City of Piedmont
CITY COUNCIL AGENDA REPORT

DATE: October 6, 2025

TO: City Council

FROM: Rosanna Bayon Moore, City Administrator

SUBJECT: Public Hearing - Consideration of a Resolution Approving an Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report and the Moraga Canyon Specific Plan; Introduction and First Reading of Ordinance 784 N.S. Amending City Code Chapter 17, Divisions 17.22 and 17.21, and Conforming Revisions

RECOMMENDATION

1. Adopt the attached Resolution (Attachment A) approving an Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report and the draft Moraga Canyon Specific Plan (draft MCSP) in that the draft MCSP addresses the goals of Housing Element Program 1.L and the City Council's March 18, 2024, direction to staff.

2. Approve the introduction and 1st reading of the attached Ordinance 784 N.S. amending City Code Chapter 17, Planning and Land Use, division 17.22, Zone B: Public Facilities, and division 17.24, Zone C: Multi-Family Residential, and conforming revisions.

EXECUTIVE SUMMARY

This staff report provides information about the Moraga Canyon Specific Plan (MCSP) to assist the City Council in taking action with respect to: (1) the MCSP (inclusive of several Planning Commission-recommended and staff-recommended revisions); (2) the Addendum to the EIR; and (3) the conforming amendments to the Piedmont City Code as reflected in proposed Ordinance 784 N.S.

Piedmont's 6th Cycle Housing Element is Program 1.L requires the preparation of a specific plan for City-owned parcels that total 19.74 acres in the Moraga Canyon area, plus the Moraga Avenue roadway that intersects them ("Study Area"). As provided in Attachment C, the Housing Element and Program 1.L provide for planning for the development of housing and the community infrastructure that supports the residents of new and existing homes. In a specific plan, the City is not committing to approving any specific project or to dedicating financial resources beyond the cost of MCSP preparation. Rather, the MCSP sets the framework (i.e., land use policies, development standards, processes) by which improvements to public facilities and development of housing would occur within the context of adjacent uses, the surrounding community, and Piedmont as a whole.

After a series of public engagement events and a series of study sessions commencing in Summer of 2023, the City Council directed staff and the City's consultant team, JZMK Partners, to prepare a Draft Moraga Canyon Specific Plan, which includes two options for the potential siting of multifamily housing contemplated by the Housing Element: on the south side of Moraga Avenue (Option A) and on the north side of Moraga Avenue (Option B).

On September 8, 2025, the Planning Commission considered the Addendum to the Housing Element Implementation Environmental Impact Report ("EIR") , the draft MCSP, and the proposed conforming revisions to the City Code, and made a recommendation for the City Council to adopt the Addendum to the EIR, approve the draft MCSP, and approving amendments to the City Code.

The Planning Commission resolutions and meeting minutes are included as Attachment F.

BACKGROUND

The Piedmont Housing Element and Program 1.L call for the development of housing and the community infrastructure that supports and benefits the residents of new and existing homes. In the draft MCSP, the City is not committing to approving any specific project or to dedicating financial resources. Rather, the MCSP sets the framework (i.e., land use policies, development standards, processes) by which improvements to public facilities and the development of housing would occur within the context of adjacent uses and the surrounding community.

Work on the MCSP began in the Summer of 2023. On March 18, 2024 after a series of public engagement events and a series of study sessions (outlined in section 1.7, page 7 of the MCSP), the City Council directed staff and the City's consultant team to prepare a draft Moraga Canyon Specific Plan with two options for the siting of the multifamily housing: on the south side of Moraga Avenue (Option A); and on the north side of Moraga Avenue (Option B). The City Council also clarified priorities related to the number of housing units, recreation uses, and phasing, as well as other Specific Plan approaches. At the conclusion of the March 18, 2025 meeting, the City Council reached consensus and provided the following direction for the preparation of a Draft Moraga Specific Plan:

- Exclude site plan options determined to be infeasible on March 1, 2024;
- Include site plan options 1 and 3 (MCSP options A and B) to provide flexibility to potential developers to choose a plan that optimizes the development of housing and community benefits, including improvements to the Moraga Avenue roadway;
- Explore increasing the number of market-rate units, currently at 72, to up to 139 in order to better fund community amenities;
- Eliminate a skating facility as a goal of the plan, and instead seek the development of other community facilities, such as a dog park, a playground, or a pickleball court; and
- Include the community benefits of an under-14 soccer field, youth baseball/softball field, batting cages, artificial field turf, and ballfield seating.

The Planning Commission held study sessions on the following chapters of the preliminary, administrative draft MCSP at public meetings held in August, September, and October 2024:

- Chapter 7, Architectural Styles (August 12, 2024);

- Chapter 3, Development Regulations, Chapter 4, Circulation and Multi-Modal Complete Streets, Chapter 5, Site Design, and Chapter 6, Building Design (September 23, 2024); and
- Chapter 8, Landscape Design, and Chapter 9, Public Utilities (October 14, 2024).

The draft MCSP was completed and posted for public review on the City of Piedmont website and in the City Hall public lobby on April 18, 2025.

The City Council held study sessions on the draft MCSP on April 28, 2025, and April 30, 2025, to receive public comments and to facilitate an understanding of the content through a series of questions and responses. Study session materials are available on the Moraga Canyon Specific Plan webpage on the City website at the following link: https://piedmont.ca.gov/services___departments/planning___building/general_plan___other_policy_documents/moraga_canyon_specific_plan

On June 4, 2025, the Park Commission considered the draft MCSP and recommended to the City Council approval of the park and right-of-way aspects of the MCSP. Meeting video is available on the City website at the following link: https://piedmont.granicus.com/player/clip/3074?view_id=9&redirect=true

On June 18, 2025, the Recreation Commission considered the draft MCSP and recommended to the City Council approval of the recreation-related aspects of the MCSP. Meeting video is available on the City website at the following link: https://piedmont.granicus.com/player/clip/3078?view_id=9&redirect=true

On August 11, 2024, the Planning Commission held a study session on the draft MCSP at a regular meeting of the Commission, received a report by staff and the consultant team led by JZMK Partners, and received public testimony. Members of the public addressed the Planning Commission and gave statements concerning the architectural design requirements, and impacts to the Moraga Avenue roadway and to emergency access and preparedness.

On August 21, 2025, the Planning & Building Department held an open house on the topics of the MCSP and other City initiatives.

On September 8, 2025, the Planning Commission held a public hearing on the draft MCSP at a regular meeting of the Commission, received a report by staff and the consultant team led by JZMK Partners, and received public testimony including written correspondence and verbal remarks. Members of the public addressed the Planning Commission and gave statements concerning the architectural design requirements, and impacts to the Moraga Avenue roadway and to emergency access and preparedness. At the conclusion of the agenda item, the Planning Commission recommended City Council approval of the Addendum to the EIR, the draft MCSP with seven (7) changes (discussed below), and the proposed amendments to Chapter 17 of the City Code. Draft meeting minutes are included as Attachment F, and the meeting video is available on the City website at the following link: Video Written correspondence is provided as Attachment G.

PUBLIC ENGAGEMENT

The MCSP is the result of robust engagement with the greater Piedmont community that began in

September 2023. Public engagement included:

- a community survey
- a neighborhood meeting
- two Park Commission meetings
- two Recreation Commission meetings
- a community workshop
- public engagement at the City's Harvest Festival, Food Fest and a Planning & Building Department open house
- informational videos
- monthly Planning & Building enewsletters, and the citywide enewsletters
- five study sessions and one regular meeting and public hearing of the Planning Commission, and
- four study sessions and one regular meeting of the City Council.

One result of this high level of public engagement and public participation is over 70 written comments, as well as verbal remarks provided by members of the public at study sessions and public meetings. Written correspondence is summarized as of the time of agenda publication and included in this staff report as Attachment G. Changes to the MCSP suggested by members of the public are discussed in the section of this staff report entitled Discussion, below.

DISCUSSION

The draft MCSP sets out goals and standards for land development on publicly owned land within the Study Area, including real property, subdivisions, lot building restrictions, planning and zoning matters, matters affecting the design and aesthetics of buildings, structures and other improvements, and methods of encouraging and promoting good design.

The City Council committed to the preparation of the MCSP as required by the City's Housing Element, and directed staff to incorporate options to provide potential developers with flexibility to optimize housing production and community benefits on City-owned land in Moraga Canyon, including Moraga Avenue roadway improvements. The Planning Commission reviewed the provisions in the MCSP related to City property and land use planning and made a recommendation to the City Council. The attached Planning Commission resolution (included in Attachment F) provides a recommendation to the City Council related to the draft MCSP's conformance with Housing Element Program 1.L and City Council direction.

The MCSP's Consistency with Program 1.L of the Housing Element

A key consideration before the Council is determining whether the MCSP conforms to the goals set forth in Program 1.L of the Housing Element. Draft resolution A includes findings that the proposed MCSP is consistent with the Piedmont General Plan and Housing Element. The table below provides the MCSP's conformance with each of the Housing Element Program 1.L goals and references the chapter or section of the MCSP that addresses the particular goal.

	Program 1.L Goal	How Draft Moraga Canyon Specific Plan Achieves 1.L Goals
1.	Prepare a specific plan using the specific plan process outlined in Government Code §65450 et seq. This process requires the orderly development of the area, including the following: phasing; subdivision; adequate infrastructure; identification of financing; protection of amenities and City facilities; and production of affordable housing.	The City drafted the MCSP in conformance with Government Code §65450 and related sections. Chapters 1 to 10 address phasing, subdivision, adequate infrastructure, identification of funding and financing, protection of amenities and City facilities, and production of affordable housing. City consulted with Native American tribes in accordance with SB 18 during the MCSP preparation.
2.	Enable construction of housing at a minimum of 132 units, on portions of the site, totaling approximately 3.5 acres of land, yielding a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI) and a minimum of 72 units affordable to households earning more than 80 percent of the AMI.	The MCSP anticipates development of 132 to 199 new housing units, 60 of which will be affordable to households earning low, very low, and extremely low incomes, as well as the improvements, utilities, infrastructure, and funding necessary to achieve this goal.
3.	In addition, specific plan goals include improved safety. New habitable structures shall be built to meet Fire Code requirements for Wildland Urban Interface Areas.	MCSP Chapter 10, Section 10.5.7.7, outlines fire safe design standards.
4.	The specific plan must include replacement and/or modernization of existing Public Works Department facilities, offices, storage areas, vehicle storage areas, etc., so that service capacity is maintained or increased, and so that the facilities meet current Building and Fire Code requirements.	MCSP Chapters 2, 3, and 10 outline the process for replacing and/or modernizing the Public Works Corporation Yard.
5.	The specific plan must include recreation facilities, including but not limited to an under-14 soccer field, youth baseball/softball field, batting cages, artificial field turf, ballfield seating, a skate spot, a picnic area, and parking for these facilities.	MCSP Chapters 2, 4, 9, and 10 outline standards for facilities for public recreation (MCSP sections 2.3, 2.5, 3.11, 3.12.3, 4.6, 9.5 and 10.3)
6.	The specific plan must provide all public utilities to new housing and all City facilities to be constructed within the specific plan area in a manner consistent with public safety standards and Piedmont Climate Action Plan goals and programs.	MCSP Chapters 9 and 10 outline the process of how utilities will be provided to housing and other development in the MCSP area.
7.	The specific plan must include improvements to pedestrian and vehicular circulation, as determined necessary by the City Engineer, to provide safe pedestrian, bicycle, and motor vehicle movements, ensure safe evacuation routes, and provide optimal emergency response.	MCSP Chapters 4 and 10 outline the process for improving the safety of Moraga Avenue and the steps for implementing the improvements, including pedestrian, bicycle, motor vehicle, evacuation, and emergency access improvements.

8.	The goals of the specific plan include a comprehensive landscape plan for areas planned for development. The landscape plan shall prioritize to the extent practicable: fire safety and the preservation of significant open space, scenic views, and native and heritage trees.	MCSP Chapters 2, 3, 4 and 8 outline the standards for preservation of open space, scenic views, native and heritage trees, and fire safety. • Preservation of significant open space (MCSP sections 2.3, 2.5, 3.11 and 3.12.3) Right-of-way landscape facilities (MCSP section 4.14) • Native and heritage trees (MCSP section 3.9) • Landscaping on multifamily development and general development (MCSP Chapter 8)
9.	Density in the plan area will be determined at the time of plan development and could range from 40 to 60 dwelling units per acre, including housing for seniors, disabled persons, single-parents, low-income families, and/or people requiring supportive services. If it is determined that it is infeasible to develop this site during the planning process, the City will consider utilizing other City-owned properties as alternative sites.	MCSP Chapter 3, Section 3.4 and 3.11, states that the Moraga Canyon Specific Plan area is located withing zoning district Zone B. Zone B permits density of 10 units per acre for single-family development and a density of 60 dwelling units per acre for multifamily development. Zone B multifamily development standards include 70 percent maximum lot coverage, minimum 15 percent landscape coverage, 15-foot street yard setback, 4-foot side and rear yard setback, and 8-foot stepback after 3 stories or 35 feet, whichever is less.
10.	The City will apply for grants and other funding sources to help fund the planning and development of affordable housing in this area. The City could also leverage local, State, and federal affordable housing funding sources.	MCSP Chapter 10 provides that the City may pursue grant funding and other funding for planning and development. The City has obtained ABAG-MTC Priority Sites Grant Technical Assistance to evaluate funding opportunities and eligibility. The MCSP anticipates that the City will pursue $2M in Alameda County Measure A-1 (2016) funding.

Thus, in staff's analysis, the MCSP meets the goals provided in Program 1.L of the Housing Element.

Planning Commission and Staff Recommended Changes to the Draft MCSP

On September 8, 2025, based on public comments received from residents and members of the Piedmont community (included as Attachment G) and staff recommendations to provide additional clarity, the Planning Commission recommended to the City Council the following changes to the Draft MCSP:

1. **Sight Stopping Distance and Signage**. MCSP Chapter 4, Section 4.9 on page 35 provides an example of the type of traffic signage and flashing beacon that alerts drivers to be aware of pedestrian crossings. In response to public comments and on the advice of the City's consultant traffic engineers, staff recommend changing Chapter 4, including the image and caption for Figure 4.8 to show the typical traffic caution signage and flashing beacon for the approach to a signalized intersections (and the stopped cars waiting at the signalized intersection), as

provided by the City's consultant traffic engineers. The Planning Commission recommends revisions to the text of pages 35 and 46 as follows (changes shown in bold and underlined text):

a. Page 35, change the second to last sentence in the first paragraph of Section 4.9 to read "Figure 4.8 is an example of the flashing beacons placed prior to the intersection to warn motorists of upcoming **signal and** pedestrian crossings." In addition, replace the existing image with the one to the right with the following caption "**Figure 4.8 Signal Ahead Signage with Flashing Beacon Imagery**":

b. Page 35, change Section 4.9 to include a requirement for stopping sight distance analysis at the time of development agreement to determine appropriate locations for traffic signal, signage, beacons, to read as follows "**Stopping sight distance analysis shall be conducted for the design and engineering of the intersection to include but not limited to appropriate design and location(s) of signal, roadway signage, and beacons. See Chapter 10, Section 10.5.6.2, Development Agreement**."

c. Page 46, change the last sentence of the third paragraph of Section 4.17 to read "According to the HDM (Table 201.1), the minimum required SSD for vehicles for a design speed of 40 mph (rounding up the measured 85th percentile speed of 38-39 mph) is 300 feet. **HDM Section 201.3 requires increasing the SSD by 20 percent for roadway segments with sustained downhill slope of 5 percent or more over one mile long. Thus, the SSD for the downhill (westbound) Moraga Avenue is 360 feet, compared to 300 feet for the uphill (eastbound) direction**. **Stopping sight distance analysis shall be conducted for the design and engineering of each proposed driveway. See Chapter 10, Section 10.5.6.4.A, Initial Design Review**."

2. **Transit Stops**. MCSP Chapter 4, Section 4.12 Public Transit, on page 38 includes direction regarding the placement of new transit stops along Moraga Avenue to serve new and existing residents in the MCSP area and neighboring areas. The Planning Commission recommends a change to increase the flexibility of the location of new bus stops as part of development under the MCSP. For example, upon further research, new bus stops on Moraga Avenue near Highland Avenue may achieve the goals of expanding public transit as a permanent or interim measure. The proposed change to Section 4.12 is shown below in bold and underlined text.

"The following actions should be pursued to improve bus service during development of the MCSP area:

1. Coordinate with AC Transit to introduce bus service along the Moraga Avenue corridor.
2. Provide bus stops in both directions of Moraga Avenue near the proposed signal at Red Rock Road to better accommodate bus riders needing to cross the street. **Carefully consider the space requirements and safety of alternative locations for bus stops, including interim bus stops, to be located ½ mile or less walking distance from the entrance or entrances of all housing units affordable to lower income residents.**
3. Provide amenities, such as a shelter with bench and trash receptacle at the bus stops."

3. **Common Useable Open Space**. MCSP Chapter 5, Section 5.7.1, Common Useable Open Space, on page 51 includes a requirement that a minimum of 15 percent of the land used for multifamily development shall be designated as Common Useable Open Space (e.g. a development of 60 units on a 1 acre lot used for affordable multifamily development must provide 6,534 square feet of space that is accessible to all tenants and meets certain standards). Comments received from the public recommend aligning the MCSP standards for common useable open space with the minimum requirements for affordable housing from the California Tax Credit Allocation Committee (TCAC). The TCAC would require the following minimum common space for low-income housing tax credit (LIHTC) developments and large family LIHTC developments, which require less land dedicated to common useable open space:

   LIHTC: "Common areas shall meet the following size requirement: projects comprised of 30 or less total units, at least 600 square feet; projects from 31 to 60 total units, at least 1000 square feet; projects from 61 to 100 total units, at least 1400 square feet; projects over 100 total units, at least 1800 square feet. Small developments of 20 units or fewer are exempt from this requirement." Staff notes that 1,000 s.f. for a development of 60 lower income housing units would equal just over 2 percent of a 1 acre lot.

   Large Family LIHTC: "The project shall provide play/recreational facilities suitable and available to all tenants, including children of all ages, except for small developments of 20 units or fewer. Play/recreational area for children ages 2-12 years shall be outdoors, and the minimum square footage is 600 square feet and must include an accessible entrance point. For projects with more than 100 total units this square footage shall be increased by 5 square feet for each additional unit. Outdoor play/recreational space must be equipped with reasonable play equipment for the size of the project, and the surface must be natural or synthetic protective material." Staff notes that 1,600 s.f. for a development of 60 large family housing units would equal 3.7 percent of a 1 acre lot.

   The Planning Commission recommends reducing the total amount of land dedicated to common useable open space in MCSP Chapter 5, Section 5.7.1 from 15 percent to 10 percent. This change would continue to provide space for tenants to interact, children to play, and landscape amenities. The MCSP standard should not be reduced to the minimum TCAC requirements, which would significantly decrease the amount of common useable open space to as low as 2.3 percent. The minimum TCAC common useable open space would not result in the features and amenities characteristic of homes in Piedmont and could create a disparity between the amenities available to the residents of affordable housing and those of the market-rate housing.

4. **Private Useable Open Space**. MCSP Chapter 5, Section 5.7.2, Private Useable Open Space, on page 53 requires the developer of multifamily units in the MCSP area to provide a minimum of 80 square feet of private useable open space accessible to the tenant(s) and guests of each unit. A larger area of 100 square feet is the required standard for residences located on the ground floor. Private useable open space typically takes the form of a balcony or patio accessed from the individual housing unit. Comments received from the public request that the City change the standard for private useable open space by removing this requirement entirely.

The Planning Commission recommends reducing the private useable open space area to 80 square feet for both ground floor units and units located on upper floor levels, a reduction of 20 square feet for ground level units. In addition, the Commission recommended allowing development to satisfy the private useable open space standard by transferring the same area to the development's common useable open space (in addition to the required 10 percent of the lot standard, described above). If the private useable open space standard in MCSP section 5.7.2 makes construction too expensive for developers, Chapter 10 of the MCSP notes that the City Council has the authority to process revisions to allow construction to occur without private useable open space.

Since the September 8, 2025 public hearing, staff has continued to discuss the MCSP development standards with local developers and architects. Staff notes that 80 square feet of private useable open space, either accessible to the residents and guests of each unit or combined with common useable open space and accessible to all residents, may be as much as two times the amount that multifamily development typically provides. Staff recommends that the requirement for private useable open space standard be reduced to 40 square feet and that the MCSP permit the private useable open space area to be transferred to common useable open space, as recommended by the Planning Commission.

Lastly, staff notes that the City Council will have final decision-making authority over the development of City-owned land. If the private useable open space standard makes construction infeasible for developers, Chapter 10 of the MCSP notes that the City Council has the authority to process revisions to allow construction to occur with less private useable open space or without it entirely.

5. **Affordability Levels**. Section 10.5.6.2, Development Agreement, on Page 120 of the Draft MCSP includes as required term #3, the provision of the following affordable housing units. The Planning Commission recommends changing the affordability levels of the units to provide additional flexibility while continuing to meet Housing Element goals. The Planning Commission recommends the following change in bold and underlined font.

   "3. The provision of affordable housing, with a minimum of 60 units affordable to households earning **low and very low incomes, including a minimum of 40 units affordable to those with** very low and extremely low incomes, as well as units affordable to households earning moderate incomes, or less, as a minimum of 10% of any proposed market-rate units, and housing units shall include a minimum of 50% of units with two bedrooms or more to serve families."

   Since the September 8, 2025 Planning Commission meeting, City staff and consultants have continued to evaluate statewide incentive programs, including the Surplus Lands Act exemption for affordable housing development. Please see additional revisions to MCSP section 10.5.6.2 sub-section 3, below, under the heading "Modification to Anticipated Unit Count."

6. **Implementation**. To address public concerns regarding roadway safety, emergency access, and evacuation, the Planning Commission recommends changes to the text of Chapter 10, Section 10.5.6.2, Development Agreement, to incorporate recommended changes to Chapter

4, described above, and to incorporate revisions recommended by the Piedmont Fire Department, as follows:

a. Section 10.5.6.2.A, Application Requirements, change the list of application requirements to include the addition of a new item 11. as follows: "**11. Stopping Sight Distance Analysis for the design and engineering of the traffic signal and pedestrian crossing at the intersection of Moraga Avenue and Red Rock Road, showing design and location(s) of signal, traffic signage, and beacons and including analysis of current traffic speeds.**"

b. Section 10.5.6.2.B, Terms, change the required terms of the future development agreement to include additional details about the future development proposal's compliance with Fire Code regulations, as follows (changed text is shown in bold and underlined font): "Fire protection for new development meeting Environmental Hazards Element policy 19.9 and Fire Code requirements, **including but not limited to** fire sprinkler plan, evacuation improvements**, fire access roads and points of access off of Moraga Avenue, turnarounds,** and one or more new fire hydrants to serve the development, as well as required water pressure and flow."

c. Section 10.5.6.4, Design Review, subsection A, change the requirements for initial design review permit to include design and engineering for each driveway for the future development, including but not limited to stopping sight distance analysis, as follows (changed text is shown in bold and underlined font): "An Initial Design Review Permit shall be administered pursuant to Division 17.66 of the Piedmont City Code, except as set forth below. An Initial Design Review Permit application shall include the following: conceptual site plan, access and circulation plan, **including design and engineering of each driveway, including but not limited to current traffic speeds and stopping sight distance analysis**, frontage improvements, landscape plan, building massing, and architectural style…"

7. **Sound Study.** Piedmont General Plan policies and programs address the noise of construction, including the noise from future construction related to the MCSP. These General Plan provisions would continue to apply to development pursuant to the MCSP. The Planning Commission recommends that noise related to the use of City facilities, which may be expanded or relocated, be addressed in the environmental measures section of the MCSP. The Planning Commission recommends the following revision to Chapter 10, Section 10.5.7, Environmental Measures, to incorporate the new sound study measure (new text shown in bold and underlined font):

"10.5.7.8 SOUND STUDY

To ensure consistency with Chapter 8 of the Piedmont City Code, if new or relocated recreational uses that produce amplified or equipment-related noise are proposed within 500 feet of residences, a noise study shall be conducted to determine the noise levels from the proposed recreational use to residences within 500 feet. If noise levels are found to exceed the standards within Chapter 8 of the Piedmont City Code, or other noise limit if appropriate and supported by the findings of the noise study, noise reduction measures shall be implemented such that noise levels would be below the applicable standard. The noise study shall be provided to the City as part of the Initial Design Review Permit process.

If the City's Corporation Yard is relocated to within 500 feet of residences, a noise study shall be conducted to determine the noise levels from Corporation Yard to residences within 500 feet. If noise levels are found to exceed the standards within Chapter 8 of the Piedmont City Code, or other noise limit if appropriate and supported by the findings of the noise study, noise reduction measures shall be implemented such that noise levels would be below the applicable standard. The noise study shall be provided to the City as part of the Initial Design Review Permit process."

In addition to the foregoing changes recommended by the Planning Commission, staff also recommends the following changes:

8. **Modification to Anticipated Unit Count**. Since the September 8, 2025 Planning Commission meeting, City staff have continued to research and work with development experts about eligibility for certain State and countywide incentives and financing opportunities. City staff recommend that the City Council consider revisions to the draft MCSP to be consistent with the overall unit count envisioned in Housing Element Program 1.L., namely a minimum of 132 units with 60 units affordable to individuals and families with lower incomes. Program 1.L envisioned 45.4 percent of the housing units (60 units of the anticipated 132 units) in the MCSP Area would be deed-restricted affordable to households earning lower incomes. Among other things, this anticipated unit mix could qualify for an exemption under the California Surplus Lands Act (SLA), which requires a minimum of 40 percent of the housing units to be affordable to lower and very-low households at a certain maximum income. The proposed revisions are provided in the table below (changes in bold and underlined text).

	MCSP Section	Existing Language	Proposed Language
1.	3.11	"The Multifamily Residential development is anticipated to provide up to 197 market rate and affordable units. There shall be a minimum of 60 affordable units provided within the Specific Plan area. These units shall be affordable to Lower Income earners (80 percent of the Area Median Income or lower), including households with extremely low incomes, and are envisioned as a separate building from the market rate residential units with an integrated design."	The Multifamily Residential development shall provide **at least** **130 ~~up to 197~~** market rate and affordable units. There shall be a minimum of 60 affordable units **or 40 percent** provided within the Specific Plan area.~~.~~ These units shall be affordable to Lower Income earners (80 percent of the Area Median Income or lower), including households with extremely low incomes, and~~——~~are envisioned as a separate building from the market rate residential units with an integrated design **or may be provided within the market-rate building(s).**
2.	3.12.2(A)	"Uses within the Multifamily Residential Specific Plan Designation shall consist of the following: …	Uses within the Multifamily Residential Specific Plan Designation shall consist of the following: a. **At least an anticipated 130 ~~197~~** total dwelling units, not to exceed 60 DU/AC

		a. An anticipated 197 total dwelling units, not to exceed 60 DU/AC in the defined land use area, with a minimum of 60 units identified as affordable units."	in the defined land use area, with a minimum of 60 units identified as affordable units.
3.	10.3(4)	"The following is a list of development items/goals applicable to either design option within the MCSP area: … 4. Development of 130-197 multifamily residential units, a minimum 60 of which are to be affordable."	The following is a list of development items/goals applicable to either design option within the MCSP area: 4. Development of **at least** **130-~~197~~** multifamily residential units, a minimum 60 of which are to be affordable.
4.	10.4.4.6(A)(8)	"Examples of grants or grant sources are: … 8. Measure A-1"	Examples of grants, grant sources**, and financing opportunities** are: 8. Measure A-1
5.	10.5.6.2(B)(3)	"The DA shall include the following terms and conditions, unless waived by the City Council:… 3. The provision of affordable housing, with a minimum of 60 units affordable to households earning very low and extremely low incomes, as well as units affordable to households earning moderate incomes, or less, as a minimum of 10% of any proposed market-rate units, and housing units shall include a minimum of 50% of units with two bedrooms or more to serve families."	The DA shall include the following terms and conditions, unless waived by the City Council:… 3.The provision of affordable housing, with a minimum of 60 units affordable to households earning **low and very low incomes, including a minimum of 40 units affordable to those with** very low and extremely low incomes.~~, as well as~~ **In addition, the provision of housing** units affordable to households earning moderate incomes, or less, as a minimum of 10% of **other** ~~**any proposed market-rate units, and**~~ housing units in the development, **and the provision of** ~~**shall include**~~ a minimum of 50% of units with two bedrooms or more to serve families.

9. **Comments Relating to MCSP Development Standards and Procedures.** On September 8, 2025, some public commenters addressed the Commission and requested that the City reduce stepback and window recess standards in Chapters 6 and 7 of the MCSP and clarify the initial design review procedures because these standards and procedures could increase development costs. The speakers recommended changes to reduce uncertainty in the design review procedures, to waive any stepback standard, and to reduce the window recess standard to 2 inches. At the September 8 public hearing, Director Jackson stated staff's agreement that the Chapter 7 window recess standard of 3 to 12 inches is not the standard desired by the

community and that this dimension was mistakenly added to the draft document. The attached resolution (Attachment A) includes a recommended change to a 2-inch window recess standard in sections 7.4.3 (Mediterranean), 7.5.3 (Canyon Contemporary), and 7.6.3 (Suburban Traditional).

In regards to the design review procedure, Chapter 10 of the MCSP anticipates a discretionary initial design review procedure (section 10.5.6.4) requiring Planning Commission consideration and recommendation to City Council, and then future subsequent or precise design review permit which would be ministerial permits. Section 10.5.6.4, page 121, notes "Review of the Initial Design Review Permit may be concurrent with, or before, review of a development agreement and/or disposition agreement." It is likely that the initial design review process would occur before or concurrently with the development agreement process, also outlined in Chapter 10 (section 10.5.6.2). This approach would give the City Council certainty about the form and design of development at the same time as the Council considers the terms of the development agreement. Staff does not recommend changes to MCSP section 10.5.6.4.

In regards to stepbacks, the Planning Commission did not recommend that the City Council change the stepback standard in Chapter 6, section 6.5. Section 6.5 of the MCSP requires a stepback of 10 feet for multifamily buildings greater than four stories. The stepback must be applied to 50% of the building façade. A "stepback" works in conjunction with the "setback" zoning parameter of Zone B of Chapter 17 of the City Code.

The MCSP area is located within the Zone B designation. Zone B requires a setback of 15 feet from the front property line adjacent to the public street (street yard setback) for 100% of the building façade and, for properties greater than 4,000 square feet, a minimum setback of 4 feet and an additional setback of 4 feet of 100% of the building façade measured from the side and/or rear property line abutting a single-family residential property after 3 stories or 35 ft, whichever is less. Under the MCSP, future development would not follow the zoning ordinance Zone B setback at the 3rd story or 35 feet, whichever is lower. Instead, development would step back at the 5th story.

Staff recommends the following clarifications to Chapter 6 section 6.5 (changes are shown in bold and underlined text):

"6.5 STEPBACKS

A building stepback is an architectural design element that is typically applied to an upper-story of a development. Typically, a stepback requires that any portion of a building above a certain height is further pushed-in towards the center of the property.

1. Stepbacks shall be required to reduce the scale of the building while exposing and emphasizing the ground-level elements of the structure as set forth in the table below.

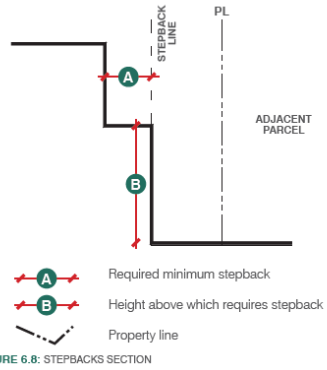


FIGURE 6.8: STEPBACKS SECTION

STEPBACKS	
Height above which requires stepback **(B)**	Above 4 stories of residential units**, provided that no stepback or additional setback is required at the 3rd or 4th stories or between 35 and 48 feet above grade, whichever is less**.
Required depth (min)[1] **(A)**	10 feet
Minimum façade to be stepped back	50%
Table 6.2: Stepbacks Table	
1. Measured from the minimum **4-foot** setback line	

Staff does not recommend waiving the stepback standard entirely. The intent of the stepback standard is to decrease the appearance building scale and to emphasize the ground-level building elements by attenuating the top floors. This design approach could be valuable as the City Council considers future development proposals anticipated in the MCSP. If the stepback standard in MCSP section 6.5 makes construction too expensive for developers, Chapter 10 of the MCSP notes that the City Council has the authority to process revisions to allow construction to occur without stepbacks.

