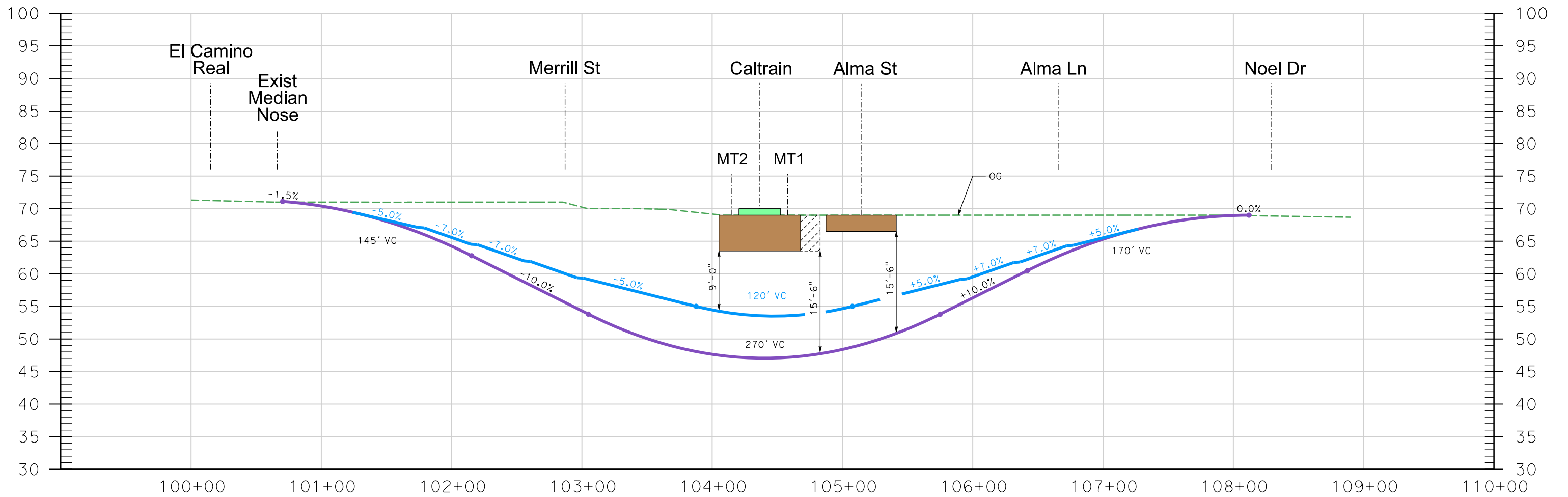
**Ravenswood Avenue
Railroad Crossing
Project**





Typical Sections - Ravenswood Avenue (Alternative A)

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017



Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)
 Sag curve based on passenger comfort for 25 mph

Sidewalk Profile:
 Sag curve based on passenger comfort for 20 mph
 Meets ADA Requirements

- Legend:**
- Grade Separation Structure
 - Station Platform
 - Sidewalk Profile
 - Roadway Profile
 - Widening for Future Passing Track

Ravenswood Avenue Profile - Alternative A

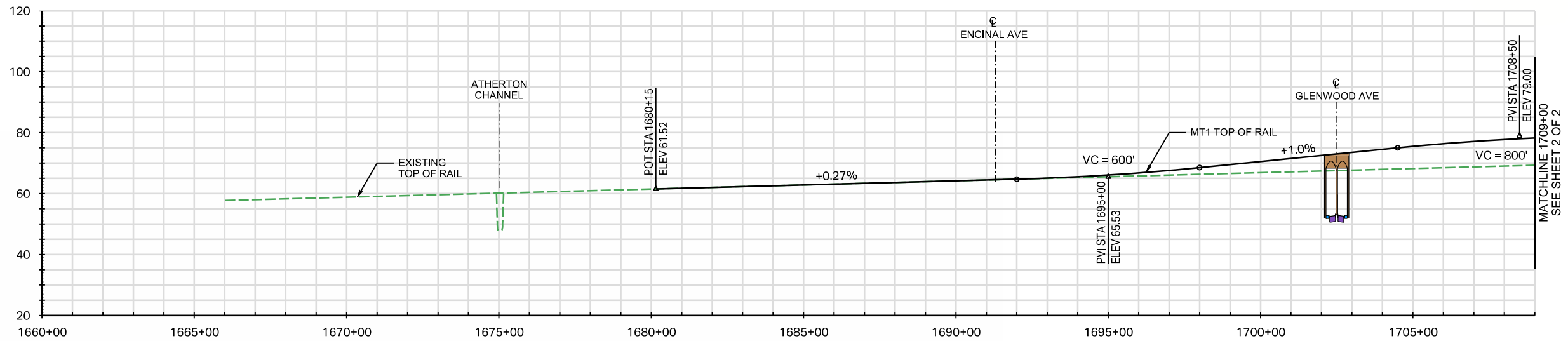
ATTACHMENT B

Alternative C – Preliminary Plans, Profiles and Typical Sections



Note: For horizontal alignment data, see Alternative A.

PLAN

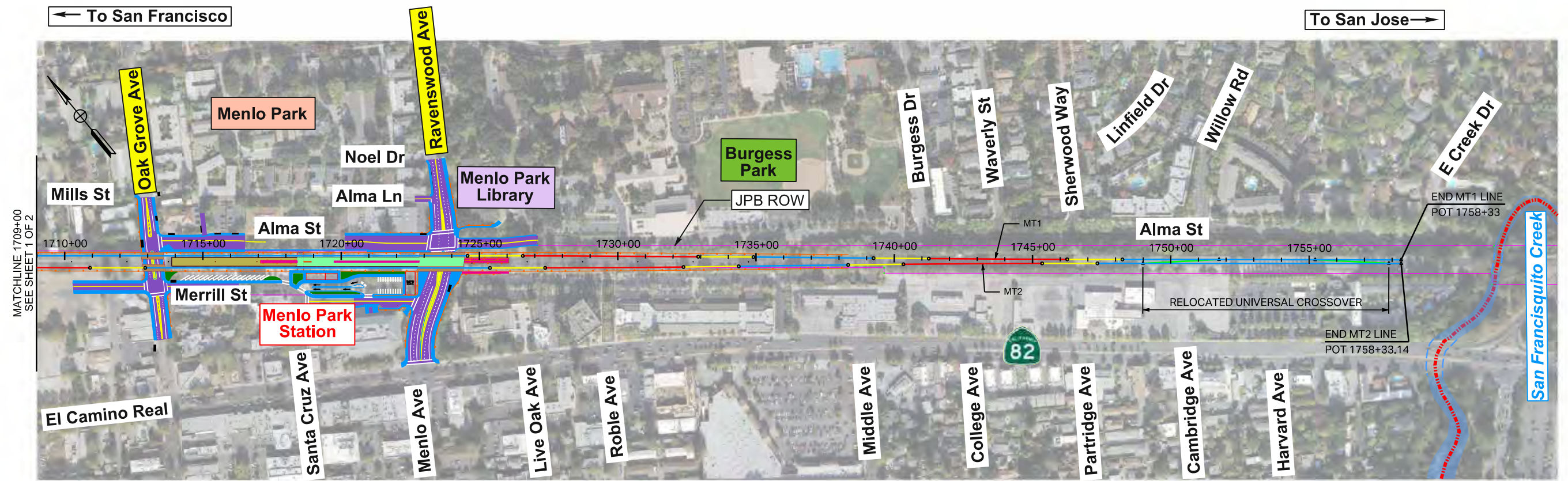


PROFILE

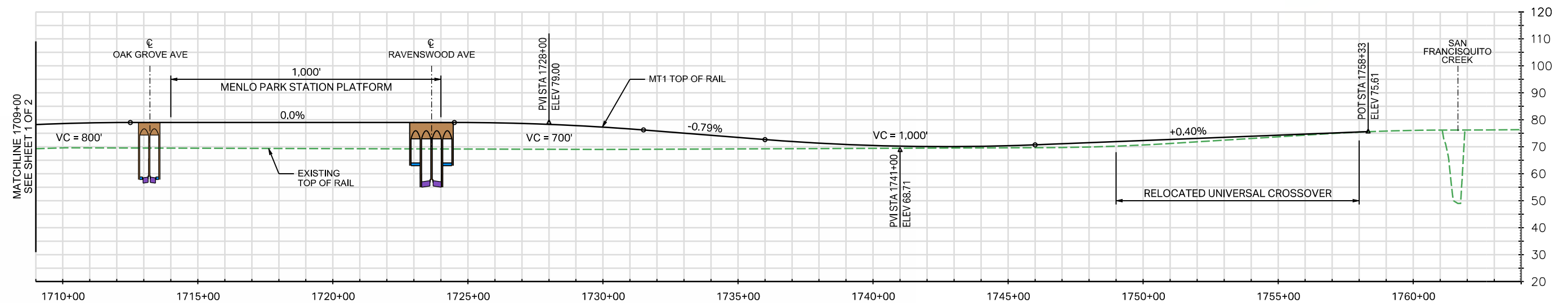


**Ravenswood Avenue
Railroad Crossing
Project**

Alternative C
Track Plan and Profile
Sheet 1 of 2



PLAN

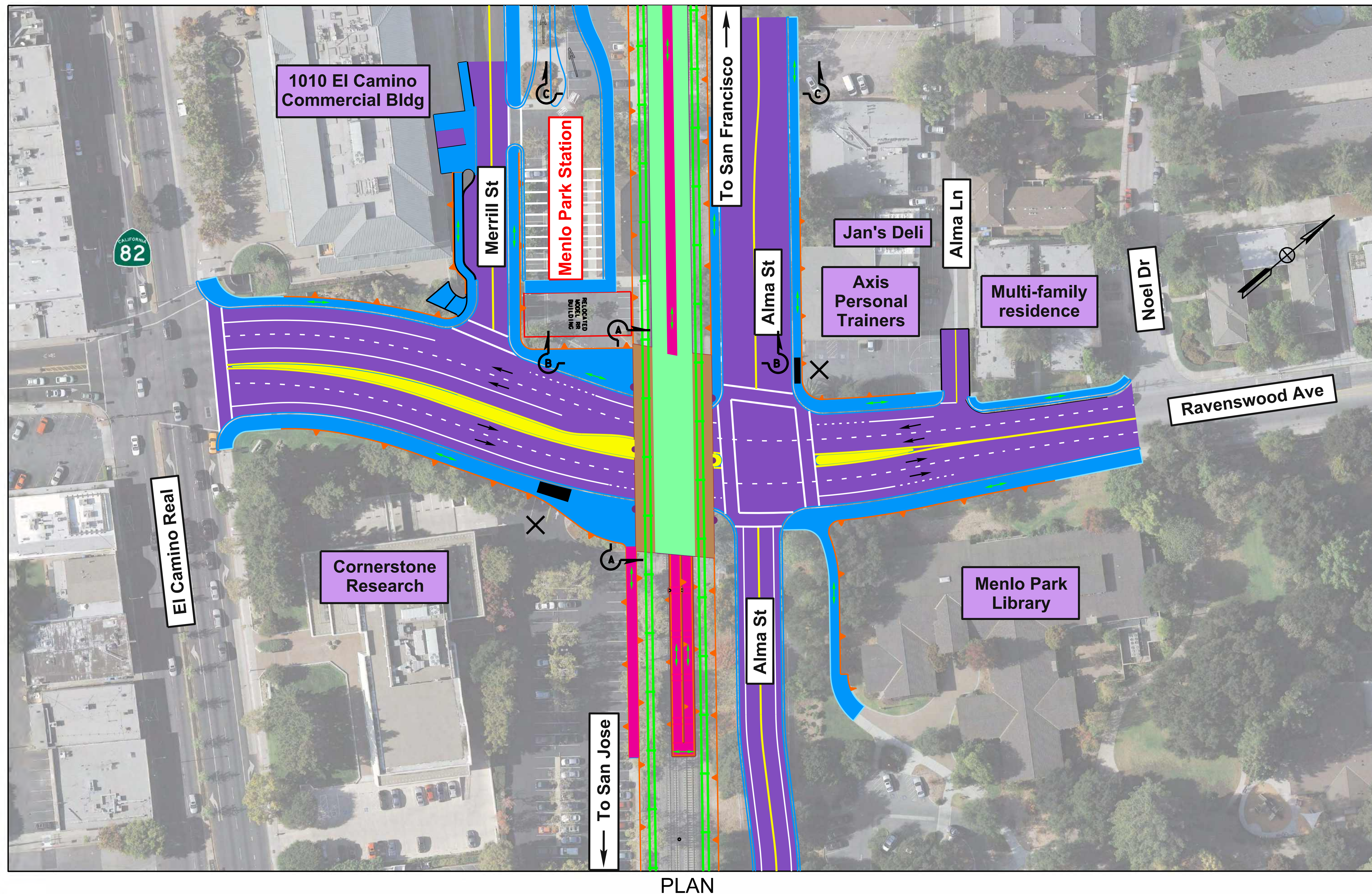
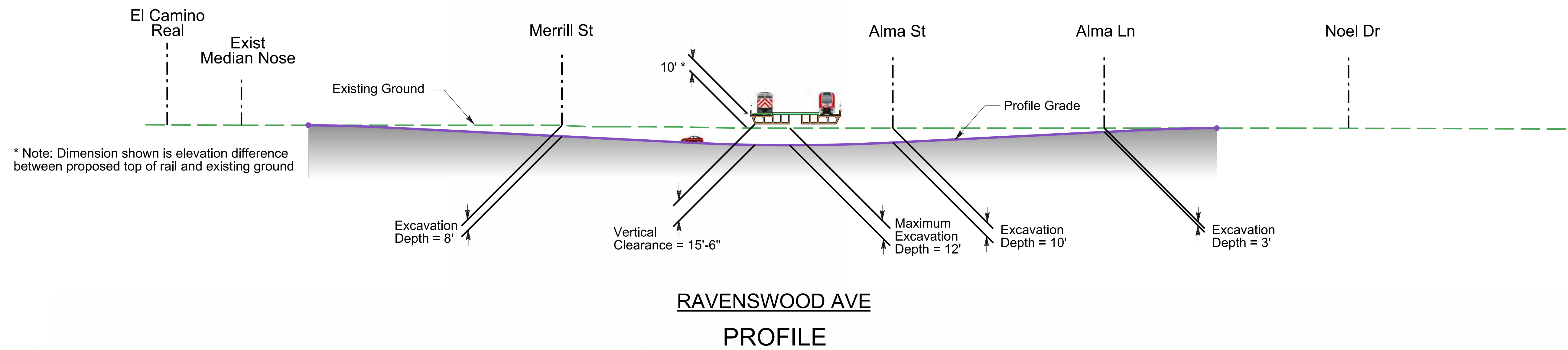


PROFILE













**Ravenswood Avenue
Railroad Crossing
Project**

Alternative C
Track Plan and Profile
Sheet 2 of 2



LEGEND:

-  Track
-  Retaining Wall
-  Structure
-  Driveway Access
-  Limits of Roadway Modifications
-  Median / Curbed Island
-  Sidewalk Modifications
-  Station Platform
-  Pedestrian Ramps (ADA Compliant)
-  Access Modification or Restriction

Plan & Profile - Ravenswood Avenue (Alternative C)

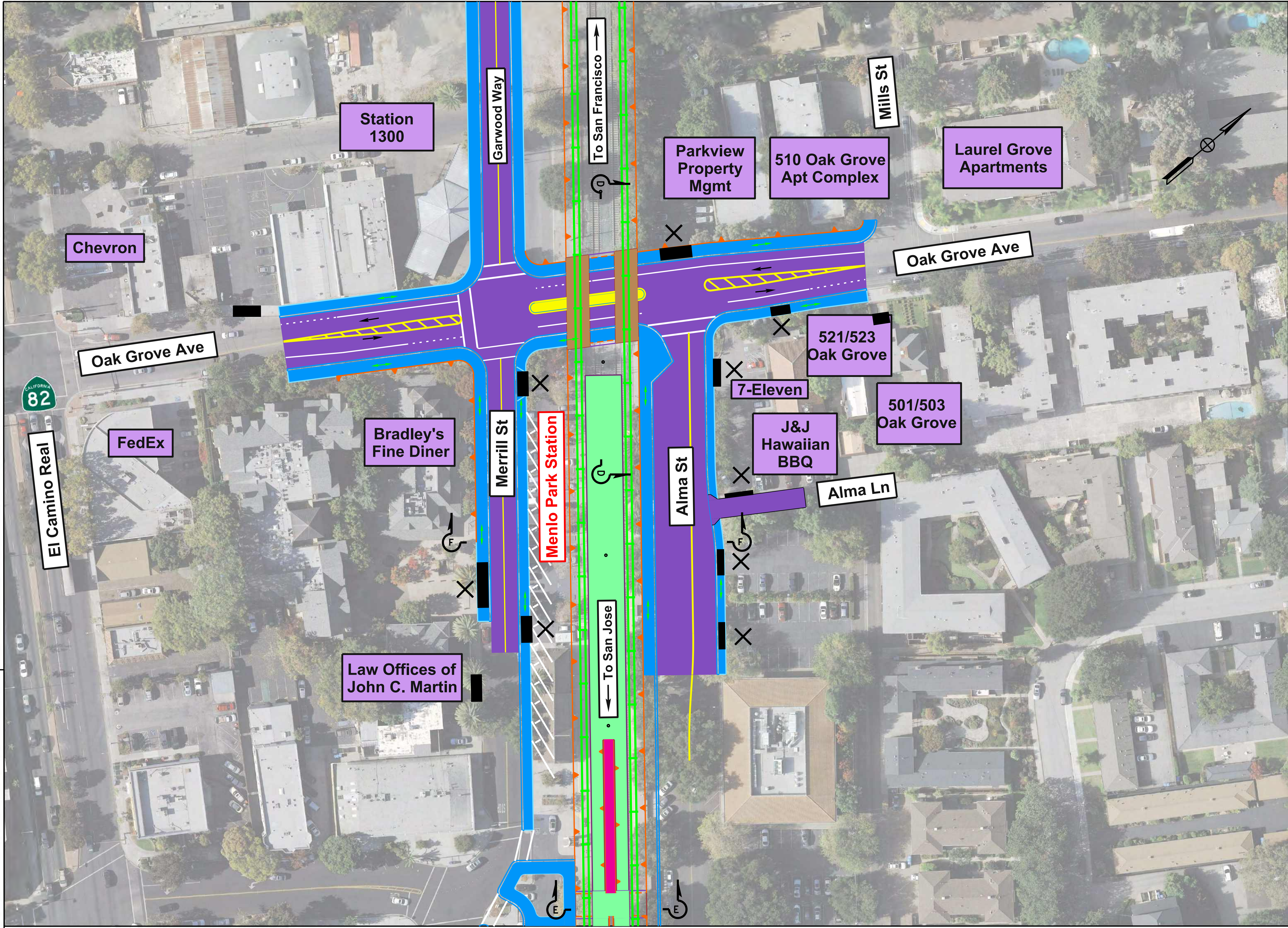
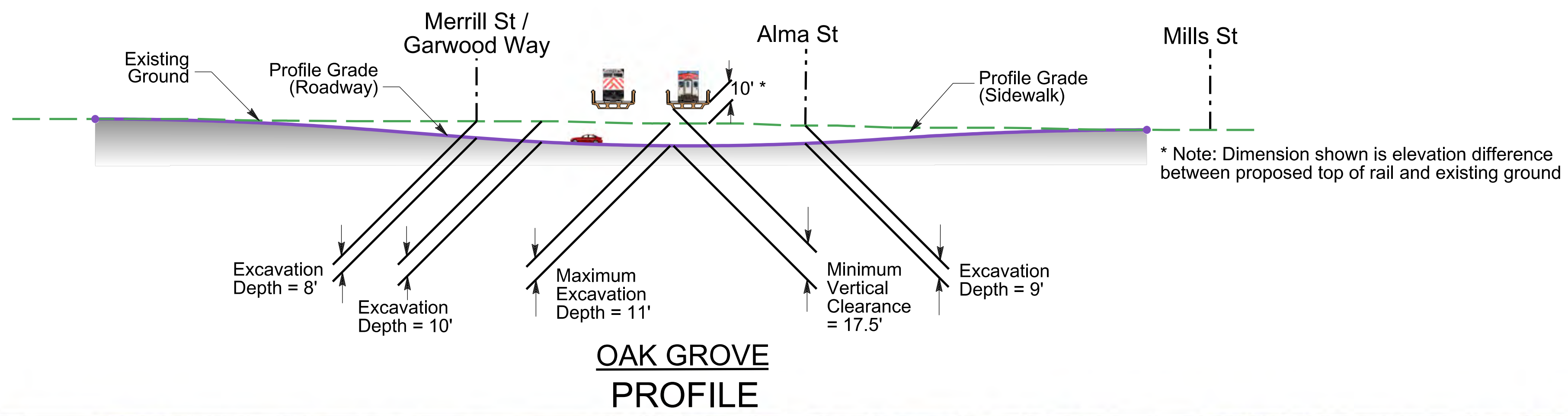
0ft 40ft 80ft