In summary, in staff's assessment, with these changes the MCSP meets the goals of Program 1.L of the Housing Element, and sets up a framework for the City to anticipate housing within the MCSP Area in the future. As previously noted, the MCSP does not approve a specific development project, and accordingly, the Council's approval the MCSP would effectively impose development regulations on a future project.

Considerations for Approval of City Code Amendments

On September 8, 2025, the Planning Commission approved a resolution recommending amendments to City Code Chapter 17, Planning and Land Use, which are needed in order to make the City Code consistent with the MCSP and to implement development pursuant to the MCSP standards. The draft Ordinance 784 N.S. (Attachment B) includes amendments to Division 17.22, Zone B: Public Facilities, and Division 17.24, Zone C: Multi-family Residential. Proposed amendments are described below.

Pursuant to Section 17.22.040.C, development of multifamily housing in Zone B must follow the development standards for multifamily housing in Zone C (Section 17.24.040.A). As provided in the proposed ordinance (Attachment B) City staff and the Planning Commission recommend City Council approval of an Ordinance amending Section 17.22.040.C to clarify that multifamily development in specific plan areas in Zone B, such as in the MCSP area, are subject to standards in the specific plan, which would include the height limit and lot frontage standards established in the specific plan. The proposed amendment is shown below in bold and underlined text.

> "C. In Zone B, the development standards for the following uses are set forth below**, except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:
>
> a. Wireless communications facility as provided in division 17.46.
>
> b. Multi-family residential as provided in section 17.24.040.A**.**
>
> c. Cemetery, public utility – no standards.
>
> d. Building occupied by a public agency or other nonprofit entity – no standards, except as set forth in section 17.22.040.A.
>
> e. Parks and open space, including recreational uses and facilities – no standards."

Division 17.24, Zone C: Multi-family Residential. City Code Section 17.24.040 also provides standards that must be made consistent with the MCSP. See proposed changes in bold underline below:

> "17.24.040 Regulations.
>
> A. In Zone C, for multi-family residential use, licensed residential care facility for 7 or more residents, co-housing and single room occupancy dwellings, the standards are as follows**, except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:
>
> …
>
> B. In Zone C, for uses other than those listed above, the development standards are as follows, **except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:"

ENVIRONMENTAL REVIEW

The 2023-2031 Housing Element Implementation Environmental Impact Report (State Clearinghouse no. 2022020362), certified by City Council on February 20, 2024, evaluated potential environmental impacts of proposed development of housing citywide, including development of up to 199 housing units on City-owned land in Moraga Canyon.

An Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report (Housing Element EIR) has been prepared by the City's team of staff and consultants pursuant to the California Environmental Quality Act (CEQA) which studied and disclosed the potential environmental impacts of development and operation pursuant to the MCSP. The Addendum is included as Attachment D.

The Addendum (Attachment D) evaluated the potential environmental effects that may be generated as compared to the MCSP (Housing Element Program 1.L) analyzed under the Housing Element EIR. The Addendum concluded that substantial changes are not proposed to the MCSP as analyzed under the Housing Element EIR nor have substantial changes occurred within the MCSP geographic area or regulatory environment that would require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. Impacts beyond those identified and analyzed in the Housing Element EIR would not be expected to occur as a result of the proposed MCSP.

Overall, the proposed MCSP would not result in new impacts or information of substantial importance that would generate new, more severe impacts or require new mitigation measures compared to those identified for the MCSP, as analyzed in the Housing Element EIR. As such, the proposed MCSP would not result in conditions identified in CEQA Guidelines Section 15162, and a Subsequent or Supplemental EIR is not required for the proposed MCSP. Development and operation pursuant to the proposed MCSP would be subject to all previously required mitigation measures from the Housing Element EIR, as applicable. The Mitigation Monitoring and Reporting Program (MMRP) adopted for the Housing Element Implementation Project would continue to be applicable to the proposed MCSP.

In addition, the Addendum prepared for the MCSP concluded that the MCSP would not introduce new or substantially more severe cumulatively considerable impacts beyond those analyzed in the Housing Element EIR. Therefore, no new or substantially more severe cumulative impacts would occur as a result of the MCSP.

The concerns raised in public correspondence and comments have also been considered and do not impact the analysis in the Addendum. Responses to specific public comments related to improvements to Moraga Avenue and MCSP Chapter 4 are provided as Attachment E.

On September 8, 2025, the Planning Commission recommended City Council adoption of the MCSP, including a recommendation to the City Council to approve the Addendum to the Housing Element EIR.

COMPLIANCE WITH CITY CHARTER

All City actions must comply with the City Charter. The draft MCSP is a supporting policy document of the General Plan for a specific geographical area governed by Section 9.01, General Plan, of the City Charter. Section 9.01 reads as follows:

> "The City Council shall adopt, and may from time to time, modify a general plan setting forth policies to govern the development of the City. Such plan may cover the entire City and all of its functions and services or may consist of a combination of plans governing specific functions and services or specific geographic areas which together cover the entire City and all of its functions and services. The plan shall also serve as a guide to Council action concerning such City planning matters as land use, development regulations and capital improvements."

The draft MCSP is not a zoning change governed by Section 9.02, Zoning system. Sections of Chapter 17, Planning and land use (zoning ordinance) are proposed to be amended to implement the Draft MCSP and these changes have been evaluated for compliance with Section 9.02, which reads, as follows:

> "The City of Piedmont is primarily a residential city, and the City Council shall have the power to establish a zoning system within the City as may in its judgment be most beneficial. The Council may classify and reclassify the zones established, but no existing zones shall be reduced or enlarged with respect to size or area, and no zones shall be reclassified without submitting the question to a vote at a general or special election. No zone shall be reduced or enlarged and no zones reclassified unless a majority of the voters voting upon the same shall vote in favor thereof; provided that any property which is zoned for uses other than or in addition to a single-family dwelling maybe voluntarily rezoned by the owners thereof filing a written document executed by all of the owners thereof under penalty of perjury stating that the only use on such property shall be a single-family dwelling, and such rezoning shall not require a vote of the electors as set forth above."

In Section 9.02 of the City Charter, the prohibition not to reduce, enlarge, or reclassify a zone without a vote is understood to mean the city may not change the zone boundaries, or change (reclassify) a property from one zone to another. The land within the MCSP Study Area is proposed to remain within the Zone B zoning district. The draft MCSP and the proposed zoning ordinance changes do not change the Zone B boundaries nor change any property from one zone to another in Piedmont.

Lastly, the draft MCSP and proposed zoning ordinance changes were prepared pursuant to State law in conformance with Section 9.04, General laws applicable, of the City Charter, which reads as follows:

> "All general laws of the State applicable to municipal corporations, now or hereafter enacted, and which are not in conflict with the provisions of this Charter or with ordinances hereafter enacted, shall be applicable to the City. The City Council may adopt and enforce ordinances that, in relation to municipal affairs, shall control as against the general laws of the State."

On September 8, 2025, the Planning Commission approved a resolution recommending City Council approval of the MCSP with a finding that the MCSP is consistent with the Piedmont City Charter.

FISCAL IMPACT

The MCSP is a policy document in support of the City's General Plan. Adoption of the MCSP does not obligate the City to approve any specific project or to allocate funding beyond the costs incurred for preparation of the plan. Future public facility improvements or private development within the plan area will be subject to separate project-level review and approval, including analysis of fiscal impacts and funding sources at that time.

CONCLUSION

The Moraga Canyon Specific Plan implements, in part, General Plan Housing Element Program 1.L and is in compliance with State housing laws. The MCSP prepared by City staff and consultants sufficiently addresses the goals of Program 1.L. Accordingly, staff and the Planning Commission recommend the City Council adopt the MCSP, the associated Addendum to the EIR, and Ordinance 784 N.S. amending Chapter 17 of the City Code. Should the MCSP be adopted, it would be an important step in meeting Piedmont's Housing Element goals. Written public

comments on the Specific Plan can be submitted by email to MoragaCanyonNews@piedmont.ca.gov, or by mail to Kevin Jackson, Planning & Building Director, 120 Vista Avenue, Piedmont, CA 94611.

Report prepared by: Kevin Jackson, Director of Planning & Building
Pierce Macdonald, Senior Planner

ATTACHMENTS

	Pages	
A	19-27	Resolution Approving an Addendum to the 2023-2031 Housing Element Implementation EIR and Approving the Moraga Canyon Specific Plan
B	28-32	Ordinance 784 N.S. Amending Chapter 17, Planning and Land Use, Section 17.22.040.C and Section 17.24.040
C	33-34	Program 1.L Specific Plan, from City of Piedmont 6th Cycle Housing Element
D	35-306	Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report
E	307-319	Fehr & Peers Response to Comments Related to Moraga Avenue and Chapter 4
F	320-335	Draft Meeting Minutes for September 8, 2025 Planning Commission Meeting and video available at https://piedmont.granicus.com/player/clip/3096?view_id=9&redirect=true
G	336-639	Public Comment

Related Documents

Draft Moraga Canyon Specific Plan

City of Piedmont 6th Cycle Housing Element, Adopted March 2023, Revised August 2023

City Council Staff Report, dated March 18, 2024, titled: Consideration of a Resolution Directing Staff to Refine the approach to Preparation of a Draft Moraga Canyon Specific Plan

Meeting Minutes for April 28, 2025 City Council Meeting

Meeting Minutes for April 30, 2025 City Council Meeting

Meeting Video for June 4, 2025 Park Commission Meeting

Meeting Video for June 18, 2025 Recreation Commission Meeting

MCSP Appendix A General Plan Consistency Analysis

Attachment A

RESOLUTION No.____

A RESOLUTION OF
THE CITY COUNCIL OF THE CITY OF PIEDMONT
APPROVING AN ADDENDUM TO THE 2023-2031 HOUSING ELEMENT
IMPLEMENTATION EIR AND APPROVING THE MORAGA CANYON SPECIFIC PLAN

WHEREAS, State of California housing element law, as set forth in Government Code §§ 65302 and 65580, et seq., requires the City of Piedmont to periodically prepare and update its Housing Element in its General Plan, and to establish goals, policies, and programs to accommodate the maintenance, diversification, and expansion of the City's housing supply to accommodate the City of Piedmont's regional housing needs allocation (RHNA) of 587 housing units, comprised of 238 above moderate income units, 92 moderate income units, 94 low income units, and 163 extremely and very low income units; and

WHEREAS, the 6th Cycle Housing Element must be adopted to comply with State law, accommodate the RHNA, affirmatively further fair housing, and facilitate and encourage a variety of housing types for all income levels, including multifamily housing (Gov. Code Sections 65583.2 and 65583(c)); and

WHEREAS, the preparation, adoption, and implementation of the 6th Cycle Housing Element includes a diligent ongoing effort to include all economic segments of the community; and

WHEREAS, to comply with State housing element law, the City Council of the City of Piedmont has prepared and adopted, on March 20, 2023, the 2023-2031 6th Cycle Housing Element (the 6th Cycle Housing Element); and

WHEREAS, Piedmont's 6th Cycle Housing Element includes Program 1.L, which calls for the drafting of a specific plan, as provided in Government Code §65450 et seq., for a study area consisting of 18.25 acres of City-owned land and the Moraga Avenue roadway near the northern boundary of the City. The intent is to facilitate the development of below-market-rate housing to help meet the demand for affordable housing in the City. In order for the City to meet its RHNA requirements, the Specific Plan needs to accommodate at least 132 housing units at all income levels. Housing Element Program 1.L sets forth several goals for the specific plan as follows:

- To enable construction of housing at a minimum of 132 units, on portions of the site, totaling approximately 3.5 acres of land, yielding a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI) and a minimum of 72 units affordable to households earning more than 80 percent of the AMI;
- Improved safety. New habitable structures shall be built to meet fire code requirements for Wildland Urban Interface Areas;
- Replacement and/or modernization of existing Public Works Department facilities, offices, storage areas, vehicle storage areas, etc., so that service capacity is maintained or increased, and so that the facilities meet current building and fire code requirements.

- The inclusion of recreation facilities, including but not limited to an under14 soccer field, youth baseball/softball field, batting cages, artificial field turf, ballfield seating, a skate spot, a picnic area, and parking for these facilities; and
- The provision of all public utilities to new housing and all City facilities to be constructed within the specific plan area in a manner consistent with public safety standards and Piedmont Climate Action Plan goals and programs;
- The inclusion of improvements to pedestrian and vehicular circulation, as determined necessary by the City Engineer, to provide safe pedestrian, bicycle, and motor vehicle movements, ensure safe evacuation routes, and provide optimal emergency response; and
- The inclusion of a comprehensive landscape plan for areas planned for development. The landscape plan shall prioritize to the extent practicable: fire safety and the preservation of significant open space, scenic views, and native and heritage trees; and

WHEREAS, beginning in August 2023, the City has conducted extensive community outreach in support of the preparation of a Draft Moraga Canyon Specific Plan including neighborhood and stakeholder engagement; an online survey; a November 30, 2023, community workshop; study sessions held by the Planning Commission, Park Commission and Recreation Commission in 2023, 2024, and 2025; and a second online survey regarding the four plan options presented at the community workshop that was available in December 2023 and January 2024; and

WHEREAS, the City Council held study sessions on January 22 and March 1, 2024, to receive information from staff and JZMK Partners on the results of the community engagement and discussions by the various commissions, and four preliminary site plan options; and

WHEREAS, at its regular meeting of March 18, 2024, the City Council received a report from staff and a presentation from JZMK, at the conclusion of which the Council reached consensus on providing the following direction for the preparation of a Draft Moraga Specific Plan:

- Exclude site plan options 2 and 4 as presented to the City Council on March 1, 2024;
- Include site plan options 1 and 3 to provide flexibility to potential developers to choose a plan that optimizes the development of housing and community benefits, including improvements to the Moraga Avenue roadway;
- Explore increasing the number of market-rate units, originally at 72, to up to 139 in order to better fund community amenities;
- Eliminate a skating facility as a goal of the plan, and instead seek the development of other community facilities, such as a dog park, a playground, or a pickleball court; and
- Include the community benefits of an under-14 soccer field, youth baseball/softball field, batting cages, artificial field turf, and ballfield seating.

WHEREAS, Planning Commission held three study sessions in 2024 that introduced preliminary drafts of several chapters of the Draft Moraga Canyon Specific Plan to facilitate discussions to inform the draft content of the Specific Plan and received written reports and presentations from staff and JZMK Partners, as follows:

- On August 12th the Planning Commission received a report introducing the type of content in each chapter and more in-depth information to facilitate a discussion of the architectural design approaches and draft design standards for new multifamily housing construction in the MCSP study area (chapter 7), as well as information on the City Council study sessions,

the community workshop held on November 30th, and a summary of public comments received during the City Council study sessions and afterwards;

- On September 23rd the Planning Commission received a report to facilitate a discussion of the development requirements for new multifamily housing, City facilities and infrastructure in the MCSP study area, contained in draft chapters covering general development regulations (chapter 3), circulation (chapter 4), site design (chapter 5), and building design (chapter 6); and
- On October 14th the Planning Commission received a report to facilitate a discussion regarding the landscape design requirements for new multifamily housing, as well as requirements for public services, utilities, and infrastructure in the MCSP study area, contained in draft chapters cover landscaping standards (chapter 8) and public services, infrastructure, and utilities (chapter 9); and

WHEREAS, on April 18, 2025, the City of Piedmont made available a Draft Moraga Canyon Specific Plan for public review and comment; and

WHEREAS, on April 28 and 30, 2025, the City Council held study sessions to receive copies of the Draft Moraga Canyon Specific Plan and a presentation from City staff and JZMK Partners on the content of the Specific Plan to facilitate an understanding of the content through a series of questions and responses and took public comment; and

WHEREAS, as provided in Government Code Sections 65352 – 65352.5, the City of Piedmont referred the Specific Plan to all California Native American tribes on the contact list provided by the Native American Heritage Commission and to other entities listed, and consulted with Native American Tribes that requested consultation, resulting in new policies in Chapter 10 of the Moraga Canyon Specific Plan; and

WHEREAS, on June 4, 2025, the Piedmont Park Commission held a duly noticed public meeting at which time it reviewed the Draft Moraga Canyon Specific Plan, the staff report and all attachments, a presentation on the Specific Plan by JZMK Partners, and oral and written public comments, and recommended to the Piedmont City Council that the Council adopt provisions in the Draft Moraga Canyon Specific Plan related to landscaping on City-owned land and within the public right-of-way in that they address the landscaping goals of Housing Element Program 1.L; and

WHEREAS, on June 18, 2025, the Piedmont Recreation Commission held a duly noticed public meeting at which time it reviewed the Draft Moraga Canyon Specific Plan, the staff report and all attachments, a presentation on the Specific Plan by JZMK Partners, and oral and written public comments, and recommended to the Piedmont City Council that the Council adopt provisions in the Draft Moraga Canyon Specific Plan related to facilities and public property under the control of the City for the purpose of public recreation; and

WHEREAS, on September 8, 2025, the Piedmont Planning Commission held a duly noticed public hearing at which time it reviewed the Draft Moraga Canyon Specific Plan, the staff report and all attachments, a presentation on the Specific Plan by JZMK Partners, and oral and written public comments, and recommended to the Piedmont City Council that the Council approve the Moraga Canyon Specific Plan with seven (7) changes to the text and images and approve the Addendum

to the 2023-2031 Housing Element Implementation EIR, as described in the Planning Commission staff report; and

WHEREAS, an Addendum to the 2023-2031 Housing Element Environmental Impact Report (EIR), State Clearinghouse No. 2022020362, has been prepared by the City's team of staff and consultants pursuant to the California Environmental Quality Act (CEQA) which studied and disclosed the potential environmental impacts from changes to the project associated with development and operation pursuant to the proposed MCSP and concluded that there would be no new impacts nor increased impacts beyond those studied in the EIR, and the Planning Commission recommended to the City Council that the Council approve the Addendum on September 8, 2025; and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Piedmont does hereby resolve, declare, determine, and order, based on substantial evidence in the record, as follows:

SECTION 1. Findings.

A. That the above recitations are true and correct.

B. That an addendum has been prepared pursuant to the California Environmental Quality Act (CEQA) which studied the potential environmental impacts of changes to the project, and determined that the potential environmental impacts of development and operation pursuant to the MCSP would be no greater than, nor introduce new impacts not studied and disclosed in, the 2023-2031 Housing Element Implementation EIR and that only minor changes or additions are required. Overall, the proposed MCSP and amendments to Chapter 17 of the City Code to implement the MCSP would not result in new impacts or information of substantial importance that would generate new, more severe impacts or require new mitigation measures compared to those identified for the MCSP, as analyzed in the Housing Element EIR. As such, the proposed MCSP and action to amend the City Code to implement the MCSP would not result in conditions identified in CEQA Guidelines Section 15162, and a Subsequent or Supplemental EIR is not required for the proposed MCSP. Development and operation pursuant to the proposed MCSP would be subject to all previously required mitigation measures from the Housing Element EIR, as applicable. The Mitigation Monitoring and Reporting Program (MMRP) adopted for the Housing Element Implementation Project would continue to be applicable to the proposed MCSP. In addition, the MCSP would not introduce new or substantially more severe cumulatively considerable impacts beyond those analyzed in the Housing Element EIR. Therefore, no new or substantially more severe cumulative impacts would occur as a result of the MCSP.

C. That the Draft Moraga Canyon Specific Plan addresses the goals of Program 1.L of the City of Piedmont's 6th Cycle Housing Element, in that the Specific Plan plans for and/or envisions the development of: residential housing for at least an anticipated 132 households, public infrastructure and utilities to support the development, an enhanced Public Works Department corporation yard, a multi-sport field with natural or synthetic

turf the size of a U14 soccer field with baseball/softball field overlay with spectator bleachers, restrooms, and batting cages; other community facilities, such as a dog park, playground or picnic area; and roadway improvements.

D. The City Council finds that the MCSP complies with the Piedmont General Plan and City Charter and protects public health, safety, and welfare, because the City of Piedmont and the region are burdened by an affordable housing crisis and the MCSP plans for a mixed-income, multifamily neighborhood in close proximity to job centers, transit, and community services, in accordance with Piedmont Housing Element Program 1.L, because the Moraga Canyon Specific Plan is a supporting policy document of General Plan pursuant to City Charter Section 9.01, and because proposed City Code Chapter 17 amendments to implement the Moraga Canyon Specific Plan do not change the boundaries of any zoning district nor change any property from one zoning district to another.

SECTION 2. Approval of Addendum.
The City Council hereby approves the Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report

SECTION 3. The City Council hereby approves the Draft Moraga Canyon Specific Plan with the revisions described below, as the revised MCSP chapters, programs, and actions address the goals Housing Element Program 1.L and the City Council's March 18, 2024, direction to staff.

1. **Sight Stopping Distance and Signage**. The text and graphics of pages 35 and 46, including Figure 4.8, are revised as follows (changes shown in bold and underlined text):

    a. Page 35, change the second to last sentence in the first paragraph of Section 4.9 to read "Figure 4.8 is an example of the flashing beacons placed prior to the intersection to warn motorists of upcoming **signal and** pedestrian crossings." In addition, replace the existing image with the one shown in Exhibit 1 and change the caption to read "**Signal Ahead Signage with Flashing Beacon Imagery.**"

    b. Page 35, change MCSP Section 4.9 to include a requirement for stopping sight distance analysis at the time of development agreement to determine appropriate locations for traffic signal, signage, and beacons, to read as follows "**Stopping sight distance analysis shall be conducted for the design and engineering of the intersection to include but not limited to appropriate design and location(s) of signal, roadway signage, and beacons. See Chapter 10, Section 10.5.6.2, Development Agreement**."

    c. Page 46, change the last sentence of the third paragraph of Section 4.17 to read "According to the HDM (Table 201.1), the minimum required SSD for vehicles for a design speed of 40 mph (rounding up the measured 85th percentile speed of 38-39 mph) is 300 feet. **HDM Section 201.3 requires increasing the SSD by 20 percent for roadway segments with sustained downhill slope of 5 percent or more over one mile long. Thus, the SSD for the downhill (westbound) Moraga Avenue is 360 feet, compared to 300 feet for the uphill (eastbound) direction**. **Stopping sight distance analysis shall be conducted for the design and engineering of each proposed driveway. See Chapter 10, Section 10.5.6.4.A,**

Initial Design Review."

2. **Transit Stops**. Section 4.12 is revised as shown below in bold and underlined text.

   "The following actions should be pursued to improve bus service during development of the MCSP area:
   1. Coordinate with AC Transit to introduce bus service along the Moraga Avenue corridor.
   2. Provide bus stops in both directions of Moraga Avenue near the proposed signal at Red Rock Road to better accommodate bus riders needing to cross the street. **Carefully consider the space requirements and safety of alternative locations for bus stops, including interim bus stops, to be located ½ mile or less walking distance from the entrance or entrances of all housing units affordable to lower income residents.**
   3. Provide amenities, such as a shelter with bench and trash receptacle at the bus stops."

3. **Common Useable Open Space**. The total amount of land dedicated to common useable open space in MCSP Chapter 5, Section 5.7.1, is revised from 15 percent to 10 percent.

4. **Private Useable Open Space**. Private useable open space area is reduced to 40 square feet for both ground floor units and units located on upper floor levels. In additiondevelopment may satisfy the private useable open space standard by transferring the same area to the development's common useable open space (in addition to the required 10 percent of the lot standard).

5. **Implementation**. The text of Chapter 10, Section 10.5.6.2, Development Agreement, is revised as follows:

   a. Section 10.5.6.2.A, Application Requirements, the list of application requirements is amended to include the addition of a new item 11. as follows: "**11. Stopping Sight Distance Analysis for the design and engineering of the traffic signal and pedestrian crossing at the intersection of Moraga Avenue and Red Rock Road, showing design and location(s) of signal, traffic signage, and beacons and including analysis of current traffic speeds.**"

   b. Section 10.5.6.2.B is amended as follows (changed text is shown in bold and underlined font): "Fire protection for new development meeting Environmental Hazards Element policy 19.9 and Fire Code requirements, **including but not limited to** fire sprinkler plan, evacuation improvements**, fire access roads and points of access off of Moraga Avenue, turnarounds,** and one or more new fire hydrants to serve the development, as well as required water pressure and flow."

   c. Section 10.5.6.4, Design Review, subsection A, is amended as follows (changed text is shown in bold and underlined font): "An Initial Design Review Permit shall be administered pursuant to Division 17.66 of the Piedmont City Code, except as set forth below. An Initial Design Review Permit application shall include the following: conceptual site plan, access and circulation plan, **including design and**

engineering of each driveway, including but not limited to current traffic speeds and stopping sight distance analysis, frontage improvements, landscape plan, building massing, and architectural style…"

6. **Sound Study.** Chapter 10, Section 10.5.7, Environmental Measures, is amended to incorporate the following new measure to manage potential noise resulting from MCSP development and operations (new text shown in bold and underlined font):

"10.5.7.8 SOUND STUDY

To ensure consistency with Chapter 8 of the Piedmont City Code, if new or relocated recreational uses that produce amplified or equipment-related noise are proposed within 500 feet of residences, a noise study shall be conducted to determine the noise levels from the proposed recreational use to residences within 500 feet. If noise levels are found to exceed the standards within Chapter 8 of the Piedmont City Code, or other noise limit if appropriate and supported by the findings of the noise study, noise reduction measures shall be implemented such that noise levels would be below the applicable standard. The noise study shall be provided to the City as part of the Initial Design Review Permit process.

If the City's Corporation Yard is relocated to within 500 feet of residences, a noise study shall be conducted to determine the noise levels from Corporation Yard to residences within 500 feet. If noise levels are found to exceed the standards within Chapter 8 of the Piedmont City Code, or other noise limit if appropriate and supported by the findings of the noise study, noise reduction measures shall be implemented such that noise levels would be below the applicable standard. The noise study shall be provided to the City as part of the Initial Design Review Permit process."

7. **Change to Number of Residential Units**

a. Section 3.11 is amended as follows: "The Multifamily Residential development is anticipated to provide **at least 130 ~~up to 197~~** market rate and affordable units. There shall be a minimum of 60 affordable units **or 40 percent** provided within the Specific Plan area~~.~~ These units shall be affordable to Lower Income earners (80 percent of the Area Median Income or lower), including households with extremely low incomes, and are envisioned as a separate building from the market rate residential units with an integrated design **or may be provided within the market-rate building(s)."**

b. Section 3.12.2(A) is amended as follows: "Uses within the Multifamily Residential Specific Plan Designation shall consist of the following:
a. At least an anticipated **130 ~~197~~** total dwelling units, not to exceed 60 DU/AC in the defined land use area, with a minimum of 60 units identified as affordable units."

c. Section 10.3(4) is amended as follows: "The following is a list of development items/goals applicable to either design option within the MCSP area:…

4. Development of **at least** 130**~~-197~~** multifamily residential units, a minimum 60 of which are to be affordable."

d. Section 10.4.4.6(A)(8) is amended as follows: "Examples of grants, grant sources**, and financing opportunities** are: …
Measure A-1…"

e. Section 10.5.6.2(B)(3) is amended as follows: "The DA shall include the following terms and conditions, unless waived by the City Council:…

3. The provision of affordable housing, with a minimum of 60 units affordable to households earning **low and very low incomes, including a minimum of 40 units affordable to those with** very low and extremely low incomes**~~, as well as~~ In addition, the provision of housing** units affordable to households earning moderate incomes, or less, as a minimum of 10% of **other ~~any proposed market-rate units, and~~** housing units in the development, **and the provision of ~~shall include~~** a minimum of 50% of units with two bedrooms or more to serve families."

8. Development Standards and Procedures Changes

a. The proposed "3 inches to 12 inches" window recess standard in MCSP Chapter 7 section 7.4.3 is deleted and replaced with a 2-inch minimum window recess standard in Chapter 7 sections 7.4.3 (Mediterranean), 7.5.3 (Canyon Contemporary), and 7.6.3 (Suburban Traditional).

b. Table 6.2 of section 6.5, Stepbacks, is amended as follows:

STEPBACKS	
Height above which requires stepback **(B)**	Above 4 stories of residential units **and no stepback or additional setback is required at the 3rd or 4th stories nor between 35 and 48 feet above grade, whichever is less**.
Required depth (min)[1] **(A)**	10 feet
Minimum façade to be stepped back	50%
Table 6.2: Stepbacks Table	
1. Measured from the minimum **4-foot** setback line	

SECTION 4. All portions of this resolution are severable. If an individual component of this Resolution is adjudged by a court to be invalid and unenforceable, then the remaining portions will continue in effect.

[END OF RESOLUTION]

Exhibit 1 to Attachment A

Figure 4.8

Attachment B

ORDINANCE NO.784 N.S.

AN ORDINANCE AMENDING DIVISION 17.22, ZONE B,
AND DIVISION 17.24, ZONE C, OF CHAPTER 17 OF THE PIEDMONT CITY CODE

The City Council of the City of Piedmont hereby ordains, as follows:

SECTION 1 – BACKGROUND AND INTENT

State of California housing element law, as set forth in Government Code §§ 65302 and 65580, et seq., requires the City of Piedmont to periodically prepare and update its Housing Element in its General Plan, and to establish goals, policies, and programs to accommodate the maintenance, diversification, and expansion of the City's housing supply to accommodate the City of Piedmont's regional housing needs allocation (RHNA) of 587 housing units, comprised of 238 above moderate income units, 92 moderate income units, 94 low income units, and 163 extremely and very low income units. The City Council approved the Piedmont Housing Element on March 20, 2023 and adopted a resolution approving the Moraga Canyon Specific Plan (MCSP) on October 6, 2025 to implement Housing Element Program 1.L, Specific Plan.

Further it is the intent of the City Council to implement the MCSP development standards which require amending Division 17.22, Zone B, and Division 17.24, Zone C, of Chapter 17, Planning and Land Use, of the Piedmont City Code for conformance with the MCSP development standards.

SECTION 2 – CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The potential environmental impacts of the proposed amendments to the Piedmont City Code Chapter 17 are consistent with the 2024 Housing Element Implementation EIR for the following reasons. On October 6, 2025, the City Council approved an Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report (Housing Element EIR) prepared by the City's team of staff and consultants pursuant to CEQA. The Addendum evaluated the potential environmental effects that may be generated as compared to the MCSP (Housing Element Program 1.L) analyzed under the Housing Element EIR. The Addendum concluded that substantial changes are not proposed to the MCSP as analyzed under the Housing Element EIR nor have substantial changes occurred within the MCSP geographic area or regulatory environment that would require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. Impacts beyond those identified and analyzed in the Housing Element EIR would not be expected to occur as a result of the proposed MCSP. Overall, the proposed MCSP would not result in new impacts or information of substantial importance that would generate new, more severe impacts or require new mitigation measures compared to those identified for the MCSP, as analyzed in the Housing Element EIR.

As such, the proposed MCSP and actions to amend the City Code to implement the MCSP would not result in conditions identified in CEQA Guidelines Section 15162, and a Subsequent or Supplemental EIR is not required for the proposed MCSP. Development and operation pursuant to the proposed MCSP would be subject to all previously required mitigation measures from the

Housing Element EIR, as applicable. The Mitigation Monitoring and Reporting Program (MMRP) adopted for the Housing Element EIR would continue to be applicable to the proposed MCSP. In addition, the Addendum prepared for the MCSP concluded that the MCSP and actions to amend the City Code to implement the MCSP would not introduce new or substantially more severe cumulatively considerable impacts beyond those analyzed in the Housing Element EIR. Therefore, no new or substantially more severe cumulative impacts would occur as a result of the MCSP or proposed Chapter 17 amendments. The concerns raised in public correspondence and comments were considered in the Addendum and do not impact the analysis in the Addendum. On September 8, 2025, the Planning Commission recommended City Council adoption of the MCSP including a recommendation to the City Council to approve the Addendum to the Housing Element EIR.

SECTION 3 – AMENDING SECTION 17.22.040.C

Section 17.22.040.C is hereby amended to read in its entirety as follows:

"C. In Zone B, the development standards for the following uses are set forth below**, except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:

a. Wireless communications facility as provided in division 17.46.

b. Multi-family residential as provided in section 17.24.040.A**.**

c. Cemetery, public utility – no standards.

d. Building occupied by a public agency or other nonprofit entity – no standards, except as set forth in section 17.22.040.A.

e. Parks and open space, including recreational uses and facilities – no standards."

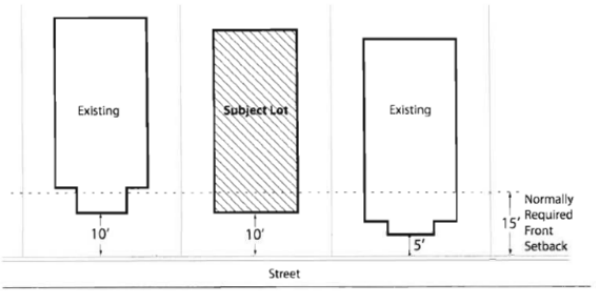
SECTION 4 – AMENDING SECTION 17.24.040.A

Section 17.24.040.A is hereby amended to read in its entirety as follows:

"17.24.040 Regulations.

A. In Zone C, for multi-family residential use, licensed residential care facility for 7 or more residents, co-housing and single room occupancy dwellings, the standards are as follows**, except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:

	Zone C requirements
Lot area	Minimum 10,000 square feet, subject to exception for accessory dwelling unit construction set forth in division 17.38.
Frontage, on public or private street	Minimum 90 feet

Lot coverage; Landscaping	Maximum 70% lot coverage for primary and accessory structures, subject to exception for accessory dwelling unit construction set forth in division 17.38. Minimum 15% landscaping, or 10% by landscaping for a project in which at least 20% of the units are affordable, as defined by the California Department of Housing and Community Development, subject to exception for accessory dwelling unit construction set forth in division 17.38.
Structure height	Maximum 45 feet for buildings on lots with lot area 4,000 sq.ft. or more, except accessory dwelling units shall be subject to restrictions set forth in division 17.38. Maximum 35 feet for buildings on lots with lot area less than 4,000 sq.ft., except accessory dwelling units shall be subject to restrictions set forth in division 17.38.
Street yard setback	Minimum 15 feet for primary or accessory structure, subject to exception for accessory dwelling unit construction set forth in division 17.38. If adjacent lots abutting the side lot lines of the subject lot both contain principal single family residential buildings that have front setbacks with a depth of less than ten (10) feet, the minimum front setback may be reduced for buildings and other structures on the subject lot up to a line parallel to the front lot line and extended from the most forward projection of the principal single family residential buildings on the adjacent lots having the deeper front setback depth, provided such projection is enclosed, has a wall height of at least eight (8) feet, and has a width of at least five (5) feet. In the case of a corner lot or lot that has a vacant parcel next to it, this same principal may apply if the two (2) lots adjacent to the corner lot or lot along its front lot line have less than a fifteen (15) foot front setback. See illustration below:  Site feature of any height may require a design review permit under division 17.66.
Side yard and rear yard setback	Minimum 4 feet for primary or accessory structure, except as provided below. If adjacent lots abutting the side and rear lot lines of the subject property are single family residential, the proposed building shall further step back depending on the lot area: • If lot area is less than 4,000 sq.ft., the building shall step back 8 ft. from the side and/or rear property line abutting the single family residential after 2 stories or 22 ft., whichever is less.

	• If lot area is 4,000 sq.ft. or more, the building shall step back 8 ft. from the side and/or rear property line abutting the single family residential after 3 stories or 35 ft, whichever is less. However, an accessory structure may be located anywhere within the side and rear setback areas except that it: (a) must be located within 35 feet of the rear lot line; (b) must be located at least 5 feet from a habitable structure on an abutting property, and, for a corner lot, at least 5 feet from a side lot line of an abutting property to the rear; (c) may not exceed 15 feet in height; and (d) may not be habitable. A site feature proposed within these distances may require a design review permit under division 17.66.
Density	Minimum density of 20 dwelling units/acre, and maximum density of 60 dwelling units/acre, unless otherwise required by State Law.
Unit type mix	50% of the units in a multi-family housing development, including co-housing (but excluding senior housing, licensed residential care facilities of 7 or more residents, and disabled housing), shall have a minimum of two bedrooms, unless 100% of the units are affordable to households earning 50% or less of the area median income (AMI) established by California Health and Safety Code 5105 that are deed-restricted for a period of 55 years or more.

SECTION 5 – AMENDING SECTION 17.24.040.B

Section 17.24.040.B is hereby amended to read in its entirety as follows:

> B. In Zone C, for uses other than those listed above, the development standards are as follows, **except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:
>
> 1. Wireless communications facility as provided in division 17.46.
> 2. Single-family residence as provided in section 17.20.040.A.
> 3. Manufactured and mobile homes as provided in section 17.20.040.A.
> 4. Large day care home as provided in section 17.20.040.A.
> 5. Licensed residential care facility or group home for up to 6 residents and unlicensed residential care facility or group home as provided in section 17.20.040.A.
> 6. Low barrier navigation centers as provided in section 17.20.040.A.
> 7. Transitional and supportive housing as provided in section 17.20.040.A.
> 8. Employee Housing for up to six employees as provided in section 17.20.40.A
> 9. Small day care home as provided in section 17.20.40.A”

SECTION 6 – SEVERABILITY

The provisions of this Ordinance are severable and if any provision, clause, sentence, word or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, sections, words or parts thereof of the Ordinance or

their applicability to other persons or circumstances.

SECTION 7 – CODIFICATION

The City Clerk is directed to codify this ordinance in a manner which reflects the legislative intent of the City Council

SECTION 8 – POSTING, EFFECTIVE DATE, AND SUBMISSION

The City Clerk is directed to post this Ordinance at City Hall after its second reading by the City Council for at least 30 days and shall become effective 30 days after the second reading. The City Clerk is directed to submit a copy of this ordinance to the Department of Housing and Community Development in the manner required by law.

[END OF ORDINANCE]

Attachment C

"Housing Element Program 1.L: Specific Plan

As described in Appendix B, Section B.3.1, the City owns four sites (comprised of APN 050457901900, 050457908000, 048A700200303, and 050457906100) totaling about 18.25 acres on both the north and south sides of Moraga Avenue near Red Rock Road. The City of Piedmont has the ability to subdivide the parcels and declare them to be surplus under the Surplus Land Act (SLA-California Government Code §54222 et seq.). The intent of this process would be to facilitate the development of below-market-rate housing to help meet the demand for affordable housing in the City. In order for the City to meet its RHNA requirements, these sites need to accommodate at least 132 housing units at all income levels. Given the size of the site, existing constraints, and the desire to preserve the existing public uses (open space, recreation, and City Corporation Yard), the area will be planned using the specific plan process outlined in Government Code §65450 et seq. This process requires the orderly development of the area, including the following: phasing; subdivision; adequate infrastructure; identification of financing; protection of amenities and City facilities; and production of affordable housing. The goals of the specific plan are as follows.

The first goal is to enable construction of housing at a minimum of 132 units, on portions of the site, totaling approximately 3.5 acres of land, yielding a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI) and a minimum of 72 units affordable to households earning more than 80 percent of the AMI.

In addition, specific plan goals include improved safety. New habitable structures shall be built to meet fire code requirements for Wildland Urban Interface Areas.

The specific plan must include replacement and/or modernization of existing Public Works Department facilities, offices, storage areas, vehicle storage areas, etc., so that service capacity is maintained or increased, and so that the facilities meet current building and fire code requirements.

The specific plan must include recreation facilities, including but not limited to an under-14 soccer field, youth baseball/softball field, batting cages, artificial field turf, ballfield seating, a skate spot, a picnic area, and parking for these facilities.

The specific plan must provide all public utilities to new housing and all City facilities to be constructed within the specific plan area in a manner consistent with public safety standards and Piedmont Climate Action Plan goals and programs.

The specific plan must include improvements to pedestrian and vehicular circulation, as determined necessary by the City Engineer, to provide safe pedestrian, bicycle, and motor vehicle movements, ensure safe evacuation routes, and provide optimal emergency response.

The goals of the specific plan include a comprehensive landscape plan for areas planned for development. The landscape plan shall prioritize to the extent practicable: fire safety and the preservation of significant open space, scenic views, and native and heritage trees.

Density in the plan area will be determined at the time of plan development and could range from 40 to 60 dwelling units per acre, including housing for seniors, disabled persons, single-parents, low-income families, and/or people requiring supportive services. This program requires an amendment to the City's General Plan and the preparation of a specific plan to accommodate the density and create development standards for the unique site conditions. The required amendments would be reviewed by the City Attorney for conformance with the City Charter and other legal requirements. If it is determined that it is infeasible to develop this site during the planning process, the City will consider utilizing other City-owned properties as alternative sites (See Appendix B).

The City will apply for grants and other funding sources to help fund the planning and development of affordable housing in this area. The City could also leverage local, State, and federal affordable housing funding sources.

The City issued a request for proposals (RFP) seeing professional services for the preparation of a Moraga Canyon Specific Plan on January 23, 2023. Proposals were received on March 13, 2023 and contract execution and project kick-off are expected to occur by the end of July 2023. There are no known impediments to the development of housing within the study area. The scope of services detailed in the RFP include but are not limited to the following:

- Detailed guidance on phasing and subdivision that accommodates the 60 units of lower-income housing and 72 units of above moderate-income housing identified for the study area in Housing Element program 1.L and the Sites Inventory (Housing Element Appendix B), and that prioritizes and expedites the identification of a site for the development of affordable housing that meets the criteria and timelines to secure Alameda County Measure A-1 funding. (The due date for the City to gain County approval of a project using Measure A-1 funding is December 31, 2024.);
- The preparation of a surplus land declaration;
- A program of implementation measures including regulations, programs, infrastructure projects, and financing measures necessary to implement the Specific Plan; and
- An evaluation of the economic feasibility of the Specific Plan.

Necessary entitlements and the issuance of building permits will occur during the planning period and will be specified through the Specific Plan process. As noted in Appendix F, any new housing in Piedmont represents increased access to opportunity and housing mobility, as the City is considered to be “highest resource” throughout. The Specific Plan will promote housing choice and affordability, given that it includes measures to provide housing for below-market rate households, which will help overcome existing patterns of income segregation within the Bay Area and East Bay region.

The City will also determine appropriate partnership opportunities in order to ensure successful implementation of this program and adequate funding for the development of affordable housing. Proposals would be reviewed and approved by the City Council.

- Objective: Develop a specific plan to accommodate at least 132 dwelling units at a density of 40 to 60 dwelling units per acre affordable to a variety of households, including seniors, disabled persons, single-parents, low-income families, and people requiring supportive services.
- Timeframe:
    - Award contract for professional services for the preparation of the specific plan and kick off project by July 2023.
    - Apply for available grant funding by December 2024.
    - Begin subdivision of site and Surplus Land declaration timed to be completed concurrent with Specific Plan adoption.
    - Prepare specific plan with the goal of completion by the end of 2025.
    - Adopt specific plan, General Plan amendments (See Program 1.P), and associated development standards by 2025.
    - Pursue goal of entering into exclusive negotiating agreement with development partners by the end of 2026.
    - Issue building permits by the end of 2027 (if an agreement is finalized with developers by 2026).
    - Identify alternative site(s) by June 2027 (if no agreement is finalized by the end of 2026).
- Responsible Agency: Planning & Building Department, with direction of City Council and Planning Commission.”

Moraga Canyon Specific Plan

Addendum to the 2023-2031 Housing Element Implementation Project Environmental Impact Report

State Clearinghouse No. 2022020362

prepared by

City of Piedmont
120 Vista Avenue
Piedmont, California 94611
Contact: Kevin Jackson, AICP, Director of Planning & Building

prepared with the assistance of

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August 2025

Table of Contents

Acronyms and Abbreviations iii
1 Introduction 1
1.1 Background of the EIR Addendum 1
1.1.1 Housing Element Implementation Project Background 1
1.1.2 Housing Element EIR Background 2
1.2 Basis for the Addendum 2
2 Project Description 5
2.1 Project Title 5
2.2 Lead Agency and Project Proponent Name, Address, and Contact 5
2.3 Project Location and Setting 5
2.3.1 Regional Location 5
2.3.2 Project Site Location and Setting 5
2.4 General Plan Designation 8
2.5 Zoning 8
2.6 Description of Project 8
2.6.1 Specific Plan Chapters 9
2.6.2 Components and Framework 10
2.6.3 Development Regulations 12
2.6.4 Circulation and Access 15
2.6.5 Development Requirements 17
2.6.6 Public Services and Utilities 17
2.6.7 Comparison to Housing Element Implementation EIR – CEQA Baseline and Buildout Assumptions 18
2.7 Project Objectives 18
2.8 Required Approvals 20
3 Impact Analysis 21
3.1 Aesthetics 23
3.2 Agriculture and Forestry Resources 27
3.3 Air Quality 29
3.4 Biological Resources 35
3.5 Cultural Resources 41
3.6 Energy 45
3.7 Geology and Soils 47
3.8 Greenhouse Gas Emissions 53

3.9 Hazards and Hazardous Materials 55
3.10 Hydrology and Water Quality 61
3.11 Land Use and Planning 67
3.12 Mineral Resources 69
3.13 Noise 71
3.14 Population and Housing 75
3.15 Public Services 77
3.16 Recreation 81
3.17 Transportation 83
3.18 Tribal Cultural Resources 89
3.19 Utilities and Service Systems 93
3.20 Wildfire 97
4 Cumulative Impacts 105
5 Conclusion 107
6 References 109

Tables

Table 1 Land Use Summary and Buildout Development Option A (Multi-Family South of Moraga Avenue) 14
Table 2 Land Use Summary and Buildout Development Option B (Multi-Family North of Moraga Avenue) 14

Figures

Figure 1 Regional Location 6
Figure 2 Specific Plan Location 7
Figure 3 Urban Design Framework Diagram 11
Figure 4 Proposed Development and Land Use Plan 13
Figure 5 Vehicular Circulation Plan 16
Figure 6 Housing Element Implementation EIR and Proposed Project MCSP area Boundary 19

Appendices

Appendix A Cultural Resources Technical Report
Appendix B Transportation Analysis Memorandums
Appendix C Sewer Analysis

Acronyms and Abbreviations

ABAG	Association of Bay Area Governments
ARMR	Archaeological Resource Management Reports
BAAD	Bay Area Air District
BMP	Best Management Practice
CALGreen	California Green Building Standards Code
CTP	California Transportation Plan
CAP 2.0	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
CIP	Capital Improvement Program
CNEL	Community Noise Equivalent Level
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dBA	Decibels A
DOT	Department of Transportation
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
EBMUD	East Bay Municipal Utilities District
ESA	Environmental Site Assessment
ESL	Environmental Screening Levels
EP	Environmental Professional
EV	Electric Vehicle
EIR	Environmental Impact Report
FTA	Federal Transit Authority
HABS	Historic American Building Survey
HRA	Health Risk Assessment
HRE	Historical Resources Evaluation
HVAC	Heating, Ventilation, and Air Conditioning
LID	Low Impact Development

mgd	million gallons per day
MCSP	Moraga Canyon Specific Plan
MRP	Municipal Regional Stormwater Permit
MTC	Metropolitan Transportation Commission
MWELO	Model Water Efficiency Landscape Ordinance
N/A	Not Applicable
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PCC	Piedmont City Code
PE	Professional Engineer
PFD	Piedmont Fire Department
PG	Professional Geologist
PPD	Piedmont Police Department
PPV	Peak Particle Velocity
PQS	Professionally Qualified Staff
PSS	Piedmont's Safer Streets
PUSD	Piedmont Unified School District
SFRWQCB	San Francisco Regional Water Quality Control Board
SLF	Sacred Land Files
SMP	Soil Management Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCP	Transportation Construction Plan
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Travelled
WUI	Wildland-Urban Interface

1 Introduction

This document is an addendum to the Environmental Impact Report (EIR) (State Clearinghouse [SCH] #2022020362) certified in 2024 ("Housing Element EIR") for the City of Piedmont 2023-2031 Housing Element Implementation Project ("Housing Element"), which is incorporated into this Addendum to the EIR by reference. The City of Piedmont was the lead agency for the certified EIR and is the lead agency for this addendum. The Addendum analyzes the environmental effects of proposed revisions to the previously approved project analyzed in the Housing Element EIR and has been prepared in accordance with relevant provisions of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the *CEQA Guidelines*.

This Addendum addresses proposed project modifications in relation to the previous environmental review documents prepared for the original project and the proposed project. According to *CEQA Guidelines* Section 15164, an addendum to a previously certified EIR or negative declaration is the appropriate environmental document in instances when "only minor technical changes or additions are necessary" and when the new information does not involve new significant environmental effects beyond those identified in the previous EIR. *CEQA Guidelines* Section 15164 states that:

a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred [these are listed below in Section 1.2].
b) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.
c) The decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.
d) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record.

1.1 Background of the EIR Addendum

1.1.1 Housing Element Implementation Project Background

Piedmont's 2023-2031 Housing Element was adopted by the City Council in March 2023. Implementation Program 1.L of the Housing Element calls for development of a Specific Plan for five City-owned parcels in Moraga Canyon. These five sites were identified to provide a viable development opportunity for mixed-income residential uses in a variety of housing forms, including single-family, duplex, and multi-family residences. Therefore, the Housing Element directs City officials and staff to prepare a specific plan (pursuant to Government Code Section 5450 et. seq) for the area to accommodate housing, incorporate and improve existing amenities and recreation facilities, modernize current city functions for efficiency, and minimize potential impacts. Implementation of Housing Element Program 1.L requires amendments to the General Plan, also completed in 2024, and the preparation of a specific plan to accommodate a density of 40 to 60 dwelling housing units per acre and create development standards for the unique site conditions to produce at least 60 housing units of low and very low-income housing and 72 housing units of above

moderate-income housing. In February 2024, the City's General Plan and zoning ordinance were amended to make these changes in accordance with Housing Element Program 1.L. The General Plan and General Plan land use map were amended to create the "Moraga Canyon Specific Plan" land use designation and apply it to the MCSP area.

1.1.2 Housing Element EIR Background

In February 2024, the City of Piedmont certified an EIR that analyzed the environmental effects of implementation of the 2023-2031 Housing Element (2023-2031 Housing Element Implementation Project EIR or "Housing Element Implementation EIR"; State Clearinghouse #2022020362). The City also adopted a Mitigation, Monitoring and Reporting Program, CEQA Findings, and a Statement of Overriding Considerations. The Housing Element Implementation EIR presented a programmatic analysis of the City's 2023-2031 Housing Element Update and evaluated a buildout of approximately 1,048 new residential housing units, of which up to 199 housing units are within the MCSP area (132 housing units plus 67 additional housing units from possible SB 9, accessory dwelling housing units (ADU), and/or density bonus development in the area).

The certified Housing Element Implementation Project EIR consists of the Draft EIR and the Final EIR, together. For each impact analysis in the Draft EIR, the analysis is divided into two analyses sections. First, there is an analysis of the implementation of the proposed project throughout the city, titled "Citywide Housing Element Implementation." These sections address all actions under the proposed project, including the General Plan amendments, Zoning Ordinance amendments, and adoption and implementation of the Moraga Canyon Specific Plan (MCSP). However, as there are potential site-specific issues with respect to the MCSP area, a second analysis section, titled "Moraga Canyon Specific Plan," discusses impacts only associated with the MCSP area.

1.2 Basis for the Addendum

As discussed in the *CEQA Guidelines*, between the date an environmental document for a project is completed and the date that project is implemented fully, one or more of the following changes may occur: 1) the project may change; 2) the environmental setting of the project may change; or 3) previously unknown information can arise. Before proceeding with a project, CEQA requires the lead agency to evaluate these changes to determine whether they affect the conclusions in the prior environmental document. When an EIR has been adopted and a project is modified or otherwise changed after adoption, additional CEQA review may be necessary. The key considerations in determining the need for the appropriate type of additional CEQA review are outlined in Public Resources Code Section 21166 (CEQA) and *CEQA Guidelines* Sections 15162 and 15164.

CEQA Guidelines Section 15162(a) provides that a Subsequent EIR is not required unless the following occurs:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
   A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
   B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
   C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
   D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to *CEQA Guidelines* Section 15164(a), an addendum to a previously certified EIR may be prepared if some changes or additions are necessary but none of the conditions described in Section 15162 have occurred that require preparation of a Subsequent EIR. An addendum must include a brief explanation of the agency's decision not to prepare a Subsequent EIR and must be supported by substantial evidence in the record as a whole (Section 15164[e]). The decision-making body must consider the addendum prior to approving the project (Section 15164[d]).

An addendum to the Housing Element EIR is appropriate to address the proposed Moraga Canyon Specific Plan project (proposed project or proposed MCSP), because the proposed Moraga Canyon Specific Plan, and any required corresponding modifications to the Piedmont Zoning Ordinance, do not meet the conditions of Section 15162(a) for preparation of a Subsequent EIR as described herein.

The Housing Element EIR and this Addendum serve as documents to inform decision-makers and the public of the potential environmental consequences of approving the proposed Moraga Canyon Specific Plan project. This Addendum neither controls nor determines the ultimate decision for approval of the proposed MCSP. The information presented in this Addendum to the certified EIR will be considered by the City of Piedmont alongside the certified EIR prior to deciding whether to approve the proposed MCSP.

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2 Project Description

2.1 Project Title

Moraga Canyon Specific Plan and Housing Element Program 1.L Implementation

2.2 Lead Agency and Project Proponent Name, Address, and Contact

City of Piedmont
120 Vista Avenue
Piedmont, California 94611

Contact: Kevin Jackson, AICP, Director of Planning & Building
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2.3 Project Location and Setting

2.3.1 Regional Location

The Moraga Canyon Specific Plan Area ("MCSP area") is located in the northeastern portion of the City of Piedmont in the East Bay region of the San Francisco Bay Area in northern Alameda County. Piedmont is completely surrounded by the City of Oakland, bordering the Oakland neighborhoods of Montclair District to the east and Crocker Highlands, Lakeshore, and Grand Lake districts to the south and west. The Mountain View Cemetery borders the MCSP area directly to the north. The MCSP area is generally adjacent to the Piedmont Avenue District neighborhood to the northwest, Rockridge to the north, and Glen Highlands to the northeast. Regional access is provided by Interstate 580, State Route (SR) 24, and SR 13. Figure 1 shows the regional location.

2.3.2 Project Site Location and Setting

The MCSP area encompasses approximately 22.78 acres located in the northeastern portion of Piedmont in Moraga Canyon along Moraga Avenue, which bisects the site. The MCSP area includes five city-owned parcels (Assessor Parcel Numbers 050457901900, 050457908000, 048A700200303, 050457902100, and 050457906100) and the Moraga Avenue right-of-way. The MCSP area and its surrounding context are shown on Figure 2.

Approximately 13 acres of the MCSP area are located on two parcels north of Moraga Avenue and this area is currently utilized for a combination of uses including the City of Piedmont Corporation Yard and vehicle storage, Coaches Field (soccer/softball fields), Kennelly Skatepark, restroom facilities, recreational parking, and temporary sales including a holiday tree lot. Nearly 9 acres of this site is undeveloped, with a significant portion comprising steep grades extending north to the city limits. The site is accessed from Moraga Avenue at Red Rock Road.

Figure 1 Regional Location

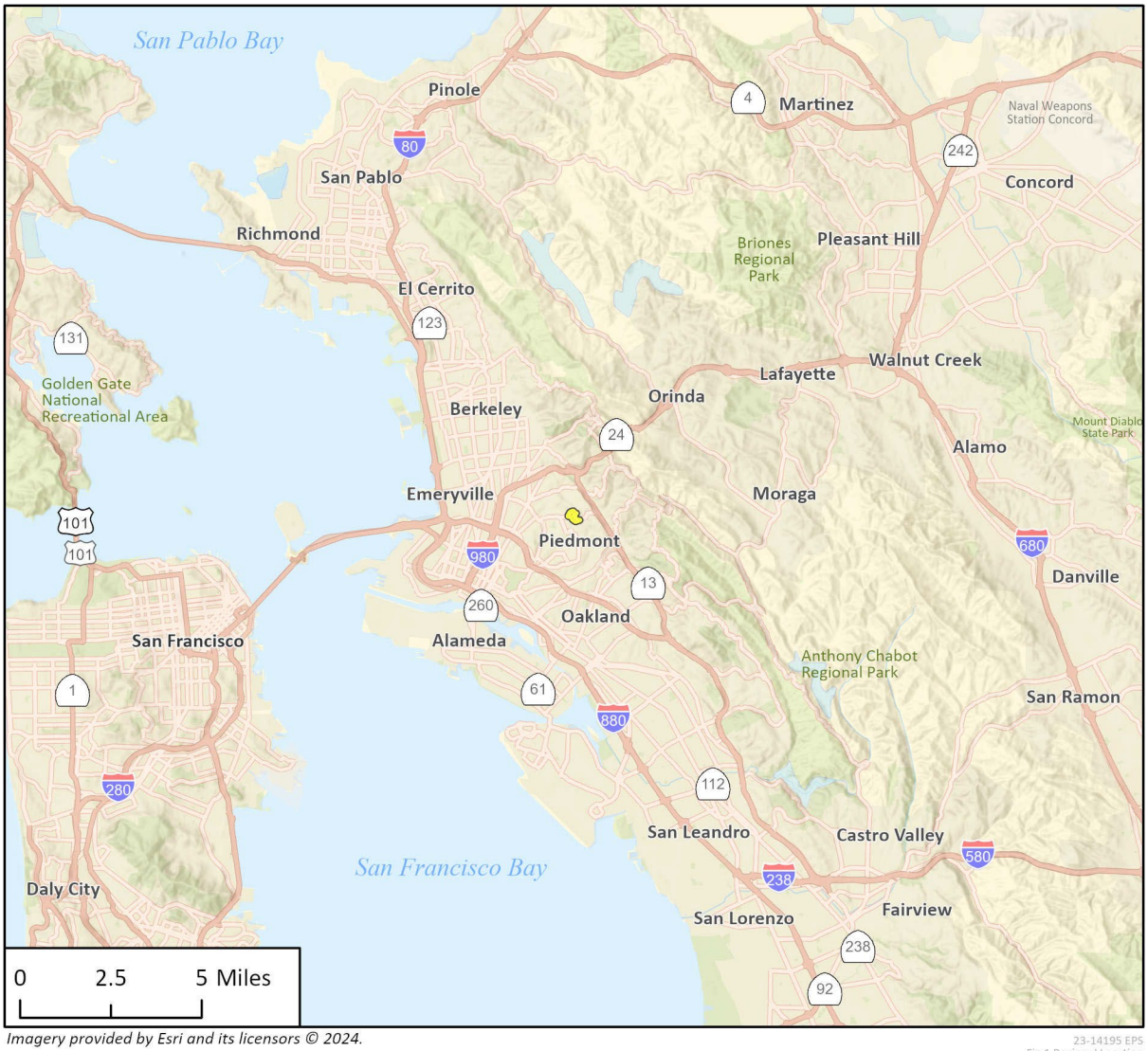

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Fig 1 Regional Location

Project Location

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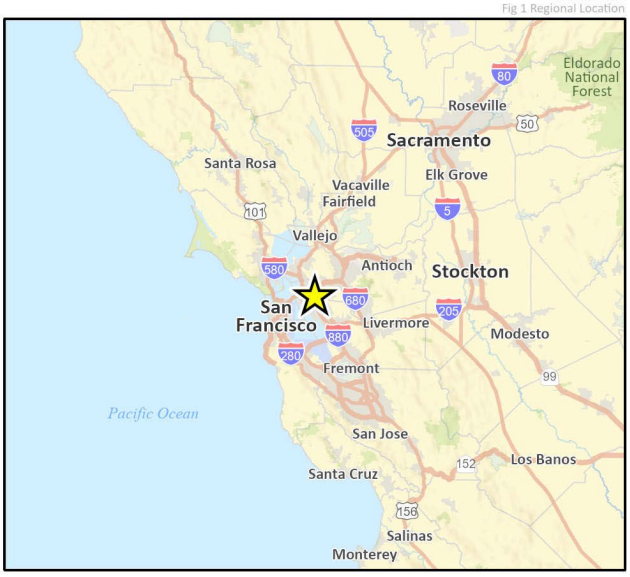
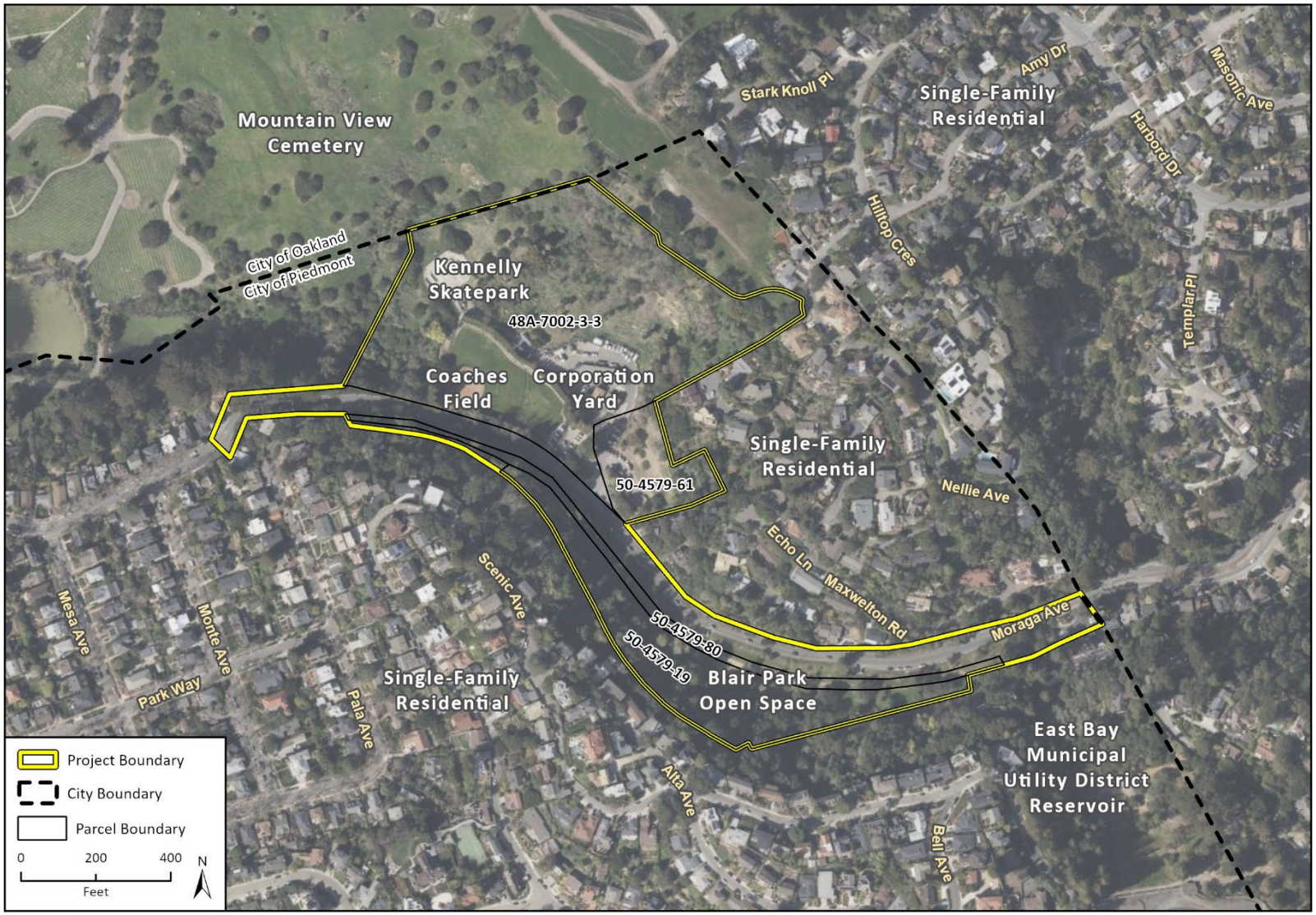


Figure 2 Specific Plan Location



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23-14195 EPS
Fig 2 Adjacent Land Use

On the south side of Moraga Avenue are three parcels that together total approximately 6 acres comprising an open space area known as the Blair Park Open Space. This linear-shaped portion of the MCSP area is undeveloped and currently used as an informal park by residents as an off-leash dog walking area.