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017



**Ravenswood Avenue
Railroad Crossing
Project**





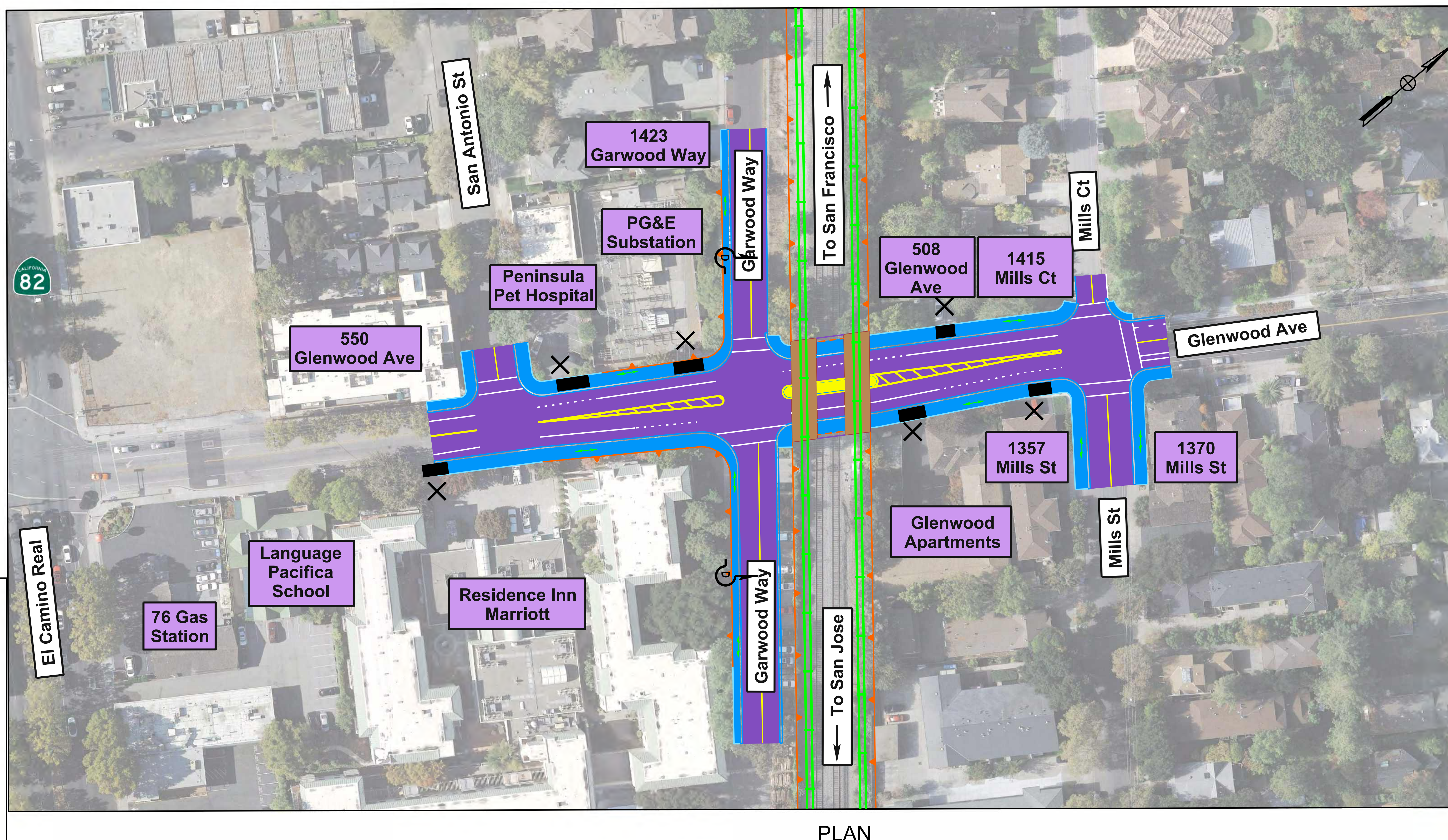
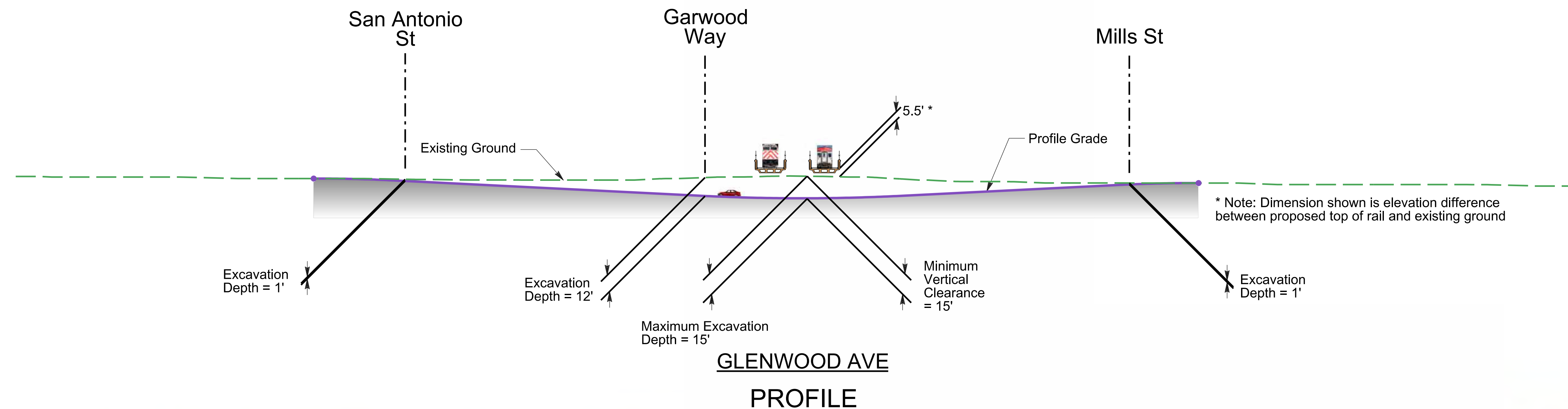
Plan & Profile - Oak Grove Avenue (Alternative C)

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017



**Ravenswood Avenue
Railroad Crossing
Project**





- LEGEND:**
- Track
 - Retaining Wall
 - Structure
 - Driveway Access
 - Limits of Roadway Modifications
 - Median / Curbed Island
 - Sidewalk Modifications
 - Station Platform
 - Pedestrian Ramps (ADA Compliant)
 - Access Modification or Restriction

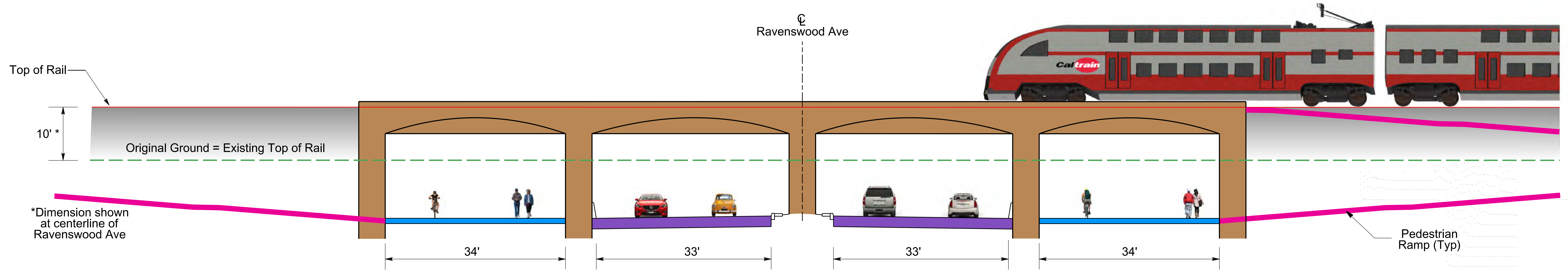
Plan & Profile - Glenwood Avenue (Alternative C)

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017

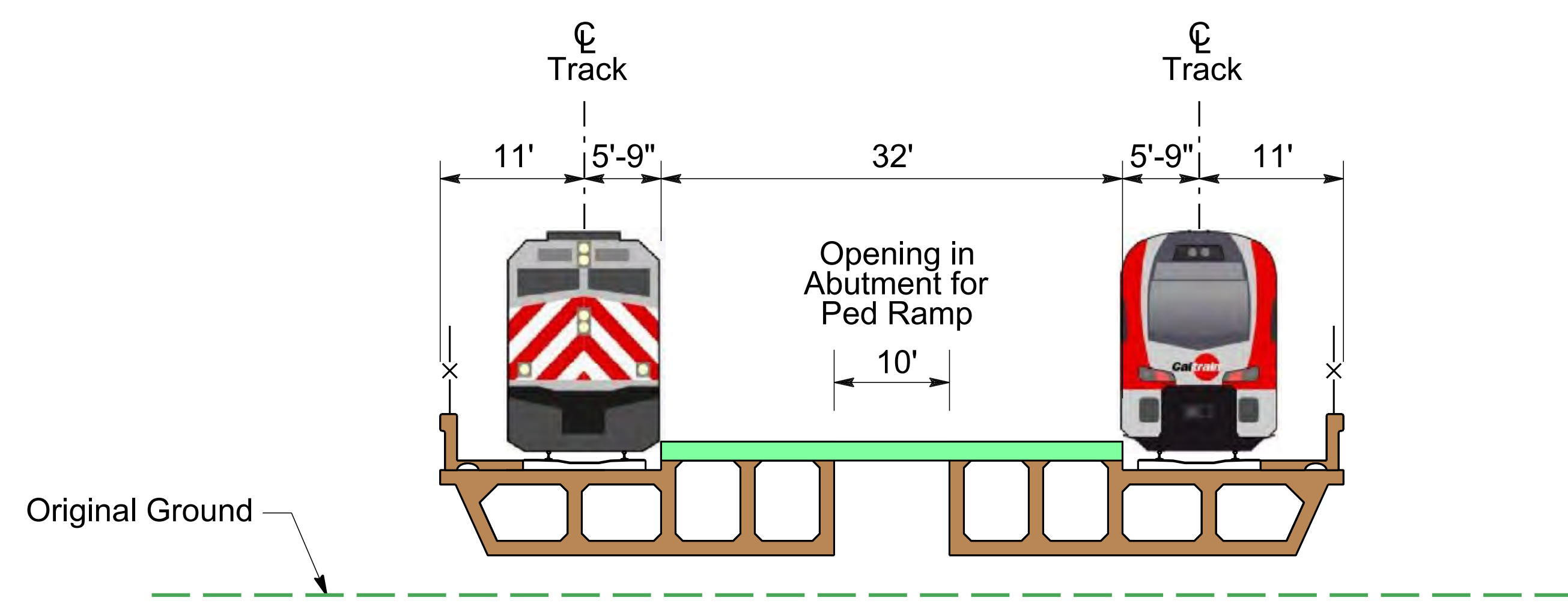


**Ravenswood Avenue
Railroad Crossing
Project**

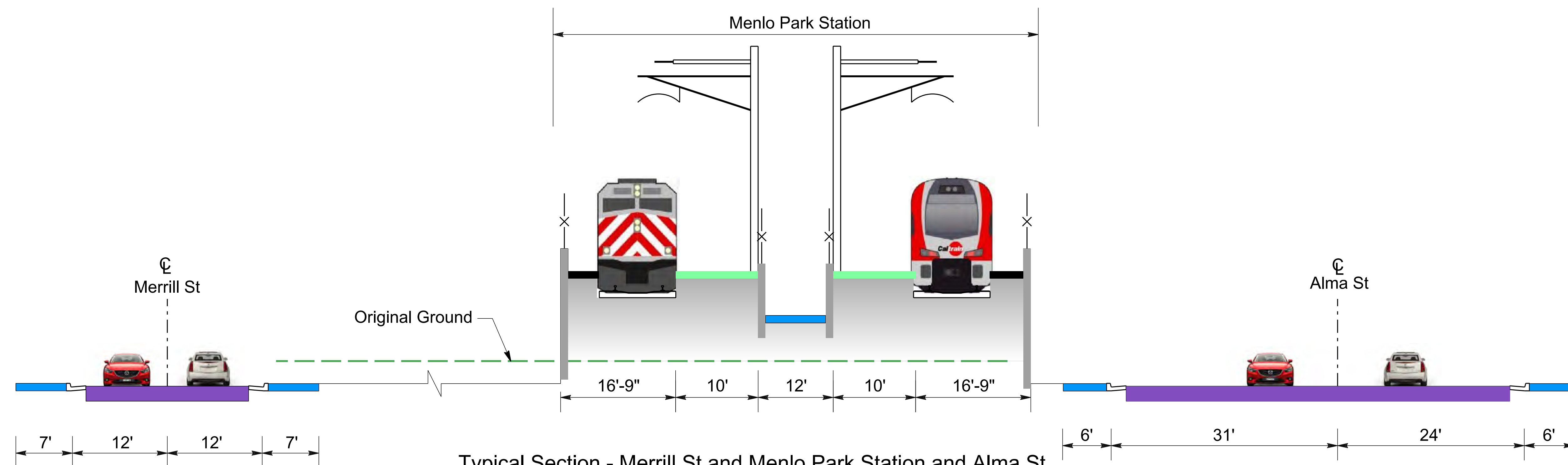




Typical Section - Ravenswood Avenue
(Section A-A)



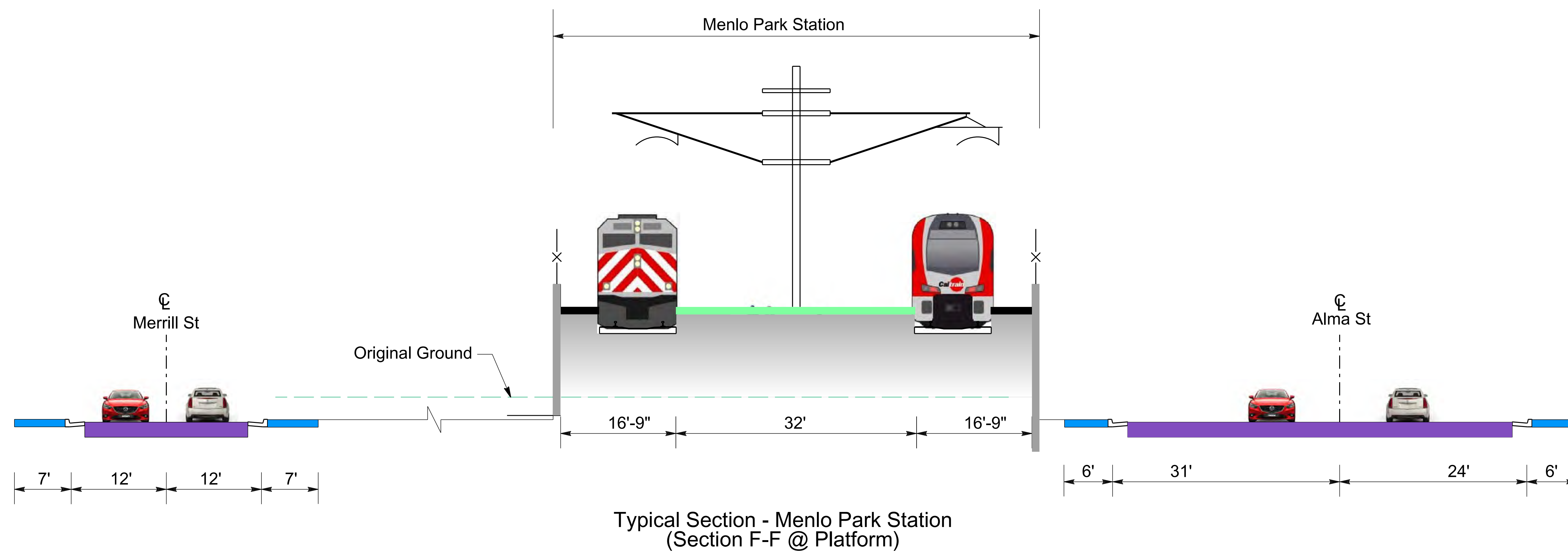
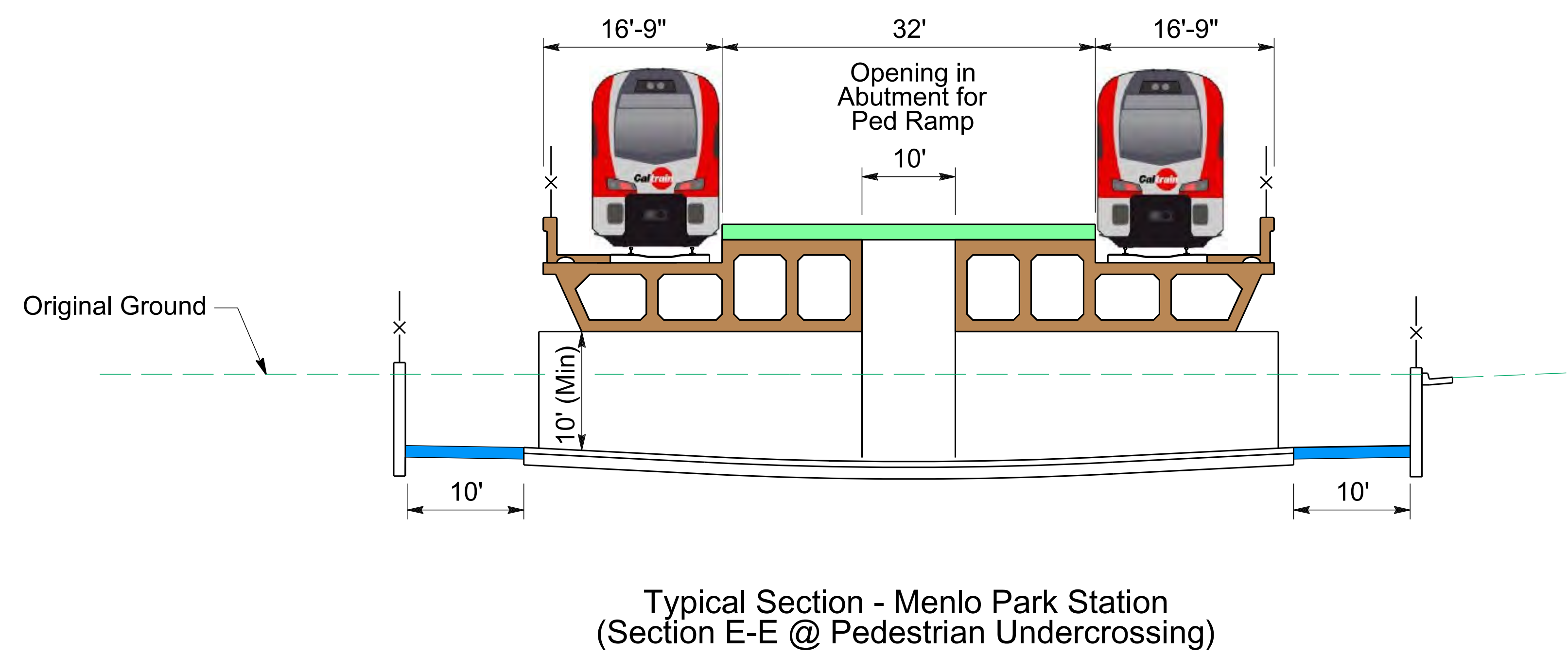
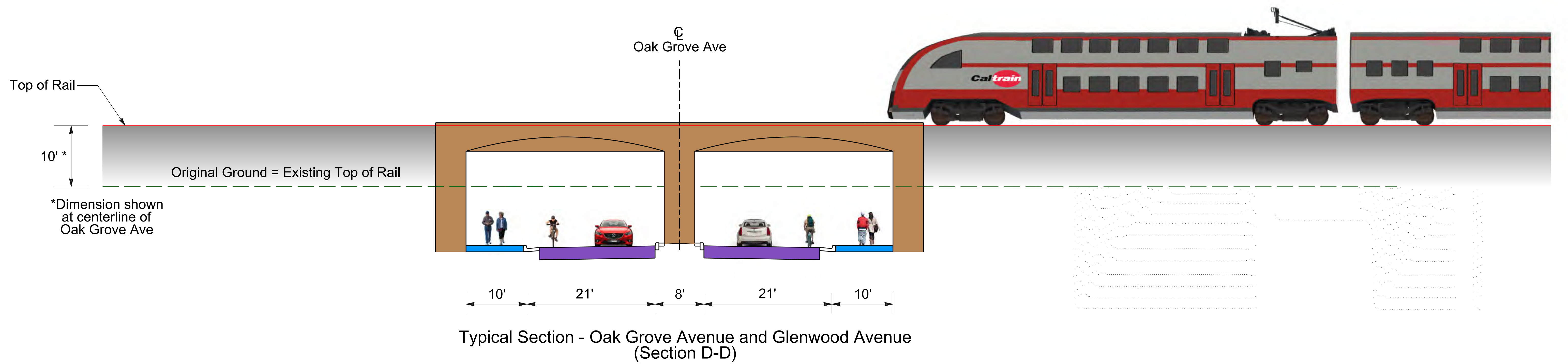
Typical Section - Menlo Park Station
(Section B-B @ Abutment)



Typical Section - Merrill St and Menlo Park Station and Alma St
(Section C-C @ Ramp and Platform)

Typical Sections - Alternative C

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017



Typical Sections - Alternative C

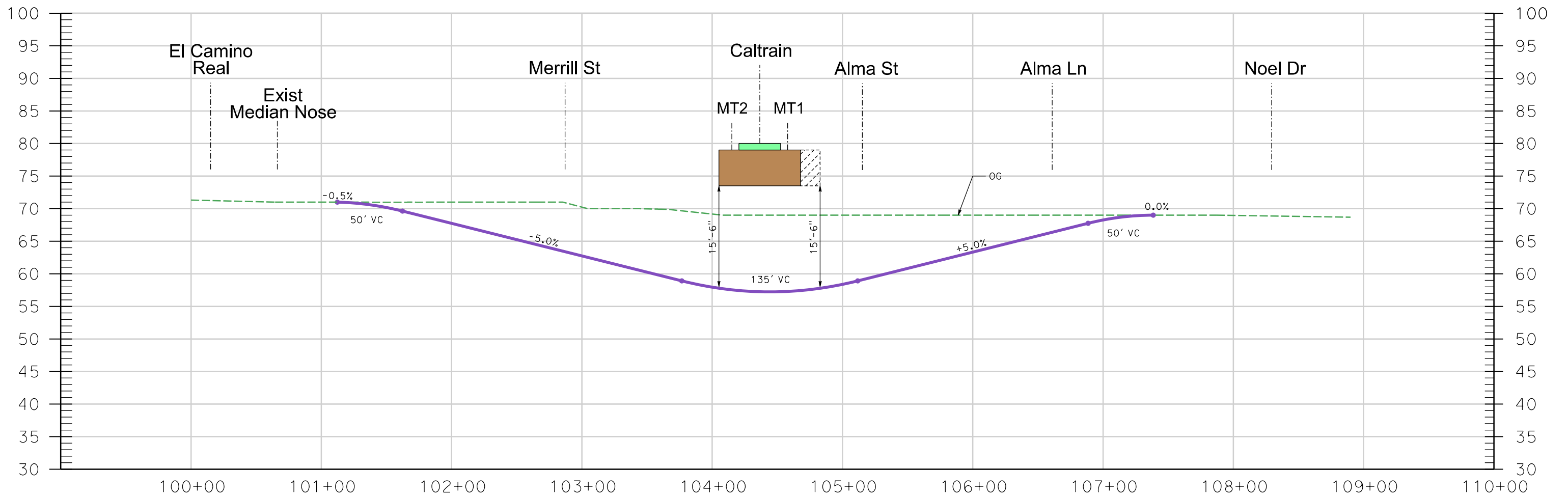
PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
June 7, 2017