The MCSP area includes the Moraga Avenue right-of-way totaling approximately 3.5 acres of paved roadway, curb and gutter, intermittent sidewalks, as well as undeveloped land.

Part of the MCSP area north of Moraga Avenue was historically used as a quarry, and later filled in with artificial, non-engineered fill partially deposited in the 1950s during the grading for the Warren Freeway (State Route 13). These activities resulted in an area generally characterized by relatively flat areas comprised of fill situated directly adjacent to steep, sometimes almost vertical, slopes to the west, north, and south of, and within, the MCSP area. The area south of Moraga Avenue also received fill deposited in the 1950s during the grading for State Route 13. Landcover within the MCSP area includes oak woodland, paved/developed and landscaped areas, and annual and perennial grasslands.

2.4 General Plan Designation

The MCSP area has a General Plan land use designation of "Moraga Canyon Specific Plan." The General Plan describes this land use designation as an area for new housing and to maintain, replace, and improve existing City facilities, open space, and recreational amenities including Blair Park Open Space, Coaches Field, Kennelly Skate Park, and the City's Corporation Yard.

2.5 Zoning

The MCSP area is zoned as Public Facilities (Zone B). This zone allows for single-family and multi-family residential development along with other uses such as municipal uses and parks and open space.

2.6 Description of Project

The proposed project involves adoption of the MCSP consistent with Implementation Program 1.L of the City's 2023-2031 Housing Element Update, along with corresponding amendments to the Piedmont City Code (PCC). The MCSP includes land use, infrastructure, and implementation requirements for the future development in the MCSP area. The MCSP also includes design standards, site specific objective development standards, and general development criteria as well as regulations for permitted uses. The MCSP has a vision for a new mixed-income multifamily community integrated into existing Piedmont residential areas and open space areas in Moraga Canyon, where parks and outdoor spaces would be blended with the residential community. The target market for these residences would be for families, the growing number of professionals working in the general neighborhood, remote workers, public employees, service providers, special needs populations, and seniors. The design of the community fosters social interaction and wellness with inclusion of increased bicycle and pedestrian safety and access routes and abundant improved indoor and outdoor amenities, including landscaped open space areas, play fields, trails, and walking paths.

Overall, the MCSP envisions the following:

- A variety of housing choices including an anticipated 197 multifamily dwelling housing units (of which at least 60 would be affordable) and two single-family dwellings. It is anticipated that the multifamily dwellings would be in four- to six-story buildings on partial underground podium parking structures. It is anticipated that the single-family residential would be one to four stories on sloping lots.
- Up to 1.5 acres of civic uses intended for the City maintenance facilities.
- Approximately 5 acres of roadway improvements including realignment, retaining walls, undergrounding of utilities, sidewalks, streetlights, fire hydrants, and lane widening and re-configuration.
- Approximately five acres devoted to improved recreational uses, including a multi-sport field with natural or synthetic turf the size of a U14 soccer field with baseball/softball overlay with spectator bleachers, restroom facilities and batting cages, and a skateboard facility (either the existing skate park or a skate spot if residential development occurs north of Moraga Avenue).
- Amenities such as one or more dog parks, playgrounds, and/or community gardens.
- Other improvements such as landscaped hillsides and other planted areas, sidewalks, terraces and courtyards, trails, driveways, bus public transit, and public access improvements.

2.6.1 Specific Plan Chapters

The MCSP includes the following chapters:

- **Chapter 1, Introduction.** The Introduction chapter describes the MCSP area conditions and context, the purpose and objectives of the document, and the community engagement and plan development process. This chapter defines terms used throughout the Specific Plan.
- **Chapter 2, Vision and Urban Design Framework**. The Vision and Urban Design Framework chapter provides the long-term vision and guiding principles for the MCSP area.
- **Chapter 3, Development Regulations.** The Development Regulations chapter outlines the Specific Plan's relationship to existing City policy, including the General Plan and existing Piedmont City Code regulations, and establishes the Specific Plan's land use requirements, zoning requirements, and other regulations to ensure the MCSP's compatibility with its surrounding natural and built environment.
- **Chapter 4, Circulation and Multi-Modal/Complete Streets Improvements**. This chapter presents a strategy to improve the multi-modal transportation network, including pedestrian, bicycle, and transit access, in the MCSP area and vicinity, including emergency response and evacuation.
- **Chapter 5, Site Design.** The Site Design chapter provides guidelines for building standards and design including but not limited to building orientation, open space, parking, pedestrian access, grading standards, lighting, drainage and green infrastructure, retaining walls, and erosion.
- **Chapter 6, Building Design.** The Building Design chapter defines a set of requirements to aid in the design of properly scaled and articulated multifamily residential buildings and associated development compatible with the context of Moraga Canyon.
- **Chapter 7, Architectural Style.** The Architectural Style chapter provides standards and specific details for several optional architectural styles that developers may choose to apply to the multifamily residential development.
- **Chapter 8, Landscape Design.** The Landscape Design chapter establishes landscape requirements for multifamily residential development, including but not limited to materials, vegetation, irrigation, hardscape, walls, fences, landscape lighting, site furnishings, and monumentation.

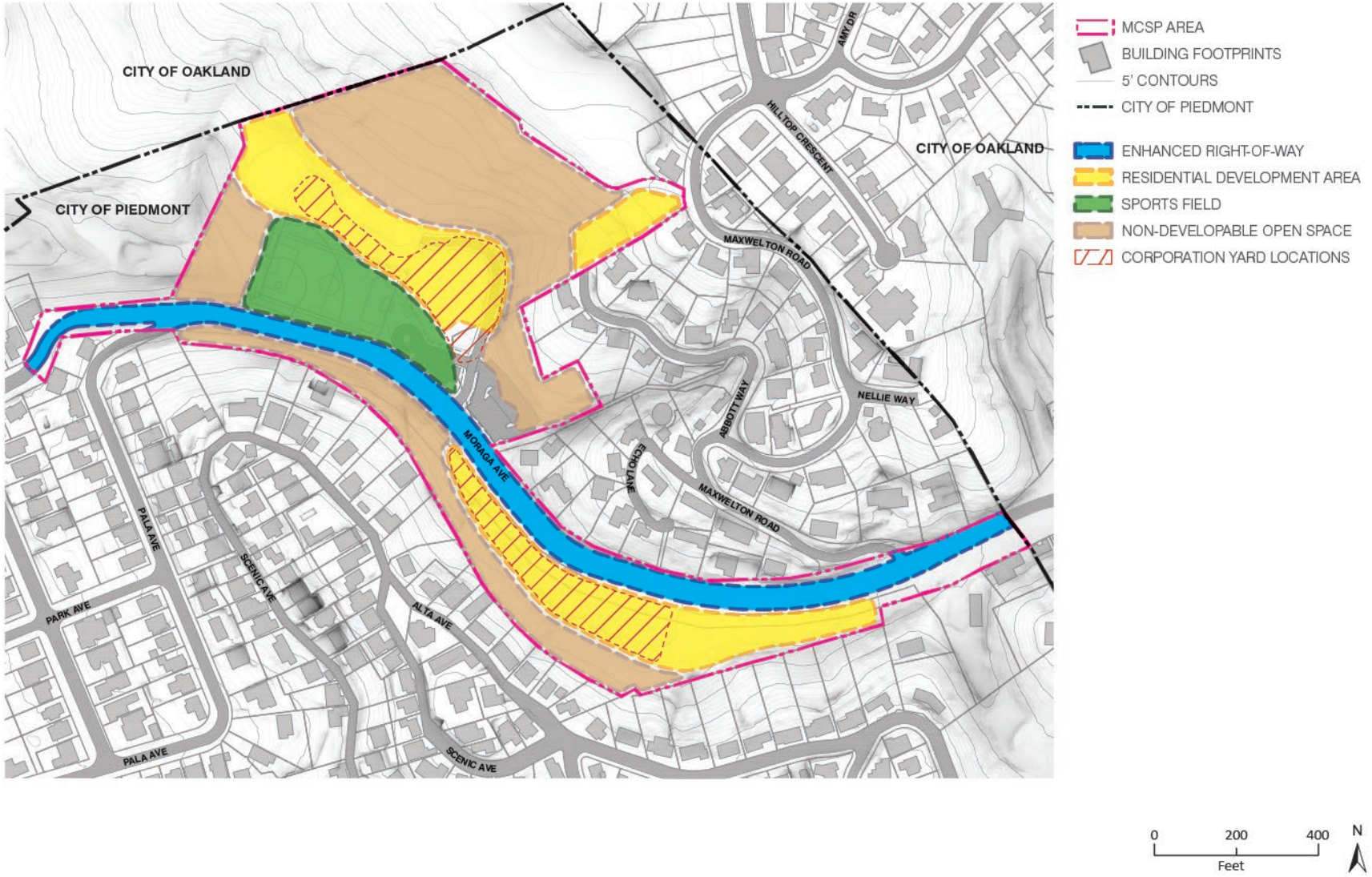
- **Chapter 9, Public Services and Utilities.** This chapter develops utilities, public services, infrastructure solutions and green infrastructure measures to support development, manage and treat stormwater, and enhance the public realm, including but not limited to the public right-of-way and city facilities.
- **Chapter 10, Implementation, Financing, and Administration**. This chapter identifies the legal framework of the MCSP, the anticipated phasing, the available financing mechanisms (including affordable housing), the processing procedures for development within the MCSP, maintenance responsibilities, environmental measures, and Specific Plan amendment procedure.

2.6.2 Components and Framework

Chapter 2 of the MCSP, Vision and Urban Design Framework, includes the following framework elements, as also illustrated on Figure 3 for development occurring under the proposed MCSP:

- **Areas Designated for Residential Development**. 199 housing units of residential development are anticipated, including a minimum of 60 affordable housing units. Two sites have been identified where single-family development could occur, one at the cul-de-sac of Abbot Way and another where the site boundary touches Maxwelton Road at the northeastern corner of the site. The remaining housing units, both market-rate and affordable, are to be co-located either entirely north of Moraga Avenue or entirely south of Moraga Avenue.
- **Enhanced Right-of-Way.** Extending from west to east, Moraga Avenue would be the element that links the entire site together. The right-of way would be enhanced to create safer pedestrian and bicycle travel and include a new stop light at Red Rock Road to provide safer connection between facilities and housing on both sides of the roadway.
- **Multi-Sport Field Expansion**. The existing soccer field would be expanded to accommodate a multisport field with natural or synthetic turf the size of a U14 soccer field with baseball/softball overlay with spectator bleachers, restrooms and batting cages. Grading may be needed east of the existing field to provide adequate area. The existing retaining wall may need to be realigned. . The sports field expansion may also involve adding lighting to the field and parking areas.
- **Non-Developable Open Space.** Open Space deemed too steep for development north of Moraga Avenue with elevation above the proposed development areas may accommodate a nature trail. Severe topographic slope area south of Moraga Avenue would be avoided.
- **Corporation Yard Locations**. Depending on where residential development occurs, the corporation yard would either remain in place or be moved to the south side of Moraga Avenue where a new facility will be constructed.

Figure 3 Urban Design Framework Diagram



2.6.3 Development Regulations

Chapter 3 of the MCSP describes the proposed development regulations. The MCSP would serve as a planning tool to implement the intent of the Piedmont General Plan for the area covered by the Specific Plan. The MCSP along with the PCC and General Plan would serve as the policy document that regulates future development within the Specific Plan area. The MCSP would further define the allowed land uses already established by the City's existing zoning. The intent for the Specific Plan is to allow for residential development to occur in the MCSP area while designating areas for recreation and civic uses. The land use plan within the MCSP includes four land use designations in addition to the Moraga Avenue right-of-way: Single Family Residential, Multifamily Residential, Parks and Private Open Space, and Municipal (Corporation Yard Development Option). These are further explained below and illustrated on Figure 4.

- **Single-Family Residential**. The purpose of the Single-Family Residential designation is to create up to two lots adjacent to the existing single-family residential uses in the northern portion of the Specific Plan area for the construction of two single-family residences and associated site improvements.
- **Multifamily Residential**. The Multifamily Residential designation would be in one of two locations of the Specific Plan Area, but must exist entirely on one side of Moraga Avenue (either north or south of Moraga Avenue). The Multifamily Residential Land Use would allow up to 197 market rate and affordable (60 housing units minimum) housing units.
- **Parks and Private Open Space**. The purpose of the Parks and Private Open Space designation is to accommodate modernized recreation facilities including a multi-sport field with natural or synthetic turf the size of a U14 soccer field with baseball/softball overlay with spectator bleachers, restroom facilities and batting cages, and a skateboard facility (either the existing skate park or a skate spot if residential development occurs north of Moraga Avenue). Additional open spaces, such as one or more dog parks or playgrounds, may be designated in areas where residential development does not occur. Lighting of the playfield, open space areas, and parking and drop-off areas may be made in this designation.
- **Municipal (Corporation Yard Development Option).** The purpose of the Municipal land use is to designate an appropriately sized area to accommodate the City's corporation yard. If residential development is to occur south of Moraga Avenue, the existing corporation yard is to remain in its current location. If residential development is to occur north of Moraga Avenue, then the corporation yard is to be moved south of Moraga Avenue to the Blair Park Open Space where a new facility would be constructed.

The Development Regulations chapter of the MCSP also describes permitted land uses (either permitted use, permitted use with conditional use permit, or not permitted) for the four land use designations consistent with zoning ordinance regulations.

Figure 4 Proposed Development and Land Use Plan

Source: Moraga Canyon Specific Plan.

As shown in Table 1 and Table 2, under both development options for multi-family residential development south and north of Moraga Avenue, development as envisioned under the land use plan would result in the construction of up to 199 residential housing units and City facilities on 22.78 acres of land.

Table 1 Land Use Summary and Buildout Development Option A (Multi-Family South of Moraga Avenue)

Land Use	Net Acres	Number of Dwelling Units
MCSP Parcel – North		
Single-Family Residential		
Maxwelton Road	0.31	1
Abbott Way	0.32	1
Multifamily Residential	4.73	197
Parks and Open Space		
Parks and Private Open Space	12.77	–
Public Works		
Existing Public Works	1.51	
Right-of-Way		
Moraga Avenue	3.04	–
Red Rock Road	0.10	**–**
Total	**22.78**	**199**

Source: City of Piedmont 2025 (MCSP)

Table 2 Land Use Summary and Buildout Development Option B (Multi-Family North of Moraga Avenue)

Land Use	Net Acres	Number of Dwelling Units
MCSP Parcel – North		
Single-Family Residential		
Maxwelton Road	0.31	1
Abbott Way	0.32	1
Multifamily Residential	4.78	197
Parks and Open Space		
Parks and Private Open Space	12.37	–
Public Works		
Existing Public Works	1.51	
Right-of-Way		
Moraga Avenue	3.04	–
Red Rock Road	0.45	**–**
Total	**22.78**	**199**

Source: City of Piedmont 2025 (MCSP)

2.6.4 Circulation and Access

Chapter 4 of the MCSP describes proposed vehicle, pedestrian, bicycle, transit, and emergency access and evacuation.

Vehicular Circulation and Access

Figure 5 shows the proposed vehicular circulation network in the MCSP area. Moraga Avenue would be maintained as an arterial with one travel lane in each direction. Currently the vehicle lane widths along Moraga Avenue through MCSP range between 10 and 18 feet. The MCSP would provide a more uniform lane width of 11 to 12 feet in both directions of Moraga Avenue. Infrastructure improvements such as relocation or undergrounding of utilities and power lines may be made along Moraga Avenue to accommodate roadway improvements.

The MCSP calls for signalization of the Moraga Avenue/Red Rock Road intersection which would better accommodate turns into and out of Red Rock Road, as well as improving pedestrian connectivity across Moraga Avenue. The new intersection would provide marked crosswalks across the north (Red Rock Road) and east (Moraga Avenue) approaches of the intersection. The intersection would provide a pedestrian refuge island, or median to calm traffic through the intersection and support pedestrians crossing a multi-lane intersection, on the east approach of the intersection.

Pedestrian Access

The MCSP proposes the following pedestrian access and circulation improvements:

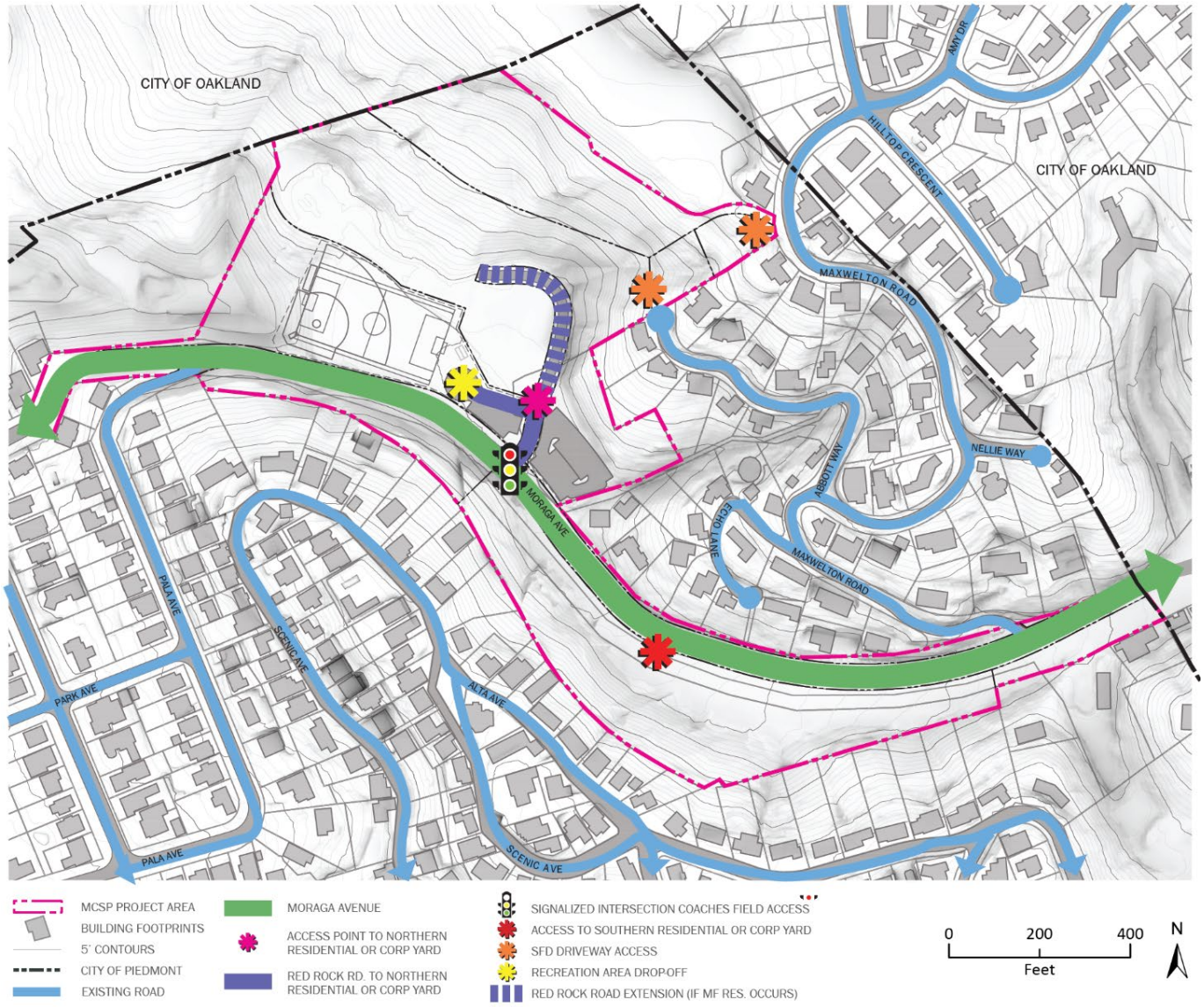
- East of Red Rock Road, an up to 6-foot-wide sidewalk with 5-foot-wide landscaping on both sides of Moraga Avenue.
- West of Red Rock Road, an up to 6-foot-wide sidewalk on the north side of Moraga Avenue separated with a 5-foot wide landscaping including low-fence/guardrail. This sidewalk would connect to an existing sidewalk that connects to the sidewalk network in Piedmont.
- A signal on Moraga Avenue at Red Rock Road (described above under “Vehicle Circulation and Access”)
- A new hiking trail in the northwest part of the MCSP area that would extend from the location of the existing Kennelly Skatepark uphill to a vista point with an optional extension to Maxwelton Road.
- Potential relocation or undergrounding of utility poles.

Bicycle Circulation and Access

The MCSP proposes the following upgrades to the bicycle network through implementing the following on Moraga Avenue:

- Eastbound (uphill): Moraga Avenue would provide a buffered Class II bicycle lane, with an option to upgrade to a Class IV protected bicycle lane, on the south side of the roadway along the entire corridor in the MCSP area. Eastbound Moraga Avenue would remain a Class III bike lane west of Pala Avenue, and a Class II bike lane east of Maxwelton Road.

Figure 5 Vehicular Circulation Plan



- Westbound (downhill): Moraga Avenue would remain a Class III enhanced bicycle route on the north side of the roadway within a consistent lane width throughout the MCSP area and extending in both directions of Moraga Avenue. However, depending on the final development plan and right-of-way availability, westbound Moraga Avenue may be upgraded to a Class II bicycle lane.

The MCSP also proposes to expand the bicycle parking at Coaches Field and other open spaces in the area, as well as dedicated bicycle parking areas in new residential development, to further encourage bicycling.

Public Transit

The Alameda-Contra Costa Transit District (AC Transit) is the primary bus transit service provider in Alameda County, including the City of Piedmont. Currently, no bus service is provided in the MCSP area, and the closest bus stops are approximately 0.5 mile away. In 2024, the City of Piedmont was awarded an ABAG-MTC Priority Sites Grant Program technical assistance grant to continue to study transit feasibility for Moraga Canyon.

The configuration of Moraga Avenue would accommodate future bus service in both directions of the corridor. The MCSP plans to accommodate bus service by implementing the following:

- Coordinate with AC Transit to introduce bus service along the Moraga Avenue corridor.
- Provide bus stops in both directions of Moraga Avenue near the signal at Red Rock Road to better accommodate bus riders needing to cross the street.
- Provide amenities, such as shelter with bench and trash receptacle, at the bus stops.

Emergency Access

The City of Piedmont Police Department Emergency Operations Procedures (December 2022) identifies Moraga Avenue as an evacuation route which, depending on the areas evacuated and the direction of the evacuation, can be used to either evacuate to the east to State Route 13 or to the west to Pleasant Valley Avenue and Broadway. The City of Oakland's 2045 General Plan Safety Element (July 2023) identifies State Route 13, Pleasant Valley Avenue, and Broadway as primary local evacuation routes. The reconfiguration of Moraga Avenue would continue to provide one travel lane in each direction and would remove on-street parallel parking along the Moraga Avenue roadway.

2.6.5 Development Requirements

Chapters 5, 6, 7 and 8 of the MCSP includes site design, building design, architectural styles, and landscape requirements and regulations for the multifamily residential development within the MCSP. Chapter 7 provides standards for several architectural styles that may be applied to the multifamily residential product. Detailed grading standards are included within Chapter 5 because development under the MCSP will involve grading of the sloped areas to accommodate residential development.

2.6.6 Public Services and Utilities

To support the vision of the MCSP to introduce new residential development and recreational resources, as well as improving municipal facilities, Chapter 9 of the MCSP includes infrastructure options and green infrastructure measures to support the development, manage and treat stormwater, and enhance the public realm. Like all parts of Piedmont, existing infrastructure in the

MCSP area dates from 1950s and later and might not be adequate to serve an increase in population. As a result, MCSP area some adjustments would be necessary to address existing infrastructure conditions, improve service, and increase infrastructure performance long term. The MCSP includes descriptions and options for improvements to wet utilities (water, sewer, stormwater) and dry utilities (electricity, natural gas, communications), as well as plans for site grading and green infrastructure. A sewer capacity study was conducted as part of the proposed MCSP and is further discussed in Section 3.19, *Utilities and Service Systems*, of this Addendum. The City is also required to continue updating its sewer infrastructure pursuant to the USEPA and State of California Consent Decree.

2.6.7 Comparison to Housing Element Implementation EIR – CEQA Baseline and Buildout Assumptions

The CEQA baseline for this analysis is the development for the MCSP area analyzed under the Housing Element Implementation EIR. The 2024 EIR assumed a buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area and the proposed MCSP also assumes a buildout of 199 housing units and construction and improvements of City facilities in the MCSP area. Therefore, development under the proposed MCSP falls within the buildout analyzed in the Housing Element Implementation Project EIR.

In addition, as shown below in Figure 6, the MCSP area boundaries under the Housing Element Implementation EIR and the proposed MCSP are slightly different. This is due to the inclusion of additional right-of-way under the proposed MCSP. Nonetheless, the project footprint under the proposed MCSP falls within the geographic area and environmental issues analyzed in the Housing Element Implementation EIR, and this Addendum analyzes the impacts associated with the entire footprint as proposed in the MCSP.

2.7 Project Objectives

The MCSP is intended to achieve the following project objectives and desired outcomes as it is implemented over time:

1. Promote quality development by ensuring consistency between the goals and policies of the City of Piedmont General Plan and this Specific Plan.
2. Promote development that is compatible with and enhances surrounding uses.
3. Establish compact development that promotes walking and creates a strong sense of neighborhood.
4. Establish development standards for multifamily residential housing units, including housing affordable to households with lower incomes.
5. Facilitate private funding for public improvements and facilities, and public services required to implement the Specific Plan, including circulation, transit, and streetscape, utilities, domestic water, drainage facilities, and sewage disposal improvements.
6. Encourage sustainable development by promoting energy efficiency, solar energy generation, efficient water consumption, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design.
7. Develop a plan that is economically feasible and that can be implemented based on existing and anticipated future economic conditions.

Figure 6 Housing Element Implementation EIR and Proposed Project MCSP area Boundary

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23-14195 EPS
Fig X Project Boundaries

8. Promote integrated amenities, pedestrian and vehicular access, exterior materials, and architectural and landscape design among various housing types.
9. Promote wildfire safety in accordance with General Plan policies, California Department of Forestry and Fire Protection, and regional best practices.
10. Promote roadway safety in accordance with General Plan policies, California Department of Transportation standards, and regional best practices.

2.8 Required Approvals

In order for the proposed MCSP to be implemented, it would require adoption by the City Council of the City of Piedmont. The analysis and the resulting preparation of this Addendum are intended to provide the information and environmental analysis necessary to assist the City and City Council in considering all the approvals and actions necessary to adopt and implement the MCSP, as well as to adopt corresponding zoning amendments.

3 Impact Analysis

As outlined in *CEQA Guidelines* Section 15164, the Lead Agency shall prepare an addendum to a previously certified EIR for a proposed project if some changes or additions are necessary but none of the conditions described in *CEQA Guidelines* Section 15162 calling for preparation of a subsequent EIR have occurred. The *CEQA Guidelines* further specify that a brief explanation of the decision not to prepare a subsequent EIR should be included in one of the following: the addendum itself, the Lead Agency's findings on the project, or elsewhere in the record. Pursuant to the *CEQA Guidelines*, an addendum does not need to be circulated for public review but can be included in or attached to the adopted EIR prior to deciding on the project.

A comparative analysis has been prepared of the potential impacts associated with the proposed Moraga Canyon Specific Plan project and those potential impacts of the Housing Element Implementation Project analyzed in the Housing Element EIR, using the *CEQA Guidelines* Appendix G checklist as a guide. The checklist considers the full range of environmental issues subject to analysis under CEQA (in rows), and then poses a series of questions (in columns) aimed at identifying the degree to which the issue was analyzed in the EIR. The checklist also includes a column identifying whether the proposed changes constitute new information of substantial importance relative to each environmental issue. The questions posed in each column are described below:

- **Where was impact analyzed?** This column provides a cross-reference to the portions of the Housing Element EIR where information and analyses may be found relative to the environmental issue listed under each topic. The cross-references identified in this column correspond with page numbers and section numbers of the Housing Element EIR.
- **Do proposed changes require major revisions to the EIR?** In accordance with the *CEQA Guidelines* Section 15162(a)(1), this column indicates whether the proposed project would involve new significant environmental impacts or a substantial increase in the severity of identified significant impacts that, in turn, would require major revisions of the Housing Element EIR.
- **Do new circumstances require major revisions to the EIR?** In accordance with *CEQA Guidelines* Section 15162(a)(2), this column indicates whether changes to the circumstances under which the proposed project is undertaken or implemented have occurred that would involve new significant environmental impacts or a substantial increase in the severity of identified significant impacts that, in turn, would require major revisions of the Housing Element EIR.
- **Is there any new information resulting in new or substantially more severe significant impacts?** In accordance with *CEQA Guidelines* Sections 15162(a)(3)(A) and 15162(a)(3)(B), this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified, shows additional or substantially more severe significant impacts not discussed in the Housing Element EIR.
- **Do mitigation measures included in the certified EIR address and/or resolve impacts?** In accordance with *CEQA Guidelines* Sections 15162(a)(3)(C) and 15162(a)(3)(D), this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Housing Element EIR was certified, was identified. Note: a notation of "N/A" in this column indicates "not appliable" and that that no mitigation measures were identified in the Housing Element EIR.

The purpose of this Addendum is to analyze the environmental impacts of the proposed MCSP in relation to the environmental impacts identified for the MCSP area in the certified Housing Element EIR. The following analysis was conducted pursuant to the requirements of *CEQA Guidelines* Section 15162.

3.1 Aesthetics

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Have a substantial adverse effect on a scenic vista?	Pages 4.1-8 through 4.1-9	No	No	No	N/A
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Pages 4.1-9 through 4.1-10	No	No	No	N/A
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Pages 4.1-10 through 4.1-11	No	No	No	N/A
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	Pages 4.1-11 through 4.1-12	No	No	No	N/A

Housing Element EIR Summary

Section 4.1, *Aesthetics*, of the Housing Element EIR analyzed the MCSP's impacts related to aesthetics. As discussed in the Housing Element EIR, views from the MCSP area are limited to the immediate hills and hillsides in the area as well as Blair Park Open Space, and views of the MCSP area are also limited to mostly those from Moraga Avenue, a public roadway through the MCSP area, residences on the hillsides in the immediate surroundings, and points from within the MCSP area such as Coaches Field and Blair Park Open Space. There are no designated scenic views or vistas available through the site. Therefore, impacts to scenic resources were found to be less than significant with implementation of General Plan policies and Piedmont Design Standards and Guidelines and development standards.

Similarly, although the MCSP, as analyzed in the Housing Element EIR, would increase development in the MCSP area and change the characteristics of the area from primarily open space, municipal uses, and recreational uses to primarily residential development, with implementation of General Plan policies and Piedmont Design Standards and Guidelines and development standards, impacts related to scenic quality were found to be less than significant.

As discussed in the Housing Element EIR, development under the MCSP as analyzed in the Housing Element EIR would add new sources of light and glare to the area. However, existing sources of light and glare already exist to a limited extent, and future projects under the MCSP would be subject to applicable regulations to reduce excessive light and glare. Impacts related to light and glare were found to be less than significant.

The Housing Element EIR determined that there are no designated or eligible scenic highways in the MCSP area or with substantial views of the MCSP area. There was found to be no impact related to damaging scenic resources.

Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same buildout of an anticipated 199 residential housing units, as well as City facilities, in the MCSP area, consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the MCSP area is located within a canyon and views from the site are limited to the immediate hills and hillsides in the area, as well as Blair Park Open Space. Further, views of the MCSP area are limited and are mostly from Moraga Avenue, a public roadway through the MCSP area, from residences on the hillsides in the immediate surroundings, and from points within the MCSP area, such as Coaches Field and Blair Park Open Space. There are no designated scenic views or vistas available through the site. These conditions have not substantially changed since certification of the Housing Element EIR.

Development facilitated by the proposed MCSP in this area would be within what was analyzed in the Housing Element EIR and would not substantially alter or block scenic vistas. Development under the proposed MCSP would generally be the same as envisioned in the Housing Element EIR in terms of building height and location. Furthermore, future development under the proposed MCSP would be required to comply with site design standards outlined under the following MCSP sections: sections 5.4 (Multifamily Site Design Requirements), 5.5 (Building Facades), 5.7 (Multifamily Residential Open Space), 5.11 (Site Lighting), and 5.12 (Grading Standards) of the MCSP; building design standards outlined under sections 6.3 (Building Height), 6.4 (Massing), 6.5 (Stepbacks), 6.6 (Allowable Projections), 6.8 (Openings Alignment), 6.10 (Articulations), 6.11 (Façade Design), 6.12 (Building Entrance Typologies), and 6.13 (Utilities, Service Areas, and Building Equipment) of the MCSP; and landscape design standards outlined under sections 8.3 (Public Right-of-Way), 8.4 (Landscape Materials and Vegetation), 8.6 (Hardscape), 8.7 (Walls and Fences), 8.8 (Landscape Lighting), 8.9 (Site furnishing), and 8.10 (Monumentation) of the MCSP; as well as General Plan policies and PCC Chapter 17. Therefore, the proposed MCSP would not have a substantial adverse effect on a scenic vista and impacts would remain less than significant, as analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

As discussed in the Housing Element EIR, there are no designated or eligible scenic highways in the MCSP area or with substantial views of the MCSP area. The nearest eligible scenic highway is State Route (SR) 13, which is approximately 0.48 mile east of the MCSP area (Caltrans 2018). Due to surrounding development and landscaping, the MCSP area is not visible from SR 13. Future development pursuant to an adopted MCSP would not damage scenic resources in or within clear view of this State-designated Scenic Highway. No impact would occur, consistent with the analysis and conclusions of the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Development under the proposed MCSP would generally be the same as development envisioned in the Housing Element EIR in terms of building height and location. Similar to what was analyzed in the Housing Element EIR, the proposed MCSP would result in increased development within the MCSP area and would change the characteristics of the area from primarily open space, municipal uses, and recreational uses to primarily residential development. However, future development would be required to comply with site design standards outlined under the following MCSP sections: sections 5.4 (Multifamily Site Design Requirements), 5.5 (Building Facades), 5.7 (Multifamily Residential Open Space), 5.11 (Site Lighting), and 5.12 (Grading Standards) of the MCSP; building design standards outlined under sections 6.3 (Building Height), 6.4 (Massing), 6.5 (Stepbacks), 6.6 (Allowable Projections), 6.8 (Openings Alignment), 6.10 (Articulations), 6.11 (Façade Design), 6.12 (Building Entrance Typologies), and 6.13 (Utilities, Service Areas, and Building Equipment) of the MCSP; and landscape design standards outlined under sections 8.3 (Public Right-of-Way), 8.4 (Landscape Materials and Vegetation), 8.6 (Hardscape), 8.7 (Walls and Fences), 8.8 (Landscape Lighting), 8.9 (Site furnishing), and 8.10 (Monumentation) of the MCSP; as well as General Plan policies and PCC chapters 8 and 17 governing scenic quality. Therefore, impacts would remain less than significant, as analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Some sources of light and glare already exist to a limited extent within the MCSP area and in adjacent residential neighborhoods due to lighting of buildings in residential neighborhoods and in the Corporation Yard, streetlights, and cars traveling through and parked in the area. As discussed in the Housing Element EIR, new residential development facilitated by the proposed MCSP would add new sources of light and glare to the area. Further, the proposed MCSP includes a potential expansion of the existing soccer field as well as improvements such as the addition of field and parking lot lighting to allow for evening use of the field, which would increase on-site sources of lighting compared to existing field conditions. However, future development under the proposed MCSP would be required to comply with lighting standards in MCSP Chapters 5, 6, 7, and 8, as well as Chapter 10 environmental measures which is equivalent to Piedmont Design Standards and Guidelines limits on impacts to neighboring properties' privacy and protection from light pollution.. In addition, future projects would be required to comply with sections 5.11.1 and 8.8 of the MCSP which would further ensure a

reduction of light and glare impacts to a less than significant level. Also, Chapter 10 of the proposed MCSP includes the following requirement to address lighting:

> To ensure consistency with Section 3.12 of the City of Piedmont Design Guidelines related to exterior light spillage, prior to the approval of any building or landscape design for the park, corporation yard, or residential, a photometric plan shall be submitted to the City of Piedmont Planning and Building Department for Review. Direct light rays shall be shielded as necessary to not spill over onto abutting properties. Also, the photometric plan shall demonstrate that any proposed lighting shall not exceed 0.1 foot-candle on the cemetery property or 0.3 foot-candle on any property outside of the Specific Plan area. Furthermore, any sports field lighting shall not exceed 0.5 foot-candle at any residence within the Specific Plan area.

Therefore, consistent with the analysis and conclusions of the Housing Element EIR, with compliance with existing regulations as well as proposed MCSP policies and standards, the proposed MCSP would result in less than significant impacts to light and glare. There would be no new or substantially more severe impacts than those analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to aesthetics than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.2 Agriculture and Forestry Resources

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Page 1-7	No	No	No	N/A
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	Page 1-7	No	No	No	N/A
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	Page 1-7	No	No	No	N/A
d. Result in the loss of forest land or conversion of forest land to non-forest use?	Page 1-7	No	No	No	N/A
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	Page 1-7	No	No	No	N/A

Housing Element EIR Summary

As discussed in Section 1, *Introduction*, of the Housing Element EIR, the City of Piedmont lacks agricultural and forest land and there would be no impacts to agricultural or forestry resources.

Impact Analysis

a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP. There are no areas of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Williamson Act lands on or near the MCSP area. The project area is not zoned for forest land or timber land production. There would be no impacts, consistent with the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to agricultural resources than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.3 Air Quality

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	Pages 4.2-13 through 4.2-17	No	No	No	N/A
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Page 4.2-17 through 4.2-20	No	No	No	Yes
c. Expose sensitive receptors to substantial pollutant concentrations?	Pages 4.2-21 through 4.2-25	No	No	No	N/A
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Pages 4.2-25 through 4.2-26	No	No	No	N/A

Housing Element EIR Summary

Section 4.2, *Air Quality*, of the Housing Element EIR analyzed the MCSP's impacts related to air quality. As discussed in the Housing Element EIR, the MCSP as analyzed in the Housing Element EIR would be consistent with the 2017 Clean Air Plan and impacts would be less than significant. The Housing Element EIR determined that with the inclusion of policies related to construction emissions screening and construction emissions control measures to the General Plan Natural Resources and Sustainability Element, as set forth below, and compliance with Action 15B (Construction Dust Controls) of the General Plan Natural Resources and Sustainability Element, impacts related to construction criteria pollutants and fugitive dust emissions would be less than significant.

> **General Plan Natural Resources and Sustainability Element Policy 15.6: Construction Emissions Screening.** For individual projects subject to CEQA that do not meet the Bay Area Air Quality Management District (BAAQMD) construction and/or operational screening criteria under as provided in the 2022 BAAQMD CEQA Guidelines (or the guidelines in place at the time of development), individual air quality analysis shall be conducted to determine project significance. Where individual projects exceed BAAQMD significance thresholds, mitigation measures shall be incorporated to reduce emissions to below thresholds. Construction mitigation measures may include, but are not limited to, incorporation of Tier 4 and/or alternative fueled equipment, use of onsite power sources instead of generators, and use of low/no-VOC content architectural

coatings. Operational mitigation measures may include, but are not limited to, increased incorporation of photovoltaic systems (PV) beyond regulatory requirements, increased incorporation of EV charging stations and/or infrastructure beyond regulatory requirements, incorporation of a development-wide ride-share system, or elimination of natural gas usage within residential developments. Individual project analysis and accompanying emission-reduction measures shall be approved by the City prior to issuance of a permit to construct or permit to operate.

General Plan Natural Resources and Sustainability Element Policy 15.7: Construction Emissions Control Measures. As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current Bay Area Air Quality Management District's (BAAQMD) basic control measures for reducing construction emissions of PM_{10} (Table 5-2, Basic Best Management Practices for Construction-Related Fugitive Dust Emissions Recommended for All Proposed Projects, of the 2022 BAAQMD CEQA Guidelines, or applicable best management practices in BAAQMD's guidelines in place at the time of development), outlined below.

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times a day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations

The Housing Element EIR also found that since vehicle miles traveled (VMT) associated with the Housing Element would increase at a lower rate than population growth, impacts related to operational criteria pollutants would be less than significant.

The Housing Element EIR found that construction activities in the MCSP area in proximity to sensitive receptors could exceed BAAD's thresholds of an increased cancer risk of greater than 10.0 in a million and an increased non-cancer risk of greater than 1.0 Hazard Index (Chronic or Acute) and potentially expose nearby sensitive receptors to substantial pollutant concentrations. However, consistent with the policy related to construction health risk assessments (HRA) added to the General Plan Natural Resources and Sustainability Element, as set forth below, projects with construction timelines greater than two months and within 1,000 feet of sensitive receptors would be required to prepare a construction HRA, which was determined to reduce potential risk exposure to nearby sensitive

receptors to a less than significant level. In addition, consistent with the policy related to roadway HRAs added to the General Plan Natural Resources and Sustainability Element, as set forth below, projects sited within 500 feet of a roadway with 10,000 vehicles per day or more would be required to prepare a roadway HRA, which was determined to ensure roadway impacts are below BAAD's single-source risk and hazard threshold, reducing impacts to a less than significant level.

General Plan Natural Resources and Sustainability Element Policy 15.8: Construction Health Risk Assessments. Development projects (excluding small structures exempt under CEQA) where construction activities would occur within 1,000 feet of sensitive receptors, would last longer than two months, and would not utilize Tier 4 and/or alternative fuel construction equipment, shall perform a construction health risk assessment (HRA). If an HRA is to be performed, the HRA shall determine potential risk and compare the risk to the following BAAQMD thresholds:

- Non-compliance with Qualified Community Risk Reduction Plan;
- Increased cancer risk of > 10.0 in a million;
- Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute); or
- Ambient $PM_{2.5}$ increase of > 0.3 $\mu g/m^3$ annual average

If risk exceeds the thresholds, measures such as conditions of approval limiting use of diesel equipment to a maximum of two months, and requiring the use of Tier 4 and/or alternative fuel construction equipment for construction lasting longer than 2 months shall be incorporated to reduce the risk to appropriate levels.

General Plan Natural Resources and Sustainability Element Policy 15.9: Roadway Health Risk Assessments. Residential development projects (excluding small structures exempt under CEQA) that would be sited within 500 feet of a roadway with 10,000 vehicles per day or more such as Park Boulevard and Oakland Avenue, the Bay Area Air Quality Management District (BAAQMD) shall be consulted to determine if a health risk assessment (HRA) is necessary. The roadway HRAs shall demonstrate that roadway impacts are below the BAAQMD's single-source risk and hazard thresholds. If risks and hazards exceed the applicable BAAQMD thresholds, then feasible project design features such as high-efficiency particulate air (HEPA) filtration shall be incorporated into the project. Screening tools may be used to assess health risks in lieu of a roadway HRA if said tools are the most current published BAAQMD tools.

Lastly, as discussed in the Housing Element EIR, the MCSP as analyzed in the Housing Element EIR would not facilitate odor-generating sources and would not be located near odor producing facilities. Impacts were found to be less than significant.

Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and anticipated buildout of up to 199 housing units, as well as City facilities, in the MCSP area. Similar to what was analyzed in the Housing Element EIR, the proposed MCSP would be compliant with the 2017 Clean Air Plan since development under the proposed MCSP would also be required to comply with the most current version of Title 24 at the time of project construction; 2022 CALGreen standards which require a minimum 65 percent diversion of construction/demolition waste; EBMUD's Section 31 water efficiency regulations; and the State's Model Water Efficiency Landscape Ordinance (MWELO). The proposed MCSP would also

include improvements to the pedestrian, bicycle, and transit system, as discussed in further detail in Section 3.17, *Transportation*, of this Addendum. The improvements would further encourage future residents to walk and use bicycles instead of single-occupancy vehicles, and would better connect future residents to transit, services and jobs, thereby reducing VMT. Therefore, impacts would remain less than significant, consistent with the analysis in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Similar to what was analyzed in the Housing Element EIR, although construction activities would temporarily increase air pollutant emissions, future development would be required to comply with the new General Plan policies 15.6 and 15.7 related to construction emissions screening and construction emissions control measures, as well as Action 15B (Construction Dust Controls) of the General Plan Natural Resources and Sustainability Element. Adherence to General Plan policies and actions would reduce impacts from construction and fugitive dust emissions, and construction-related impacts would remain less than significant, consistent with the analysis in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

According to the BAAD 2022 CEQA Air Quality Guidelines, the threshold for criteria air pollutants and precursors requires an assessment of the rate of increase of plan VMT and population. VMT and population estimates for future development under the proposed MCSP were factored into the VMT modeling performed by Fehr & Peers in the Housing Element EIR. Since the proposed MCSP would include the same anticipated buildout of 199 housing units as analyzed under the Housing Element EIR, VMT would increase at a lower percentage than population as the proposed MCSP would change land uses to concentrate growth and residences close to jobs and services to reduce singular vehicle trips and encourage alternative models of travel. The proposed MCSP would also include improvements to the pedestrian, bicycle, and transit system, which would further reduce VMT. Therefore, operation-related impacts would remain less than significant, consistent with the impacts analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

As discussed in the Housing Element EIR, construction activities for individual projects facilitated by the proposed MCSP lasting longer than two months or located within 1,000 feet of sensitive receptors could expose sensitive receptors to substantial pollutant concentrations. Future development under the proposed MCSP would be required to comply with the new General Plan Policy 15.8 related to construction HRAs which would reduce impacts to a less than significant level.

The proposed MCSP would include the development of an anticipated 199 residential housing units and City facilities, as analyzed in the Housing Element EIR. Residential developments of this type and scale do not typically include new stationary sources onsite, such as emergency diesel generators. However, if residences did include a new stationary source onsite, they would be subject to BAAD

Regulation 2, Rule 2 (New Source Review) and require permitting. This process would ensure that the stationary source does not exceed applicable BAAD health risk thresholds. Therefore, operational TAC impacts would remain less than significant and would not be substantially greater than those identified in the Housing Element EIR.

According to the General Plan Natural Resources and Sustainability Element Policy 15.9, residential development projects sited within 500 feet of a roadway with 10,000 vehicles per day or more should consult with BAAD to determine if a roadway health risk assessment (HRA) is necessary. Since Moraga Avenue is a roadway with 10,000 vehicles or more per day, future development would be required to comply with Policy 15.9. Future development would also be required to comply with Title 24 Building Energy Efficiency Standards which currently require Minimum Efficiency Reporting Value 13 (or equivalent) filters for heating/cooling systems and ventilation systems in residences (Section 150.0[m]). If the roadway HRA determines that risks and hazards would exceed the applicable BAAD thresholds, then feasible project design features such as high-efficiency particulate air filtration would be required to be incorporated into the project. Therefore, impacts on project siting would remain less than significant, similar to those in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Development under the proposed MCSP would not include odor producing facilities identified in the BAAD 2022 CEQA Guidelines such as wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants. Development would also not be located near typical odor producing facilities. In addition, future development would be required to comply with section 6.9.2 of the MCSP which outlines requirements for odor attenuation. Therefore, odor impacts would remain less than significant, similar to those in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the analysis completed in the Housing Element EIR or require recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to air quality than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

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3.4 Biological Resources

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Pages 4.3-16 through 4.3-19	No	No	No	Yes
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Pages 4.3-19 through 4.3-20	No	No	No	N/A
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Pages 4.3-20 through 4.3-21	No	No	No	N/A
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Pages 4.3-21 through 4.3-22	No	No	No	N/A

		Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Pages 4.3-22 through 4.3-23	No	No	No	N/A
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Page 4.3-23	No	No	No	N/A

Housing Element EIR Summary

Section 4.3, *Biological Resources*, of the Housing Element EIR analyzed the MCSP's impacts related to biological resources. As discussed in the Housing Element EIR, the MCSP as analyzed in the Housing Element EIR may result in impacts to special-status species, including wildlife and plant species, as well as their habitats. However, the Housing Element EIR determined that with the addition of the following policies related to the San Franscisco Dusky Footed Woodrat protection, roosting bad protection, nesting bird protection, and bird safe design to the General Plan Natural Resources and Sustainability Element, this impact would be less than significant:

General Plan Natural Resources and Sustainability Element Policy 13.12: San Francisco Dusky Footed Woodrat Protection. For development projects where construction would take place within 50 feet of woodland or riparian habitat (excluding remodels of existing structures), a qualified biologist shall conduct a pre-construction survey for woodrats no more than 14 days prior to construction. Middens (woodrat or other packrat nest structure) within 50 feet of project activity that would not be directly impacted by project activity should be demarcated with a 10-foot avoidance buffer and left intact. If a midden(s) that cannot be avoided is found during the pre-construction survey, an approved biologist should monitor the dismantling of the midden by a construction contractor to assist with the goal of ensuring the individuals are allowed to leave the work areas unharmed before on site activities begin.

General Plan Natural Resources and Sustainability Element Policy 13.13: Roosting Bat Protection. For development projects that involve the removal of on-site trees or demolition of vacant structures, a qualified biologist shall conduct a focused survey of trees and structures to be removed to determine whether active roosts of special-status bats are present. Trees and/or structures containing suitable potential bat roost habitat features shall be clearly marked or identified. If active roosts are present, the biologist shall prepare a site-specific roosting bat protection plan to be implemented by the contractor following the City's approval.

General Plan Natural Resources and Sustainability Element Policy 13.10: Nesting Bird Protection. Development projects that involve tree removal or significant tree trimming shall take steps to avoid impacts to nesting birds. Initial site disturbance activities for construction, including vegetation and concrete removal, shall be avoided during the general avian nesting season (February 1 to August 30). If nesting season avoidance is not feasible, the applicant shall retain a qualified biologist to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the project site. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed inside the buffer areas until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is completed and the young have fledged the nest.

General Plan Natural Resources and Sustainability Element Policy 13.11: Bird Safe Design. Development projects (excluding small structures exempt under CEQA) shall incorporate bird-friendly building materials and design features to prevent bird strikes and collisions. Strategies for bird safe designs include but are not limited to: prohibiting glass walls around planted atria or windows installed perpendicularly on building corners; directing external lighting downward or shielding light fixtures to prevent light from spilling upward; designing building and landscaping without features known to cause collisions such as clear glass terrace, deck, or porch railings; using bird glazing treatments such as fritting, netting, permanent stencils, frosted glass, exterior screens, or physical grids placed on windows.

As discussed in the Housing Element EIR, there are no sensitive natural communities within the MCSP area. In addition, there are no protected wetlands or waters within the MCSP area. Impacts were determined to be less than significant with adherence to State and local regulations such as the Clean Water Act, City of Piedmont's General Plan Action 13.D, and Watercourse Protection Ordinance (30.11).

The Housing Element EIR determined that there is no natural connectivity between the MCSP area and movement corridors east of Piedmont along the Diablo Range. The urban nature of Piedmont and surrounding City of Oakland precludes the MCSP area as a wildlife movement corridor. This impact was found to be less than significant.

The MCSP area contains trees and other vegetation cover. Tree removal for projects under the MCSP, including removal of Heritage Trees, as analyzed in the Housing Element EIR would be subject to the existing regulations, policies, and actions in the General Plan and PCC and the Piedmont Heritage Tree Program. This impact was found to be less than significant.

As mentioned in the Housing Element EIR, no habitat conservation plans or natural community conservation plans are adopted in Piedmont, including the MCSP area. There would be no impact related to conflict with any such plans.

Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. Similar to what was analyzed in the Housing Element EIR, development facilitated under the MCSP would require construction activities that may involve removal of trees and habitats for nesting birds or special-status species such as roosting bats and San Francisco dusky-footed woodrat. Following construction, operation of development would require artificial light and mechanical equipment, generating noise, that could interfere with special-status wildlife species behavior and nesting habits. Additionally, the proposed recreational facilities such as the multi-sport field with baseball/softball overlay, a skateboard park, and batting cages could generate lighting during evenings which could impact special-status wildlife species behavior and nesting habits. Nonetheless, future development would be required to comply with Chapter 10 of the proposed MCSP which states that sports field lighting shall not exceed 0.5 foot-candle at any residence within the MCSP area, which would also minimize impacts on species and nesting habitats. Future development facilitated by the MCSP would also adhere to the new General Policies related to the San Franscisco Dusky Footed Woodrat protection, roosting bad protection, nesting bird protection, and bird safe design. Therefore, impacts to special-status species would remain less than significant, consistent with the impacts studied in the Housing Element EIR.

Since certification of the Housing Element EIR in 2024, a pair of bald eagles (*Haliaeetus leucocephalus*) have been reported in online forums to have nested in a tree within 600 feet of the MCSP area. Because this nest is outside of the MCSP area, should the nest still be present during future construction or operation of development under the MCSP, future development under the MCSP would not directly affect the nest such as through tree removal. Furthermore, the nesting site is in an area with regular foot traffic, suggesting that the eagles have become at least partially habituated to human presence. In addition, future development would be subject to existing laws and regulations regarding protected birds such as the California Endangered Species Act and Bald and Golden Eagle Protection Act. Potential indirect impacts to the bald eagles would be addressed by the existing General Plan Natural Resources and Sustainability Policy 13.10 protecting nesting birds and 13.11 requiring bird-safe design. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. There are no sensitive natural communities identified within the MCSP area. Natural communities exist within the MCSP area, but these communities are not considered sensitive by California Department of Fish and Wildlife (CDFW) or other regulatory agencies, such as the U.S. Fish and Wildlife Service (USFWS). If impacts to riparian areas are identified, development in the MCSP area would be required to adhere to the City's General Plan Action 13.D and Watercourse Protection Ordinance (30.11) and be subject to permitting pursuant to the Clean Water Act (CWA) and California

Fish and Game Code (CFGC). There would be no impact, consistent with the analysis and conclusions of the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. There are no protected wetlands or waters identified within the MCSP area. If impacts to wetlands are identified during the planning process for future development in the MCSP area based on site-specific conditions and the design associated with the proposed MCSP, development would be required to adhere to the City's General Plan Action 13.D and Watercourse Protection Ordinance (30.11) and be subject to permitting pursuant to the CWA and CFGC. Impacts would remain less than significant, consistent with the analysis in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. The MCSP area is surrounded by urban development on all sides. Although wildlife may move locally within the Moraga Canyon area of Piedmont, there is no natural connectivity between the MCSP area and movement corridors east of Piedmont along the Diablo Range. The urban nature of Piedmont and surrounding City of Oakland precludes the MCSP area as a wildlife movement corridor. In other words, the MCSP area is separated from other wildlife movement corridors by expansive amounts of urban development, such as the City of Oakland, City of Berkeley, Highway 13, and developed parts of the City of Piedmont. Future development would be required to comply with General Plan policies 13.4, 14.2, and 14.3, as well as the new General Plan policies 13.10 and 13.11 related to nesting bird protection and bird safe design. Impacts would remain less than significant, consistent with the analysis in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Consistent with what was analyzed in the Housing Element EIR, future development facilitated by the proposed MCSP could require substantial tree removal, including potential removal of one or more designated Heritage Tree(s). A bay laurel tree (*Umbellularia californica*) located in the Blair Park Open Space, designated as a Heritage Tree by the Piedmont Park Commission, may require removal under the development anticipated by the MCSP. Since certification of the Housing Element EIR, the line of redwood trees (*Sequoia sempervirens*) planted by the City on the southwestern corner of Coaches Field above Moraga Avenue have been designated as Heritage Trees by the Piedmont Park Commission in 2024. Therefore, the proposed MCSP may involve removal of Heritage Trees. However, as discussed in the Housing Element EIR, tree removal would be subject to the existing regulations,

policies, and actions in the General Plan and PCC and the Piedmont Heritage Tree Program. Therefore, impacts would remain less than significant, consistent with the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

As discussed in the Housing Element EIR, there are no habitat conservation plans or natural community conservation plans adopted in Piedmont, including the MCSP area. Therefore, future development in the MCSP area would not conflict with any such plans. No impact would occur, consistent with the analysis and conclusions of the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred with the preparation of the MCSP that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to biological resources than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.5 Cultural Resources

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Pages 4.4-17 through 4.4-19	No	No	No	N/A
b. Cause a substantial adverse change in the significance of an archaeological pursuant to §15064.5?	Pages 4.4-19 through 4.4-21	No	No	No	Yes
c. Disturb any human remains, including those interred outside of formal cemeteries?	Pages 4.4-21 through 4.4-22	No	No	No	Yes

Housing Element EIR Summary

Section 4.4, *Cultural Resources*, of the Housing Element EIR analyzed the MCSP's impacts related to cultural resources. As discussed in the Housing Element EIR, the 12-acre site in the MCSP area currently utilized for the Coaches Field, skate park, recreational parking, and the Piedmont Corporation Yard was determined to be ineligible for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) for lack of historical or architectural significance and is therefore not a historical resource pursuant to CEQA. The Housing Element EIR determined that with the addition of a policy related to historical resources assessment and treatment to the General Plan Design and Preservation Element, as set forth below, impacts related to historical resources would be less than significant.

> **General Plan Design and Preservation Element Policy 31.10: Historical Resources Assessment and Treatment.** A historic resources assessment including State of California Department of Parks and Recreation (DPR) 523 forms shall be prepared prior to the approval of development projects involving the demolition or substantial alteration (alteration of 30 percent or more of the building exterior) of buildings 45 years or older. DPR forms shall include a Primary Record (523A), Location Map (523J), and appropriate detailed recording forms (e.g., BSO Record (523B), Archaeological Site Record (523C), or District Record (523D)). The forms shall be prepared by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (as defined in Code of Federal Regulations, Title 36, Part 61). If the property is already listed in the NRHP or CRHR or if DPR forms or an historical resources evaluation (HRE) has been prepared for the property in the past five years, preparation of new DPR forms shall not be required.

If a building to be demolished or substantially altered is identified as a historical resource, efforts shall be made to the greatest extent possible to ensure that the alteration of the identified historical resources is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Where compliance with the Standards and/or avoidance is not possible, documentation of the historical resource in the form of a Historic American Building Survey (HABS)-like report shall be prepared. The documentation shall be completed by a qualified architectural historian or historian who meets the PQS.

The Housing Element EIR found that the historic and existing levels of disturbance in the MCSP area suggests low potential for encountering intact subsurface archaeological deposits. However, potential for the unanticipated discovery of archaeological resources still exists. Nonetheless, compliance with the General Plan policy, set forth below, related to archaeological resources assessment and treatment added to the General Plan Design and Preservation Element would reduce impacts to a less than significant level, similar to the conclusion for potential citywide impacts in the Housing Element EIR.

General Plan Design and Preservation Element Policy 30.2: Archaeological Resources Assessment and Treatment. Prior to approval of development projects (excluding small structures exempt under CEQA) that have the potential to impact an archaeological resource(s), such as through grading, excavation for foundations or basements, or new swimming pools, an Archaeological Resources Assessment shall be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall be completed in accordance with the California Office of Historic Preservation guidance and will follow the Archaeological Resource Management Reports (ARMR): Recommended Contents and Format guidelines.

If the Archaeological Resource Assessment identifies resources that may be affected by the project, Phase II testing and evaluation will be required. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be identified in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist.

If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit to characterize the nature of the buried portions of sites.

The Housing Element EIR determined that historic and existing levels of disturbance in the proposed MCSP area suggests there is a low potential for encountering intact burial deposits. However, it is still possible that human remains could be encountered and damaged during the ground-disturbing activities associated with construction. Nonetheless, with adherence to the California Health and Safety Code (Section 7050.5, 7051, and 7054) and PRC Section 5097.98, impacts related to human remains were found to be less than significant.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

This analysis is based on a Cultural Resources Technical Report (CRTR) prepared by Rincon Consultants, Inc. in January 2025 (Appendix A), requested by the City of Piedmont pursuant to policies 31.10 and 30.2 of the General Plan Design and Preservation Element. The CRTR was performed to provide a site-specific study for the MCSP area for this Addendum and includes a cultural resources records search, Sacred Lands File (SLF) search, Senate Bill (SB) 18 consultation, Mountain View Cemetery boundary assessment, and field survey. As discussed in the CRTR, the Mountain View Cemetery to the north of the MCSP area was previously recommended eligible for listing in the NRHP and CRHR and is an identified historical resource by the City of Oakland, and therefore qualifies as a historical resource as defined by CEQA. Although the proposed MCSP would not result in demolition or alteration of the Mountain View Cemetery, adjacent new construction facilitated by the MCSP could result in changes to the Cemetery's visual context, including views from the cemetery, which could lead to its material impairment, meaning it could alter in an adverse manner those physical characteristics that convey its historical significance and that justify its eligibility for the NRHP and CRHR. However, with adherence to Section 10.5.7.3A of the MCSP, which outlines requirements for reducing visual impacts to the Mountain View Cemetery such as avoiding construction that would introduce a contrasting visual element, there would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

This analysis is based on a CRTR prepared by Rincon Consultants, Inc. in 2024 (Appendix A). As discussed in the CRTR, no archaeological resources or unique cultural resources were identified in the MCSP area. However, the MCSP area has been identified as sensitive for the presence of potential tribal cultural resources, specifically tribal archaeological resources. Tribal cultural resources are further discussed under Section 3.18, Tribal Cultural Resources. Nonetheless, future development facilitated by the proposed MCSP would be required to comply with Section 10.5.7.2A of the proposed MCSP, which outline requirements for individual projects to execute a Worker's Environmental Awareness Program for all personnel working in the MCSP area, and prepare an Archaeological Resources Assessment. Therefore, this impact would remain less than significant, consistent with the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and the level and extent of site preparation and ground disturbance would be the same. Future development under the proposed MCSP would be subject to PRC Section 5097.98, the California Health and Safety Code (Section 7050.5, 7051, and 7054), and General Plan Policy 30.1 and Action 30.b, which would ensure impacts are reduced to human remains to a less than significant level, consistent with the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to cultural resources than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.6 Energy

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Pages 4.5-13 through 4.5-16	No	No	No	N/A
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Pages 4.5-17 through 4.5-21	No	No	No	N/A

Housing Element EIR Summary

Section 4.5, *Energy*, of the Housing Element EIR analyzed the MCSP's impacts related to energy. As discussed in the Housing Element EIR, construction and operation of the MCSP as analyzed in the Housing Element EIR would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy. Projects would be required to comply with the latest California Green Building Standards Code and California Energy Code requirements during operation. Impacts would be less than significant.

As discussed in the Housing Element EIR, the MCSP as analyzed in the Housing Element EIR would be consistent with State renewable energy and energy efficiency plans, the City's General Plan, and the City's Climate Action Plan (CAP 2.0). Therefore, impacts were found to be less than significant.

Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of anticipated housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. During construction, future projects under the proposed MCSP would be required to comply with applicable California Air Resources Board (CARB) regulations that restrict the idling of heavy-duty diesel motor vehicles and govern the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. Construction contractors would be required to comply with the provisions of 13 California Code of Regulations Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more

than five minutes, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA Construction Equipment Fuel Efficiency which would minimize inefficient fuel consumption. These construction equipment standards (i.e., Tier 4 efficiency requirements) are contained in Title 40 of the CFR, Parts 1039, 1065, and 1068. Future development would also be required to divert a minimum of 65 percent of construction and demolition debris and comply with the most recent iteration of CALGreen. Therefore, construction-related energy impacts would remain less than significant and would not be substantially greater than those identified in the Housing Element EIR.