**Ravenswood Avenue
Railroad Crossing
Project**



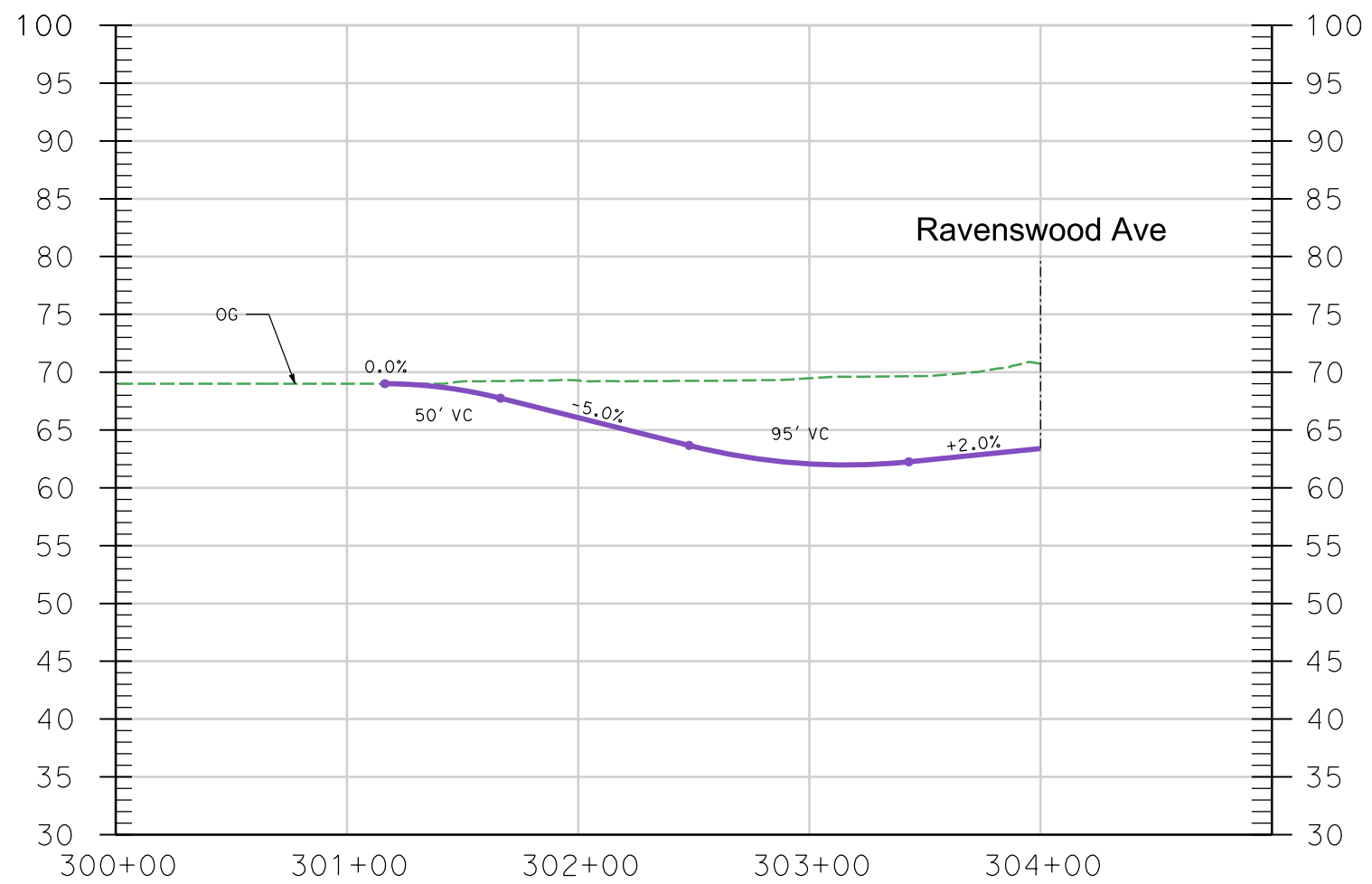
AECOM



Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)
 Sag curve based on passenger comfort for 25 mph

- Legend:**
- Grade Separation Structure
 - Station Platform
 - Roadway Profile
 - Widening for Future Passing Track

Ravenswood Avenue Profile - Alternative C

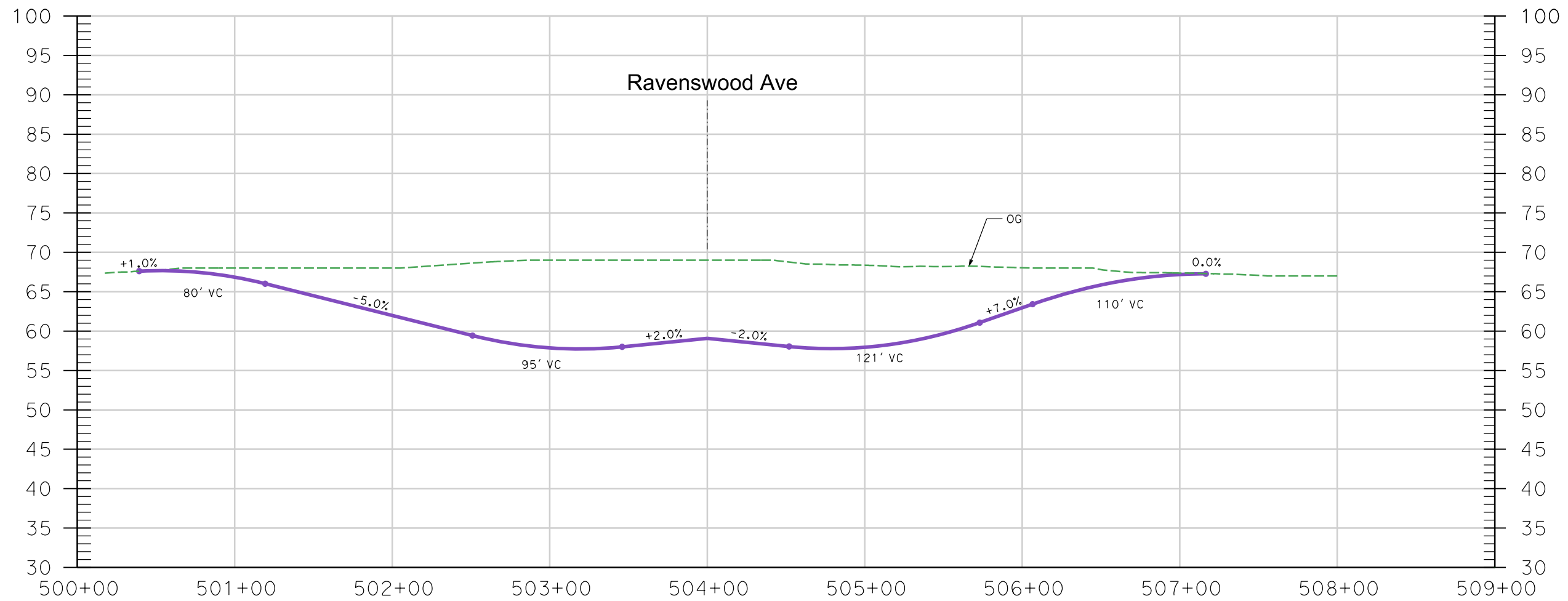


Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)
 Sag curve based on passenger comfort for 25 mph

Legend:

— Roadway Profile

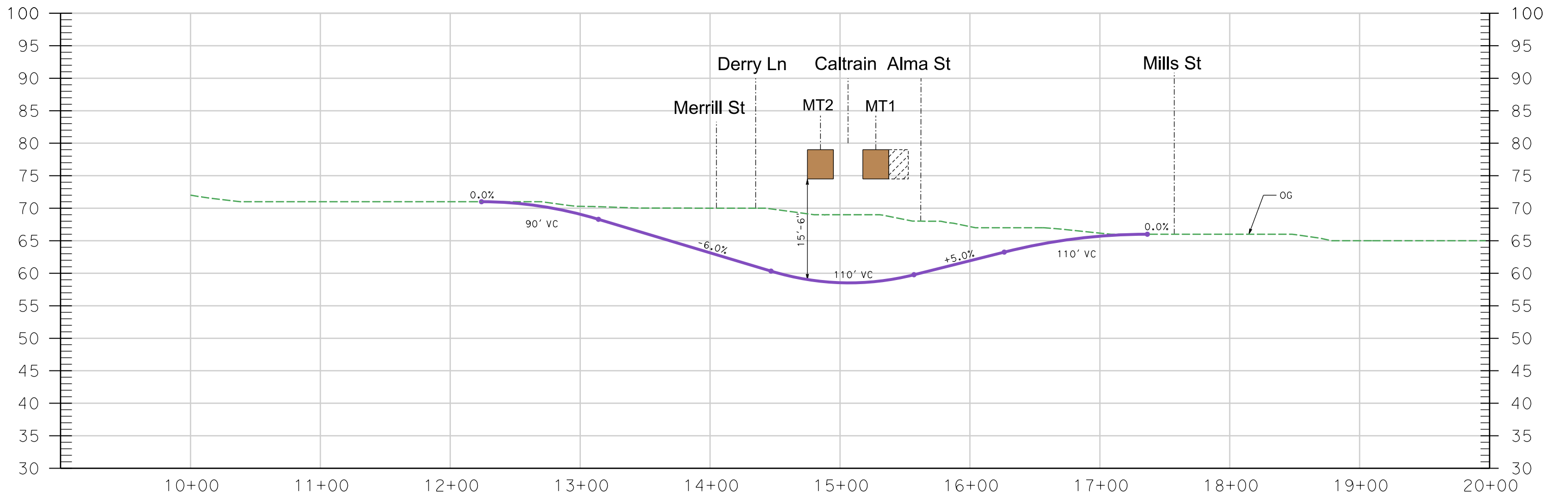
Merrill Street Profile (at Ravenswood Avenue) Alternative C



Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)
 Sag curve based on passenger comfort for 25 mph

Legend:
 Roadway Profile

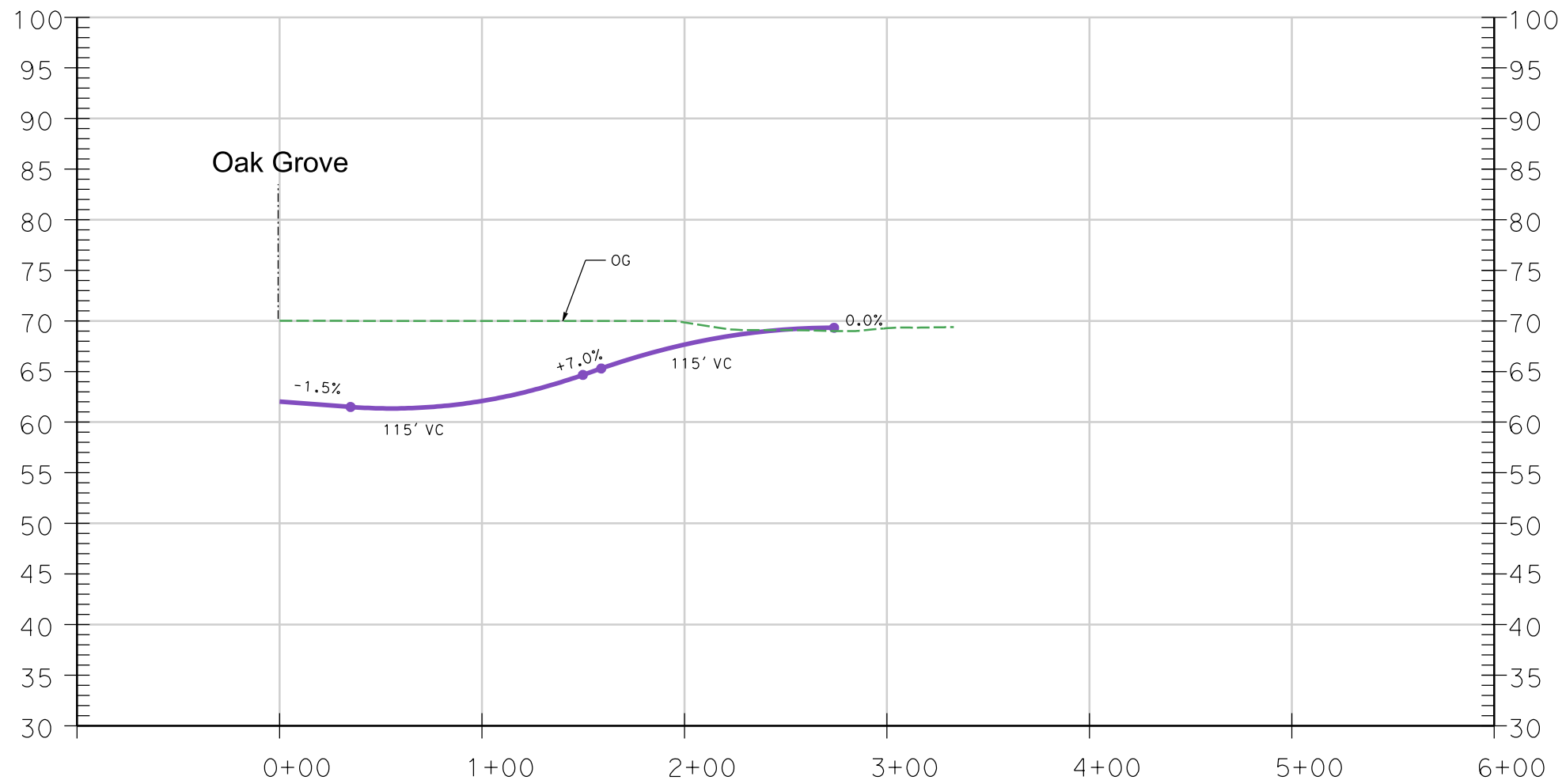
Alma Street Profile (at Ravenswood Avenue) Alternative C



Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)
 Sag curve based on passenger comfort for 25 mph

- Legend:**
- Grade Separation Structure
 - Roadway Profile
 - Widening for Future Passing Track

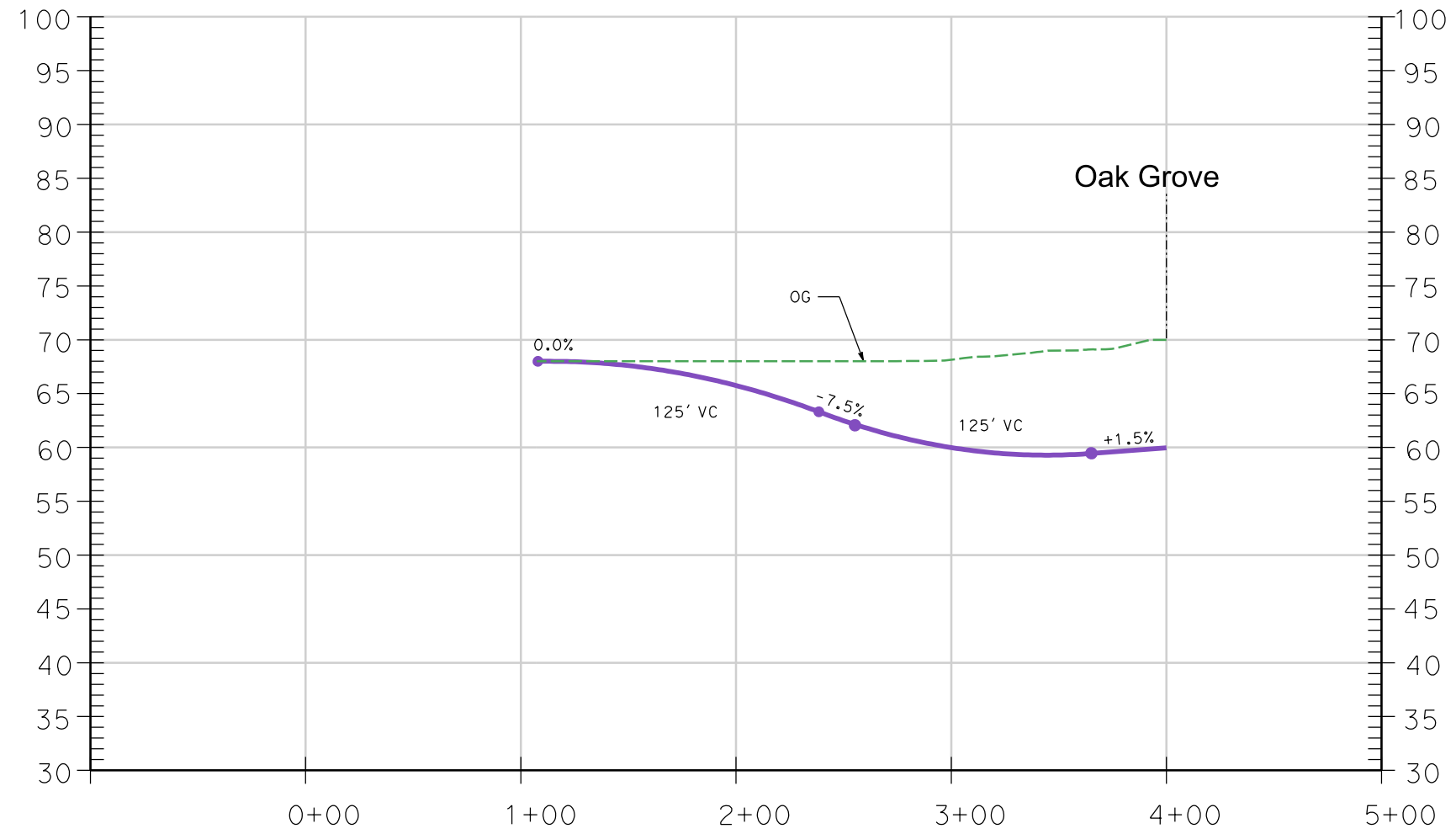
Oak Grove Avenue Profile - Alternative C



Legend:

— Roadway Profile

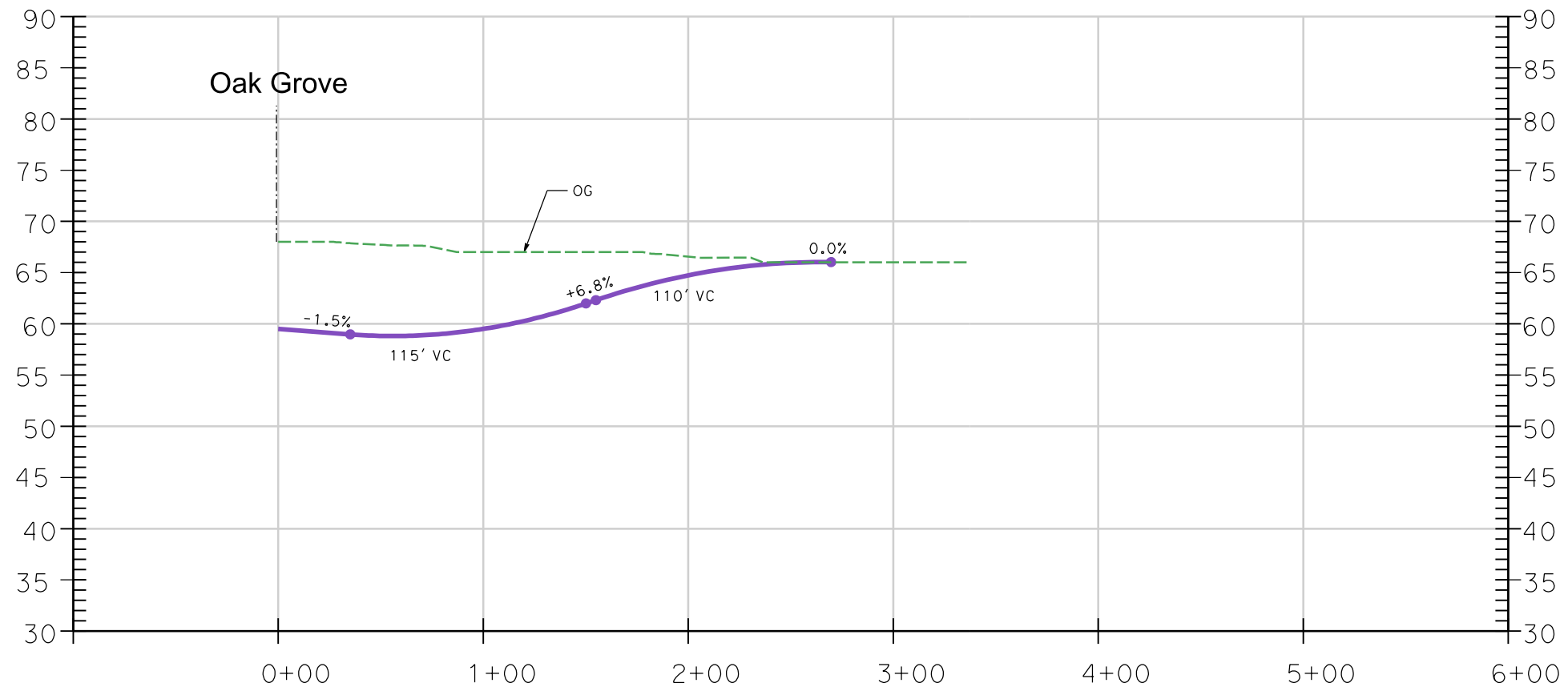
Merrill Street Profile (at Oak Grove Avenue)
Alternative C



Legend:

— Roadway Profile

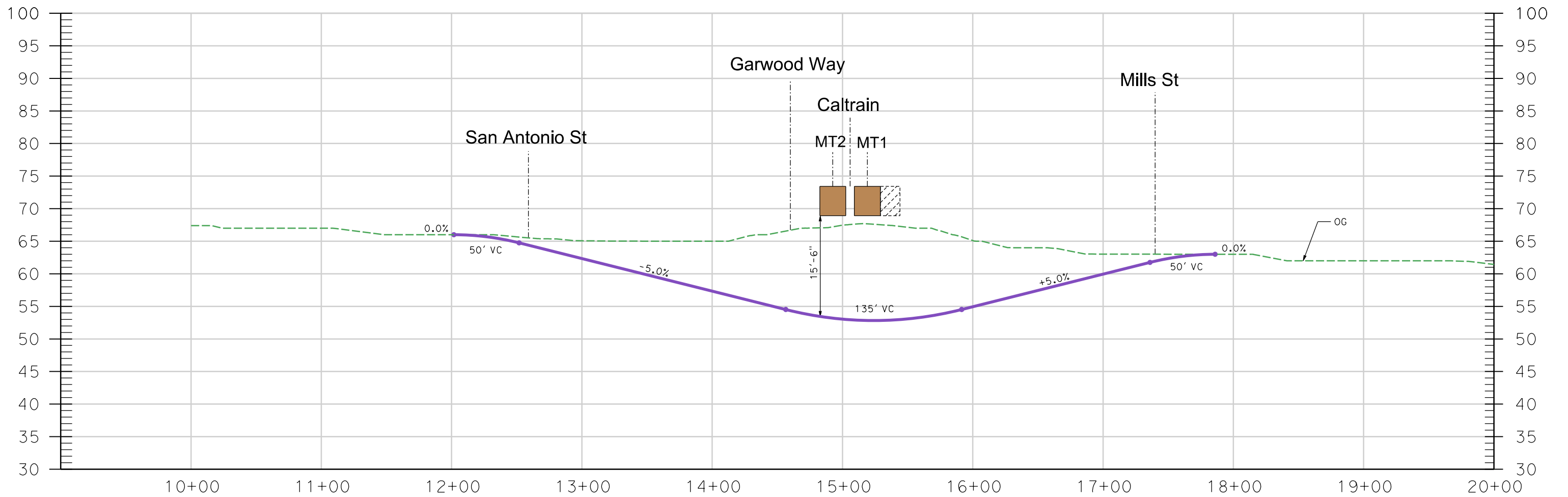
Derry Lane Profile - Alternative C



Legend:

— Roadway Profile

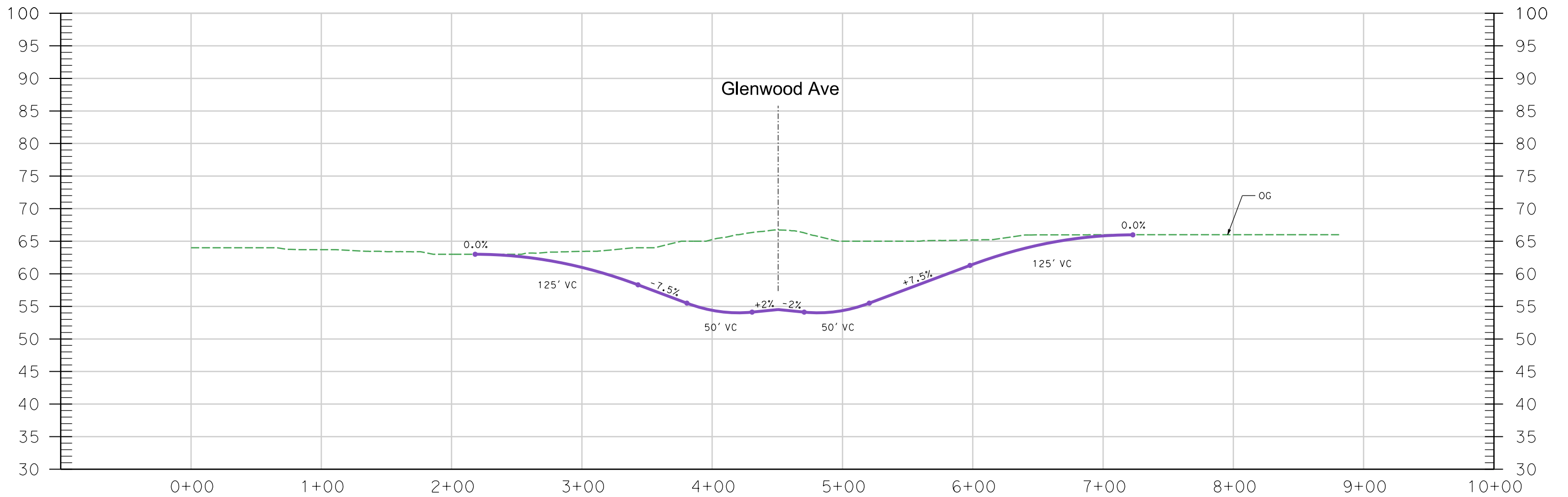
Alma Street Profile (at Oak Grove Avenue)
Alternative C



Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)
 Sag curve based on passenger comfort for 25 mph

- Legend:**
- Grade Separation Structure
 - Roadway Profile
 - Widening for Future Passing Track

Glenwood Avenue Profile - Alternative C



Roadway Profile:
 Crest curves based on 25 mph design speed (Sight Distance = 150 feet)

Legend:
 — Roadway Profile

Garwood Way Profile - Alternative C

ATTACHMENT C

Preliminary Utility Plans and Relocation Costs

Utility Relocation Summary - Alternative A Ravenswood				
Utility Description	Quantity	Unit	Unit Cost	Total Cost
36" Water	1,000	LF	\$ 850	\$ 850,000
54" Casing (for 36" pipe)	180	LF	\$ 2,500	\$ 450,000
8" Water	600	LF	\$ 600	\$ 360,000
6" Water	600	LF	\$ 600	\$ 360,000
2" Water	100	LF	\$ 300	\$ 30,000
12 kV Electrical OH (Joint Pole) Relocation	2	EA	\$ 100,000	\$ 200,000
Underground Electric	2,500	LF	\$ 500	\$ 1,250,000
Gas	800	LF	\$ 600	\$ 480,000
UG Joint Fiber Line	600	LF	\$ 600	\$ 360,000
Subtotal				\$ 4,340,000
50% Contingency				\$ 2,170,000
Grand Total*				\$ 6,600,000

Note: Unit costs include minor appurtenances such as manholes, valves, etc.

* Rounded up to the nearest \$100k

Utility Relocation Summary - Alternative C Ravenswood				
Utility Description	Quantity	Unit	Unit Cost	Total Cost
36" Water	250	LF	\$ 850	\$ 212,500
54" Casing (for 36" pipe)	180	LF	\$ 2,500	\$ 450,000
8" Water	600	LF	\$ 600	\$ 360,000
6" Water	800	LF	\$ 600	\$ 480,000
2" Water	250	LF	\$ 300	\$ 75,000
12 kV Electrical OH (Joint Pole) Relocation	2	EA	\$ 100,000	\$ 200,000
Underground Electric	3,000	LF	\$ 500	\$ 1,500,000
Gas	900	LF	\$ 600	\$ 540,000
UG Joint Fiber Line	600	LF	\$ 600	\$ 360,000
Subtotal				\$ 4,177,500
50% Contingency				\$ 2,088,750
Grand Total*				\$ 6,300,000

Utility Relocation Summary - Alternative C Oak Grove Ave				
Utility Description	Quantity	Unit	Unit Cost	Total Cost
36" Water #	950	LF	\$ 850	\$ 807,500
54" Casing (for 36" pipe)	160	LF	\$ 2,500	\$ 400,000
8" Water	300	LF	\$ 600	\$ 180,000
6" Water	900	LF	\$ 600	\$ 540,000
4" Water	250	LF	\$ 400	\$ 100,000
Sanitary Sewer	600	LF	\$ 400	\$ 240,000
12 kV Electrical OH (Joint Pole) Relocation	7	EA	\$ 100,000	\$ 700,000
Underground Electric	300	LF	\$ 500	\$ 150,000
Gas	1,200	LF	\$ 600	\$ 720,000
UG Joint Fiber Line	600	LF	\$ 600	\$ 360,000
Overhead Joint Communications	500	LF	\$ 300	\$ 150,000
Subtotal				\$ 4,347,500
# Includes 750 LF between Glenwood and Oak Grove to accommodate shoofly				
50% Contingency				\$ 2,173,750
Grand Total*				\$ 6,600,000

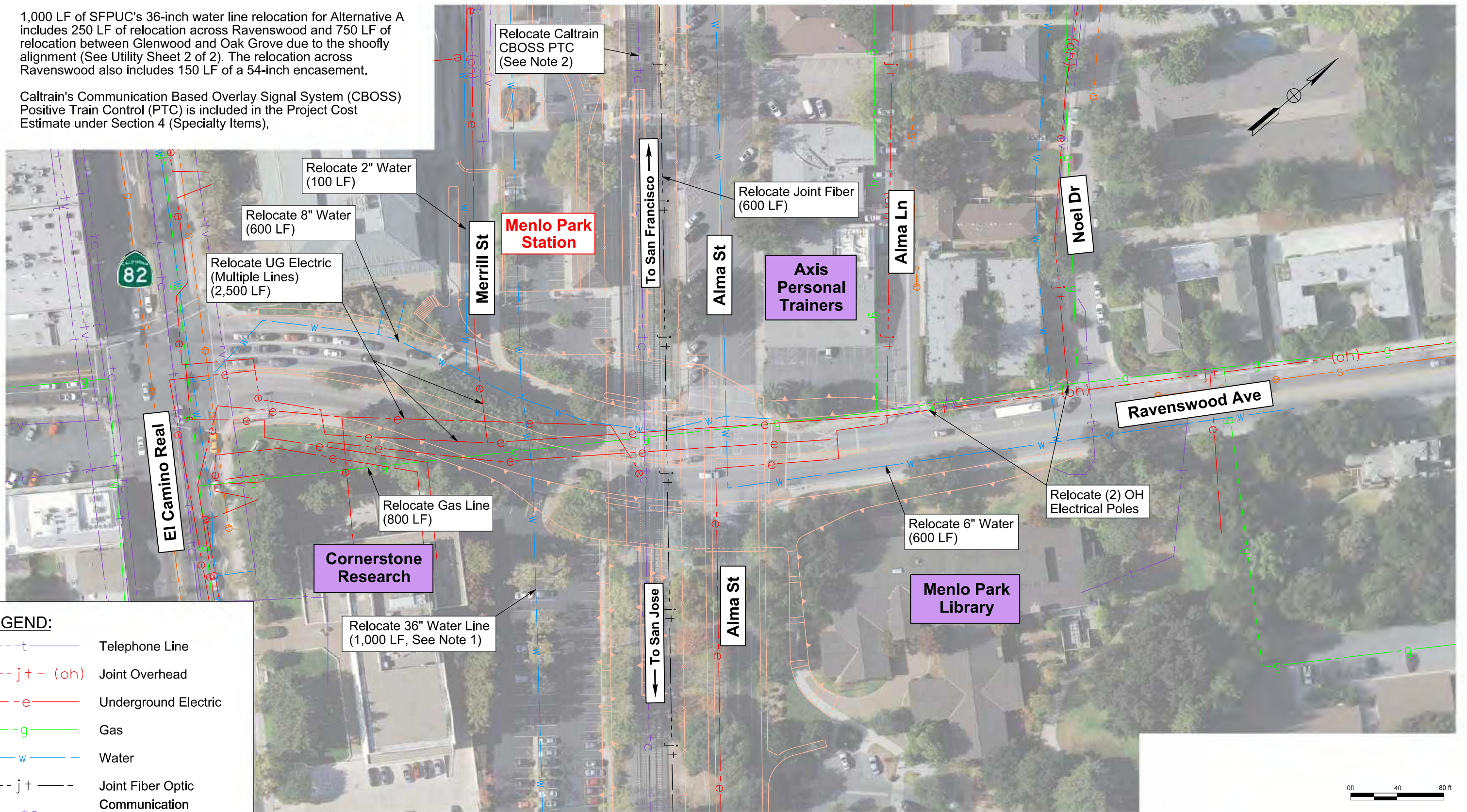
Utility Relocation Summary - Alternative C Glenwood Ave				
Utility Description	Quantity	Unit	Unit Cost	Total Cost
36" Water	500	LF	\$ 850	\$ 425,000
54" Casing (for 36" pipe)	160	LF	\$ 2,500	\$ 400,000
6" Water	900	LF	\$ 600	\$ 540,000
Sanitary Sewer	1,000	LF	\$ 400	\$ 400,000
12 kV Electrical OH (Joint Pole) Relocation	10	EA	\$ 100,000	\$ 1,000,000
Gas	1,500	LF	\$ 500	\$ 750,000
UG Joint Fiber Line	600	LF	\$ 600	\$ 360,000
Overhead Joint Communications	1,000	LF	\$ 300	\$ 300,000
Subtotal				\$ 4,175,000
50% Contingency				\$ 2,087,500
Grand Total*				\$ 6,300,000

Note: Unit costs include minor appurtenances such as manholes, valves, etc.
 * Rounded up to the nearest \$100k

TOTAL for Alt C = \$ 19,200,000

Notes:

- 1,000 LF of SFPUC's 36-inch water line relocation for Alternative A includes 250 LF of relocation across Ravenswood and 750 LF of relocation between Glenwood and Oak Grove due to the shoofly alignment (See Utility Sheet 2 of 2). The relocation across Ravenswood also includes 150 LF of a 54-inch encasement.
- Caltrain's Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) is included in the Project Cost Estimate under Section 4 (Specialty Items),



PLAN

LEGEND:

- - - t - - - Telephone Line
- - - j + - (oh) - - - Joint Overhead
- - - e - - - Underground Electric
- - - g - - - Gas
- - - w - - - Water
- - - j + - - - Joint Fiber Optic
- - - tc - - - Communication (CBOSS PTC)
- - - s - - - Sanitary Sewer

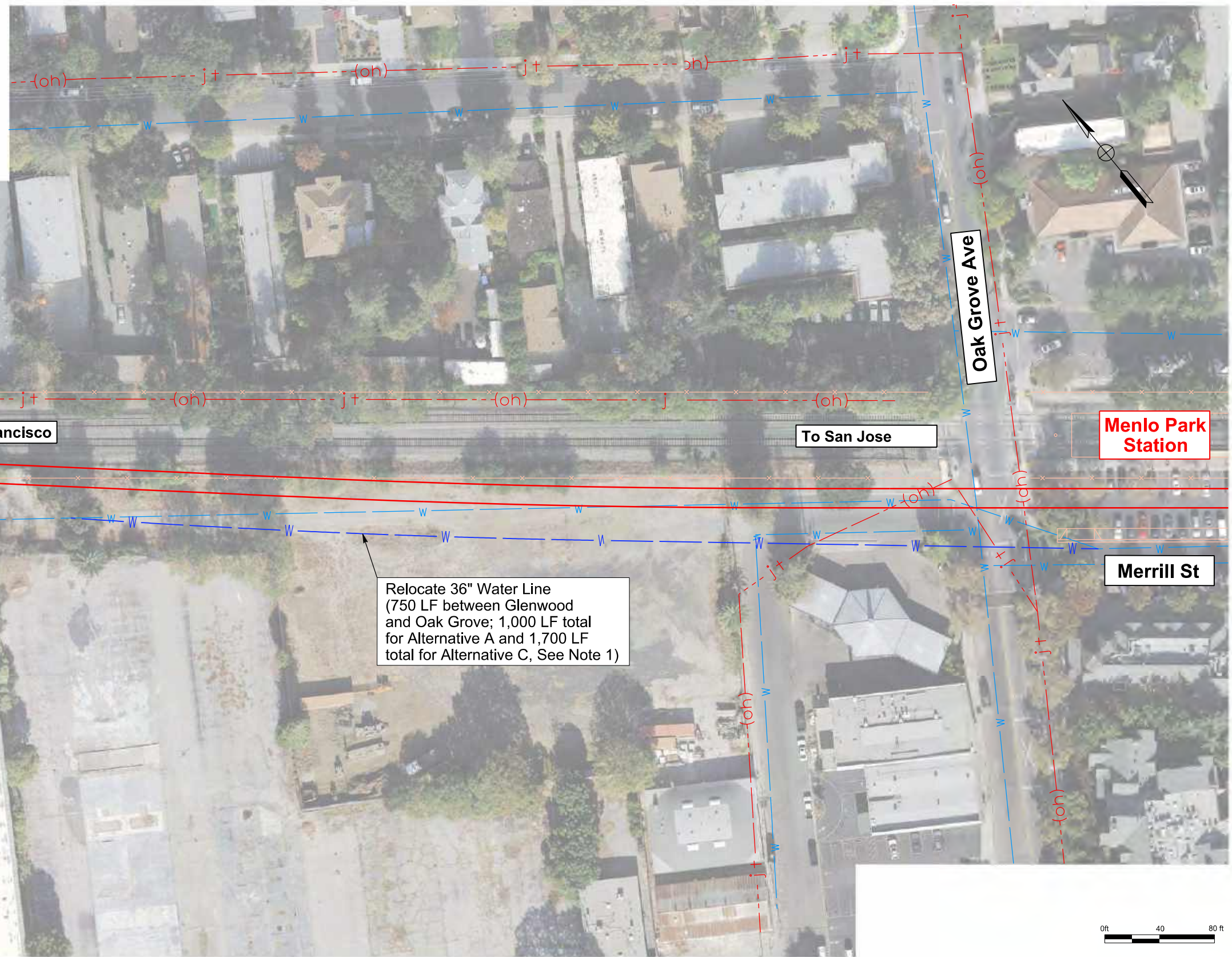


**Ravenswood Avenue
Railroad Crossing
Project**

Utility Relocations
Alternative A
Sheet 1 of 2

Notes:

1. 750 LF of relocation of SFPUC's 36-inch water line is to accommodate the railroad shoofly, which is required for both Alternatives; A and C.
2. See Utility Sheet 1 of 2 for additional utility relocations required for Alternative A.
3. See Utility Sheets 1 to 3 for additional utility relocations required for Alternative C.



PLAN

LEGEND:

- Existing Water Line
- Proposed Water Line
- Shoofly Track

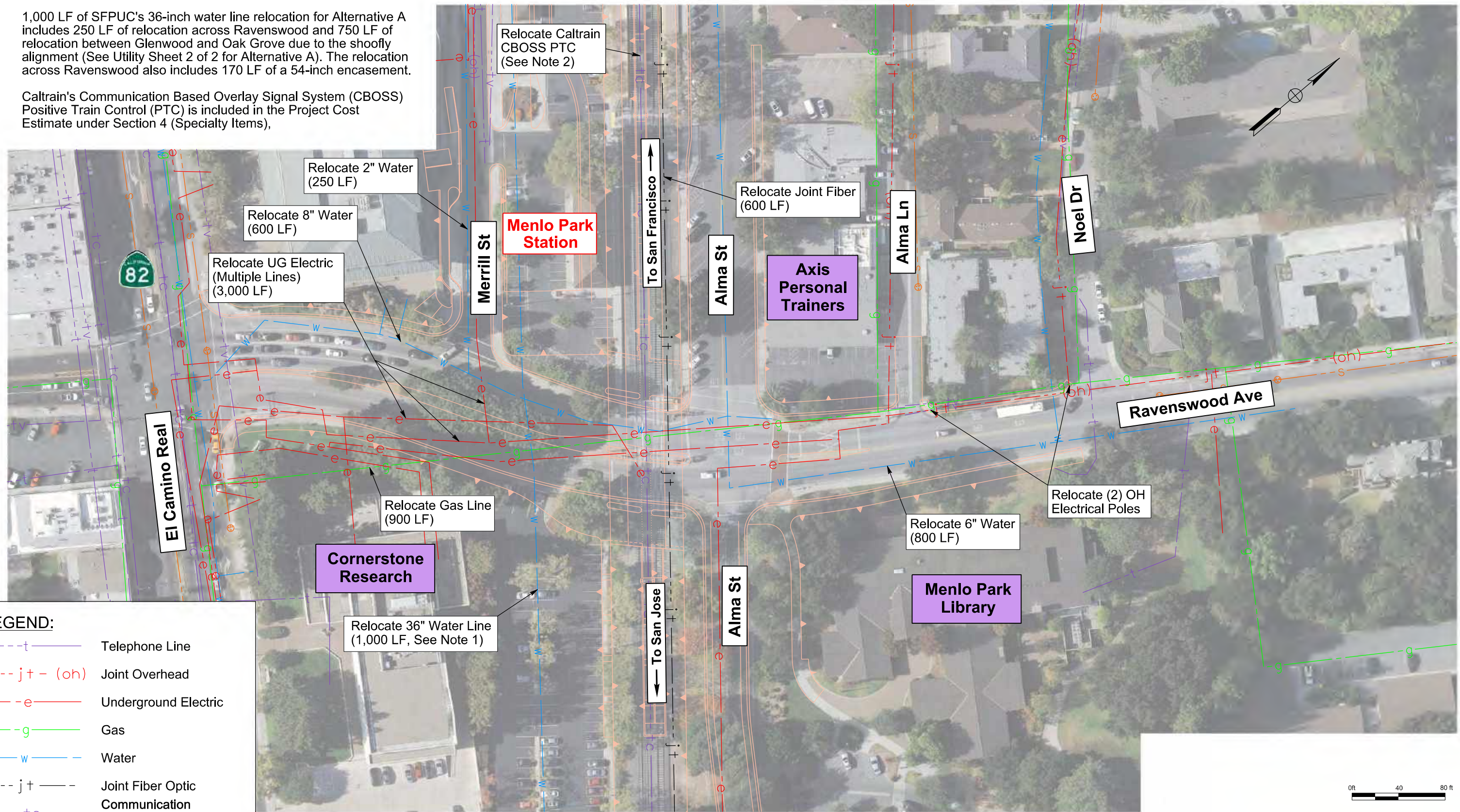


**Ravenswood Avenue
Railroad Crossing
Project**

Utility Relocations
Alternative A
Sheet 2 of 2

Notes:

- 1,000 LF of SFPUC's 36-inch water line relocation for Alternative A includes 250 LF of relocation across Ravenswood and 750 LF of relocation between Glenwood and Oak Grove due to the shoofly alignment (See Utility Sheet 2 of 2 for Alternative A). The relocation across Ravenswood also includes 170 LF of a 54-inch encasement.
- Caltrain's Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) is included in the Project Cost Estimate under Section 4 (Specialty Items),



PLAN

LEGEND:

- - - t - - - Telephone Line
- - - j + - (oh) - - - Joint Overhead
- - - e - - - Underground Electric
- - - g - - - Gas
- - - w - - - Water
- - - j + - - - Joint Fiber Optic
- - - tc - - - Communication (CBOSS PTC)
- - - s - - - Sanitary Sewer

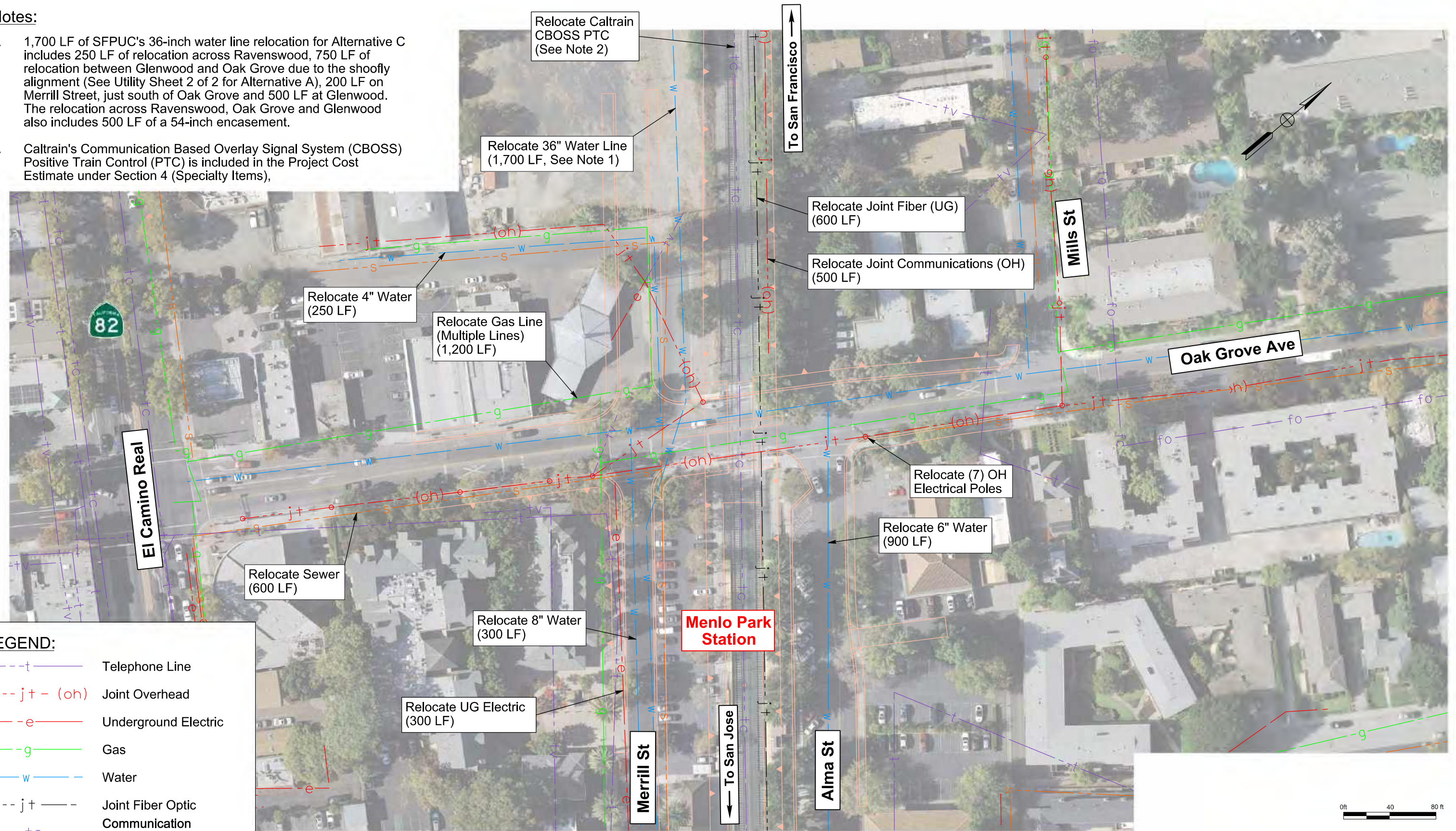


**Ravenswood Avenue
Railroad Crossing
Project**

Utility Relocations
Alternative C
Sheet 1 of 3

Notes:

- 1,700 LF of SFPUC's 36-inch water line relocation for Alternative C includes 250 LF of relocation across Ravenswood, 750 LF of relocation between Glenwood and Oak Grove due to the shoofly alignment (See Utility Sheet 2 of 2 for Alternative A), 200 LF on Merrill Street, just south of Oak Grove and 500 LF at Glenwood. The relocation across Ravenswood, Oak Grove and Glenwood also includes 500 LF of a 54-inch encasement.
- Caltrain's Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) is included in the Project Cost Estimate under Section 4 (Specialty Items),



LEGEND:

- - - t - - - Telephone Line
- - - j + - (oh) - - - Joint Overhead
- - - e - - - Underground Electric
- - - g - - - Gas
- - - w - - - Water
- - - j + - - - Joint Fiber Optic
- - - tc - - - Communication (CBOSS PTC)
- - - s - - - Sanitary Sewer

PLAN



**Ravenswood Avenue
Railroad Crossing
Project**

Utility Relocations
Alternative C
Sheet 2 of 3

Notes:

- 1,700 LF of SFPUC's 36-inch water line relocation for Alternative C includes 250 LF of relocation across Ravenswood, 750 LF of relocation between Glenwood and Oak Grove due to the shoofly alignment (See Utility Sheet 2 of 2 for Alternative A), 200 LF on Merrill Street, just south of Oak Grove and 500 LF at Glenwood. The relocation across Ravenswood, Oak Grove and Glenwood also includes 500 LF of a 54-inch encasement.
- Caltrain's Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) is included in the Project Cost Estimate under Section 4 (Specialty Items),



LEGEND:

	Telephone Line
	Joint Overhead
	Underground Electric
	Gas
	Water
	Joint Fiber Optic Communication (CBOSS PTC)
	Sanitary Sewer

PLAN



**Ravenswood Avenue
Railroad Crossing
Project**

Utility Relocations
Alternative C
Sheet 3 of 3

ATTACHMENT D

Preliminary Project Cost Estimates

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

Type of Estimate: PSR

Project Description: Ravenswood Avenue Grade Separation Project - Alternative A

Limits: On Ravenswood Ave from El Camino Real to Noel Drive

Proposed Improvement: Grade separate Ravenswood Ave by depressing roadway and keeping railroad at grade
(Scope)

CONSTRUCTION PHASE		
TOTAL ROADWAY & RAILROAD ITEMS		\$72,696,000
TOTAL STRUCTURE ITEMS		\$17,468,000
TOTAL CONSTRUCTION COSTS		\$90,200,000
TOTAL RIGHT OF WAY & UTILITY		\$21,800,000
TOTAL CAPITAL COST		\$112,000,000
ENGINEERING SERVICES (PA&ED)	4.5%	\$4,059,000
ENGINEERING SERVICES (PS&E)	9.0%	\$8,118,000
FLAGGING (TASI)	7.0%	\$6,314,000
R/W SERVICES	10.0% ^	\$1,524,000
CONSTRUCTION ADMINISTRATION	15.0%	\$13,530,000
TOTAL SUPPORT COST		\$33,500,000
SUBTOTAL (CAPITAL + SUPPORT)		\$145,500,000
ESCALATION* (TO 2025)		\$33,400,000
TOTAL PROJECT COST		\$179,000,000

^ 10% of "Total Right of Way & Utility" minus Utility Relocation Costs

* Escalation to mid-point of construction (3% per year)

Reviewed by		
Project Engineer	(510) 874-3143	11/09/18
	Peter DeStefano, P.E.	

Approved by		
Deputy Project Manager	(408) 961-8417	11/09/18
	Millette Litzinger, P.E. (Phone) (Date)	

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Imported Borrow	0	CY	\$30	\$0	
Excavation	110,000	CY	\$25	\$2,750,000	
Clearing & Grubbing	1	LS	\$400,000	\$400,000	
Develop Water Supply	1	LS	\$25,000	\$25,000	
Remove Unsuitable Materials	1	LS	\$800,000	\$800,000	
				<u>Total Earthwork</u>	<u>\$3,975,000</u>
<u>Section 2 - Structural Section *</u>					
HMA (Type A)	1,900	TON	\$135	\$257,000	
Aggregate Base (CI 2)	2,400	CY	\$75	\$180,000	
Aggregate Subbase (CI 4)	1,800	CY	\$40	\$72,000	
PCC	750	CY	\$400	\$300,000	
				<u>Total Structural Section</u>	<u>\$809,000</u>
<u>Section 3 - Drainage</u>					
Project Drainage ^	1	LS	\$1,000,000	\$1,000,000	
				<u>Total Drainage</u>	<u>\$1,000,000</u>

^ Includes cost for pump station

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

<u>Section 4 - Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Wall	37,400	SF	\$110	\$4,114,000	
Prepare SWPPP	1	LS	\$30,000	\$30,000	
Water Pollution Control	1	LS	\$1,400,000	\$1,400,000	
Permanent Treatment BMPs and Hydromodification	1	LS	\$2,000,000	\$2,000,000	
Dewatering	1	LS	\$800,000	\$800,000	
Temporary Creek Diversion (Not Required)			\$0	\$0	
Escalator	1	LS	\$300,000	\$300,000	
Ravenswood Train Station	1	LS	\$10,000,000	\$10,000,000	
Railroad Track**	16,300	TF	\$400	\$6,520,000	
Overhead Contact System (OCS)	8,150	RF	\$300	\$2,445,000	
No. 20 Crossover	1	EA	\$800,000	\$800,000	
Temporary Shoofly Track**	10,900	TF	\$550	\$5,995,000	
Temporary OCS	5,450	RF	\$400	\$2,180,000	
Impacts to CBOSS/PTC	1	LS	\$1,700,000	\$1,700,000	
Temporary Shoring (Roadway)	10,000	SF	\$40	\$400,000	
Temporary Shoring (Railroad)	0	SF	\$40	\$0	

** Unit price based on a single track. Unit cost for shoofly track includes \$150/TF for removal.

Total Specialty Items \$38,684,000

Section 5 - Traffic Items

Lighting	1	LS	\$250,000	\$250,000	
Signals (No New Traffic Signals)				\$0	
Traffic Control System	1	LS	\$1,000,000	\$1,000,000	
Signing and Striping	1	LS	\$70,000	\$70,000	
TMP (Inc. COZEEP, CMS etc.)	1	LS	\$1,000,000	\$1,000,000	

Total Traffic Items \$2,320,000

Section 6 - Planting and Irrigation

Planting	1	LS	\$600,000	\$600,000	
Irrigation	1	LS	\$300,000	\$300,000	

Total Planting & Irrigation Items \$900,000

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 7 - Roadside Management & Safety</u>					
Erosion Control	1	LS	\$60,000	\$60,000	
					<u>\$60,000</u>
				<u>Total Roadside Management & Safety</u>	<u>\$60,000</u>
				<u>SUBTOTAL SECTIONS 1 - 7:</u>	<u>\$47,748,000</u>
 <u>Section 8 - Minor Items</u>					
Subtotal Sections 1 - 7			\$47,748,000 X	5%	\$2,387,400
					<u>\$2,387,000</u>
				<u>TOTAL MINOR ITEMS:</u>	<u>\$2,387,000</u>
 <u>Section 9 - Mobilization</u>					
Subtotal Sections 1 - 7			\$47,748,000		
Minor Items			\$2,387,000		
Sum			\$50,135,000 X	10%	\$5,013,500
					<u>\$5,014,000</u>
				<u>TOTAL MOBILIZATION</u>	<u>\$5,014,000</u>
 <u>Section 10 - Additions</u>					
Supplemental					
Subtotal Sections 1 - 7			\$47,748,000		
Minor Items			\$2,387,000		
Sum			\$50,135,000 X	5%	\$2,506,750
					<u>\$2,506,750</u>
				<u>TOTAL ADDITIONS</u>	<u>\$17,547,000</u>
				<u>TOTAL ROADWAY & RAILROAD ITEMS</u>	<u>\$72,696,000</u>
				(Total of Sections 1 - 10)	

Estimate			
Prepared By:	Peter DeStefano, P.E.	(510) 874-3143	11/09/18
	(Print Name)	(Phone)	(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

II. STRUCTURES ITEMS

	#1 ^ <u>Temp Rail Structure</u>	#2 <u>Rail Structure</u>	#3 <u>Alma St Underpass</u>	#3 <u>Ped Undercrossing</u>
Bridge Name				
Structure Type	<u>PC/PS Girder</u>	<u>PC/PS Girder</u>	<u>PC/PS Girder</u>	<u>PC/PS Girder</u>
Width (ft) - out to out	<u>36.00</u>	<u>65.50</u>	<u>52.00</u>	<u>20.00</u>
Span Length (ft)	<u>60</u>	<u>157</u>	<u>146</u>	<u>32</u>
Total Area (SqFt)	<u>2,160</u>	<u>10,254</u>	<u>7,596</u>	<u>640</u>
Footing Type (pile/spread)	<u>Pile</u>	<u>Pile</u>	<u>Pile</u>	<u>Pile</u>
Cost per Sq. Ft. Including: Mobilization: 10% Contingency: 25%	<u>\$1,200</u>	<u>\$1,200</u>	<u>\$300</u>	<u>\$300</u>
Bridge Removal	<u>\$100,000</u>			
Total Cost For Structure	<u>\$2,692,000</u>	<u>\$12,304,800</u>	<u>\$2,278,800</u>	<u>\$192,000</u>
			SUBTOTAL THIS PAGE	<u><u>\$17,467,600</u></u>
^ Includes temporary structure for the shoofly tracks at Ravenswood Ave.			TOTAL STRUCTURES ITEMS	<u><u>\$17,468,000</u></u>
Railroad Related Costs				

COMMENTS:

Estimate Prepared By: Peter DeStefano, P.E. (510) 874-3143 11/09/18
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

III. RIGHT OF WAY & UTILITY

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value (2018)
Acquisition, including excess lands TCE and damages to remainders	\$15,200,000	0.00%	\$15,200,000
Utility Relocation ^	\$6,600,000	0.00%	\$6,600,000
Clearance / Demolition	\$0	0.00%	\$0
RAP	\$0	0.00%	\$0
R/W Services - Title and Escrow Fees	\$40,000	0.00%	\$40,000
CONSTRUCTION CONTRACT WORK			\$0
SB1210		0.00%	\$0
Section 83 Transfers		0.00%	\$0
		0.00%	\$0
TOTAL RIGHT OF WAY (CURRENT VALUE)	\$21,840,000	TOTAL ESCALATED RIGHT OF WAY	\$21,840,000

^ See Attachment D for details.

Estimate prepared by: Peter DeStefano, P.E. (510) 874-3143 11/09/18
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

Type of Estimate: PSR

Project Description: Ravenswood Avenue Grade Separation Project - Alternative C

Limits: On Ravenswood Ave from El Camino Real to Noel Drive
On Oak Grove Ave from El Camino Real to Mills St
On Glenwood Ave from El Camino Real to Mills Ct

Proposed Improvement: Grade separate Ravenswood Ave, Oak Grove Ave, and Glenwood Ave
(Scope) by depressing roadway and elevating railroad

CONSTRUCTION PHASE		
TOTAL ROADWAY & RAILROAD ITEMS		\$126,559,000
TOTAL STRUCTURE ITEMS		\$24,029,000
TOTAL CONSTRUCTION COSTS		\$150,600,000
TOTAL RIGHT OF WAY & UTILITY		\$60,800,000
TOTAL CAPITAL COST		\$211,400,000
ENGINEERING SERVICES (PA&ED)	4.5%	\$6,777,000
ENGINEERING SERVICES (PS&E)	9.0%	\$13,554,000
FLAGGING (TASI)	7.0%	\$10,542,000
R/W SERVICES	10.0% ^	\$4,164,000
CONSTRUCTION ADMINISTRATION	15.0%	\$22,590,000
TOTAL SUPPORT COST		\$57,600,000
	SUBTOTAL (CAPITAL + SUPPORT)	\$269,000,000
	ESCALATION* (TO 2025)	\$61,800,000
	TOTAL PROJECT COST	\$331,000,000

^ 10% of "Total Right of Way & Utility" minus Utility Relocation Costs

* Escalation to mid-point of construction (3% per year)

Reviewed by		
Project Engineer	(510) 874-3143	11/02/18
	Peter DeStefano, P.E.	

Approved by		
Deputy Project Manager	(408) 961-8417	11/02/18
	Millette Litzinger, P.E. (Phone) (Date)	

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Imported Borrow	0	CY	\$30	\$0	
Excavation	330,000	CY	\$18	\$5,940,000	
Clearing & Grubbing	1	LS	\$400,000	\$400,000	
Develop Water Supply	1	LS	\$25,000	\$25,000	
Remove Unsuitable Materials	1	LS	\$2,200,000	\$2,200,000	
				<u>Total Earthwork</u>	<u>\$8,565,000</u>
<u>Section 2 - Structural Section *</u>					
HMA (Type A)	7,500	TON	\$100	\$750,000	
Aggregate Base (CI 2)	7,600	CY	\$45	\$342,000	
Aggregate Subbase (CI 4)	6,900	CY	\$40	\$276,000	
PCC	1,020	CY	\$400	\$408,000	
				<u>Total Structural Section</u>	<u>\$1,776,000</u>
<u>Section 3 - Drainage</u>					
Project Drainage ^	1	LS	\$2,900,000	\$2,900,000	
				<u>Total Drainage</u>	<u>\$2,900,000</u>

^ Includes cost for pump station

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

<u>Section 4 - Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Wall	144,000	SF	\$110	\$15,840,000	
Prepare SWPPP	1	LS	\$60,000	\$60,000	
Water Pollution Control	1	LS	\$1,900,000	\$1,900,000	
Permanent Treatment BMPs and Hydromodification	1	LS	\$2,800,000	\$2,800,000	
Dewatering	1	LS	\$1,300,000	\$1,300,000	
Temporary Creek Diversion (Not Required)			\$0	\$0	
Escalator	1	LS	\$300,000	\$300,000	
Ravenswood Train Station	1	LS	\$15,000,000	\$15,000,000	
Railroad Track**	19,100	TF	\$400	\$7,640,000	
Overhead Contact System (OCS)	9,550	RF	\$300	\$2,865,000	
No. 20 Crossover	1	EA	\$800,000	\$800,000	
Temporary Shoofly Track**	16,200	TF	\$550	\$8,910,000	
Temporary OCS	8,100	RF	\$400	\$3,240,000	
Impacts to CBOSS/PTC	1	LS	\$1,900,000	\$1,900,000	
Temporary Shoring (Roadway)	20,000	SF	\$40	\$800,000	
Temporary Shoring (Railroad)	0	SF	\$40	\$0	

** Unit price based on a single track. Unit cost for shoofly track includes \$150/TF for removal.

Total Specialty Items \$63,355,000

Section 5 - Traffic Items

Lighting	1	LS	\$750,000	\$750,000	
Signals (No New Traffic Signals)	3	EA	\$270,000	\$810,000	
Traffic Control System	1	LS	\$1,500,000	\$1,500,000	
Signing and Striping	1	LS	\$150,000	\$150,000	
TMP (Inc. COZEEP, CMS etc.)	1	LS	\$1,400,000	\$1,400,000	

Total Traffic Items \$4,610,000

Section 6 - Planting and Irrigation

Planting	1	LS	\$1,200,000	\$1,200,000	
Irrigation	1	LS	\$600,000	\$600,000	

Total Planting & Irrigation Items \$1,800,000

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 7 - Roadside Management & Safety</u>					
Erosion Control	1	LS	\$120,000	\$120,000	
					<u>\$120,000</u>
					<u>Total Roadside Management & Safety</u>
					<u>\$120,000</u>
					<u>SUBTOTAL SECTIONS 1 - 7:</u>
					<u>\$83,126,000</u>
 <u>Section 8 - Minor Items</u>					
Subtotal Sections 1 - 7			\$83,126,000 X	5%	\$4,156,300
					<u>TOTAL MINOR ITEMS:</u>
					<u>\$4,156,000</u>
 <u>Section 9 - Mobilization</u>					
Subtotal Sections 1 - 7			\$83,126,000		
Minor Items			\$4,156,000		
Sum			\$87,282,000 X	10%	\$8,728,200
					<u>TOTAL MOBILIZATION</u>
					<u>\$8,728,000</u>
 <u>Section 10 - Additions</u>					
Supplemental					
Subtotal Sections 1 - 7			\$83,126,000		
Minor Items			\$4,156,000		
Sum			\$87,282,000 X	5%	\$4,364,100
 <u>Contingencies</u>					
Subtotal Sections 1 - 7			\$83,126,000		
Minor Items			\$4,156,000		
Sum			\$87,282,000 X	30%	\$26,184,600
					<u>TOTAL ADDITIONS</u>
					<u>\$30,549,000</u>
					<u>TOTAL ROADWAY & RAILROAD ITEMS</u>
					<u>\$126,559,000</u>
					(Total of Sections 1 - 10)

Estimate			
Prepared By:	Peter DeStefano, P.E.	(510) 874-3143	11/02/18
	(Print Name)	(Phone)	(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

II. STRUCTURES ITEMS	Ravenswood		Oak Grove	
	#1 ^	#2	#3	#4
Bridge Name	<u>Temp Rail Structures</u>	<u>Rail Structure</u>	<u>SB Rail Structure</u>	<u>NB Rail Structure</u>
Structure Type	<u>PC/PS Girder</u>	<u>PC/PS Girder</u>	<u>PC/PS Girder</u>	<u>PC/PS Girder</u>
Width (ft) - out to out	<u>36.00</u>	<u>65.50</u>	<u>22.00</u>	<u>22.00</u>
Span Length (ft)	<u>160</u>	<u>157</u>	<u>74</u>	<u>74</u>
Total Area (SqFt)	<u>5,760</u>	<u>10,254</u>	<u>1,620</u>	<u>1,620</u>
Footing Type (pile/spread)	<u>Pile</u>	<u>Pile</u>	<u>Pile</u>	<u>Pile</u>
Cost per Sq. Ft. Including: Mobilization: 10% Contingency: 25%	<u>\$600</u>	<u>\$1,200</u>	<u>\$1,200</u>	<u>\$1,200</u>
Bridge Removal	<u>\$300,000</u>			
Total Cost For Structure	<u>\$3,756,000</u>	<u>\$12,304,800</u>	<u>\$1,944,000</u>	<u>\$1,944,000</u>
			SUBTOTAL THIS PAGE	<u>\$24,028,800</u>
^ Includes temporary structures for the shoofly tracks at all three street crossings (Ravenswood, Oak Grove and Glenwood).			TOTAL STRUCTURES ITEMS	<u>\$24,029,000</u>
Railroad Related Costs				

COMMENTS:

Estimate Prepared By:	Peter DeStefano, P.E.	(510) 874-3143	11/02/18
	(Print Name)	(Phone)	(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

III. RIGHT OF WAY & UTILITY

	<u>Current Values (Future Use)</u>	<u>Escalation Rate (%/yr)</u>	<u>Escalated Value (2018)</u>
Acquisition, including excess lands TCE and damages to remainders	<u>\$41,600,000</u>	<u>0.00%</u>	<u>\$41,600,000</u>
Utility Relocation ^	<u>\$19,200,000</u>	<u>0.00%</u>	<u>\$19,200,000</u>
Clearance / Demolition	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
RAP	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
R/W Services - Title and Escrow Fees	<u>\$40,000</u>	<u>0.00%</u>	<u>\$40,000</u>
CONSTRUCTION CONTRACT WORK			<u>\$0</u>
SB1210		<u>0.00%</u>	<u>\$0</u>
Section 83 Transfers		<u>0.00%</u>	<u>\$0</u>
		<u>0.00%</u>	<u>\$0</u>
TOTAL RIGHT OF WAY (CURRENT VALUE)	<u>\$60,840,000</u>	TOTAL ESCALATED RIGHT OF WAY	<u>\$60,840,000</u>

^ See Attachment D for details.

Estimate prepared by: Peter DeStefano, P.E. (510) 874-3143 11/02/18
(Print Name) (Phone) (Date)

ATTACHMENT E

3D Renderings

Figure 1 - Alternative A - Looking West from Alma St (~700 feet south of Ravenswood)



Figure 2 - Alternative C - Looking West from Alma St (~700 feet south of Ravenswood)



Figure 3 - Alternative A, Ravenswood Avenue, Looking East from El Camino Real



Figure 4 - Alternative C, Ravenswood Avenue, Looking East from El Camino Real



Figure 5 - Alternative A, Looking North towards Ravenswood Avenue and the Caltrain Station



Figure 6 - Alternative C, Looking North towards Ravenswood Avenue and the Caltrain Station



Figure 7 - Alternative A, Ravenswood Avenue, Looking West from Noel Drive



Figure 8 - Alternative C, Ravenswood Avenue, Looking West from Noel Drive



Figure 9 - Alternative C, Looking North at Oak Grove Avenue



Figure 10 - Alternative C, Looking NE at Glenwood Avenue



ATTACHMENT F

Traffic Analysis Technical Memorandum

TO: Nicole H Nagaya, City of Menlo Park
Angela R Obeso, City of Menlo Park

CC: Millette Litzinger, AECOM
Rabindra Puttagunta, AECOM

FROM: Aswini Rajagopalan, AECOM
Swathi Korpu, AECOM

DATE: November 2018

RE: Ravenswood Avenue Railroad Crossing Project
Proposed Alternatives - Traffic Analysis Technical Memorandum

Introduction

This memorandum discusses the traffic operational analysis conducted to evaluate the existing conditions and future (2040) conditions for the Ravenswood Avenue Railroad Crossing Project. This memorandum also describes the methodology that AECOM used, in coordination with the City/County Association of Governments (C/CAG) models, to forecast future traffic volumes to be used in this study. The project proposes grade separations at Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue from the at-grade railroad crossings of the Caltrain line, to help alleviate traffic congestion and to improve the overall vehicular traffic, pedestrian and bicycle safety and circulation. The traffic analysis evaluates project Future (or Design) Year (2040) conditions with and without the proposed project.

Background and Study Area

Within the City of Menlo Park, the Caltrain rail traverses east of and parallel to El Camino Real, stopping at the Menlo Park Transportation Center located near the intersection of El Camino Real and Santa Cruz Avenue. There are four at-grade railroad crossings in the City of Menlo Park: Ravenswood Avenue, Oak Grove Avenue, Glenwood Avenue and Encinal Avenue.

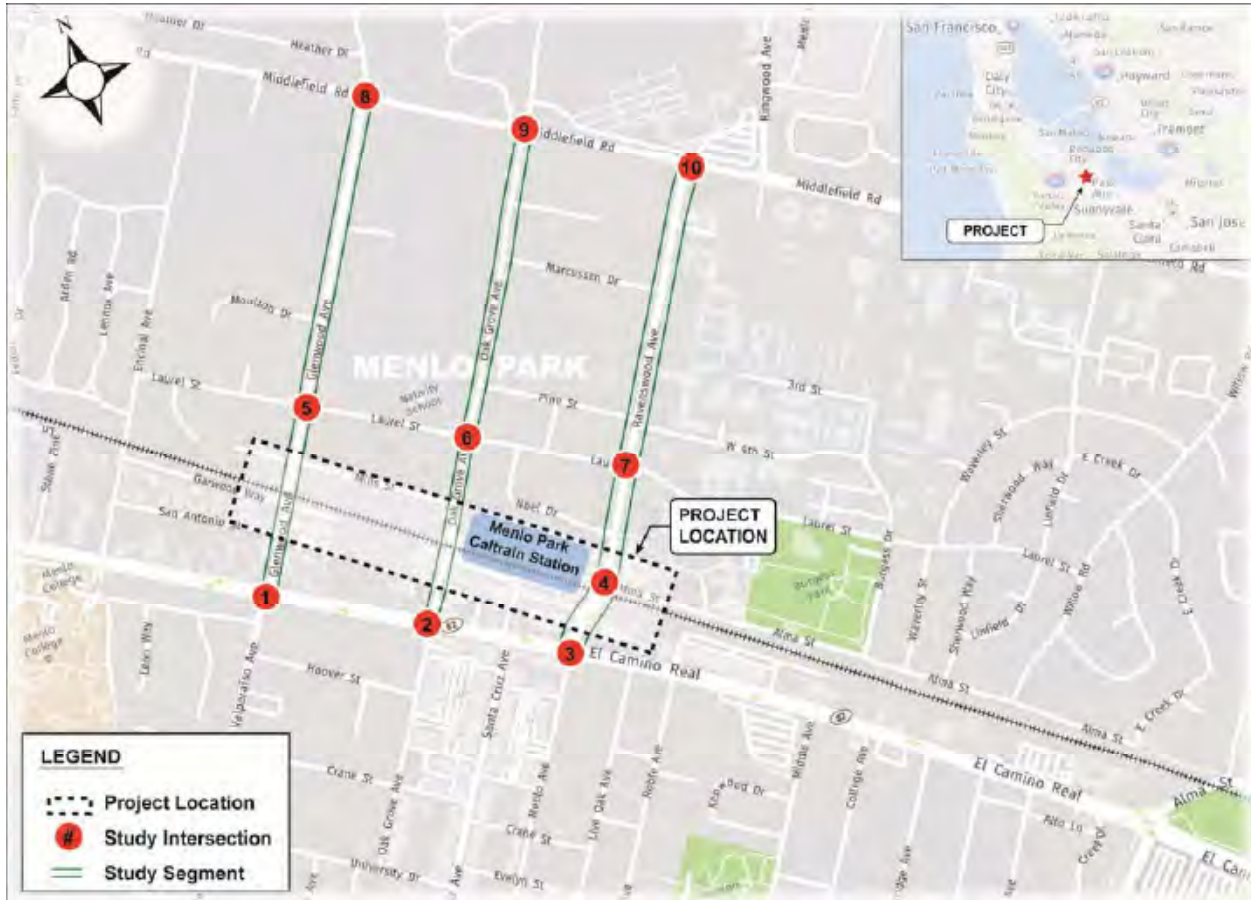
Though there are four at-grade railroad crossings, this project proposes grade separations at Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue; however the number of grade separations varies by alternative. Encinal Avenue will continue to have the at-grade railroad crossing. The project study area spans along each of the above three corridors between El Camino Real to the west and Middlefield Road to the east. Project location map is presented in *Figure 1*.

Purpose and Need

Working collaboratively with the City of Menlo Park staff, residents and other key stakeholders, the priorities and key functional objectives of this project were identified:

- **Improve traffic circulation and mobility** by reducing traffic delays, alleviating traffic congestion, and increasing traffic flow across the railroad crossing.
- **Increase public safety for vehicles, bicycles, and pedestrians** by eliminating the conflict with the train and improving access to/from local destinations

Figure 1 – Project Location and Study Network Map



Alternatives Considered

Based on the identified objectives, the project team proposed the following alternatives for further evaluation.

No-Build Alternative

Under this alternative, there will be no change to the at-grade crossings at Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue. In addition, there will be no change to the lane configurations and the capacity of the roadways under consideration.

Alternative A

Under this alternative, Ravenswood Avenue is “depressed” from the current elevation in the vicinity of the railroad tracks. In other words, Ravenswood Avenue will pass under the tracks (underpass). This modification is proposed only to Ravenswood Avenue. No changes are proposed to the other at-grade crossings at Oak Grove Avenue and Glenwood Avenue.

The depressed design of Ravenswood Avenue under this alternative requires Alma Street to be grade separated due to design constraints. Hence, per the proposed design, Alma Street is grade separated and the through movements are maintained to facilitate the north/south connectivity.

Since the at-grade crossing at Ravenswood Avenue experiences the highest traffic congestion, compared to the other at-grade railroad crossings, it is the highest priority location within the City for consideration of a grade separation. In addition, the railroad crossing at Ravenswood Avenue is immediately adjacent to the Menlo Park Caltrain station and transit center. The railroad crossing is also within walking distance to many employment centers and residential land uses. For the above reasons, the City Council decided to pursue Alternative A. The Study Area and conceptual design plans for this option are included in the PSR-PDS report.

Alternative B

Under this alternative, Ravenswood Avenue and Oak Grove Avenue are partially “depressed” and the Caltrain tracks are partially “elevated” from the current elevation. This alternative is referred as “Hybrid” since it involves partial depression as well as partial elevation. Based on the input from the City Council, this alternative was dropped from further consideration. The conceptual design plans for this option are included in the PSR-PDS report..

Alternative C

Under this alternative, Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue are partially “depressed” and the Caltrain tracks are partially “elevated” from the current elevation. This alternative is referred as “Hybrid” since it involves partial depression as well as partial elevation. Overall, this alternative would provide better safety and improve circulation for pedestrians, cyclists and autos compared to Alternative A and B since the improvements are proposed for a larger study area. In addition, it would help alleviate the traffic congestion in the study area. For the above reasons, the City Council also decided to pursue Alternative C. The conceptual design plans for this option are included in the PSR-PDS report.

Study Network and Traffic Volumes

To address the traffic circulation issues, ten intersections and three roadway segments were identified for analysis. The following section presents the details of the study network and traffic data used.

Study Intersections

Intersection operating conditions were analyzed at the following locations within the Study Area:

Ravenswood Avenue

- El Camino Real & Menlo Avenue/ Ravenswood Avenue
- Alma Street & Ravenswood Avenue
- Laurel Street & Ravenswood Avenue
- Middlefield Road & Ravenswood Avenue

Oak Grove Avenue

- El Camino Real & Oak Grove Avenue
- Laurel Street & Oak Grove Avenue
- Middlefield Road & Oak Grove Avenue

Glenwood Avenue

- El Camino Real & Valparaiso Avenue/ Glenwood Avenue
- Laurel Street & Glenwood Avenue
- Middlefield Road & Glenwood Avenue

Study Segments

The operating conditions of the following segments were analyzed within the Study Area:

- Ravenswood Avenue: Segment between El Camino Real and Middlefield Road
- Oak Grove Avenue: Segment between El Camino Real and Middlefield Road
- Glenwood Avenue: Segment between El Camino Real and Middlefield Road

While analyzing Alternatives A and C, the segments were divided into two sections in order to better understand the traffic impacts due to the proposed project:

- Section 1 - El Camino Real and Laurel Street
- Section 2 - Laurel Street and Middlefield Road

Figure 1 presents the study intersections and the study segments.

Traffic Data Collection

To properly assess the existing constraints and opportunities within the study area, the following data was obtained from the City of Menlo Park. The time period during which the traffic data was collected ranges between December 2015 and June 2016.

- Weekday vehicle turning movement counts at the study intersections (AM and PM peak periods);
- Weekday bicycle and pedestrian counts at the study intersections (AM and PM peak periods); and
- Weekday daily (24-hour) traffic volumes at selected locations;

Development of Forecast Volumes

The approved VTA-C/CAG Forecast Traffic Models for 2013 and 2040 were used to determine the no-build forecast volumes for the year 2040. Link volumes for the intersections were obtained from the VTA-C/CAG models and the corresponding growth in link volumes was applied to the existing link volumes counts. Using the Furness method and existing turning movement volumes, future turning movement volumes were determined.

Traffic volumes for existing and future no build and build scenarios are provided in *Appendix A*.

Traffic Operations Methodology

Intersection operating conditions and level of service (LOS) were evaluated for the AM and PM peak hour. Peak hour is chosen as the hour that has four consecutive 15-minute periods with the highest overall traffic throughput from the weekday AM (7:00 AM to 9:00 AM), and weekday PM (4:00 PM to 6:00 PM) peak periods. LOS was evaluated for the existing conditions, future year 2040 no-build conditions and build conditions. In addition to the LOS evaluation, arterial analysis was conducted for the identified study roadway segments under existing conditions and future year conditions as explained earlier. The future no-build condition serves as a base for comparison, which assumes the traffic patterns continue to be the same as that of the existing conditions with an increase in the traffic projected by the VTA/C-CAG model.

Intersection Measure of Effectiveness

Synchro/Sim-Traffic version 9 software package was used in the evaluation of the intersection. Synchro utilizes the 2000 *Highway Capacity Manual* (2000 HCM) methodology in calculating intersection LOS and vehicle delay. The following measure of effectiveness (MOEs) was calculated based on 2000 HCM methodology and was considered in the evaluation of intersection operations and performance:

- Vehicle delay (measured in seconds per vehicle)

Vehicle Delay

Vehicle (control) delay is the primary measure of performance in the HCM. It includes the time lost due to acceleration and deceleration of a vehicle, in addition to the stopped time of a vehicle due to a traffic control device. The delay-based operations analysis uses various intersection characteristics (e.g., traffic volumes, lane geometry, signal control, and signal phasing / timing) to estimate the average control delay experienced by motorists at an intersection. The HCM methodology qualitatively characterizes traffic conditions based on the delay value, ranging from LOS A to LOS F. LOS A indicates free-flow traffic conditions with little or no delay experienced by motorists and LOS F indicates congested conditions where traffic flows exceed design capacity and may result in long delays.

For signalized intersections, the methodology determines the capacity of each lane group approaching the intersection and calculates an average delay (in seconds per vehicle) for each of

the various movements at the intersection. A combined weighted delay and LOS are presented for each intersection. For unsignalized intersections with one-way, or two-way stop control, intersection LOS and delay are typically reported for the worst stop-controlled approach (or yield movement) and for all-way stop control, the average intersection delay is reported.

For this traffic operational analysis, LOS D or better is considered to be acceptable and LOS E or worse is considered unacceptable.

Intersection LOS criteria for signalized and unsignalized intersections are summarized in **Table 1**.

Table 1: Intersection Level of Service Criteria – Vehicle Delay

Level of Service	Average Delay (seconds / vehicle)		Description
	Signalized	Unsignalized	
A	≤ 10.0	≤ 10.0	Little or no traffic delay
B	> 10.0 and ≤ 20.0	> 10.0 and ≤ 15.0	Minimal traffic delay
C	> 20.0 and ≤ 35.0	> 15.0 and ≤ 25.0	Average traffic delay
D	> 35.0 and ≤ 55.0	> 25.0 and ≤ 35.0	Long traffic delay
E	> 55.0 and ≤ 80.0	> 35.0 and ≤ 50.0	Very long traffic delay
F	> 80.0	> 50.0	Extreme traffic delay

Source: Transportation Research Board, *Highway Capacity Manual*, 2000.

Arterial Measure of Effectiveness

As this project proposes grade separation and improvements to traffic circulation, arterial analysis was conducted in order to gauge the corridor-wise benefit of the project. Therefore, arterial analysis was conducted for each of the study roadway segments. SimTraffic was used for the evaluation of the arterial segments. The arterial results summarized in this report were based on multi-run Sim-Traffic simulation. The following measures of effectiveness (MOEs) were calculated and considered in the evaluation of intersection operations and performance:

- Vehicle delay (measured in seconds per vehicle) – Delay experienced by the vehicle while traversing the arterial;
- Travel Time (measured in seconds) – Time taken by the vehicle to travel the arterial; and
- Speed (measured in miles per hour) – Average speed taken by the vehicle to traverse the arterial.

Arterial travel time is directly proportional to delay experienced by the vehicles and inversely proportional to the arterial speed. Therefore, the longer the travel times are, the higher the delays and lower the speeds.

Existing Conditions

Existing intersection lane configurations, signal timings and turning movement volumes were used to calculate the LOS for the study intersections during the AM and PM peak hour. The results of the LOS analysis for existing conditions are presented in **Table 2**.

Table 2: Intersection Level of Service – Existing Conditions

ID	Intersection		Control	Existing Conditions			
	North/South	East/West		AM Peak		PM Peak	
				LOS	Delay	LOS	Delay
1	El Camino Real	Glenwood Ave	Signal	D	48.7	D	38.1
2	El Camino Real	Oak Grove Ave	Signal	D	37.7	D	37.4
3	El Camino Real	Ravenswood Ave	Signal	D	41.5	D	51.7
4	Alma St	Ravenswood Ave	TWSC	B	12.9	C	15.4
5	Laurel St	Glenwood Ave	AWSC	C	17.3	B	11.5
6	Laurel St	Oak Grove Ave	Signal	B	14.7	B	10.8
7	Laurel St	Ravenswood Ave	Signal	D	53.6	D	48.5
8	Middlefield Rd	Glenwood Ave	TWSC	F	>50	F	>50
9	Middlefield Rd	Oak Grove Ave	Signal	B	15.2	B	11.7
10	Middlefield Rd	Ravenswood Ave	Signal	D	54.7	D	53.1

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

Bold text indicates deficient intersection operations.

The results of the existing conditions indicate that all of the study intersections operate at acceptable LOS of D or better with the exception of the intersection of Middlefield Road and Glenwood Avenue. This intersection operates at an unacceptable LOS F during both the AM and PM peak hours.

Table 3 presents the summary of the arterial analysis under existing conditions along the eastbound and westbound direction for each of the study roadway segment during both the AM and PM peak hour. As mentioned above, the limits for each of the study segment included El Camino Real to the west and Middlefield Road to the east. The study segments were measured for the delay, travel time and speed.

**Table 3: Arterial Analysis Results – Existing Conditions
 Between El Camino Real and Middlefield Road**

Direction	Street Name	AM Peak Hour			PM Peak Hour		
		Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)	Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	110.4	206.4	22.0	172.3	271.9	18.0
	<i>Oak Grove Avenue</i>	45.0	126.4	35.0	47.3	135.8	32.0
	<i>Glenwood Avenue</i>	60.3	144.0	31.0	54.6	138.6	33.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	63.7	136.5	34.0	80.7	167.4	27.0
	<i>Oak Grove Avenue</i>	105.4	188.0	28.0	79.9	159.4	32.0
	<i>Glenwood Avenue</i>	83.0	166.3	30.0	79.0	134.2	61.0

Source: AECOM 2016

Notes:

1. AM = morning peak hour PM = evening peak hour
2. The arterial delay is measured in terms of seconds per vehicle, the arterial travel time is measured in terms of seconds, and the arterial speed is measured in terms of miles per hour.

In the eastbound direction, it took between 3 and 5 minutes to travel along Ravenswood Avenue between El Camino Real and Middlefield Road during both AM and PM peak hours and between 2 and 3 minutes to travel along Oak Grove Avenue and Glenwood Avenue between El Camino Real and Middlefield Road. Hence, it can be concluded that it took longer to travel along Ravenswood Avenue compared to the other two segments. In the westbound direction, it took between 2 and 3 minutes to travel along Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue during both AM and PM peak hours.

Design Year 2040 Conditions

Future year 2040 conditions were evaluated under the no-build alternative conditions and build alternative conditions (i.e. grade separation). The analysis results are presented in the following sections along with improvement measures to bring the intersection LOS to acceptable levels (LOS D or better).

No Build Alternative

This section summarizes the 2040 no-build operating conditions for the AM and PM peak hour. The turning movement volumes at the study intersections are presented in the **Appendix A**

Table 4 presents the 2040 LOS along with Existing conditions LOS for comparison.

Table 4: Intersection Level of Service – No-Build (2040) Conditions

ID	Intersection		Control	Existing Conditions				No-Build (2040) Conditions			
	North/South	East/West		AM Peak		PM Peak		AM Peak		PM Peak	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	El Camino Real	Glenwood Ave	Signal	D	48.7	D	38.1	E	65.5	D	51.8
2	El Camino Real	Oak Grove Ave	Signal	D	37.7	D	37.4	D	38.1	D	46.9
3	El Camino Real	Ravenswood Ave	Signal	D	41.5	D	51.7	D	45.9	E	75.5
4	Alma St	Ravenswood Ave	TWSC	B	12.9	C	15.4	C	15.2	C	15.4
5	Laurel St	Glenwood Ave	AWSC	C	17.3	B	11.5	D	32.4	D	27.4
6	Laurel St	Oak Grove Ave	Signal	B	14.7	B	10.8	D	39.1	B	17.2
7	Laurel St	Ravenswood Ave	Signal	D	53.6	D	48.5	E	61.4	E	60.4
8	Middlefield Rd	Glenwood Ave	TWSC	F	>50	F	>50	F	>50	F	>50
9	Middlefield Rd	Oak Grove Ave	Signal	B	15.2	B	11.7	B	15.6	B	15.2
10	Middlefield Rd	Ravenswood Ave	Signal	D	54.7	D	53.1	E	57.9	F	>80

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

Bold text indicates deficient intersection operations.

The corresponding LOS calculation sheets are included in *Appendix B*

During the AM peak hour, the intersections of El Camino Real and Glenwood Avenue, Laurel Street and Ravenswood Avenue, Middlefield Road and Ravenswood Avenue operate at LOS E. In addition, the intersection of Middlefield Road and Glenwood Avenue continues (from existing conditions) to operate at LOS F under the no-build 2040 conditions.

During the PM peak hour, the intersections of El Camino Real and Ravenswood Avenue, and Laurel Street and Ravenswood Avenue operate at LOS E and the intersection of Middlefield Road and Ravenswood Avenue operates at an unacceptable LOS F. In addition, the intersection of Middlefield Road and Glenwood Avenue continues (from existing conditions) to operate at LOS F under the no-build 2040 conditions

Table 5 presents the summary of the 2040 no-build conditions arterial analysis along the eastbound and westbound direction for each of the study segment roadway during both the AM and PM peak hour. As mentioned above, the limits for each of the study segment included El Camino Real to the west and Middlefield Road to the east. The study segments were measured for the delay, travel time and speed.

**Table 5: Arterial Analysis Results – No-Build 2040 Conditions
 Between El Camino Real and Middlefield Road**

Direction	Street Name	AM Peak Hour			PM Peak Hour		
		Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)	Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	290.0	413.0	6.0	237.9	379.4	7.0
	<i>Oak Grove Avenue</i>	97.3	182.5	12.0	79.1	163.1	14.0
	<i>Glenwood Avenue</i>	91.6	181.1	12.0	322.0	405.8	5.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	99.6	165.3	13.0	110.6	178.8	13.0
	<i>Oak Grove Avenue</i>	294.3	373.7	6.0	97.1	171.0	13.0
	<i>Glenwood Avenue</i>	221.5	361.7	7.0	92.8	168.9	13.0

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. The arterial delay is measured in terms of seconds per vehicle, the arterial travel time is measured in terms of seconds, and the arterial speed is measured in terms of miles per hour.

In the westbound direction, it took approximately between 3 and 7 minutes to travel along Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue, between El Camino Real and Middlefield Road, during both AM and PM peak hours. In the westbound direction, it took approximately between 3 and 6 minutes to travel along Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue between El Camino Real and Middlefield Road during both AM and PM peak hours. It can be inferred that the travel times have increased compared to the existing conditions in all the study roadway segments. Increase in travel times also signifies increase in delays and reduction in speed compared to the existing conditions.

Alternative A

Under Alternative A, as mentioned above, Ravenswood Avenue is “depressed” from the current elevation in the vicinity of the railroad tracks. This modification is proposed only to Ravenswood Avenue. In addition, due to design constraints, a grade separation of Alma Street to improve north/south connectivity would be required, thereby maintaining the through movement on Alma Street. As a result, no vehicular movement would be allowed between Alma Street and Ravenswood Avenue. The traffic from Ravenswood Avenue to Alma Street and vice-versa would be re-routed to Laurel Street. Initially, this alternative was analyzed with no lane configuration and signal timing changes at the intersection of Laurel Street and Ravenswood Avenue. However, the analysis results indicated that the intersection would fail due to the additional traffic. Therefore, in order to improve the intersection operations to an acceptable LOS D or better, the following modification is proposed:

1. The eastbound approach at the intersection of Laurel Street and Ravenswood Avenue should be modified to include a 300 –foot right trap lane. Corresponding signal timing changes should be implemented to accommodate the modified lane geometry and additional traffic due to traffic re-routing.

No changes are proposed to the other at-grade crossings at Oak Grove Avenue and Glenwood Avenue. The turning movement volumes at the study intersections are presented in the *Appendix A*. The results of the LOS analysis for Alternative A are presented in **Table 6**. The results presented in **Table 6** compare the traffic operational results between no-build (No project) conditions; build Alternative A with existing lane configuration and build Alternative A with proposed modifications as discussed above.

From **Table 6**, it can be seen that the LOS at the intersection of Laurel Street and Ravenswood Avenue deteriorates from an unacceptable LOS E in the no-build conditions to an unacceptable LOS F in the PM peak hour with the project if the intersection configuration remains unchanged. However, the LOS would improve to an acceptable LOS C with proposed modifications. All other intersections either improve or continue to operate at the same LOS under both the Alternative A with existing configuration and Alternative A with proposed modifications compared to the no-build conditions.

Table 7 presents summary of the Alternative A arterial analysis of Ravenswood Avenue between El Camino Real and Laurel Street along the eastbound and westbound direction during both the AM and PM peak hour. The results for this segment show that this segment would be impacted the most as a result of the grade separation of Alma Street. It should be noted that the results presented in **Table 7** compare the arterial analysis results between no-build (No project) conditions, build Alternative A with existing lane configuration and build Alternative A with proposed modifications as discussed above. The results indicate that Alternative A with proposed modifications would reduce the delay and travel time for vehicles traveling along Ravenswood Avenue between El Camino Real and Middlefield Road. The corresponding LOS calculation sheets are included in *Appendix B*

Table 6: Intersection Level of Service – Alternative A Build (2040) Conditions

ID	Intersection		Control	No-Build (2040) Conditions				Alternative A Existing Configuration (2040)				Alternative A Proposed Modifications (2040)			
	North/South	East/West		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	El Camino Real	Glenwood Ave	Signal	E	65.5	D	51.8	E	65.5	D	52.3	E	65.5	D	52.1
2	El Camino Real	Oak Grove Ave	Signal	D	38.1	D	46.9	D	37.9	D	42.5	D	37.9	D	42.4
3	El Camino Real	Ravenswood Ave	Signal	D	45.9	E	75.5	D	43.9	E	55.5	D	45.1	E	57.7
4*	Alma St	Ravenswood Ave	<i>TWSC/Signal</i>	C	15.2	C	15.4	Removed under this Alternative				Removed under this Alternative			
5*	Laurel St	Glenwood Ave	AWSC/Signal	D	32.4	D	27.4	D	32.4	D	27.4	D	32.4	D	27.4
6	Laurel St	Oak Grove Ave	Signal	D	39.1	B	17.2	D	39.1	B	17.2	D	39.1	B	17.2
7	Laurel St	Ravenswood Ave	Signal	E	61.4	E	60.4	D	45.9	F	>80	C	25.7	C	31.7
8*	Middlefield Rd	Glenwood Ave	<i>TWSC/Signal</i>	F	>50	F	>50	F	>50	F	>50	F	>50	F	>50
9	Middlefield Rd	Oak Grove Ave	Signal	B	15.6	B	15.2	B	15.6	B	15.2	B	15.6	B	15.2
10	Middlefield Rd	Ravenswood Ave	Signal	E	57.9	F	>80	D	49.1	E	73.2	D	49.1	E	73.2

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

Bold text indicates deficient intersection operations.

* Due to the proposed improvements within the project limits, the control was changed from a stop to a signal under the Build conditions.

Green indicates improvement in LOS from the no-build conditions. **Red** indicates deterioration in LOS from the no-build conditions.

Table 7: Arterial Analysis Results – Alternative A Build (2040) Conditions

Direction	Scenario	AM Peak Hour			PM Peak Hour		
		Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)	Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)
No-Build Configuration							
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	290.0	413.0	6.0	237.9	379.4	7.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	37.9	67.0	13.0	53.4	85.4	10.0
Alternative A - Existing Configuration							
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	182.3	219.4	4.0	250.0	509.5	3.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	37.9	67.0	13.0	53.4	85.4	10.0
Alternative A - Proposed Modification with Right Trap Lane							
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	39.5	73.7	11.0	149.9	284.8	5.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	35.2	64.4	13.0	65.3	98.0	9.0

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. The arterial delay is measured in terms of seconds per vehicle, the arterial travel time is measured in terms of seconds, and the arterial speed is measured in terms of miles per hour.

Alternative C

Under Alternative C, as mentioned above, Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue are partially “depressed” and the Caltrain tracks are partially “elevated” respectively from the current elevation. This alternative is referred as “Hybrid” since it involves partial depression as well as partial elevation.

Initially, this alternative was analyzed with no lane configuration and signal timing changes at the study intersections on Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue. However, the analysis results indicated that some intersections would fail due to the design year 2040 traffic volumes. Therefore, in order to improve the intersection operations to an acceptable LOS D or better, the several modifications are proposed. Overall, this alternative would provide better safety, alleviate traffic congestion and improve circulation for pedestrians, cyclists and autos.

1. **Alma Street and Ravenswood Avenue** – This intersection is proposed to be a full-access intersection under this alternative. The following lists the modifications along each approach.
 - **Eastbound approach & westbound approach (Ravenswood Avenue)** - Modification from a single through, shared through/right lane to a single left-turn pocket, single through lane and single shared through/right lane on both the eastbound and westbound (Ravenswood Avenue) approaches.
 - **Northbound approach & southbound approach (Alma Street)** – Modification from a single right-in/right-out only approach to a single shared left/through/right approach on both the northbound and southbound (Alma Street) approaches.

- Signalization of the intersection.
2. **Laurel Street and Glenwood Avenue** – This intersection operates unacceptably with the current control (All-Way Stop Control) and meets the peak hour signal warrants for the year 2040. Therefore, a signal is proposed at this intersection. This intersection is within the Town of Atherton’s jurisdiction, therefore concurrence from the Town would be required and the project will continue to coordinate with the Town on this item as the project progresses.
 3. **Middlefield Road and Glenwood Avenue** – This intersection operates unacceptably with the current control (Two-Way Stop Control) and meets the peak hour signal warrants for the year 2040. Therefore, a signal is proposed at this intersection. This intersection is within the Town of Atherton’s jurisdiction, therefore concurrence from the Town would be required and the project will continue to coordinate with the Town on this item as the project progresses.

The turning movement volumes at the study intersections are presented in the *Appendix A*. The results of the LOS analysis for Alternative C are presented in **Table 8**. The results presented in **Table 8** compare the traffic operational results between no-build (No project) conditions; build Alternative C with existing lane configuration and build Alternative C with proposed modifications as discussed above. The results presented in **Table 8** are summarized as follow:

- The intersection of Alma Street and Ravenswood Avenue deteriorates from an acceptable LOS C in the no-build conditions to an unacceptable LOS F under the Alternative C with existing configuration. In order to improve the LOS, the above discussed modifications were proposed at this intersection. As a result, the LOS improved from an unacceptable LOS F in the Alternative C with existing configuration to an acceptable LOS B in the build with proposed modifications during both the AM and PM peak hours.
- Though the intersection of Laurel Street and Glenwood Avenue with the project (unchanged intersection configuration) is expected to operate at similar LOS to the no-build conditions (LOS D), road users are anticipated to experience longer delays due to the stop control. In addition, this intersection warrants a signal in the peak hour based on the design year 2040 traffic volumes. The project recommends a signal at this location. As a result of the proposed signal, the LOS improves from a LOS D under no-build conditions to LOS B or better under the Alternative C with proposed modifications.
- The intersection of Middlefield Road and Glenwood Avenue continues to operate at an unacceptable LOS F under both no-build conditions and Alternative C with existing configuration. A peak hour signal warrant analysis was conducted to determine if a signal is required. The results indicated that the peak hour signal warrants were met and thus a signal is proposed at this location. As a result, the LOS improved from an unacceptable LOS F under both the no-build conditions and Alternative C with existing configuration to an acceptable LOS B in the Alternative C with proposed modifications during both the AM and PM peak hours.

- All other intersections either operate similar or better than the no-build conditions due to the proposed changes at the above intersections.

In order to measure the project impacts more accurately, the arterial operations along Glenwood Avenue was divided into two sections for analysis. **Table 9a** presents the arterial analysis results for Glenwood Avenue between El Camino Real and Laurel Street and **Table 9b** presents the arterial analysis results for Glenwood Avenue between Laurel Street and Middlefield Road. In both **Table 9a** and **Table 9b**, the arterial results for the following four scenarios are presented:

- No-build conditions,
- Alternative C with existing configuration,
- Alternative C with proposed signal only at Laurel Street and Glenwood Avenue and
- Alternative C with proposed signals at both Laurel Street/Glenwood Avenue and Middlefield Road/Glenwood Avenue.

The results indicate that the signalization of both the intersections would provide the lowest travel time, and lowest delay along Glenwood Avenue in the year 2040.

Table 10 summarizes the Alternative C arterial analysis along the eastbound and westbound direction for Ravenswood Avenue and Oak Grove Avenue between El Camino Real and Middlefield Road during both the AM and PM peak hours. The results indicate that Alternative C with proposed modifications would provide the lowest travel time, and lowest delay to travel along Glenwood Avenue in the year 2040. The corresponding LOS calculation sheets are included in *Appendix B*

Table 8: Intersection Level of Service – Alternative C Build (2040) Conditions

ID	Intersection		Control	No-Build (2040) Conditions				Alternative C Existing Configuration (2040)				Alternative C Proposed Modifications (2040)			
	North/South	East/West		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	El Camino Real	Glenwood Ave	Signal	E	65.5	D	51.8	E	65.5	D	51.8	E	65.5	D	51.8
2	El Camino Real	Oak Grove Ave	Signal	D	38.1	D	46.9	D	38.1	D	46.8	D	38.0	D	46.8
3	El Camino Real	Ravenswood Ave	Signal	D	45.9	E	75.5	D	46.4	E	61.7	D	45.2	E	61.7
4*	Alma St	Ravenswood Ave	<i>TWSC/Signal</i>	C	15.2	C	15.4	F	>80	F	>80	B	11.0	B	11.7
5*	Laurel St	Glenwood Ave	<i>AWSC/Signal</i>	D	32.4	D	27.4	D	32.4	D	27.4	A	8.9	B	10.3
6	Laurel St	Oak Grove Ave	Signal	D	39.1	B	17.2	D	40.8	B	17.4	D	40.8	B	17.4
7	Laurel St	Ravenswood Ave	Signal	E	61.4	E	60.4	D	38.5	D	48.2	C	26.1	D	39.7
8*	Middlefield Rd	Glenwood Ave	<i>TWSC/Signal</i>	F	>50	F	>50	F	>50	F	>50	B	11.3	B	13.8
9	Middlefield Rd	Oak Grove Ave	Signal	B	15.6	B	15.2	B	15.9	B	15.2	B	15.9	B	15.2
10	Middlefield Rd	Ravenswood Ave	Signal	E	57.9	F	>80	D	51.4	E	78.6	D	51.3	E	78.6

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

Bold text indicates deficient intersection operations.

* Due to the proposed improvements within the project limits, the control was changed from a stop to a signal under the Build conditions.

Green indicates improvement in LOS from the no-build conditions. **Red** indicates deterioration in LOS from the no-build conditions.

**Table 9a: Arterial Analysis Results – Alternative C –Glenwood Avenue
 Segment between El Camino Real and Laurel Street**

Direction	Scenario	AM Peak Hour			PM Peak Hour		
		Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)	Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)
No-Build Configuration							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	25.2	59.0	14.0	42.5	76.1	11.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	200.7	296.1	4.0	82.0	111.8	7.0
Alternative C - Existing Configuration							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	19.5	53.5	15.0	14.7	48.0	17.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	175.9	402.8	4.0	55.8	85.5	10.0
Alternative C - Signal at Glenwood Ave/ Laurel Street only							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	13.1	46.3	18.0	10.4	43.7	19.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	136.7	231.6	5.0	57.0	86.7	10.0
Alternative C - Signal at Glenwood Ave/ Laurel Street and Glenwood Ave/ Middlefield Rd							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	13.7	47.3	17.0	12.2	45.3	18.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	113.7	193.2	6.0	54.4	84.4	10.0

**Table 9b: Arterial Analysis Results – Alternative C –Glenwood Avenue
 Segment between Laurel Street and Middlefield Road**

Direction	Scenario	AM Peak Hour			PM Peak Hour		
		Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)	Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)
No-Build Configuration							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	66.4	122.1	11.0	279.5	329.7	4.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	20.8	65.6	21.0	10.8	57.1	24.0
Alternative C - Existing Configuration							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	63.5	114.2	12.0	300.0	334.2	4.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	17.9	64.6	21.0	9.6	52.5	26.0
Alternative C - Signal at Glenwood Ave/ Laurel St only							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	70.0	126.6	11.0	256.5	309.1	4.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	9.9	56.0	25.0	10.8	62.7	22.0
Alternative C - Signal at Glenwood Ave/ Laurel St and Glenwood Ave/ Middlefield Rd							
<i>Eastbound</i>	<i>Glenwood Avenue</i>	24.3	74.4	19.0	38.6	95.6	14.0
<i>Westbound</i>	<i>Glenwood Avenue</i>	8.6	51.1	27.0	12.8	61.3	22.0

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour
2. The arterial delay is measured in terms of seconds per vehicle, the arterial travel time is measured in terms of seconds, and the arterial speed is measured in terms of miles per hour.

**Table 10: Arterial Analysis Results—Alternative C—Ravenswood Avenue and Oak Grove Avenue
 Segment Between El Camino Real and Middlefield Road**

Direction	Scenario	AM Peak Hour			PM Peak Hour		
		Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)	Delay (s/veh)	Travel Time (s)	Arterial Speed (mph)
No-Build Configuration							
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	290.0	413.0	6.0	237.9	379.4	7.0
	<i>Oak Grove Avenue</i>	97.3	182.5	12.0	79.1	163.1	14.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	99.6	165.3	13.0	110.6	178.8	13.0
	<i>Oak Grove Avenue</i>	294.3	373.7	6.0	97.1	171.0	13.0
Alternative C - Existing Configuration							
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	143.8	378.1	10.0	208.4	326.2	4.0
	<i>Oak Grove Avenue</i>	38.1	119.0	19.0	42.4	126.3	18.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	62.4	137.5	16.0	70.2	102.4	9.0
	<i>Oak Grove Avenue</i>	93.3	177.0	13.0	86.4	159.6	14.0
Alternative C - Proposed Modifications							
<i>Eastbound</i>	<i>Ravenswood Avenue</i>	91.6	183.1	12.0	114.6	208.1	11.0
	<i>Oak Grove Avenue</i>	38.1	119.0	19.0	42.4	126.3	18.0
<i>Westbound</i>	<i>Ravenswood Avenue</i>	56.9	137.9	16.0	110.5	197.3	11.0
	<i>Oak Grove Avenue</i>	93.3	177.0	13.0	86.4	159.6	14.0

Source: AECOM 2016

Notes:

1. AM = morning peak hour, PM = evening peak hour

2. The arterial delay is measured in terms of seconds per vehicle, the arterial travel time is measured in terms of seconds, and the arterial speed is measured in terms of miles per hour.

Conclusions

The project proposes grade separations at Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue from the at-grade railroad crossings of the Caltrain line. This is to help alleviate traffic congestion, improve the overall vehicular, pedestrian and bicycle safety and circulation.

For the traffic operational analysis, three build alternatives were considered: Alternative A, Alternative B and Alternative C. Based on the input from the City Council, Alternative B was dropped from further evaluation. The other two alternatives were analyzed for the existing and future 2040 no build and build conditions. The summary of Alternative A and Alternative C are presented below:

Alternative A:

1. Since Alma Street will be grade separated, no vehicular movement was assumed between Alma Street and Ravenswood Avenue. Therefore, traffic from Ravenswood Avenue to Alma Street and vice-versa was re-routed via Laurel Street for the traffic operational analysis.
2. The eastbound approach at the intersection of Laurel Street and Ravenswood Avenue is modified to include a 300 feet right trap lane between Noel Street and Laurel Street. Signal timing modifications are proposed as a result of the re-routing traffic from Alma Street.

As a result of the above changes, the intersections along Ravenswood Avenue would operate at acceptable LOS of level D or better compared to the no-build conditions. In addition, the proposed changes would reduce the delay and the travel time for vehicles traveling along Ravenswood Avenue between El Camino Real and Middlefield Road.

Alternative C:

1. **Alma Street and Ravenswood Avenue** – This intersection is proposed to be a full-access intersection under this alternative with the following modifications along each approach:
 - ***Eastbound approach & westbound approach (Ravenswood Avenue)*** - Modification from a single through, shared through/right lane to a single left-turn pocket, single through lane and single shared through/right lane on both the eastbound and westbound (Ravenswood Avenue) approaches.
 - ***Northbound approach & southbound approach (Alma Street)*** – Modification from a single right-in/right-out only approach to a single shared left/through/right approach on both the northbound and southbound (Alma Street) approaches.

- Signalization of the intersection.
- 2. **Laurel Street and Glenwood Avenue** – This intersection operates unacceptably with the current control (All-Way Stop Control), but meets the peak hour signal warrants for the year 2040. Therefore, a signal is proposed at this intersection
- 3. **Middlefield Road and Glenwood Avenue** – This intersection operates unacceptably with the current control (Two-Way Stop Control), but meets the peak hour signal warrants for the year 2040. Therefore, a signal is proposed at this intersection.

As a result of the above changes, the intersections along Ravenswood Avenue, Oak Grove and Glenwood Avenue that were operating at unacceptable LOS under the no-build conditions would operate at acceptable LOS of level D or better under the Build conditions. In addition, the proposed changes would reduce the delay and travel time for vehicles traveling along Ravenswood Avenue, Oak Grove Avenue and Glenwood Avenue between El Camino Real and Middlefield Road.

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June 15, 2018

[name], Mayor
City of [city name]
[address]

RE: Interest in Collaborating on a Multi-City Rail Trench/Tunnel

Dear Mayor [name],

On behalf of the City of Menlo Park, I write this letter indicating the City's interest in considering a railroad trench/tunnel alternative for the Caltrain corridor.

The City Council recently identified a preferred alternative for grade separating Ravenswood Avenue. However, as part of the Council's deliberations on grade separation alternatives, the City continues to be interested in exploring options for placing the railroad in a trench or tunnel. The Council has requested that staff prepare conceptual designs and a financing analysis for a trench/tunnel, similar to the work prepared as part of the *Connecting Palo Alto* project.

Further, the City is reaching out to neighboring cities and other mid-peninsula cities that are considering grade separations of the Caltrain line to explore collaboration opportunities on a trench/tunnel. Similar letters are being sent to the Cities of Redwood City, Atherton, Palo Alto, Mountain View and Sunnyvale. Menlo Park understands that [City name] is currently [project status, e.g., considering grade separation alternatives] at [locations]. If the City of [name] has interest in pursuing a collaborative effort for a multi-city trench/tunnel, we would like to schedule a meeting to discuss potential areas of collaboration.

For more information or any questions, please contact Angela R. Obeso, Senior Transportation Engineer at 650-330-6770 or arobeso@menlopark.org.

Sincerely,

Peter I. Ohtaki
Mayor

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DRAFT

AECOM
100 West San Fernando
San Jose, CA, 95113
aecom.com

September 10, 2018

Angela Obeso, PE
Project Manager
City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025

RE: Ravenswood Avenue Railroad Crossing Project, Extra Work Request (Amendment 3)

Dear Angela:

At the May 8, 2018 City Council meeting, Council directed that additional scope items be considered for the project. Per these City Council meeting minutes, additional scope items will include “(1) a financial assessment for a trench/tunnel and; (2) a conceptual design, noise, tree, and visual impact assessment of a fully elevated alternative.” Below is a description of the scope of work for these items (Tasks 6, 7 and 8).

SCOPE OF WORK**Task 1: Project Management**Task 1.1 Project Administration

Due the extension in the schedule and the additional scope items described below, AECOM will provide additional project management services for the period from June 2018 through March 2019. These services include:

- Coordinating with in-house design staff, subconsultants, and the City
- Conducting additional check-in conference calls
- Monitoring schedule and budget status and preparing invoices

Task 6: Tunnel Feasibility Analysis and Funding AnalysisTask 6.1 Tunnel Feasibility Analysis

AECOM will analyze the feasibility of a tunnel alternative based on a track profile that begins at two potential locations:

1. Just south of the Fifth Avenue Underpass in unincorporated San Mateo County (between Redwood City and Atherton).
2. Just south of Woodside Road in Redwood City.

The tunnel profile would conform back to existing grade between Charleston Road and San Antonio Road near the Palo Alto/Mountain View border. Note: The southern conform point is based on current, preliminary exhibits prepared by AECOM for the City of Palo Alto for their City-wide tunnel option.

The analysis will include the anticipated engineering challenges and potential mitigation measures, and logistical opportunities and issues associated with constructing a tunnel that spans through a segment of six jurisdictions (Redwood City, San Mateo County, Atherton, Menlo Park, Palo Alto and Mountain View).

The analysis will include the following topics. These will be discussed in the memorandum, described in Task 6.2, at a high-level to determine the overall feasibility of this alternative.

- Type of Tunnel (Single or Dual Bore)
- Entry/Exit Portal Locations
- Construction Impacts (Including anticipated station and/or road closures during construction)
- Right-of-Way and Utility Impacts (Including anticipated temporary construction easements)
- Drainage (Including impacts to major channels/creeks)
- Groundwater and Geotechnical Issues
- Final Station and Roadway Configurations
- Long-term Maintenance

Task 6.2 Tunnel Feasibility Analysis Memorandum

AECOM will develop a memorandum summarizing the items described in Task 6.1. The memorandum will include a description of the tunnel alternative with a schematic plan, profile and typical section.

AECOM will also prepare an order-of-magnitude cost estimate of the tunnel concept, including the approximate cost within the City of Menlo Park only.

Task 6.3 Tunnel Funding Analysis

As a follow up to Tasks 6.1 and 6.2, AECOM will identify and evaluate potential funding resources and financing mechanisms applicable to the tunnel alternative. The funding analysis will develop a high-level overview and assessment of the project funding and financing opportunities. The purpose of the analysis will be to provide a comprehensive overview and understanding of potential funding availability and constraints sufficient for an initial assessment of the project's financial feasibility.

The analysis will be primarily focus on identifying approaches and assessing their potential for funding the construction of the Menlo Park segment of the project. However, AECOM will also provide a high-level characterization of the complete project's funding needs, constraints and options with an assessment of its funding potential and viability from a corridor-wide perspective.

AECOM will identify funding options from local sources (e.g. fee/tax measures and value capture mechanisms if applicable), regional/state sources (e.g. San Mateo County Transportation Authority (SMCTA) Measure A and California High Speed Rail Authority) and federal programs (e.g. BUILD grants). AECOM will analyze the following key evaluation factors for each funding source under consideration:

- Summary description;
- Applicability and restrictions;
- Implementability and qualification requirements;
- Approval process and authorizing agencies;
- Extent, type and scheduling of obtained funding; and
- Overall viability, key risk and success factors.

AECOM will work with Caltrain and the City staff to determine the land-use opportunities and development constraints on the property above the tunnel segment within Caltrain's right-of-way. If possible, some illustrative case studies may be used for informative purposes. Based on this research and analysis, AECOM will evaluate the properties' development potential and resulting capacity for revenue generation and project funding contribution.

Task 6.4 Tunnel Funding Analysis Memorandum

The funding analysis findings and recommendations will be documented in a "White Paper" format suitable for internal use and public distribution. AECOM will provide a short-list of the funding sources considered to be most promising and viable with recommendations on next steps and further investigation.

Note that at this initial stage, detailed financial feasibility analysis of the project or specific funding sources is not recommended and is not proposed under this task. The financial calculations and projections performed for the funding analysis will be based on readily available data and standard assumptions (e.g. local property values, bond/loan terms, investor rate of return requirements, economic and land use projections/trends etc.).

Task 7: Fully Elevated Alternative Analysis

Task 7.1 Preliminary Engineering

AECOM will develop preliminary engineering for a fully elevated alternative. The track profile limits will begin just south of Encinal Avenue and end just north of San Francisquito Creek. This task will include the following:

- Engineering (track and road profiles, shoofly track alignment, etc.) to define the limits of construction and approximate quantities to complete an order-of-magnitude cost estimate.
- Utility and Right-of-Way impacts.
- Preliminary cost estimate (using a similar format that was used for Alternatives A & C).
- A track profile analysis to determine the maximum grade needed to provide sufficient elevation to avoid roadway excavation at Glenwood Avenue (span completely over the street); while simultaneously avoiding impact to Encinal Avenue.

Task 7.2 Meetings

AECOM will attend and prepare PowerPoint slides for up to four (4) separate meetings; City Council (1), Rail Subcommittee (1), Planning Commission (1) and the Complete Streets Commission (1).

Task 7.3 Renderings

AECOM will prepare still image, 3D CAD renderings from up to three (3) vantage points.

Task 7.4 Technical Memorandum

AECOM will prepare a Technical Memorandum to summarize the items prepared as part of Task 7.1 and 7.3.

Task 8: Noise Study

AECOM will evaluate how each of the five proposed alternatives, noted below, would affect noise levels; both on a single event (pass-by) basis as well as average daily exposure (such as day-night noise level, L_{dn}) which would likely be used to assess environmental noise impacts as per Federal Transit Administration (FTA) noise impact criteria.

The study will include a round of noise measurements describing single event and daily noise exposure for existing conditions. The study will also include prediction of expected changes in noise level (single event and daily exposure) for the different alternatives. The alternatives to be studied are as follows:

- i. Existing (Baseline) Condition (No Build)
- ii. Alternative A
- iii. Alternative C
- iv. Alternative D – Fully elevated with three grade separations
- v. Alternative E – Multi-city, corridor-wide tunnel

Task 8.1 Review Project information

The AECOM noise team will review provided and relevant project information. At the conclusion of this review, the noise team will develop a data request to the City and/or Caltrain, for any additionally required information.

Task 8.2 Site Visit and Noise Measurements

Two AECOM noise specialists will visit the project area and conduct a series of long-and short-term measurements of current existing conditions. The long-term measurements will run for at least 24 hours at two different locations in the noise study area, and short-term measurements will be conducted for a shorter duration (typically 15-30 minutes each) to document ambient conditions and individual train events at another 4 to 8 locations representing a variety of noise-sensitive land uses throughout the study area. The noise team will also carefully identify and document other existing noise sources present as well as buildings, topography and other features that could influence acoustical propagation in the study area.

Depending on the preliminary tunnel concepts to be evaluated under Alternative E (Tunnel), some noise measurements may also be conducted at other locations outside of the study area to characterize noise sources associated with that alternative (such as passive tunnel vent shafts, or powered ventilation fan stations which may be identified on similar rail tunnels elsewhere).

Task 8.3 Analyze Noise Measurement Data

The noise measurement data will be analyzed and developed into charts and tables to represent the varying noise environment over the course of the day at each of the measurement locations as well as detailed noise levels for individual train events identifying individual contributions from train cars, locomotives and horn soundings on a per event basis (to the degree possible).

Task 8.4 Conduct FTA and CadnaA Noise Modeling

AECOM will conduct an FTA style spreadsheet analysis to predict and compare project related 24-hour (L_{dn}) noise levels consistent with methods described in the FTA Transit Noise and Vibration Impact Assessment Manual (FTA VA-90-1003-06), general noise assessment method, at up to 20 different point locations representing noise sensitive locations within the project area. The noise team will also develop more detailed noise models using the CadnaA noise model platform to produce noise contour data for typical maximum noise levels for each alternative.

Task 8.5 Develop Draft Noise Technical Memorandum

AECOM will prepare a technical noise memorandum reporting the methodology, results and conclusions of Tasks 8.1 to 8.4.

Task 8.6 Develop Final Noise Technical Memorandum

AECOM will provide responses to one set of agency comments and prepare a final technical memorandum.

DELIVERABLES LIST

The following deliverables will be provided as part of this extra work:

- Draft & Final Tunnel Feasibility Analysis
- Draft & Final Tunnel Funding Analysis
- Draft & Final Technical Memorandum of Viaduct Alternative Analysis
- Draft & Final Noise Technical Memorandum

FEE ESTIMATE

A detailed level of effort per task for this Extra Work (Amendment 3) is provided as an attachment.

We look forward to working with the City to complete these additional tasks. If you have any questions, please contact Millette Litzinger at 408.961.8417 or millette.litzinger@aecom.com.

Yours sincerely,

AECOM Technical Services, Inc.

Millette Litzinger, PE
Deputy Project Manager

Etty Mercurio, PE
Vice President

Attachments

DRAFT

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STAFF REPORT

City Council

Meeting Date: 12/4/2018
Staff Report Number: 18-229-CC

Informational Item: Quarterly update on the 2018 City Council work plan

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

It has been the City Council's policy to adopt its work plan annually. Any policy issues that may arise from the implementation of individual work plan items will be considered at that time.

Background

On January 29, 2018, the City Council held a special meeting at the Arrillaga Family Recreation Center to discuss and identify the work plan items for the year. The City Council, staff, and members of the public used the meeting to consider the work plan items and realistic outcomes for the calendar year. As part of their process of evaluating the work plan, the City Council prioritized six projects as those the City Council desires significant progress, if not completed by the end of the calendar year.

On February 6, 2018, the City Council approved the work plan developed in the special meeting January 29. After the City Council's discussion February 6, the City Council took action March 15, 2018, to include additions desired by the City Council. Not every work plan item is scheduled to be complete in 2018; instead, the work plan provides goals and milestones anticipated in 2018.

Analysis

The City Council work plan includes 59 projects, which fall under two categories:

- Six priority projects
- Fifty-three additional projects

The priority projects take the highest precedence, and when needed, resources would be shifted from the remaining and ongoing work plan (Attachment A) to ensure completion of the priority projects as needed.

This quarterly report includes status updates on individual work plan items.

Below is a short description for each of the six priority projects.

District elections – complete

Menlo Park transitioned to a by-district election system effective for the November 2018 City Council election. On April 17, 2018, the City Council introduced Ordinance No. 1044 to implement by-district elections, including the election sequencing and approval of the district boundaries map. General Municipal Election were held November 6, 2018. This initiative is considered complete.

Transportation Master Plan

The Transportation Master Plan provides a bridge between the policy framework adopted within the circulation element and project level efforts to modify the transportation network within Menlo Park. The plan, when completed, would provide a detailed vision, set goals and performance metrics for network performance, and outline an implementation strategy for both improvements to be implemented locally and for local contributions toward regional improvements.

The City Council reviewed an informational item October 23, 2018 providing an update on the meetings held to date the upcoming meeting of the Outreach and Oversight Committee December 6, 2018. A community workshop and online open house is targeted for early 2019, resulting in the release of the Draft Transportation Master Plan in spring 2019.

Citywide Safe Routes to School Program (Non-infrastructure)

Safe Routes to School typically encompasses six program elements: education, encouragement, enforcement, equity, engineering and evaluation (6 E's.) The development of a Safe Routes to Schools program would establish a partnership between the City, local schools and parent groups to ensure issues that discourage students from walking and bicycling to school are addressed. This program would establish a stakeholder group to work collaboratively on Safe Routes issues and solutions, develop incentive and encouragement programs, and outline the framework to build and sustain the program over time.

Stakeholder and community meetings were held November 12 and 13, 2018. An information item providing a more detailed update is being prepared for the December 4, 2018 City Council meeting.

Implement Downtown/El Camino Real Specific Plan biennial review

Commence the Downtown/El Camino Real Specific Plan biennial review and initiate associated amendments.

Staff provided a summary of the study sessions to local school district and fire district staff and has held meetings with those entities and received their input on potential plan modifications (including modifying development caps.) Staff will return to the City Council and Planning Commission in the first quarter of 2019 with recommended plan revisions, a scope of work, a proposed timeline and next steps. Consideration will need to be given as to the prioritization of the Specific Plan or the Downtown Parking Structure projects in 2019, both of which will require Specific Plan amendments.

Downtown parking structure

Following a community meeting and City Council study session held in the second quarter, the City Council appointed Councilmembers Mueller and Carlton to a subcommittee to further study the potential location and use(s) to be located in a parking structure. The subcommittee held their first meeting in July

and reviewed potential parking plazas that could accommodate a parking structure, current Specific Plan/zoning requirements, proposed land uses other than parking that could be included, potential financing mechanisms and staffing resources for the project. Next steps include analyzing construction on two parking plazas (1 & 3) and constructing different land uses and parking on each plaza. Plaza 1 could be an entertainment use/parking and Plaza 3 could accommodate market rate/affordable housing and parking.

Given staff vacancies in the Housing and Economic Development Division and the City Manager's Office, a follow-up subcommittee meeting has not yet been scheduled. With those vacancies likely to be filled in 2019, staff will seek direction from the City Council in the first quarter of 2019 as to next steps for this project and its coordination/prioritization with the above Specific Plan work item.

The Guild Theatre – complete

This project's priority goal was to complete the approval of the necessary entitlements for a proposed reuse of the Guild Theatre.

The project was approved by both the Planning Commission and City Council in the second quarter. The applicant is in the process of formulating construction plans for the development and plans to submit for City review in early fourth quarter and would likely begin construction in early 2019.

The quarterly update for the City Council work plan is attached as Attachment A.


Attachments

A. 2018 City Council work plan quarterly update

Report prepared by:


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Priority Projects (as approved on February 6, 2018) Project	Lead Department	Supporting Departments	4th Quarter Update
District Elections 	City Manager's Office	-	-
Transportation Master Plan	Public Works	City Manager's Office, Community Development, Police	The City Council reviewed an informational item on October 23, 2018 providing an update on the meetings held to date the upcoming meeting of the Outreach and Oversight Committee on December 6, 2018. A community workshop and online open house is targeted for early 2019, resulting in the release of the Draft Transportation Master Plan in Spring 2019.
Citywide Safe Routes to School Program (Non-infrastructure)	Public Works	Police	Stakeholder and community meetings were held on November 12 and 13, 2018. An information item providing a more detailed update is being prepared for the December 4, 2018 City Council meeting.
Implement Downtown/EI Camino Real Specific Plan Biennial Review	Community Development	City Manager's Office, Public Works	Staff has provided a summary of the study sessions to local school district and fire district staff and has held meetings with those entities and received their input on potential plan modifications (including modifying development caps). Staff will return to the City Council and Planning Commission in the 1st Quarter of 2019 with recommended plan revisions, a scope of work, a proposed timeline and next steps. Consideration will need to be given as to the prioritization of the Specific Plan or the Downtown Parking Structure projects in 2019, both of which will require Specific Plan amendments.

Priority Projects (as approved on February 6, 2018) Project	Lead Department	Supporting Departments	4th Quarter Update
Downtown Parking Structure	Community Development	Administrative Services, Public Works	Given staff vacancies in the Housing and Economic Development Division and the City Manager's Office, a follow-up subcommittee has not yet been scheduled. With those vacancies likely to be filled in 2019, staff will seek direction from the City Council in the 1st Quarter of 2019 as to next steps for this project and its coordination/prioritization with the above Specific Plan work item.
The Guild Theatre - Land Use Entitlement Approval 	Community Development	City Manager's Office, Public Works	The project was approved by both the Planning Commission and City Council in the 2nd Quarter. The applicant is in the process of formulating construction plans for the development and plans to submit for City review in early 4th Quarter and would likely begin construction in early 2019.

*2/6 Workplan Staff Report: menlopark.org/DocumentCenter/View/16607

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Responding to the development needs of private residential and commercial property owners			
Enhanced Housing Program	Community Development	City Attorney's Office	The Housing Commission has submitted its final recommendation on the Tenant Relocation Assistance ordinance for City Council consideration in early 2019. The Commission will also present an updated list of housing priorities for the City Council to review in Spring 2019.
Revisions to the 2016 California Green Building Standards Code for Electric Vehicle Chargers	Community Development	City Manager's Office	The revisions were adopted by the City Council on October 23, 2018. The ordinances became effective on November 23, 2018.
Single Family Residential Requirements and Guidelines	Community Development	-	No work completed; staffing resources allocated to current and long range planning projects.
Stanford University 2018 General Use Permit Review	Public Works	Community Development, City Attorney's Office	Stanford is pursuing a Development Agreement with Santa Clara County. The first community outreach meeting on potential community benefits is scheduled for November 29, 2018. The Final EIR is scheduled for release in December 2018.
Attracting thoughtful and innovative private investment to Menlo Park			
Downtown Streetscape Improvement Project (Specific Plan)	Public Works	Community Development	One of the two restaurants that initially expressed interest are interested again. Next steps will be evaluated early in 2019.
Furthering efficiency in city service delivery models			
Cost allocation plan and user fee study 	Administrative Services	All other departments	Master fee schedule revisions adopted by City Council and fees implemented effective July 1, 2018.
Development of a Citywide Communications Program	City Manager's Office	All other departments	Consultant's report is expected to be completed in early January and presented to the City Council in February 2019.

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Information Technology Master Plan Implementation	Administrative Services	Community Development, Public Works	Implementation of the new land management system project in progress. Public Works asset management product selection and GIS application upgrade in progress. Network infrastructure enhancements continue.
Organizational Study of the Public Works Department	City Manager's Office	Public Works	Consultants have completed initial staff interviews and data collection. They have completed focus groups and an online survey of development applicants. A department profile has been compiled. The consultants are in the process of identifying issues and best practices. The report should be completed in the first quarter of 2019.
Organizational Study of the Community Development Department	City Manager's Office	Community Development, Public Works	Consultants have completed initial staff interviews and data collection. A department profile has been compiled. The consultants are in the process of identifying issues and best practices. The report should be completed in the first quarter of 2019.
Charter City Initiative 	City Attorney's Office	City Manager's Office	The City Council agreed to bring the yes-or-no question to city voters in November: "Shall the charter be adopted making the City of Menlo Park a charter city so that the laws of the City of Menlo Park shall prevail over state law only with respect to two municipal affairs: elections and term limits?"
Employee Engagement/Organizational Development 	Administrative Services	All other departments	Action plan complete; first phase of implementation began July 1, 2018. Project lead transitioned from City Manager's Office to Administrative Services.
West Menlo Triangle Annexation (Subcommittee - information gathering)	City Manager's Office	Community Development, Public Works	On hold pending direction from Council Subcommittee

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Improving Menlo Park's multimodal transportation system to move people and goods through Menlo Park more efficiently			
Haven Avenue Streetscape Improvement	Public Works	-	Staff is continuing to identify a funding and phasing strategy to complete work in the Caltrans right-of-way.
Create Transportation Management Association	Public Works	City Manager's Office, Community Development	Staff is finalizing a request for proposals for consultant assistance. The current target for releasing the RFP is early 2019.
High Speed Rail coordination and environmental review	Public Works	City Manager's Office, Outside Legal Counsel	The 2018 Business Plan anticipates a draft environmental document to be released in early 2020. Staff is also tracking the upcoming release of the Caltrain Business Plan.
Oak Grove, University, Crane Bicycle Improvement Project	Public Works	-	Council approved the permanent installation on November 13, 2018 with direction to continue monitoring at certain locations.
Willows Neighborhood Complete Streets	Public Works	Police	On hold due to staff vacancies.
El Camino Real Corridor Study	Public Works	-	On hold due to staff vacancies.
Middlefield Rd/Ravenswood and Ringwood Avenues Traffic Signals Modification	Public Works	-	On hold due to staff vacancies.
Willow Road/U.S. 101 Interchange	Public Works	Police	Staff continues to coordinate with Caltrans as construction continues. The weekend closure occurred in early October and the new ramp alignments are in use. Roadway construction is on track for completion by Summer 2019.
Chilco Streetscape and Sidewalk Installation	Public Works	Community Development	Design for sidewalks, bicycle lanes and new landscaping are being finalized.

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Ravenswood Avenue/Caltrain Grade Separation Study	Public Works	-	On December 4, 2018, the Council will receive an information item including the Draft Project Study Report identifying the Ravenswood Avenue Underpass as the preferred alternative and a draft scope of work for additional studies.
Middle Avenue Caltrain Crossing Study	Public Works	Community Development	On hold pending completion of the Ravenswood Avenue/Caltrain Grade Separation Study.
Maintaining and enhancing Menlo Park's municipal infrastructure and facilities			
Arrillaga Family Recreation Center HVAC System Upgrade	Public Works	Community Services	On hold due to staff vacancies.
Burgess Pool Capital Improvements	Public Works	Community Services	Project prioritization is underway.
Gatehouse Fence Replacement	Public Works	-	On hold pending City Council direction on the Main Library
Facilities Maintenance Master Plan	Public Works	Community Services	On hold due to staff vacancies.
Reservoir Reroof and Mixers	Public Works	-	Staff issued a RFP to select a firm to complete the design of the reroof. Award of contract is tentatively scheduled for early 2019.
Library Landscaping ✓	Public Works	Library	The landscaping improvements near the Library have been completed.
Water System Master Plan ✓	Public Works	Administrative Services	The Water System Master Plan has been completed.
Chrysler Pump Station Improvements	Public Works	-	Staff is pursuing grant opportunities to close the funding gap and is exploring other funding options including a community facilities district.
San Francisquito Creek Upstream of 101 Flood Protection Project	Public Works	City Manager's Office	Staff coordinating with SFCJPA partners on bridge design. Draft EIR targeted for release in early 2019.

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Emergency Water Supply	Public Works	-	Construction of the above ground equipment at the Corp Yard is scheduled to begin in Spring 2019. Staff is continuing to explore options for the location of a second well.
Providing high-quality resident enrichment, recreation, and discovery			
Parks and Recreation Facilities Master Plan Update	Community Services	Administrative Services, Public Works, City Manager's Office	On October 18, 2018 the City hosted an Oversight and Outreach Group Community Workshop to present the preliminary findings and receive input on park amenities, recreation opportunities, teen spaces, and improvement of the Belle Haven Campus (Onetta Harris Community Center, Senior Center). A community intercept activity is scheduled for December 6, 2018 at the Onetta Harris Community Center.
Park Playground Equipment	Public Works	Community Services	On October 10, 2018 the City hosted a community meeting at Little House to receive feedback on the proposed playground at Nealon Park.
Jack Lyle Park Restroom	Public Works	Community Services	The restroom has been installed. The expected project completion date is early 2019.
Willow Oaks Park Improvements	Public Works	Community Services	On hold due to staff vacancies.
Burgess Park Snack Shack	Community Services	Community Development, Public Works	On hold due to staff vacancies.
Equity in Education Joint Powers Authority	City Manager's Office	-	On hold due to staff vacancies.
Minimum Wage Ordinance	City Manager's Office		On hold due to staff vacancies.

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Realizing Menlo Park's vision of environmental leadership and sustainability			
Green Infrastructure Plan	Public Works	City Manager's Office, Community Development	Plan preparation is underway and is schedule to be completed in July 2019 in compliance with mandated deadline.
Update the Heritage Tree Ordinance	City Manager's Office	Community Development, Public Works, City Attorney	Phase I analysis will be complete January 2019. Phase II analysis to be completed by Summer 2019 with preferred option presented to the City Council in 2019.
Community Zero Waste Plan Implementation	City Manager's Office	Administrative Services, Community Development, Public Works	Continuing work to develop guidelines and criteria to meet the zero waste requirements in the ConnectMenlo neighborhood (General Plan). Expected implementation February 2019. Developed RFP for converting drinking fountains to hydration stations.
Planned 2018-19 Capital Improvement Projects			
Bayfront Canal and Atherton Channel Flood Protection	Public Works	-	Staff continues to coordinate with the County on project design and permitting. Future actions including identifying necessary funding and maintenance responsibilities.
Downtown Utility Undergrounding	Public Works	City Manager's Office	On hold due to staff vacancies.

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Welcome to Menlo Park Monument Signs	Public Works	City Manager's Office	Initial research was conducted to better understand the range of options for consideration in order to prepare a request for qualifications/proposals for design services.
Climate Change Resiliency Plan	Public Works	City Manager's Office	On hold due to staff vacancies.
Santa Cruz and Middle Avenues Resurfacing	Public Works	-	Grant funding delayed until late 2019; therefore, work now scheduled to occur during summer 2020. Preparation of design and grant requirement compliance continues. City Council direction regarding design parameters such as on-street parking and bike lanes is expected to occur in early 2019 in order to meet grant funding timeframe.
Oak Grove Safe Routes to School and Green Infrastructure	Public Works	-	On November 13, 2018, the City Council adopted a resolution to prohibit weekday parking along the frontage of Vallombrosa between Nativity Church and Nativity School. As such, staff is pursuing a design consistent with that direction which will include a new sidewalk and green infrastructure for storm water treatment. Construction is targeted for Summer 2019.
Bayfront Expressway, Willow Road and Marsh Road Adaptive Signal Timing	Public Works	-	Staff is working with the consultant and Caltrans to implement the project in phases. Phase one includes time of day updates to the signals that are currently under review by Caltrans. Phase two includes the adaptive technology, which would be implemented upon the completion of the Willow Road/U.S. 101 interchange project to incorporate the two new traffic signals.

2018 Remaining Work Plan Updates	Lead Department	Supporting Department(s)	4th Quarter Update
Library System Improvements			
Belle Haven Branch Library Improvements	City Manager's Office	Library, Administrative Services, Community Development, Public Works	Neighborhood Library Needs Assessment approved by City Council. Space Needs assessment underway; focus groups to be held November 26 & 27, Community Meeting scheduled for December 13, Library Commission Study Session scheduled for January 28, 2019, and City Council Study Session tentatively set for March 2019. Stakeholder input to be gathered by interviews and survey through February 2019.
Main Library Improvements	City Manager's Office	Library, Administrative Services, Community Development, Public Works	Main Library project paused pending new City Council direction anticipated in early 2019.