In terms of operational-related energy impacts, future development under the proposed MCSP would be required to comply with the most recent Title 24 requirements for building energy efficiency and water conservation. Additionally, future development in the MCSP area would be required to adhere to the new General Plan Natural Resources and Sustainability Policy 16.7 for greenhouse gas emissions reduction (see Section 3.8, *Greenhouse Gas Emissions*), which would incentivize restriction of natural gas appliances and natural gas plumbing in new development, as well as new MCSP sections 5.9 (Bicycle Parking), section 5.10 (Pedestrian Access and Circulation), and 5.11 (Site Lighting). The proposed MCSP project would also include improvements to the pedestrian, bicycle, and transit system, as discussed in further detail in Section 3.17, *Transportation*, of this Addendum, which would encourage walking and bicycling, reducing VMT and consumption of gasoline. Therefore, operational-related energy impacts would remain less than significant, similar to those potential impacts studied in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As a result, similar to what was analyzed in the Housing Element EIR, the proposed MCSP would be consistent with State renewable energy and energy efficiency plans, the City's General Plan, and the City's CAP 2.0. The proposed MCSP would also include improvements to the pedestrian, bicycle, and transit system, as discussed in further detail in Section 3.17, *Transportation*, of this Addendum. The improvements would further encourage future residents to walk and use bicycles instead of single-occupancy vehicles, and would better connect future residents to transit, services and jobs, thereby reducing VMT and consumption of gasoline. Therefore, this impact would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to energy than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.7 Geology and Soils

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	Pages 4.6-20 through 4.6-24	No	No	No	Yes
2. Strong seismic ground shaking?	Pages 4.6-20 through 4.6-24	No	No	No	Yes
3. Seismic-related ground failure, including liquefaction?	Pages 4.6-20 through 4.6-24	No	No	No	Yes
4. Landslides?	Pages 4.6-20 through 4.6-24	No	No	No	Yes
b. Result in substantial soil erosion or the loss of topsoil?	Pages 4.6-24 through 4.6-25	No	No	No	N/A
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Pages 4.6-20 through 4.6-24	No	No	No	Yes

		Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Pages 4.6-25 through 4.6-26	No	No	No	N/A
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Pages 4.6-26 through 4.6-27	No	No	No	N/A
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Pages 4.6-27 through 4.6-28	No	No	No	N/A

Housing Element EIR Summary

Section 4.6, *Geology and Soils*, of the Housing Element EIR analyzed the MCSP's impacts related to geology and soils. As discussed in the Housing Element EIR, the MCSP area is not located within a liquefaction zone and has soil type with low shrink-swell (or expansivity) potential. Development would be required to comply with State and local regulations including policies 18.8 and 18.9 related to siting of new developments and landslide susceptibility inspections added to the General Plan Environmental Hazards Element, listed below, as well as Section R401.4.3 of the California Building Code (CBC).

> **General Plan Environmental Hazards Element Policy 18.8: Siting of New Developments.** Minimize risks from landslide by requiring new developments to be sited outside of hazards areas, when possible, and to incorporate design that minimizes the potential for damage.
>
> **General Plan Environmental Hazards Element Policy 18.9: Landslide Susceptibility Inspections.** Regularly inspect locations with high landslide susceptibility directly following major storm and atmospheric events.

Nonetheless, since the MCSP area is located in an earthquake-induced landslide zone and contains areas of non-engineered fill, Mitigation Measure MCSP-GEO-1 (Geotechnical Assessment for Moraga Canyon Specific Plan Area) would be required to reduce impacts to a less than significant level.

> **Housing Element Implementation Project EIR Mitigation Measure MCSP-GEO-1: Geotechnical Assessment for Moraga Canyon Specific Plan Area.** A geotechnical assessment shall be prepared for development in the Moraga Canyon Specific Plan Area by a qualified engineer prior to issuance of a grading permit. The geotechnical assessment shall include onsite sampling of existing soil to

ascertain current conditions and characterize the potential for risks and implications for future building foundation elements. The analysis of the onsite conditions and risks shall be based on laboratory results generated in accordance with current procedures and applicable state and local construction, engineering, and geotechnical building standards at the time the assessment is prepared. The design of individual projects and/or construction shall incorporate all recommendations of the geotechnical assessment. The assessment and recommendations shall be prepared by a California-licensed professional engineer and shall comply with current state and local building codes. The intention of the geotechnical assessment is to sufficiently inform design related to geologic hazards and to help ensure that the design of building foundations, subgrades, and transportation infrastructure can withstand existing conditions, or that the individual site can be treated in such a manner as to address hazardous geologic conditions.

As discussed in the Housing Element EIR, soils in the MCSP area have low or moderate potential for erosion-related hazards and have low potential for expansiveness. With adherence to the National Pollutant Discharge Elimination System (NPDES) permit, the Construction General Permit, the PCC and Piedmont General Plan policies, impacts related to soil erosion and the loss of topsoil were found to be less than significant. Furthermore, wastewater collection, treatment, and disposal services would be provided by the East Bay Municipal Utilities District (EBMUD), and no septic tanks or alternative wastewater disposal systems would be required. There would be no impact.

The Housing Element EIR determined that the MCSP area is located in an area assigned low paleontological sensitivity. Nonetheless, projects would be required to adhere to the policy related to paleontological resources added to the General Plan Natural Resources and Sustainability Element, listed below, which would further ensure less than significant paleontological impacts.

General Plan Natural Resources and Sustainability Policy 13.14: Paleontological Resources. For new development that involves ground disturbance within the high sensitivity Pleistocene alluvial fan and fluvial deposits (Qpaf) geologic unit, the project applicant shall retain a Qualified Paleontologist prior to excavations who shall direct all mitigation measures related to paleontological resources. If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity shall cease and the construction contractor shall contract a qualified paleontologist to evaluate the find and make appropriate recommendations. If warranted, the paleontologist shall prepare and implement a standard Paleontological Resources Mitigation Program for the salvage and curation of the identified resources.

Impact Analysis

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

a.1 Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2 Strong seismic ground shaking?

a.3 Seismic-related ground failure, including liquefaction?

a.4 Landslides?

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. As discussed in the Housing Element EIR, the MCSP area is not located within a liquefaction zone and has soils with low expansivity. As shown in Figure 4, multifamily residential development would occur either entirely north of Moraga Avenue or entirely south of Moraga Avenue in areas with gentler slopes and two single-family developments (total of 2 housing units, plus ADUs) are shown on steeper sites off Abbott Way and Maxwelton Road. Future development would be required to comply with State and local regulations such as Division 8.02 of the PCC which adopts the CBC; Section R401.4.3 of the CBC which requires development in the MCSP area that would occur on slopes 20 percent or greater to prepare a mandatory soils report and to implement recommendations in the report; PRC Section 2690-2699.6; policies 18.1 through 18.5 of the City's General Plan which would restrict development on unstable sites, maintain and enforce seismic design and construction standards, ensure infrastructure reliability, require site-specific soils reports and geologic studies for development that may be exposed to substantial geologic or seismic hazards and identify mitigation, and require seismic upgrades to structures; and new General Plan Environmental Hazards Element policies 18.8 and 18.9 regarding siting of new developments and landslide susceptibility inspections. In addition, future development under the proposed MCSP would be required to comply with Housing Element EIR Mitigation Measure MCSP-GEO-1, reinforced under Section 5.12 (Grading Standards) and Section 10.5.7.5 (Hillside Stability) of the proposed MCSP, which requires implementation of recommended measures in the geotechnical assessment. Therefore, impacts would remain less than significant, consistent with potential impacts studied in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project result in substantial soil erosion or the loss of topsoil?

As discussed in the Housing Element EIR, soils in the MCSP area are characterized by having "low" or a "moderate" potential for erosion-related hazards. The Housing Element EIR determined that compliance with State Water Resources Control Board (SWRCB's) General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ); the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ) for projects over one acre; Section R401.4.3 of the CBC, as incorporated into the PCC; and Policy 18.4 of the General Plan Environmental Hazards

Element which requires preparation of a foundation and soils investigation as well as a soil and geologic report would reduce impacts to a less than significant level. In addition, future development would be required to comply with Section 5.12.7 (Slope Setbacks) of the proposed MCSP which outlines standards for construction on slopes and prevention of grading and erosion disturbance; and Section 5.12.11 (Erosion Control) which outlines standards for erosion prevention. Since the proposed MCSP would generally be located in the same area as the MCSP analyzed under the Housing Element EIR and would include the same level and extent of site preparation and ground disturbance, the same requirements studied in the Housing Element EIR would apply to the proposed MCSP. Impacts would remain less than significant, consistent with those potential impacts studied in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

As discussed in the Housing Element EIR, soils in the MCSP area are characterized as having "low" potential for expansiveness. The Housing Element EIR determined that compliance with existing State of California and local laws and regulations, such as the CBC Section R401.4.3, PCC Section 8.02.020.S, and General Plan Environmental Hazards Element policies 18.1 and 18.4 would ensure that the impacts from development associated with implementation of the proposed MCSP on expansive soils are minimized by requiring the submittal and review of detailed soils and geologic reports prior to construction. Since the proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same level and extent of site preparation and ground disturbance, the same requirements studied in the Housing Element EIR would apply to the proposed MCSP. Impacts would continue to be less than significant, consistent with potential impacts studied in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Similar to what was analyzed in the Housing Element EIR, future development under the proposed MCSP would be served by the EBMUD, which is responsible for wastewater collection, treatment, and disposal of wastewater from all residential and commercial sources within its sewer service area. Development facilitated by the proposed MCSP would not include septic tanks or alternative wastewater disposal systems; therefore, there is no potential for adverse effects due to soil incompatibility. No impact would occur with the MCSP, consistent with the analysis and conclusions of the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. Therefore the paleontological resources analysis for the Housing Element EIR would apply to the proposed MCSP project. As discussed in the Housing Element EIR, the MCSP area contains areas of uncompacted fill and is located in an area assigned low paleontological sensitivity. Therefore, impacts would remain less than significant, consistent with potential impacts studied in the Housing

Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to geology and soils than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.8 Greenhouse Gas Emissions

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Pages 4.7-19 through 4.7-21	No	No	No	N/A
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Pages 4.7-21 through 4.7-29	No	No	No	N/A

Housing Element EIR Summary

Section 4.7, *Greenhouse Gas Emissions*, of the Housing Element EIR analyzed the MCSP's impacts related to GHGs. As discussed in the Housing Element EIR, even with the addition of the policy related to GHG reductions to the General Plan Natural Resources and Sustainability Element, as outlined below, the city cannot ban natural gas because they are preempted from doing so by federal law under the Energy Policy and Conservation Act, and development under the MCSP would not be consistent with BAAD's updated GHG threshold of prohibiting natural gas appliances or natural gas plumbing. In addition, the City's electric vehicle (EV) requirements are less stringent than CALGreen EV Tier 2 requirements, and the MCSP as analyzed in the Housing Element EIR would not meet the locally adopted SB 743 VMT target. Therefore, the MCSP, as analyzed under the Housing Element EIR, was found to be inconsistent with BAAD's GHG thresholds 1.a, 2.a, and 2.b, and impacts were determined to be significant and unavoidable.

> **General Plan Natural Resources and Sustainability Element Policy 16.7: Greenhouse Gas Emissions Reductions.** Single-family and multi-family development projects shall be encouraged to not include natural gas appliances or natural gas plumbing and shall achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

The Housing Element EIR determined that the MCSP, as analyzed under the Housing Element EIR, would be consistent with the 2022 California Air Resources Board Scoping Plan, ABAG/MTC Plan Bay Area 2050, the City's General Plan, and the City's CAP 2.0. These impacts were found to be less than significant.

Impact Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Similar to environmental issues and site conditions analyzed in the Housing Element EIR, the proposed MCSP would be inconsistent with threshold 1.a, 2.a, and 2.b of the BAAD GHG thresholds since the City is not allowed to ban natural gas appliances, VMT would not meet the locally adopted VMT target, and the City's EV requirements are less stringent than those of CALGreen Tier 2. Although the new General Plan Natural Resources and Sustainability Policy 16.7 related to GHG emissions reductions would encourage future development not to include natural gas appliances or natural gas plumbing, natural gas could still be used and therefore impacts would remain significant and unavoidable, similar to those impacts and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than those impacts analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As a result, similar to environmental issues and site conditions analyzed in the Housing Element EIR, the proposed MCSP would be consistent with the 2022 CARB Scoping Plan, ABAG/MTC Plan Bay Area 2050, the City's General Plan, and the City's CAP 2.0. Future development under the proposed MCSP would be required to comply with the most recent iteration of Title 24 Building Energy Efficiency Standards, CALGreen, the City's Reach Code, and the Piedmont General Plan. Furthermore, the proposed MCSP would also include improvements to the pedestrian, bicycle, and transit system, as discussed in further detail in Section 3.17, *Transportation*, of this Addendum. The improvements would further encourage future residents to walk and use bicycles instead of single-occupancy vehicles, and would better connect future residents to transit, services and jobs, thereby reducing VMT and GHGs. Therefore, this impact would remain less than significant, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to greenhouse gas emissions than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.9 Hazards and Hazardous Materials

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Pages 4.8-13 through 4.8-16	No	No	No	N/A
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Pages 4.8-17 through 4.8-18	No	No	No	N/A
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Pages 4.8-17 through 4.8-18	No	No	No	N/A
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Pages 4.8-18 through 4.8-22	No	No	No	Yes
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Page 4.8-22	No	No	No	N/A

		Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Page 4.8-12	No	No	No	N/A
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Page 4.8-12	No	No	No	N/A

Housing Element EIR Summary

Section 4.8, *Hazards and Hazardous Materials*, of the Housing Element EIR analyzed the MCSP's impacts related to hazards and hazardous materials. As discussed in the Housing Element EIR, the MCSP, as analyzed under the Housing Element EIR, would not introduce new manufacturing, warehouse, or industrial uses that would sell, use, store, transport, or release substantial quantities of hazardous materials. The transport, storage, use, or disposal of hazardous materials during construction is subject to U.S. Department of Transportation (DOT), California Department of Toxic Substances Control (DTSC), U.S. Environmental Protection Agency (EPA), Alameda County, and City of Piedmont requirements. Therefore, impacts were found to be less than significant.

As discussed in the Housing Element EIR, although no known hazardous waste sites are present in the MCSP area, the Piedmont Corporation Yard, which functions as the base of operations for Public Works Department and involves storage of maintenance equipment and Fire Department vehicles, may contain hazardous materials, and impacts would be potentially significant even with compliance with the following policy related to hazardous waste sites cleanup added to the General Plan Environmental Hazards Element:

> **General Plan Environmental Hazards Element Policy 20.7: Hazardous Waste Sites Cleanup.** The City shall regulate development on sites with known contamination of soil and groundwater to ensure that construction workers, future occupants, and the environment as a whole, are adequately protected from hazards associated with contamination, and encourage cleanup of such sites. Applicants for development projects shall be required to provide documentation that the proposed development site is not impacted by former/current site uses, including but not limited to, agricultural chemicals, aerially deposited lead, common railroad contaminants, and hazardous material storage and/or use.

The following mitigation measures MCSP-HAZ-1 (Property Assessment – Phase I and II ESAs), MCSP-HAZ-2 (Soil Management Plan), and MCSP-HAZ-3 (Remediation) would be required to reduce impacts to a less than significant level:

Mitigation Measure MCSP-HAZ-1: Property Assessment – Phase I and II ESAs. Prior to the issuance of any building, demolition or grading permit for development in the Moraga Canyon Specific Plan Area, the project applicant shall retain a qualified environmental professional (EP), as defined by ASTM E-1527 to prepare a project-specific Phase I Environmental Site Assessment (ESA) in accordance with standard ASTM methodologies, to assess the land use history of the project site.

If the Phase I ESA identifies recognized environmental conditions or potential areas of concern, the project applicant shall retain a qualified environmental consultant, California Professional Geologist (PG) or California Professional Engineer (PE), to prepare a Phase II ESA for the project site to determine whether the soil, groundwater, and/or soil vapor has been impacted at concentrations exceeding regulatory screening levels. The Phase II ESA shall be completed prior to the issuance of any building permit authorizing construction, grading permit or demolition permit and shall be based on the results of the Phase I ESA.

As part of the Phase II ESA, the qualified environmental consultant (PG or PE) shall screen the analytical results against the San Francisco Bay Regional Water Quality Control Board environmental screening levels (ESL). These ESLs are risk-based screening levels under various depth and land use scenarios. The City shall review and approve the Phase II ESA prior to the issuance of any building, grading, or demolition permit.

If the Phase II ESA for the project site indicates that contaminants are present in the subsurface at the project site, the project applicant shall take appropriate steps to protect site workers and the public. This may include the preparation of a Soil Management Plan (see Mitigation Measure MCSP HAZ-2) prior to issuance of a building, grading or demolition permit.

If the Phase II ESA for the project site indicates that contaminants are present at concentrations exceeding hazardous waste screening thresholds for contaminants in soil and/or groundwater (California Code of Regulations [CCR] Title 22, Section 66261.24 Characteristics of Toxicity), the project applicant shall take appropriate steps to protect site workers and the public. This may include the completion of remediation (see Mitigation Measure MCSP HAZ-3) at the project site prior to onsite construction.

Mitigation Measure MCSP-HAZ-2: Soil Management Plan. For future development in the Moraga Canyon Specific Plan Area, if impacted soils or other impacted wastes are present at the project site, the project applicant shall retain a qualified environmental consultant (PG or PE), to prepare a Soil Management Plan (SMP) prior to issuance of a building, demolition or grading permit. The SMP, or equivalent document, shall address:

1. On-site handling and management of impacted soils or other impacted wastes (e.g., stained soil, and soil or groundwater with solvent or chemical odors) if such soils or impacted wastes are encountered, and
2. Specific actions to reduce hazards to construction workers and offsite receptors during the construction phase.

The plan must establish remedial measures and soil management practices to ensure construction worker safety, the health of future workers and visitors, and the off-site migration of contaminants from the project site. These measures and practices may include, but are not limited to:

- Stockpile management, including stormwater pollution prevention and the installation of BMPs
- Proper disposal procedures of contaminated materials
- Investigation procedures for encountering known and unexpected odorous or visually stained soils, other indications of hydrocarbon piping or equipment, and/or debris during ground-disturbing activities
- Monitoring and reporting
- A health and safety plan for contractors working at the project site that addresses the safety and health hazards of each phase of site construction activities with the requirements and procedures for employee protection
- The health and safety plan shall also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction

The City of Piedmont Public Works Director or designee shall review and approve the project site SMP prior to issuing of any grading, demolition or grading permit. The project applicant shall implement the SMP during demolition, grading, and construction at the project site

Mitigation Measure MCSP-HAZ-3: Remediation. For future development in the Moraga Canyon Specific Plan Area, where contaminated soil is identified during implementation of Mitigation Measures MCSP HAZ-1 and/or MCSP HAZ-2 as present within the demolition, grading or construction envelope at the project site at chemical concentrations exceeding ESLs and/or hazardous waste screening thresholds for contaminants in soil (California Code of Regulations [CCR] Title 22, Section 66261.24), the project applicant shall retain a qualified environmental consultant (PG or PE), to properly dispose of the contaminated soil. The qualified environmental consultant shall utilize the project site analytical results for waste characterization purposes prior to offsite transportation or disposal of potentially impacted soils or other impacted wastes. The qualified consultant shall provide disposal recommendations and arrange for proper disposal of the waste soils or other impacted wastes (as necessary), and/or provide recommendations for remedial engineering controls, if appropriate.

Remediation of impacted soils and/or implementation of remedial engineering controls may require: additional delineation of sub-surface impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and offsite disposal or recycling.

The City of Piedmont Public Works Director or designee shall review and approve the project site disposal recommendations prior to transportation of waste soils offsite, and review and approve remedial engineering controls, prior to construction.

The project applicant shall review and implement the project site disposal recommendations prior to transportation of waste soils offsite and review and implement the remedial engineering controls prior to construction.

The City of Piedmont shall review and approve the project site disposal recommendations and remedial engineering controls prior to issuing a building, demolition or grading permit.

In addition, the Housing Element EIR determined that no public or private airports exist within two miles of the MCSP area. Impacts related to safety hazards or excessive noise hazards within airport land use plan areas were found to be less than significant.

Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, would include generally the same land uses, and would require the same level and extent of grading, site preparation, construction and operation. The land uses envisioned in the proposed MCSP would generally be the same as those envisioned in the MCSP as analyzed in the Housing Element EIR. Therefore, similar to the environmental issues and site conditions that were analyzed in the Housing Element EIR, with adherence to federal, State, and local regulations pertaining to the transport, handling, and disposal of hazardous materials, impacts would be less than significant, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

As discussed in the Housing Element EIR, there are no schools within 0.25 mile of the MCSP area. Therefore, development facilitated by the MCSP would not emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within 0.25 mile of an existing or proposed school. This impact would remain less than significant, consistent with the environmental issues and site conditions analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, would include generally the same land uses, and would require the same level and extent of grading, site preparation, construction and operation. As discussed in the Housing Element EIR, no known hazardous waste sites are present in the MCSP area. If an unidentified UST or other hazardous contamination were uncovered or disturbed during construction activities, compliance with State and local regulations and General Plan Environmental Hazards Element policies 20.1, 20.3, 20.5, and 20.6, as well as the new General Plan Environmental Hazards Element Policy 20.7 related to hazardous waste sites cleanup would be required. Nonetheless, the MCSP area includes the Piedmont Corporation Yard, which functions as the base of operations for Public Works Department and involves storage of maintenance equipment and Fire Department vehicles which may contain hazardous materials. The proposed MCSP could also include moving the Piedmont Corporation Yard to the south side of Moraga Avenue depending on where multifamily residential development occurs, which could expose future development on the existing site to hazardous materials. Sections 10.5.7.4A through C of the MCSP would incorporate mitigation measures MCSP-HAZ-1 through 3 of the Housing Element EIR and would require identification, management onsite, and/or removal of hazardous material-impacted soils prior to construction (demolition and grading), which would

reduce exposure to hazards resulting from development of a potential hazardous materials site in the MCSP area to a less than significant level, consistent with the analysis and conclusions of the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

As discussed in the Housing Element EIR, there are no public or private airports within Piedmont. Development facilitated by the proposed MCSP would have no impact related to a safety hazard or excessive noise hazards within airport land use plan areas or proximity to airports, consistent with the environmental issues and site conditions analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Refer to Section 3.20, *Wildfire*, of this Addendum, for a discussion on the potential of the MCSP project to impair or interfere with an adopted emergency response plan or emergency evacuation plan.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Refer to Section 3.20, *Wildfire*, of this Addendum, for a discussion on the potential of the MCSP project to expose people or structures to a significant risk of lost, injury, or death involving wildland fires.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP project would have new significant impacts or substantially more severe significant impacts with respect to hazards and hazardous materials than the impacts that were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.10 Hydrology and Water Quality

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Pages 4.9-17 through 4.9-20	No	No	No	N/A
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Pages 4.9-20 through 4.9-21	No	No	No	N/A
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
(i) Result in substantial erosion or siltation on- or off-site	Pages 4.9-22 through 4.9-24	No	No	No	N/A
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site	Pages 4.9-22 through 4.9-24	No	No	No	N/A
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	Pages 4.9-22 through 4.9-24	No	No	No	N/A

		Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
	(iv) Impede or redirect flood flows?	Pages 4.9-22 through 4.9-24	No	No	No	N/A
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Pages 4.9-24 through 4.9-25	No	No	No	N/A
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Pages 4.9-20 through 4.9-21	No	No	No	N/A

Housing Element EIR Summary

Section 4.9, *Hydrology and Water Quality*, of the Housing Element EIR analyzed the MCSP's impacts related to hydrology and water quality. As discussed in the Housing Element EIR, construction of future projects under the MCSP, as analyzed in the Housing Element EIR, would be required to comply with State and local water quality regulations designed to control erosion and protect water quality during construction, including requirements of the SWRCB Construction General Permit, the CBC, the PCC, and the City's General Plan. Operation of future projects under the MCSP, as analyzed in the Housing Element EIR, would be required to comply with existing programs and permits, including the Municipal Regional Stormwater NPDES Permit (No. CAS612008), Provision C.3 of the Municipal Regional Stormwater Permit (MRP), and requirements in the PCC and the City's General Plan. Impacts related to violation of water quality standards or waste discharge requirements or degradation of surface or groundwater quality were found to be less than significant.

As discussed in the Housing Element EIR, development under the MCSP, as analyzed in the Housing Element EIR, would receive water supplied by EBMUD and would not include installation of new groundwater wells or use of groundwater from existing wells. With adherence to existing State and local regulations, impacts related to groundwater recharge or conflict with a water quality control plan or sustainable groundwater management plan were found to be less than significant.

The Housing Element EIR determined that development under the MCSP, as analyzed in the Housing Element EIR, could potentially alter the existing drainage patterns at the future development sites through the introduction of new impervious surfaces and infrastructure. However, with compliance with State and local regulations such as the NPDES Construction General Permit; NPDES MS4 General Permit; the MRP; and the PCC Sections 8.02.030T, 30.10, and 30.11, which control stormwater runoff and protect water quality, impacts were found to be less than significant.

The Housing Element EIR stated that the MCSP area does not contain flood zones; is not located within a FEMA-designated 100-year Flood Hazard Area; and is not susceptible to seiches. The Housing Element EIR discusses the addition of new and revised policies to the City's General Plan Environmental Hazards Element related to reducing flood damage, managing development activities

in flood prone areas, implementing CAP 2.0, and keeping flood hazards low, as set forth below, which would reduce impacts to a less than significant level.

General Plan Environmental Hazards Element

Policy 19.31: Reduce Flood Damage. Reduce potential flood damage in areas of the city subject to flood conditions through Capital Improvement projects, the development review process, or other means as applicable.

Policy 19.32: **Development Activities in Flood Prone Areas.** Require new development or expansion of existing development adjacent to canyons or valleys to assess potential environmental impacts from increased run-off and erosion and implement appropriate mitigation.

Policy 19.33: **Implement CAP 2.0.** Implement all adaptation measures identified in the CAP 2.0 regarding addressing flooding risks, including the maintenance of storm drains across the city, encouraging green infrastructure, and restoring natural features of the watershed.

Policy 19.34: **Keeping Flood Hazards Low.** Maintain Piedmont's low potential for flooding through storm drain maintenance, preservation of creeks and drainage courses in their natural state, and periodic clearing of debris from storm drains and catchment basins. Ensure that new development does not increase the risk of off-site flooding, either in Piedmont or downstream in Oakland.

Policy 19.35: Managing Runoff. Ensure that runoff from individual properties is directed in a way that does not threaten adjacent properties. Runoff should be directed to places where it can be absorbed into the ground, detained in rain barrels or cisterns, or directed toward storm drains.

Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, would involve the same land uses, and would require the same level and extent of grading, site preparation, construction, and operation. Hydrological conditions related to soils and hydrology on and around the site have not substantially changed since adoption of the Housing Element EIR. Similar to the environmental issues and site conditions analyzed in the Housing Element EIR, construction activities associated with the proposed MCSP could have potential to degrade water quality due to sediment erosion or the presence of contaminants located within the soils. However, construction activities under the proposed MCSP would be required to comply with the same State and local water quality regulations such as the SWRCB Construction General Permit, the most recent version of the C.3 Stormwater Program as adopted by the Alameda County pursuant to Section 8.02.030T of the PCC, and the San Francisco RWQCB Groundwater General Permit which would reduce impacts to a less than significant level, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Operation of projects under the proposed MCSP would be required to comply with the Municipal Regional Stormwater NPDES Permit (No. CAS612008), Provision C.3 of the MRP, and the PCC, which would reduce operational impacts to a less than significant level, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, would involve the same land uses, and would require the same level and extent of grading, site preparation, construction, and operation. Future development under the proposed MCSP would receive water supplied by EBMUD and would not include installation of new groundwater wells or use of groundwater from existing wells. Similar to the environmental issues and site conditions analyzed in the Housing Element EIR, future development pursuant to the MCSP would be required to comply with Provision C.3 of the MRP which promotes infiltration, as well as implement low impact development (LID) measures to increase peak flow attenuation and absorption of stormwater runoff and the potential for groundwater recharge. With adherence to State and local water quality standards, development facilitated by the proposed MCSP would not have an adverse effect on water quality and would not interfere with the objectives and goals in the SWRCB San Francisco Bay Basin Plan. Impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or situation on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

iv. Impede or redirect flood flows?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP, would involve the same land uses, and would require the same level and extent of grading, site preparation, construction, and operation. Hydrological conditions related to soils and hydrology on and around the site have not drastically changed since adoption of the Housing Element EIR. Similar to the environmental issues and site conditions analyzed in the Housing Element EIR, construction for future development under the proposed MCSP would be required to comply with the NPDES Construction General Permit; NPDES MS4 General Permit; the MRP; and PCC Sections 8.12.030T, 30.10, and 30.11, which would control stormwater runoff and protect water quality. In addition, consistent with the MCSP, as analyzed in the Housing Element EIR, the proposed MCSP would not include housing in the area on the northern boundary of the city with water storage ponds that are under the jurisdiction of the Mountain View Cemetery and would not directly affect Cemetery Creek or the ponds. Moreover, the MCSP proposes the use of artificial field turf which could potentially be less pervious than natural turf. However, artificial turf used would be engineered with integrated subsurface drainage features designed to effectively manage stormwater such as permeable backing, infill materials, and an underlying gravel or sand base that facilitates infiltration. The use of artificial turfs can also reduce surface runoff by promoting more uniform infiltration and

minimizing soil compaction. Because artificial turf does not require irrigation, it avoids the potential for overwatering and associated runoff that could occur with natural grass maintenance. Therefore, the proposed MCSP would not substantially alter the existing drainage pattern of the site or area or alter the course of a stream or river, would not result in erosion or siltation, and would not substantially increase the rate of surface runoff in a manner which would result in flooding on- or off-site or exceed capacity of a stormwater system. Impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

As discussed in the Housing Element EIR, the MCSP area does not contain flood zones; is not located within a FEMA-designated 100-year Flood Hazard Area; and is not susceptible to seiches. The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area. Therefore, consistent with the environmental issues and site conditions analyzed in the Housing Element EIR, with compliance with the California Health and Safety Code, Section 5.14 of the PCC, and new General Plan Environmental Hazards Element policies 19.31 through 19.35 related to reducing flood damage, managing development activities in flood prone areas, implementing CAP 2.0, and keeping flood hazards low, impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to hydrology and water quality than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

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3.11 Land Use and Planning

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Physically divide an established community?	Pages 4.10-10 through 4.10-11	No	No	No	N/A
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Pages 4.10-11 through 4.10-19	No	No	No	N/A

Housing Element EIR Summary

Section 4.10, *Land Use and Planning*, of the Housing Element EIR analyzed the MCSP's impacts related to land use and planning. As discussed in the Housing Element EIR, the MCSP, as analyzed in the Housing Element EIR, would not physically divide an established community and impacts were determined to be less than significant. In addition, the MCSP as analyzed in the Housing Element EIR would not conflict with ABAG/MTC Plan Bay Area 2050, the City's General Plan, or the PCC. Impacts were found to be less than significant.

Impact Analysis

a. Would the project physically divide an established community?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the MCSP area does not contain existing residential development, and the MCSP plans for the design and development of new residential uses. The proposed MCSP would also enhance the Moraga Avenue right-of-way to create safer pedestrian and bicycle travel and include a new stoplight at Red Rock Road to provide access to either the existing Corporation Yard or new residential development and the upgraded sport fields and parking. Development facilitated by the proposed MCSP would not result in the construction of barriers that would divide the existing residences surrounding the MCSP sites from each other or from the community. Therefore, development in the MCSP area would not divide an established community and impacts would remain less than significant, similar to the environmental issues and site conditions analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

On February 20, 2024, the City's General Plan was amended to implement the programs identified in the 2023-2031 Housing Element as analyzed in the Housing Element EIR. This amendment included establishing the "Moraga Canyon Specific Plan" as the land use designation for the MCSP area. The General Plan describes this land use as a plan for new housing and to maintain, replace, and improve existing City facilities, open space, and recreational amenities including Blair Park Open Space, Coaches Field, Kennelly Skate Park, and the City's Corporation Yard. The City's current zoning designation for the MCSP area is "Zone B - Public Facilities." This zone allows for residential facilities along with other uses, such as municipal and recreation uses. The proposed MCSP envisions residential, City facilities, open space, and recreational uses and would be consistent with the Moraga Canyon Specific Plan General Plan land use designation and Zone B - Public Facilities zoning designations.

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Because the MCSP generally includes the same area, land uses, site preparation, grading, construction, and operation as was envisioned and analyzed in the Housing Element EIR, the proposed MCSP would also be consistent with ABAG/MTC Plan Bay Area 2050, the City's General Plan, and the PCC. Appendix A of the proposed MCSP includes a detailed General Plan consistency analysis which shows that the proposed MCSP is consistent with the goals and policies of the City's General Plan. Therefore, this impact would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to land use and planning than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.12 Mineral Resources

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Page 1-7	No	No	No	N/A
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	Page 1-7	No	No	No	N/A

Housing Element EIR Summary

As discussed in Section 1, *Introduction*, of the Housing Element EIR, the City of Piedmont does not have significant mineral resources or active mining sites within its boundaries, and there would be no impacts related to mineral resources.

Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP, and the level and extent of site preparation and ground disturbance would be the same. There are no known mineral resources or mineral resource recovery sites in the MCSP area. There would be no impacts, consistent with the environmental issues and site conditions analyzed in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to mineral resources than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

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3.13 Noise

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Pages 4.11-16 through 4.11-22	No	No	No	N/A
b. Generate excessive groundborne vibration or groundborne noise levels?	Pages 4.11-23 through 4.11-26	No	No	No	N/A
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	Page 4.11-26	No	No	No	N/A

Housing Element EIR Summary

Section 4.11, *Noise*, of the Housing Element EIR analyzed the MCSP's impacts related to noise. As discussed in the Housing Element EIR, construction activities associated with projects under the MCSP, as analyzed in the Housing Element EIR, could result in noise levels exceeding Federal Transit Authority (FTA) guidelines. Although compliance with the policy related to construction noise reduction added to the General Plan Environmental Hazards Element, as set forth below, would reduce construction noise levels associated with smaller housing development to below the eight-hour 80 dBA L_{eq} daytime residential noise limit per FTA guidelines, construction associated larger projects could include lengthier construction durations (i.e., longer than 18 months) and different types of equipment that would lead to an exceedance of FTA noise limits at nearby sensitive receptors. Construction noise impacts were found to be significant and unavoidable.

General Plan Environmental Hazards Element Policy 22.7: Construction Noise Reduction. For projects within 500 feet of a noise sensitive land use and that involve subterranean parking, large excavation, construction over 18 months in duration, and/or the use of heavy-duty equipment, a

Construction Noise Study prepared by a qualified noise expert shall be required. The Construction Noise Study shall characterize sources of construction noise, quantify noise levels at noise-sensitive uses, and identify feasible measures to reduce noise exposure. The project shall incorporate the feasible measures identified in the study. Noise reduction techniques may include, but are not limited to, shielding and silencing construction equipment, enclosing and screening outdoor fixed equipment, placing construction staging areas away from noise-sensitive uses, using smart adjusting back-up alarms for mobile construction equipment, controlling worker radio noise, installing temporary sound barriers, designating a noise complaint response protocol, shall be used as appropriate.

The Housing Element EIR also analyzed the MCSP's impacts related to echoing. The Housing Element EIR found that while development in the MCSP area would involve development in a canyon, it is not anticipated that effects associated with echoing or sound reflection would substantially increase noise related to construction since by the time sound travels from one side of the canyon to the other, the sound attenuates substantially. The presence of intervening structures would further attenuate noise. Therefore, the echo or reflection would have a negligible effect on overall noise levels above those experienced by the receiver from non-reflected sound traveling the shortest distance from the source to the receiver, and both construction- and operation-related impacts were found to be less than significant.

The Housing Element EIR determined that future development could include mechanical equipment (i.e., heating, ventilation, and air conditioning (HVAC)), delivery and trash trucks, and other noise-generating activities. However, such activities would be typical of the existing environment, and on-site activities would be required to comply with PCC noise standards. In addition, the increase in vehicle trips would not result in a perceptible 3 dBA increase in noise from mobile sources. Operational noise impacts were found to be less than significant.

The Housing Element EIR found that development within the MCSP area would not occur within 115 feet of a historic structure as none are present in or adjacent to the MCSP area, and construction vibration would not exceed thresholds for potential damage to historic or other structures. With implementation of the policy related to preparation of a vibration control plan added to the General Plan Environmental Hazards Element, as set forth below, impacts related to vibration were determined to be less than significant.

General Plan Environmental Hazards Element Policy 22.8: Vibration Control Plan. For construction activities involving vibratory rollers and sonic pile drivers within 40 feet of a historic structure or impact pile drivers within 115 feet of a historic structure, or if an impact pile driver is used within 60 feet of an occupied structure, the applicant shall prepare a Vibration Control Plan prior to the commencement of construction activities. The Vibration Control Plan shall be prepared by a licensed structural engineer and shall include methods required to minimize vibration such as alternative installation methods for pile driving or vibration monitoring. The Vibration Control Plan shall also establish baseline conditions at potentially affected structures, provide shoring design to protect buildings and structures from damage, document damage at the conclusion of vibration generating activities, and include recommendations for repair if necessary.

As discussed in the Housing Element EIR, there are no public or private airports within Piedmont, including within the MCSP area. Development would not expose people residing in the MCSP area to excessive noise levels, and impacts were found to be less than significant.

Impact Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP, would involve the same land uses, and would require the same level and extent of grading, site preparation, construction, and operation. Consistent with the environmental issues and site conditions analyzed in the Housing Element EIR, even with compliance with the new General Plan Environmental Hazards Policy 22.7 related to construction noise reduction, development under the proposed MCSP could still include lengthier construction durations (i.e., longer than 18 months) and different types of equipment that would lead to an exceedance of FTA noise limits at nearby sensitive receptors. Therefore, construction noise impacts would remain significant and unavoidable, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Consistent with the analysis under the Housing Element Update, the proposed MCSP would not generate a substantial increase in ambient noise levels from delivery/trash trucks, truck loading, HVAC, and outdoor activity areas. While the proposed MCSP involves expansion of the existing sports field and the potential addition of field lighting such that field activities extend into evening hours, noise-generating activities associated with recreational uses would be similar to those of Piedmont's developed and urbanized environment and, within the MCSP study area, would occur only during daytime and evening hours (not during regular sleep hours). The programming and hours of operation of city recreation operations would continue to be subject to City Council authority and would be subject to noise standards in the Piedmont General Plan and PCC. Further, potential future recreational uses such as baseball/softball courts, batting cages, skateboard park, or pickleball courts, as well as private recreational uses for future residences, would be subject to Section 10.5.7.8, Noise Compliance of the MCSP which requires preparation of a noise study and incorporation of noise reduction measures for new or expanded recreational uses within 500 feet of residences. In addition, future development under the proposed MCSP could involve relocating the Corporation Yard to be closer to residences. However, Section 10.5.7.8, Noise Compliance of the MCSP in the MCSP requires preparation of a noise study and incorporation of noise reduction measures for new or expanded recreational uses within 500 feet of residences. With adherence to this MCSP requirements, impacts associated with operational noise in the MCSP area would remain less than significant. There would be no new or substantially more severe impacts than those impacts analyzed in the Housing Element EIR, and further analysis is not warranted.

In addition, as discussed in the Housing Element EIR, a doubling of traffic would result in a 3 dBA increase, which is considered a barely perceptible noise increase and thus is the City's threshold of significance for traffic noise increases. The proposed MCSP would not double the noise from existing mobile noise sources and would not increase traffic noise levels by more than 3 dBA. Future development would also be required to comply with the 2022 CBC, Title 24, Part 2, Section 1206.4, which states that multi-family residences must be constructed and designed such that interior noise levels do not exceed 45 CNEL. Moreover, future development would also be required to comply with Section 6.9.1, Noise Attenuation, of the proposed MCSP which outlines requirements for noise attenuation in the design and construction of new multifamily housing. Therefore, operational noise impacts would remain less than significant, similar to the analysis and conclusions in the Housing

Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

As determined in the Housing Element EIR, the echo or reflection of sound would have a negligible effect on overall noise levels compared to those experienced by the receiver from non-reflected noise traveling the shortest distance from the source to the receiver, and would also have a negligible effect on overall operational noise levels compared to those experienced by the receiver. As these impacts would not change under the proposed MCSP, echo and reflection noise impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project generate excessive groundborne vibration or groundborne noise levels?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP, would involve the same land uses, and would require the same level and extent of grading, site preparation, construction, and operation. As discussed in the Housing Element EIR, vibratory rollers and sonic pile drivers would exceed the threshold of 0.12 in./sec. peak particle velocity (PPV) for historic structures at 40 feet from the source; and impact pile drivers would exceed this threshold at 115 feet. Development within the MCSP area would not occur within 40 or 115 feet of a historic structure as none are present in or adjacent to the MCSP area. Therefore, construction vibration would not exceed thresholds for potential damage to historic or other structures. Impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and expose people residing or working in the project area to excessive noise levels?

As discussed in the Housing Element EIR, there are no public or private airports within Piedmont, and no area in the City is located within an airport's noise contours. Therefore, this impact would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to noise than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.14 Population and Housing

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Pages 4.12-6 through 4.11-7	No	No	No	N/A
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Pages 4.12-7 through 4.11-8	No	No	No	N/A

Housing Element EIR Summary

Section 4.12, *Population and Housing*, of the Housing Element EIR analyzed the MCSP's impacts related to population and housing. As discussed in the Housing Element EIR, the MCSP as analyzed under the Housing Element EIR would result in an increase of approximately 370-557 residents, which is within population and housing growth assumptions for the Housing Element and within regional growth forecasts. The Housing Element EIR determined that the MCSP, as analyzed under the Housing Element EIR, would not result in substantial unplanned population growth, either directly or indirectly in the MCSP area. Impacts were found to be less than significant.

The Housing Element EIR stated that the MCSP area does not include any existing residential housing units and therefore would not displace people. There would be no impact.

Impact Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Similar to the MCSP as analyzed in the Housing Element EIR, the proposed MCSP would result in an increase of approximately 557 residents in the MCSP area. This growth is within the population and housing growth assumptions for the Housing Element, Land Use Element, and all General Plan elements and would be within regional growth forecasts. Therefore, the proposed MCSP would not result in substantial unplanned population growth, either directly or indirectly in the MCSP

area. This impact would be less than significant, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

As discussed in the Housing Element EIR, there are no existing residential housing units in the MCSP area. Since the proposed MCSP would generally be located in the same area as the MCSP analyzed under the Housing Element EIR, no displacement of people would occur, and there would be no impact, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to population and housing than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.15 Public Services

		Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:						
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
1	Fire protection?	Pages 4.13-10 through 4.13-13	No	No	No	N/A
2	Police protection?	Pages 4.13-13 through 4.13-14	No	No	No	N/A
3	Schools?	Pages 4.13-14 through 4.13-15	No	No	No	N/A
4	Parks?	Pages 4.13-16 through 4.13-17	No	No	No	N/A
5	Other public facilities?	Page 4.13-10	No	No	No	N/A

Housing Element EIR Summary

Section 4.13, *Public Services and Recreation*, of the Housing Element EIR analyzed the MCSP's impacts related to public services and recreation. As discussed in the Housing Element EIR, development under the MCSP, as analyzed in the Housing Element EIR, could increase demand for Piedmont Fire Department (PFD) and Piedmont Police Department (PPD) services. However, with adherence to the CBC and PCC, as well as the new action (Action 34.D) related to preparing for increased demand added

to the General Plan Community Services and Facilities Element, impacts related to fire and police services were found to be less than significant.

The Housing Element EIR determined that all schools across the Piedmont Unified School District (PUSD) have a remaining capacity for 847 students. The MCSP, as analyzed under the Housing Element EIR, would add approximately 101 to 152 new students, which would be within the remaining capacity of the PUSD. Impacts on schools were found to be less than significant.

As discussed in the Housing Element EIR, impacts related to other public facilities such as water, wastewater, and landfills were addressed in Section 4.16, *Utilities and Service Systems,* of the Housing Element EIR.

Impact Analysis

a1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, although the increase in population could increase demand for fire protection and emergency medical services, future development in the proposed MCSP would be required to comply with the California Fire Code; CBC; Community Services and Facilities Element policies 34.1, 34.5, 34.7, and 34.9 of the City's General Plan including the new action 34.D related to preparing for increased demand; and Chapter 8 of the PCC. All of the aforementioned regulations and policies would reduce impacts related to fire services to a less than significant level, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

a2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, although the increase in population could increase demand for police services, future development in the proposed MCSP would be required to comply with Community Services and Facilities Element Policy 34.1 and 34.3 of the City's General Plan, as well as the new action 34.D related to preparing for increased demand, which would reduce impacts related to police services to a less than significant level, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

a3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the addition of 199 housing units would increase school population by approximately 101 to 152 new students in the MCSP area. Students in the MCSP area would attend the same schools as the rest of Piedmont residents. As outlined in the Housing Element EIR, there is remaining capacity for 847 students across all PUSD schools. The proposed MCSP would not necessitate the construction of new school facilities, and the impact to Piedmont schools would remain less than significant, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

a4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Refer to Section 3.16, *Recreation*, of this Addendum, for a discussion on parks and recreational facilities.

a5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Future development would be adequately served by existing public facilities and services, including libraries, senior services, childcare facilities, and medical centers, and the MCSP would not necessitate the construction of new facilities. Refer to Section 3.19, *Utilities and Service Systems*, of this Addendum, for a discussion on water, wastewater, and landfills. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to public services than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

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3.16 Recreation

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Pages 4.13-16 through 4.13-17	No	No	No	N/A
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Pages 4.13-16 through 4.13-17	No	No	No	N/A

Housing Element EIR Summary

Section 4.13, *Public Services and Recreation*, of the Housing Element EIR analyzed the MCSP's impacts related to public services and recreation. The Housing Element EIR found that the MCSP, as analyzed in the Housing Element EIR, could result in a reduction of acreage of the parks and recreational facilities in the MCSP area. Conservatively assuming Blair Park Open Space, Coaches Field, and the Kennelly Skate Park are removed and replaced with housing, the removal of these facilities would result in a decrease of approximately 7.5 acres of parkland within the city. However, the park-to-resident ratio would still be above the State standard. In addition, the City of Piedmont would comply with State of California Public Park Preservation Act requirements for the transfer of property dedicated as a public park for any non-park use. Impacts related to parks and recreation facilities were found to be less than significant.

Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, future development in the MCSP area could result in a reduction of acreage of the parks and recreational facilities in the MCSP area. However, the Housing Element EIR found that the park-to-resident ratio would still be above the State standard.

Further, while the Housing Element EIR conservatively assumed that future development in the MCSP area could result in a reduction of parks and recreational facilities by reducing the size of or eliminating the existing recreational uses in the MCSP area, the proposed MCSP includes provisions to maintain or add parks and recreational facilities. The MCSP includes a framework for approximately five acres devoted to public recreational uses, including a multi-sport field with baseball/softball overlay and amenities and a skateboard facility. The proposed MCSP may also accommodate a new nature trail for residents and park users in open space deemed too steep for other development north of Moraga Avenue,. Furthermore, the MCSP calls for other amenities such as a dog park, playground, community garden, or other passive open space use. Lastly, potential future multi-family residences would be required to have private on-site recreational facilities to serve future residences such as an indoor gym, playground, picnic area, or court facilities. Therefore, impacts related to parks and recreational facilities would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to recreation than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.17 Transportation

		Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:						
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Pages 4.14-19 through 4.14-21	No	No	No	N/A
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Pages 4.14-21 through 4.14-27	No	No	No	N/A
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	Page 4.14-28	No	No	No	N/A
d.	Result in inadequate emergency access?	Pages 4.14-29 through 4.14-30	No	No	No	N/A

Housing Element EIR Summary

Section 4.14, *Transportation*, of the Housing Element EIR analyzed the MCSP's impacts related to transportation. As discussed in the Housing Element EIR, the MCSP, as analyzed in the Housing Element EIR, would result in home-based VMT exceeding the threshold of 15 percent below the Bay Area Regional Baseline average home-based VMT per resident, and transportation impacts would be potentially significant. Even with implementation of Action 7.D related to VMT analysis and transportation demand management added to the City's General Plan Transportation Element, included below (which would result in a net VMT reduction of up to 10 percent for development projects in urban-suburban settings), the location, size, and characteristics of individual development projects facilitated under the MCSP as analyzed in the Housing Element EIR were still unknown. Therefore, VMT impacts were found to be significant and unavoidable.

> **General Plan Transportation Element Action 7.D: VMT Screening Thresholds and Analysis.** The following types of developments "screen out" of the required project specific VMT programs set forth below: small multifamily and residential developments generating fewer than 50 automobile trips per day, development within 0.25 miles of a high-quality transit corridor, 100 percent affordable residential development, and small infill residential development generating fewer than 50 automobile trips per day.

- Individual housing developments that do not screen out from VMT impact analysis shall provide a quantitative VMT analysis consistent with the City's adopted Policy for Analyzing VMT Impact under CEQA, and modified as necessary to be consistent with local, regional and/or State thresholds and methodologies.
- Development that results in significant VMT impacts shall include one-time physical and on-going operational travel demand management (TDM) measures to reduce VMT, including but not limited to the following:
  - Limit parking supply.
  - Unbundle parking costs (i.e., sell or lease parking separately from the housing unit).
  - Provide car sharing, bike sharing, and/or scooter sharing programs.
  - Subsidize transit passes.
  - Contribution to a VMT mitigation fee program, bank, or exchange

In addition, the Housing Element EIR found that the MCSP would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities, and potential impacts were determined to be less than significant. The Housing Element EIR also determined that the MCSP would not substantially increase hazards due to a design feature or incompatible uses and would not result in inadequate emergency access with implementation of policies related to emergency access and emergency roadways added to the General Plan Environmental Hazards Element, as set forth below. Impacts were found to be less than significant.

General Plan Environmental Hazards Element Policy 19.20: Emergency Access. Ensure that the Piedmont Fire Department has complete access to all locations in the City, including gated residential communities and critical infrastructure.

General Plan Environmental Hazards Element Policy 19.21: Emergency Roadways. Maintain emergency roadways and improve them as necessary and appropriate to ensure they stay in operation during hazardous events.

Impact Analysis

The transportation impact analysis is based on Transportation Analysis Memorandums updated by Fehr & Peers on August 20, 2025 and included in Appendix B. These memorandums summarize background transportation data and analysis that informed Chapter 4 of the MCSP and provide a sight distance analysis for the proposed new driveway on Moraga Avenue.

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, existing pedestrian and bicycle facilities in the MCSP consist of a sidewalk on the north side of the corridor west of Red Rock Road, a Class II bike lane on eastbound Moraga Avenue east of Red Rock Road and a Class III bike lane (shared) eastbound, west of Red Rock Road and westbound, and an informal path through Blair Park.

In support of the MCSP development, Fehr & Peers collected the following data in September 2023 when local schools were in normal session:

- Traffic volumes and speeds by time of day on Morage Avenue just east of Red Rock Road
- Vehicular and bicycle volume by movement and pedestrian volume by crossing at the Moraga Ave/Red Rock Rd intersection during peak commute periods

The data is summarized in Appendix B and was used to inform the proposed configuration of Moraga Avenue in the MCSP, including sight distance requirements for new driveways and modifications, such as a traffic signal, at the Moraga Avenue/Red Rock Road intersection. The proposed MCSP would include the following improvements to the circulation, pedestrian, bicycle, and transit systems:

Vehicle Circulation and Access

- Providing a more uniform lane width of 11 to 12 feet in both directions of Moraga Avenue;
- Signalizing the Moraga Avenue/Red Rock Road intersection which would better accommodate turns into and out of Red Rock Road and improve pedestrian connectivity across Moraga Avenue; and
- Potential relocating or undergrounding of utilities lines along Moraga Avenue to encourage roadway improvements.

Pedestrian System

- East of Red Rock Road, an up to 6-foot wide sidewalk with 5-foot wide landscaping on both sides of Moraga Avenue;
- West of Red Rock Road, an up to 6-foot wide sidewalk on the north side of Moraga Avenue which would connect to an existing sidewalk that connects to the sidewalk network in Piedmont and would be separated with a 5-foot wide landscaping including low-fence/guardrail for all or part of the Moraga Avenue public right-of-way west of Red Rock Road;
- A signal on Moraga Avenue at Red Rock Road and an intersection that would provide marked crosswalks across the north (Red Rock Road) and east (Moraga Avenue) approaches of the intersection;
- A new hiking trail in the northwest part of the MCSP area that would extend from Kennelly Skatepark uphill to a vista point with an optional extension to Maxwelton Road; and
- Potential relocation or undergrounding of utility poles.

Bicycle System

- Eastbound (uphill): Moraga Avenue would provide a buffered Class II bicycle lane, with an option to upgrade to a Class IV protected bicycle lane, on the south side of the roadway along the entire corridor in the MCSP area. Eastbound Moraga Avenue would remain a Class III bike lane west of Pala Avenue, and a Class II bike lane east of Maxwelton Road;
- Westbound (downhill): Moraga Avenue would remain a Class III enhanced bicycle route on the north side of the roadway within a consistent lane width throughout the MCSP area and extending in both directions of Moraga Avenue. However, depending on the final development plan and right-of-way availability, westbound Moraga Avenue may be upgraded to a Class II bicycle lane; and

- Expanding bicycle parking at Coaches Field and other open spaces in the area to further encourage bicycling.

Transit System

- Coordinate with AC Transit to introduce bus service along the Moraga Avenue corridor;
- Provide bus stops in both directions of Moraga Avenue near the signal at Red Rock Road to better accommodate bus riders needing to cross the street; and
- Provide amenities, such as shelter with bench and trash receptacle, at the bus stops.

As outlined above, the proposed MCSP envisions improvements to the roadway, bicycle, pedestrian, and transit system and would ensure that improvements are constructed based on industry design standards and best practices consistent with California Department of Transportation (Caltrans) standards, including the Highway Design Manual, the PCC, Piedmont Safer Streets Plan, Piedmont Public Works Standard Details, the Piedmont CAP 2.0, and building design and inspection requirements. With implementation of the improvements outlined above, the proposed MCSP would not conflict with a program, plan, ordinance or policy addressing the circulation system, and impacts would remain less than significant, similar to the environmental issues and site conditions analyzed in the Housing Element EIR. As a result, consistent with the analysis and conclusions in the Housing Element EIR, the proposed MCSP would be consistent with the Caltrans' California Transportation Plan (CTP) 2050, the Piedmont's Safer Streets (PSS) Plan, and the City's CAP 2.0. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The proposed MCSP would generally be located in the same area as analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Consistent with the environmental issues and site conditions analyzed in the Housing Element EIR, the proposed MCSP would result in home-based VMT per resident exceeding the threshold of 15 percent below regional average home-based VMT per resident for the City of Piedmont. Future development projects under the proposed MCSP may meet one or more of the screening thresholds if they are 100 percent affordable housing or if they have a minimum density of 20 housing units per acre (infill screening)[1]. As outlined under PCC Section 17.22.040(C), minimum density for multi-family development in Zone B where the MCSP area is located is 20 dwelling housing units per acre, and the maximum density is 60 dwelling housing units per acre. Therefore, since future development under the proposed MCSP would have a minimum density of 20 dwelling housing units per acre, they would be assumed to have less than significant VMT impacts. With compliance with the new General Plan Transportation Element Action 7.D as well as MCSP Section 10.5.6.2A requiring future development to prepare a VMT analysis and a transportation demand management plan, impacts would be less than significant and reduced compared to those identified in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

[1] Refer to Figure 4.14-4 of the Housing Element Implementation EIR, which shows the areas of the City where future housing developments with a minimum density of 20 housing units per acre would have a less than significant impact on VMT. The MCSP Area is located within an area eligible for infill screening.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

As outlined above under Impact a, above, the proposed MCSP would include improvements to the roadway, bicycle, pedestrian, and transit system and would ensure that improvements are constructed based on industry design standards and best practices consistent with Caltrans, Piedmont Safer Streets, the PCC, Public Works Standard Details, and building design and inspection requirements. In addition, future development under the proposed MCSP that includes new roadway, bicycle, pedestrian, and transit infrastructure improvements would be subject to and designed in accordance with City standards and specifications that address potential design hazards including sight distance, driveway placement, traffic safety, signage and striping. Specifically, future development under the MCSP would be required to comply with General Plan Policy Transportation Element 12.2 which would ensure adequate sight distance at new driveways between vehicles entering and exiting the driveways and pedestrians on the adjacent sidewalk, as well as motor vehicles and bicycles on the adjacent street; as well as Section 5.8 (Vehicular Access and Parking) of the proposed MCSP which includes guidelines for vehicular access, driveways and curb cuts, and parking.

The MCSP would provide more uniform lane widths of 11 to 12 feet instead of the current 10 to 18 feet in both directions of Moraga Avenue. The MCSP also includes signalization of the Moraga Avenue/Red Rock Road intersection to improve turning movements, pedestrian connectivity, and overall safety. The existing westbound slip right-turn at this intersection would be removed, and the intersection would be squared off to ensure all movements are controlled by the new traffic signal.

Potential driveways along the south side of Moraga Avenue and the proposed traffic signal would be designed to meet minimum stopping sight distances, 300 feet for eastbound (uphill) and 360 feet for westbound (downhill) traffic, consistent with applicable design standards. Pursuant to Section 4.17 of the MCSP, landscaping along Moraga Avenue would be minimized to preserve clear sight lines.

The proposed refuge island on the east side of the Moraga Avenue/Red Rock Road intersection would provide raised medians on both sides of the crossing and be at least 8 feet wide to provide adequate waiting space for pedestrians and cyclists if they do not complete the crossing during one signal phase. Signal timing would be calibrated to allow pedestrians to cross within a single cycle. Additionally, the refuge island would narrow adjacent travel lanes to discourage speeding. A design speed of 40 miles per hour is proposed for Moraga Avenue, consistent with Caltrans Highway Design Manual guidance for local facilities connecting to freeways or expressways.

Based on information provided by Fehr & Peers included in Appendix B, the MCSP is expected to generate approximately 910 vehicle trips on a typical workday. While specific driveway locations for future development at Blair Park are not yet determined, each would include a left-turn lane on westbound Moraga Avenue. This would allow turning vehicles to wait for gaps in oncoming traffic without impeding through traffic, minimizing queuing and avoiding spillback to the SR 13 off-ramps located approximately 0.7 miles east of Blair Park. No acceleration lanes would be provided in either direction of Moraga Avenue which would be consistent with the current configuration of Moraga Avenue through Piedmont. Therefore, impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project result in inadequate emergency access?

As discussed in the Housing Element EIR, the City maintains the roadway network which would provide access to new development sites in the MCSP area in accordance with industry design standards, which ensures that the physical network would be free of obstructions to emergency responders. Emergency access to new development sites facilitated by the proposed MCSP would be subject to review by the City of Piedmont and responsible emergency service agencies, thus ensuring that future projects developed under the MCSP would be designed to meet all emergency access and design standards. As outlined in the proposed MCSP, Moraga Avenue is a City evacuation route that can be used to either evacuate to the east to State Route 13 or to the west to Pleasant Valley Avenue and Broadway. The proposed MCSP would include reconfiguration of Moraga Avenue which would continue to provide one travel lane in each direction and would not adversely affect emergency response but, instead, improve evacuation for cyclists and pedestrians in the area. Future development would also be required to comply with General Transportation Element policies related to emergency access and emergency roadways, such as policy 12.3, Emergency Vehicle Access. California law requires drivers to yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicle passes to ensure the safe and timely passage of emergency vehicles. The proposed reconfiguration of Morage Avenue would accommodate vehicles stopping on both sides on the roadway to allow emergency vehicles to drive through the corridor. Therefore, impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to transportation than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.18 Tribal Cultural Resources

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	Pages 4.15-5 through 4.15-6	No	No	No	Yes
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Pages 4.15-5 through 4.15-6	No	No	No	Yes

Housing Element EIR Summary

Section 4.15, *Tribal Cultural Resources*, of the Housing Element EIR analyzed the MCSP's impacts related to tribal cultural resources. As discussed in the Housing Element EIR, AB 52 consultation conducted as part of the Housing Element did not identify known tribal cultural resources in Piedmont, and the Sacred Land Files (SLF) results received from the Native American Heritage Commission (NAHC) were negative for sacred lands. Nonetheless, ground-disturbing activities associated with individual development projects facilitated by the MCSP could expose previously unidentified subsurface archaeological resources that may qualify as tribal cultural resources and could be adversely affected by construction. Implementation of the policy related to tribal cultural resources added to the General Plan Design and Preservation Element, set for the below, would reduce impacts to a less than significant level.

General Plan Design and Preservation Element Policy 30-3: Tribal Cultural Resources. For future projects that are determined through tribal consultation to potentially affect tribal cultural resources, in order to mitigate potential adverse impacts to Native American cultural objects and human remains discovered during construction, project proponents shall retain tribal cultural monitors to monitor work done in areas of Tribal concern, as determined through tribal consultation. In the event that Native American cultural objects and/or human remains are discovered during construction, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist meeting the Professional Qualifications Standards of the Secretary of the Interior (36 CFR Part 61) has evaluated the nature and significance of the find as a cultural resource and an appropriate local Native American representative is consulted.

If the City, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with local Native American Tribes and group(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American Tribe and tribal representative and, if applicable, a qualified archaeologist.

Impact Analysis

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

As part of its tribal cultural resources identification process under SB 18, the City of Piedmont sent letters via certified mail to Native American Tribes in the geographic area that is traditionally and culturally affiliated with the Tribes on July 24, 2024. As discussed in the CRTR prepared by Rincon Consultants, Inc. in 2024 (Appendix A), the City received five responses, from the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Confederated Villages of Lisjan, the Costanoan Rumsun Carmel Tribe, the Indian Canyon Band of Costanoan, and the Muwekma Ohlone Indian Tribe of the San Francisco Bay. Tribal consultation closed for the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Confederated Villages of Lisjan, the Costanoan Rumsun Carmel Tribe, and the Indian Canyon Band of Costanoan on December 20, 2024, and tribal consultation closed for the Muwekma Ohlone Indian Tribe of the San Francisco Bay on April 29, 2025. The City confirmed that the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Costanoan Rumsun Carmel Tribe, and the

Muwekma Ohlone Indian Tribe of the San Francisco Bay would be contacted regarding development of specific projects in the MCSP area. SB 18 correspondence is included in Appendix B of the CRTR.

In addition, future development under the MCSP must comply with Section 10.5.7.2, which mandates the implementation of a Worker's Environmental Awareness Program for all project personnel, the preparation of an Archaeological Resources Assessment, and provides guidance for tribal consultation and the unanticipated discovery of tribal cultural resources. With adherence to Section 10.5.7.2 of the MCSP, impacts related to tribal cultural resources would remain less than significant consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

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3.19 Utilities and Service Systems

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Pages 4.16-12 through 4.16-15	No	No	No	N/A
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Pages 4.16-15 through 4.16-20	No	No	No	N/A
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Page 4.16-20	No	No	No	N/A
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Pages 4.16-21 through 4.16-22	No	No	No	N/A
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Pages 4.16-21 through 4.16-22	No	No	No	N/A

Housing Element EIR Summary

Section 4.16, *Utilities and Service Systems*, of the Housing Element EIR analyzed the MCSP's impacts related to utilities and service systems. As discussed in the Housing Element EIR, it is not anticipated that the relocation or construction of new water facilities, stormwater facilities, electricity infrastructure, and telecommunications utilities would be required since future development would be served by existing utility infrastructure. However, new wastewater infrastructure would likely be required. Due to the existing geological setting of the MCSP area and because proposed utility alignments have not yet been identified, the expansion of wastewater infrastructure could result in significant impacts associated with construction of infrastructure in previously disturbed areas, and impacts related to new or expanded wastewater conveyance facilities were determined in the Housing Element EIR to be significant and unavoidable for the MCSP area and other parts of Piedmont.

As discussed in the Housing Element EIR, Piedmont, including the MCSP area, is served by EBMUD. EBMUD has sufficient water supplies during normal water year conditions and single-drought-year conditions, as well as during the first two years of multi-drought-year conditions. Although water supply shortages could occur during the third year of a multi-year drought condition, EBMUD customers would be subject to EBMUD's Demand Management Plan and other water conservation requirements which would address any shortage in supply. Impacts related to water supply were determined to be less than significant.

The Housing Element EIR found that the Housing Element, including the MCSP, would generate 56,688 gallons of wastewater per day, which would be within the remaining capacity of EBMUD's MWWTP of 105 million gallons per day (mgd). Therefore, this impact was found to be less than significant.

The Housing Element EIR determined that development facilitated by the MCSP would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. In addition, the MCSP, as analyzed under the Housing Element EIR, would not impair the attainment of solid waste reduction goals and would comply with federal, State, and local statutes and regulations related to solid waste. Impacts were found to be less than significant.

Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Since the proposed MCSP would not substantially increase the total amount of development in the MCSP area compared to the MCSP as analyzed in the Housing Element EIR, the proposed MCSP would generate or demand volumes of water, wastewater, stormwater, electrical power, natural gas, or telecommunications consistent with the volumes analyzed in the Housing Element EIR. Therefore, similar to the environmental issues and site conditions analyzed in the Housing Element EIR, existing utility systems for water, stormwater, electric power, natural gas, and telecommunication facilities in Piedmont would have sufficient capacity to serve the proposed MCSP, and impacts would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. In addition, Chapter 9.3 of the MCSP requires future applicants to verify the condition and capacities of the water, wastewater, and stormwater system during the design process

to determine if replacements would be required. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

As discussed in the Housing Element EIR, because of the existing nature of the MCSP area – steep perimeter slopes, rocky soils, lack of existing residential development, open space in its eastern portion, and other factors – and because proposed utility alignments have not yet been identified, the expansion of wastewater infrastructure could result in significant impacts associated with construction of infrastructure in previously undisturbed areas.

Wood Rodgers prepared a Sewer Analysis subsequent to certification of the Housing Element EIR in July of 2024 (Appendix C) analyzing sewer capacity for the Housing Element and the MCSP studied in the Housing Element EIR. As shown in Figure 5-3 of the Sewer Analysis, five sewer pipes along Moraga Avenue south of Blair Park would be deficient with full buildout of the Housing Element and would exceed pipeline capacity. Consistent with the recommendations of the Sewer Analysis, future development under the proposed MCSP would be subject to the MCSP Chapter 10 which requires a detailed analysis of the downstream sewer collection and incorporation of recommendations, as well as a project-specific sewer capacity evaluation for projects greater than four housing units. Nonetheless, as discussed in the Housing Element EIR, since utility alignments for individual projects to be developed under the MCSP have not yet been identified, and the relocation, expansion, or construction of new wastewater conveyance facilities would be required, impacts would remain significant and unavoidable, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As detailed in the Housing Element EIR, sufficient water supplies are anticipated to be available during normal water year conditions and single-drought-year conditions, as well as during the first two years of multi-drought-year conditions. Although EBMUD projects water supply shortages during the third year and onwards of multi-year drought conditions, EBMUD's existing operational protocols such as drought restrictions on customers would be initiated which would ensure adequate water supply during drought years. In addition, future development applicants and proponents would be required to comply with CALGreen Title 24, Part 11, which requires a 20 percent reduction in residential indoor water use that would lower potential water demand, as well as implementation of water-efficient landscapes. Furthermore, the proposed MCSP also includes requirements for conservation of water in Chapter 8, Landscape Design. Therefore, this impact would remain less than significant, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Since the proposed MCSP would not substantially increase the total amount of development in the MCSP area compared to the development analyzed in the Housing Element EIR, the proposed MCSP would not generate substantially increased volumes of wastewater or demand for wastewater facilities compared to the development analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, EBMUD's MWWTP has sufficient existing wastewater treatment capacity to accommodate the wastewater from the anticipated residential development facilitated by the MCSP, as analyzed under the Housing Element EIR, and therefore the proposed MCSP as well. Consistent with the analysis and conclusions in the Housing Element EIR, impacts would remain less than significant. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. Since the proposed MCSP would not substantially increase the total amount of development in the MCSP area compared to the development analyzed in the Housing Element EIR, the proposed MCSP would generate volumes of solid waste consistent with the volumes analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the total remaining capacity of all landfills serving Piedmont would have sufficient capacity to serve the increase in solid waste generated by the Housing Element. In addition, future development under the proposed MCSP would be required to comply with federal, State, and local statutes and regulations related to solid waste such as AB 939 and SB 1838 for waste diversion and recycling and composting of organic wastes. Therefore, impacts would remain less than significant, similar to the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to utilities and service systems than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

3.20 Wildfire

	Where was Impact Analyzed in the EIR?	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Pages 4.17-17 through 4.17-21	No	No	No	Yes
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Pages 4.17-22 through 4.17-26	No	No	No	N/A
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Pages 4.17-26 through 4.17-28	No	No	No	N/A
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Pages 4.17-28 through 4.17-29	No	No	No	Yes

Housing Element EIR Summary

Section 4.17, *Wildfire*, of the Housing Element EIR analyzed the MCSP's impacts related to wildfire. As discussed in the Housing Element EIR, the MCSP is not within a very high fire hazard severity zone (VHFHSZ). However, future development would result in increased population, and vehicles in the MCSP area could impact emergency evacuation routes. Even with implementation of the policies related to transportation construction plan, education on fire hazard reduction strategies, ensuring adequate emergency evacuation routes, emergency access, emergency roadways, residential neighborhood engagement, evaluating evacuation route capacity, restricting parking, access and fuel

management coordination, preparedness and the community, emergency preparedness plan, preparedness education and citizen training, and intergovernmental preparedness planning added to the General Plan Environmental Hazards Element, which are set forth below, as well as Housing Element EIR Mitigation Measure W-1 (Incorporation of Evacuation Analysis Recommendations), set forth below, impacts may still result from the potential for unusual site-specific road conditions, project characteristics, and/or increased population as a result of development under the MCSP, and the general, ongoing fire risk in Piedmont. Therefore, impacts were found to be significant and unavoidable.

General Plan Environmental Hazards Element

Policy 19.30: Transportation Construction Plan. Projects developers shall be required to prepare and implement a Transportation Construction Plan (TCP), which shall be approved by the City. The plan shall include the locations of material and equipment storage, trailers, worker parking, a schedule of site operations that may block traffic, and provisions for traffic control. The TCP shall include procedures for stopping construction in the event of an emergency and ensuring that emergency access and evacuation routes are not inhibited. The TCP shall ensure adequate emergency access and consistency with the California Fire Code and other development requirements as part of the development review process.

Policy 19.18: **Education on Fire Hazard Reduction Strategies.** Educate residents on fire hazard reduction strategies to employ on their properties, focusing on the most vulnerable populations such as renters.

Policy 19.19: **Ensure Adequate Emergency Evacuation Routes.** Ensure that all new residential development has at least two emergency routes.

Policy 19.20: **Emergency Access.** Ensure that the Piedmont Fire Department has complete access to all locations in the City, including gated residential communities and critical infrastructure.

Policy 19.21: **Emergency Roadways.** Maintain emergency roadways and improve them as necessary and appropriate to ensure they stay in operation during hazardous events.

Policy 19.22: **Residential Neighborhood Engagement.** Prioritize engagement with residential neighborhoods that have evacuation constraints to encourage home retrofits to meet current standards on structure hardening, proactively enforce defensible space standards, and conduct emergency preparedness trainings.

Policy 19.23: **Evaluate Evacuation Route Capacity.** Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios as part of the next update to the Piedmont Hazard Mitigation Plan, in accordance Government Code Section 65302.15 (as amended by AB 747). Implement recommended mitigation measures to reduce evacuation constraints.

Policy 19.25: Restrict Parking. Restrict parking periodically (e.g., on red flag days) along critical evacuation routes.

Policy 19.28: Access and Fuel Management Coordination. Coordinate with the City of Oakland Fire Department to improve emergency access and implement fuel load modification in Moraga Canyon.

Policy 21.1: **Preparedness and the Community.** Recognize the importance of communication and full community engagement to the success of all emergency preparedness strategies.

Policy 21.2: **Emergency Preparedness Plan.** Use the Standardized Emergency Management System as the basis for emergency planning. The City will maintain an emergency preparedness plan that identifies a chain of command and outlines the actions to be taken in the event of a disaster.

Policy 21.3: **Preparedness Education and Citizen Training.** Promote and coordinate public education on earthquake hazards and emergency preparedness. The City will continue to implement programs that advise the public of preparedness and post-disaster recovery measures, and will encourage volunteer citizen participation in disaster response.

Policy 21.4: **Intergovernmental Preparedness Planning.** Cooperate with other cities, regional organizations, and other public agencies to undertake emergency preparedness planning.

Housing Element EIR

Mitigation Measure W-1: Incorporation of Evacuation Analysis Recommendations. The City shall implement all recommendations included in the *City of Piedmont 2023-2031 Housing Element Update – Emergency Evacuation Time Assessment* (Fehr & Peers 2023) and listed below:

- Develop emergency evacuation traffic signal timing plans for traffic signals on evacuation routes, prioritizing evacuation flows and minimizing opposing traffic flows. Emergency response vehicle access into evacuation areas can be maintained through traffic signal pre-emption. Coordinate with City of Oakland and Caltrans to develop corridor evacuation timing plans.
- Identify corridors where temporary evacuation capacity, such as reversible traffic lanes, temporary use of parking lanes, shoulders, or two-way-left-turn lanes, could be provided while maintaining emergency responder access in the opposite direction.
- Explore limiting on-street parking on designated evacuation routes either permanently or during high fire risk periods to reduce potential conflicts with evacuating vehicles.
- As part of evacuation messaging, ensure evacuees are informed of the availability of multiple evacuation routes, to allow effective use of all available capacity.
- Work with Piedmont Unified School District (PUSD) and private schools to develop evacuation plans for the schools in the City of Piedmont.
- Consider staggering the evacuation orders for citywide or large area evacuations for different zones and account for the impact on potential bottleneck locations when determining the timing for evacuation of different zones.
- When considering roadway or intersection design modifications, especially in areas that have less accessibility and on key evacuation routes, consider evacuation capacity and consider design treatments that could allow reversible lanes or temporary use of parking lanes or shoulders as auxiliary lanes to provide additional capacity during an evacuation event.
- Educate residents and employees about the importance of carpooling in evacuations to reduce the number of evacuating vehicles and minimize evacuation times.
- Explore the potential use of the footpath and bicycle networks in evacuating pedestrians and cyclists to reduce the number of evacuating vehicles and minimize evacuation times.Examine areas that have a high concentration of residents with social vulnerability indicators such as age, disability, and other mobility factors to determine other potential barriers to evacuation besides distance to and capacity of evacuation routes. Advanced coordination between first responders to ensure an efficient and well-communicated process for evacuation may be needed in response to various hazard scenarios.

The Housing Element EIR determined that the MCSP area is located within a wildland-urban interface (WUI) and development would increase the number of residents exposed to a potential WUI fire. Even with implementation of policies related to locating critical facilities outside of VHFSZ, minimizing risk to new residential development in VHFHSZ, new development siting, density management, landscape features, development water systems, fire protection, fire protection plans for new development, fuel management and public education, fire department review of development applications, vegetation clearance for public and private roads, and undergrounding power lines in the General Plan Environmental Hazards Element, as set forth below, new development under the MCSP could still result in risks to people and structures from wildfire-generated pollutants and risks. This impact was found to be significant and unavoidable.

General Plan Environmental Hazards Element

Policy 19.1: Locate New and Existing Critical Facilities Outside of Very High Fire Hazard Severity Zones. Protect and harden critical facilities from natural hazards and minimize interruption of essential infrastructure, utilities, facilities, and services.

Policy 19.2: Minimize Risk to New Residential Development in Very High Fire Hazard Severity Zones. Develop stringent initial site design and on-going maintenance standards incorporating adequate mitigation measures into individual developments to achieve an acceptable level of risk, considering the increased risk associated with wildland fire hazards due to climate change.

Policy 19.3: New Development Siting. Require new development located along steep slopes and amidst rugged terrain to be fire resistant and avoid contributing to rapid fire spread and or decreased accessibility for firefighting.

Policy 19.4: Density Management. Develop and implement density management strategies that cluster residential developments and minimize low-density exurban development patterns, or developments with undeveloped wildland between them, to reduce amounts of flammable vegetation and collective exposure to wildfire risk.

Policy 19.5: Landscape Features. Site structures to maximize low-flammability landscape features to buffer against wildfire spread.

Policy 19.6: Development Water Systems. Permit development only within areas that have adequate water resources available, to include water pressure, onsite water storage, or fire flows.

Policy 19.8: Fire Protection. Require that new development have adequate fire protection, including proximity to adequate emergency services, adequate provisions for fire flow and emergency vehicle access and fire hardened communication, including high speed internet service.

Policy 19.9: Fire Protection Plans for New Development. Require fire protection plans for all new development, including new development within VHFHSZs. Fire protection plans shall contain the following components:

- Risk Analysis
- Fire Response Capabilities
- Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
- Mitigation Measures and Design Considerations for NonConforming Fuel Modification
- Wildfire Education, Maintenance, and Limitations
- Evacuation Planning.

Policy 19.13: Fuel Management and Public Education. Require all properties in the city to enforce precautionary measures to create defensible space, including removing flammable vegetation and maintaining a fire break around properties. This should include the removal of fire-prone vegetation and the use of less flammable plants for landscaping, especially on hillside sites. Require ongoing maintenance and upkeep to be codified as part of building covenants or homeowner covenants, conditions, and restrictions. Public education on "defensible space" and good vegetation management practices should be strongly promoted.

Policy 19.15: Fire Department Review of Development Applications. Ensure that the Piedmont Fire Department reviews proposed development applications to verify that response times will be acceptable, emergency access will be adequate, water supply and fire flow will be sufficient, vegetation clearances will be maintained, and appropriate construction materials will be used.

Policy 19.17: Vegetation Clearance for Public and Private Roads. Establish and maintain community fire breaks and fuel modification/reduction zones, including clearance alongside public and private roads.

Policy 19.24: Underground Power Lines. Coordinate with Pacific Gas & Electric to implement an electrical undergrounding plan with a focus on critical evacuation roadways and areas with highest wildfire risk.

As discussed in the Housing Element EIR, future development in the MCSP area would require the installation of new infrastructure such as power lines and other utility infrastructure, and may require new circulation lanes within the MCSP area, fuel breaks, or emergency water sources. Although future projects developed under the MCSP would be required to comply with State and local regulations, since the design and location of infrastructure improvements are not yet known, impacts would remain significant and unavoidable.

The Housing Element EIR determined that since the MCSP as analyzed in the Housing Element EIR is located in a high landslide risk area and in a WUI, development under the MCSP as analyzed in the Housing Element EIR could expose people and structures to significant risks, including landslides, as a result of runoff, post-fire slope instability, or drainage changes. In addition, development in the MCSP area could also expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Even with adherence to CBC and PCC requirements, policies in the City's General Plan as set forth below, as well as Housing Element EIR Mitigation Measure MCSP-GEO-1 set forth below, impacts would remain significant and unavoidable.

General Plan Environmental Hazards Element

Policy 18.1: Restricting Development on Unstable Sites. Permit development only in those areas where potential danger to health, safety, and welfare of Piedmont residents can be adequately mitigated.

Policy 18.4: Soil and Geologic Reports. Require site specific soil reports and geologic studies in instances where development may be exposed to substantial geologic or seismic hazards, including ground shaking and landslides. Ensure that any identified hazards are appropriately mitigated.

Action 18.A: Soil and Geotechnical Reporting Requirements. Require soil and geotechnical reports for any structure constructed on a slope exceeding 20 percent, any application for a tentative subdivision map, and any new residence on any lot, regardless of slope.

Housing Element EIR

Mitigation Measure MCSP-GEO-1: Geotechnical Assessment for Moraga Canyon Specific Plan Area. A geotechnical assessment shall be prepared for development in the Moraga Canyon Specific Plan Area by a qualified engineer prior to issuance of a grading permit. The geotechnical assessment shall include onsite sampling of existing soil to ascertain current conditions and characterize the potential for risks and implications for future building foundation elements. The analysis of the onsite conditions and risks shall be based on laboratory results generated in accordance with current procedures and applicable state and local construction, engineering, and geotechnical building standards at the time the assessment is prepared. The design of individual projects and/or construction shall incorporate all recommendations of the geotechnical assessment. The assessment and recommendations shall be prepared by a California-licensed professional engineer and shall comply with current state and local building codes. The intention of the geotechnical assessment is to sufficiently inform design related to geologic hazards and to help ensure that the design of building foundations, subgrades, and transportation infrastructure can withstand existing conditions, or that the individual site can be treated in such a manner as to address hazardous geologic conditions.

Impact Analysis

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area, consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the MCSP area is not located within a VHFHSZ. Development facilitated by the proposed MCSP would be required to comply with General Plan policies related to transportation construction plan, education on fire hazard reduction strategies, ensuring adequate emergency evacuation routes, emergency access, emergency roadways, residential neighborhood engagement, evaluating evacuation route capacity, restricting parking, access and fuel management coordination, preparedness and the community, emergency preparedness plan, preparedness education and citizen training, and intergovernmental preparedness planning. As discussed in the proposed MCSP, the City of Piedmont Police Department Emergency Operations Procedures identifies Moraga Avenue as an evacuation route, which depending on the areas evacuated and the direction of evacuation, can be used to either evacuate to the east to SR 13 or to the west to Pleasant Valley Avenue and Broadway. The City of Oakland's 2045 General Plan Safety Element identifies SR 13, Pleasant Valley Avenue, and Broadway as primary local evacuation routes. As outlined under Impact d in Section 3.17, *Transportation*, of this Addendum, the proposed MCSP would include reconfiguration of Moraga Avenue which would continue to provide one travel lane in each direction and would not adversely affect emergency response but, instead, improve evacuation for cyclists and pedestrians in the area. Nonetheless, as discussed in the Housing Element EIR, based on the Emergency Evacuation Time Assessment prepared by Fehr & Peers in 2023 for the Housing Element EIR, increased development in the MCSP area could still increase evacuation times between 8 and 40 minutes. Even with continued implementation of Housing Element EIR Mitigation Measure W-1, impacts would remain significant and unavoidable, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more

severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the MCSP area is located within a WUI and would increase the number of residents exposed to a potential wildland-urban interface fire. Development facilitated by the proposed MCSP would be required to adhere to the CBC, PCC, and General Plan Environmental Hazards policies such as Policy 19.3 which requires new development located along steep slopes and amidst rugged terrain to be fire resistant and avoid contributing to rapid fire spread and / or decreased accessibility for firefighting, as well as policies related to locating critical facilities outside of VHFSZ, minimizing risk to new residential development in VHFHSZ, new development siting, density management, landscape features, development water systems, fire protection, fire protection plans for new development, fuel management and public education, fire department review of development applications, vegetation clearance for public and private roads, and underground power lines. Nonetheless, development in the MCSP area could result in risks to people and structures from wildfire-generated pollutants and risks, and impacts would remain significant and unavoidable, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the MCSP area is located within a WUI and future development would require the installation of new infrastructure such as power lines and other utility infrastructure. Future development facilitated by the proposed MCSP may require new circulation lanes within the MCSP area, fuel breaks, or emergency water sources. Although Environmental Hazards Element Policy 19.24 of the General Plan requires undergrounding of power lines to reduce wildfire risk, due to the steep terrain in the MCSP area and because the MCSP area is not currently developed with existing residences, development in the MCSP area could require installation of some infrastructure which could exacerbate fire risk. Therefore, impacts would remain significant and unavoidable, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed MCSP would generally be located in the same area analyzed under the Housing Element EIR for the MCSP and would include the same type of use and buildout of an anticipated 199 housing units, as well as City facilities, in the MCSP area consistent with the buildout analyzed in the Housing Element EIR. As discussed in the Housing Element EIR, the MCSP area is located within a WUI and an area with high risk of landslides. Future development under the proposed MCSP would be required to comply with the CBC and PCC which would decrease the risk of subsequent landslides or site instability. However, due to the high landslide risk in this area and the risk of wildfire throughout the city, development under the proposed MCSP would still potentially expose people and structures to significant risks, including landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts would remain significant and unavoidable, consistent with the analysis and conclusions in the Housing Element EIR. There would be no new or substantially more severe impacts than what was analyzed in the Housing Element EIR, and further analysis is not warranted.

Conclusion

No substantial changes have occurred that require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. There is no new information indicating that the proposed MCSP would have new significant impacts or substantially more severe significant impacts with respect to wildfire than were identified in the Housing Element EIR. None of the conditions listed in *CEQA Guidelines* Section 15162 requiring preparation of a subsequent EIR would occur. No new mitigation measures are necessary.

4 Cumulative Impacts

As evaluated in the Housing Element EIR, implementation of the Housing Element would not result in cumulatively considerable impacts for most environmental issue areas. However, the Housing Element EIR identified significant and unavoidable cumulative impacts related to cultural resources, greenhouse gas emissions, noise, transportation, utilities and service systems, and wildfire. As demonstrated in this EIR Addendum, the MCSP would result in significant and unavoidable impacts related to GHG emissions, noise, utilities and service systems, and wildfire, and therefore would result in cumulatively considerable contributions to impacts related to these issue areas, similar to what was determined in the Housing Element EIR. However, the MCSP would not introduce new or substantially more severe cumulatively considerable impacts beyond those analyzed in the Housing Element EIR. Therefore, no new or substantially more severe cumulative impacts would occur as a result of the project.

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5 Conclusion

As established in the EIR Addendum analysis above regarding the potential environmental effects that may be generated as compared to the MCSP as analyzed under the Housing Element EIR, it is concluded that substantial changes are not proposed to the MCSP as analyzed under the Housing Element EIR nor have substantial changes occurred within the MCSP geographic area or regulatory environment that would require major revisions to the Housing Element EIR or recirculation of the Housing Element EIR. Impacts beyond those identified and analyzed in the Housing Element EIR would not be expected to occur as a result of the proposed MCSP. Overall, the proposed MCSP would not result in new impacts or information of substantial importance that would generate new, more severe impacts or require new mitigation measures compared to those identified for the MCSP as analyzed in the Housing Element EIR. As such, the proposed MCSP would not result in conditions identified in *CEQA Guidelines* Section 15162, and a Subsequent or Supplemental EIR is not required for the proposed MCSP. Again, it should be noted that the proposed MCSP would be subject to all previously required mitigation measures from the Housing Element, as applicable. The MMRP adopted for the Housing Element Implementation Project would continue to be applicable to the proposed MCSP. Based on the above analysis, this Addendum to the Housing Element EIR for the MCSP has been prepared in accordance with *CEQA Guidelines* Section 15164.

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6 References

California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways (accessed November 2024)

City of Piedmont. 2024. City of Piedmont Housing Element Implementation Project Environmental Impact Report. SCH #2022020362. Certified February 20, 2024. Available: https://www.piedmontishome.org/ (accessed December 2024)

Fehr & Peers. 2025. Transportation Analysis Memorandums. Updated August 20, 2025.

Wood Rogers. 2024. Sewer Analysis for the City of Piedmont Housing Element Update.

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Appendix A

Cultural Resources Technical Report

Moraga Canyon Specific Plan

Cultural Resources Assessment Technical Report

prepared for

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August 2025

RINCON CONSULTANTS, INC. SINCE 1994

Confidentiality

The following document has been redacted to remove sensitive information that is confidential and not for public distribution, specifically related to archaeological site locations, which are exempt from the California Public Records Act, as specified in Government Code 6254.10, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). This report may be distributed publicly.

Please cite this report as follows:

Blind, Heather, JulieAnn Murphy, Nichole Jordan, Shannon Carmack, and Debbie Balam

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Table of Contents

Executive Summary 1
1 Introduction 3
1.1 Project Site and Description 3
1.2 Personnel 4
2 Regulatory Setting 8
2.1 California Environmental Quality Act 8
2.1.1 National Register of Historic Places 9
2.1.2 California Register of Historical Resources 10
2.2 California Senate Bill 18 of 2004 11
2.3 California Health and Safety Code 11
2.4 California Public Resources Code Section 5097.98 11
2.5 Local Regulations 11
2.5.1 City of Piedmont General Plan 11
2.5.2 Single-Family, Multifamily, Commercial, and Mixed-Use Standards and Guidelines 15
3 Natural and Cultural Setting 17
3.1 Natural Setting 17
3.2 Cultural Setting 17
3.2.1 Indigenous History 17
3.2.2 Ethnographic Setting 19
3.2.3 Post-contact Setting 20
4 Methods 25
4.1 Background and Archival Research 25
4.1.1 Archival Research 25
4.1.2 California Historical Resources Information System Records Search 25
4.1.3 Sacred Lands File Search 26
4.2 Field Survey 26
5 Findings 27
5.1 Background Research 27
5.1.1 Previous Cultural Resources Studies 27
5.1.2 Previously Recorded Cultural Resources 28
5.1.3 Sacred Land File Search 29
5.1.4 Senate Bill 18 Consultation 29
5.1.5 Aerial Imagery and Historical Topographic Maps Review 33
5.1.6 Geologic and Soils Map Review 34
5.2 Field Survey Results 34

5.2.1 Built Environment Resources 34
5.2.2 Archaeological Resources 38
6 Conclusions 45
6.1 Historical Built Environment Resources 45
6.1.1 Recommended MCSP Policy 45
6.2 Archaeological and Tribal Resources 45
6.2.1 Recommended MCSP Policies 47
7 References 49

Tables

Table 1 Known Cultural Resources 28
Table 2 Tribes on the Native American Heritage Commission Consultation List 30
Table 3 Mountain View Cemetery Property List 35

Figures

Figure 1 Regional Location 5
Figure 2 Project Site 6
Figure 3 Project Site with Assessor's Parcel Numbers 7
Figure 4 1906 Image of Blair Quarry from Moraga Avenue 24
Figure 5 Mountain View Cemetery Boundary 37
Figure 6 Survey Accessibility and PD-01 Location 41

Photographs

Photograph 1 Coaches Field, View to the West 39
Photograph 2 Kennelly Skatepark, View to the East 39
Photograph 3 Piedmont Corporation Yard, View to the North 40
Photograph 4 Hillside Slope and Vegetation near Creek, View to the West 40
Photograph 5 Overview of PD-01 near Cluster of Trees at the Base of Hillside 43
Photograph 6 Clear, Oval-Shaped Glass Owens-Illinois Bottle Base 43
Photograph 7 Aqua Blue Glass Fragment 44
Photograph 8 Cobalt Blue Glass Fragment 44

Appendices

Appendix A CONFIDENTIAL Northwest Information Center Records Search Results
Appendix B CONFIDENTIAL SB 18 Correspondence
Appendix C DPR 523 Records for 898 Red Rock Road, the Piedmont Corporation Yard
Appendix D DPR 523 Records for P-01-011355, Mountain View Cemetery
Appendix E [redacted]

Executive Summary

The City of Piedmont retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Moraga Canyon Specific Plan (MCSP) in the city of Piedmont, Alameda County, California. This technical report documents the results of the study and tasks conducted by Rincon, specifically, a cultural resources records search, Sacred Lands File search, Senate Bill 18 consultation, Mountain View Cemetery boundary assessment, a field survey, and development of MCSP policies for cultural resources and tribal cultural resources. This study has been completed pursuant to the requirements of the California Environmental Quality Act (CEQA). The City of Piedmont is the lead agency under CEQA.

The project site encompasses approximately 22.78 acres, located in the northeastern portion of Piedmont in Moraga Canyon along Moraga Avenue, which bisects the site. The project site includes five City-owned parcels (Assessor's Parcel Numbers 050457901900, 050457908000, 048A700200303, 050457902100, and 050457906100) and the Moraga Avenue right-of-way. Specifically, the project encompasses portions of Section(s) 19-20 of Township 01 South, Range 03 East on the *Oakland East*, *California* United States Geological Survey 7.5-minute topographic quadrangle.

The proposed project involves adoption of the MCSP consistent with Implementation Program 1.L of the City's 2023-2031 Housing Element Update. The MCSP includes land use, infrastructure, and implementation requirements for the future development in the MCSP Area. The MCSP also includes design standards and guidelines, site-specific objective development standards, and general development criteria. The MCSP has a vision for a new, mixed-income, multifamily community integrated into the open space for Moraga Canyon, where parks and outdoor spaces would be blended with the residential community.

The results of the California Historical Resources Information Center records search identified Mountain View Cemetery, previously recommended eligible for listing in the National Register of Historic Places and California Register of Historical Resources (CRHR), and an identified historical resource by the City of Oakland as being within the MCSP Area. The property, therefore, qualifies as a historical resource as defined by CEQA. The current assessment, however, confirmed that the Mountain View Cemetery is outside and immediately adjacent to the MCSP Area. Though the project would not result in demolition or destruction to the Mountain View Cemetery, adjacent new construction facilitated by the Specific Plan could result in changes to the historical resources immediately adjacent to the MCSP Area, leading to its material impairment, meaning that new construction could alter, in an adverse manner, those physical characteristics that convey the cemetery's historical significance and that justify the cemetery's eligibility for the National Register of Historic Places and CRHR. Rincon proposes MCSP policies (in addition to existing City of Piedmont General Plan policies and actions) to minimize the potential for future project impacts to Mountain View Cemetery's historic setting.

[redacted]

Senate Bill 18 consultation resulted in consultation with five Tribes: the Amah Mutsen Tribal Band of Mission San Juan Bautista, Confederated Villages of Lisjan, Costanoan Rumsen Carmel Tribe, Indian Canyon Band of Costanoan, and the Muwekma Ohlone Indian Tribe of the San Francsico Bay Area. As a result of Senate Bill 18 consultation, sensitivity for tribal cultural resources and tribal archaeological resources was identified within the MCSP Area. Rincon assisted the City in developing MCSP policies in partnership with consulting Tribes, which when coupled with existing General Plan policies and actions, would minimize the potential for future project impacts to tribal cultural resources.

Currently the City of Piedmont General Plan provides policies and actions that direct development in the MCSP Area and the following additional policies were recommended: a visual assessment of Mountain View Cemetery, Workers Environmental Awareness Training, and consultation with Native American Tribes.

1 Introduction

The City of Piedmont retained Rincon Consultants Inc. (Rincon) to conduct a cultural resources study for the Moraga Canyon Specific Plan project (MCSP/project) in the city of Piedmont, Alameda County, California. This technical report documents the results of the study and tasks conducted by Rincon, specifically, a cultural resources records search, Sacred Lands File (SLF) search, Senate Bill (SB) 18 consultation, Mountain View Cemetery boundary assessment, and field survey. This study has been completed pursuant to the requirements of the California Environmental Quality Act (CEQA). The City of Piedmont is the lead agency under CEQA.

1.1 Project Site and Description

The project site encompasses approximately 22.78 acres located in the northeastern portion of Piedmont in Moraga Canyon along Moraga Avenue, which bisects the site. The project site includes five City-owned parcels (Assessor's Parcel Numbers 050457901900, 050457908000, 048A700200303, 050457902100, and 050457906100) and the Moraga Avenue right-of-way (Figure 1 and Figure 3). Specifically, the project encompasses portions of Section(s) 19-20 of Township 01 South, Range 03 East on the *Oakland East*, *California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2).

The proposed project involves adoption of the MCSP consistent with Implementation Program 1.L of the City's 2023-2031 Housing Element Update as analyzed in the 2023-2031 Housing Element Implementation Project Environmental Impact Report (EIR). The MCSP includes land use, infrastructure, and implementation requirements for the future development in the MCSP Area. The MCSP also includes design standards and guidelines, site-specific objective development standards, and general development criteria. The MCSP has a vision for a new, mixed-income, multifamily community integrated into the open space for Moraga Canyon, where parks and outdoor spaces would be blended with the residential community.

Overall, the MCSP envisions the following:

- A variety of housing choices, including up to 197 multifamily dwelling units (of which at least 60 would be affordable) and up to two single-family dwellings in four- to six-story buildings on partial underground podium parking structures
- Approximately 1.5 acres of civic uses intended for City maintenance facilities
- Approximately 5 acres of roadway improvements, including realignment, grading and excavation, retaining walls, undergrounding of utilities, sidewalks, streetlights, and lane widening and re-configuration
- Approximately 5 acres devoted to recreational uses, such as a soccer field with sports field overlay and skate park.
- Amenities, such as one or more dog parks, playgrounds, or community gardens
- Other improvements, such as landscaped hillsides and other planted areas, sidewalks, terraces and courtyards, trails, driveways, public transit, and public access improvements

1.2 Personnel

Rincon Senior Archaeologist Heather Blind, MA, RPA provided management oversight for this cultural resources study and is the primary author of this report. Ms. Blind meets the Secretary of the Interior's Professional Qualifications Standards for History and Architectural History (National Park Service 1983). Senior Architectural Historian JulieAnn Murphy, MSHP, conducted the local historic group consultation, background architectural research, and is a contributing author of this report. Archaeologist and Project Manager Elaine Foster, MA, RPA, completed the cultural resources records search, and field survey. Archaeologist Debbie Balam, BA, is a contributing author on this report. Geographic Information Systems Analysts Abby Robles and Paul Rigby prepared the figures found in this report. Principal Nichole Jordan, MA, and Principal Shannon Carmack, MSHP, reviewed this report for quality control.

Figure 1 Regional Location

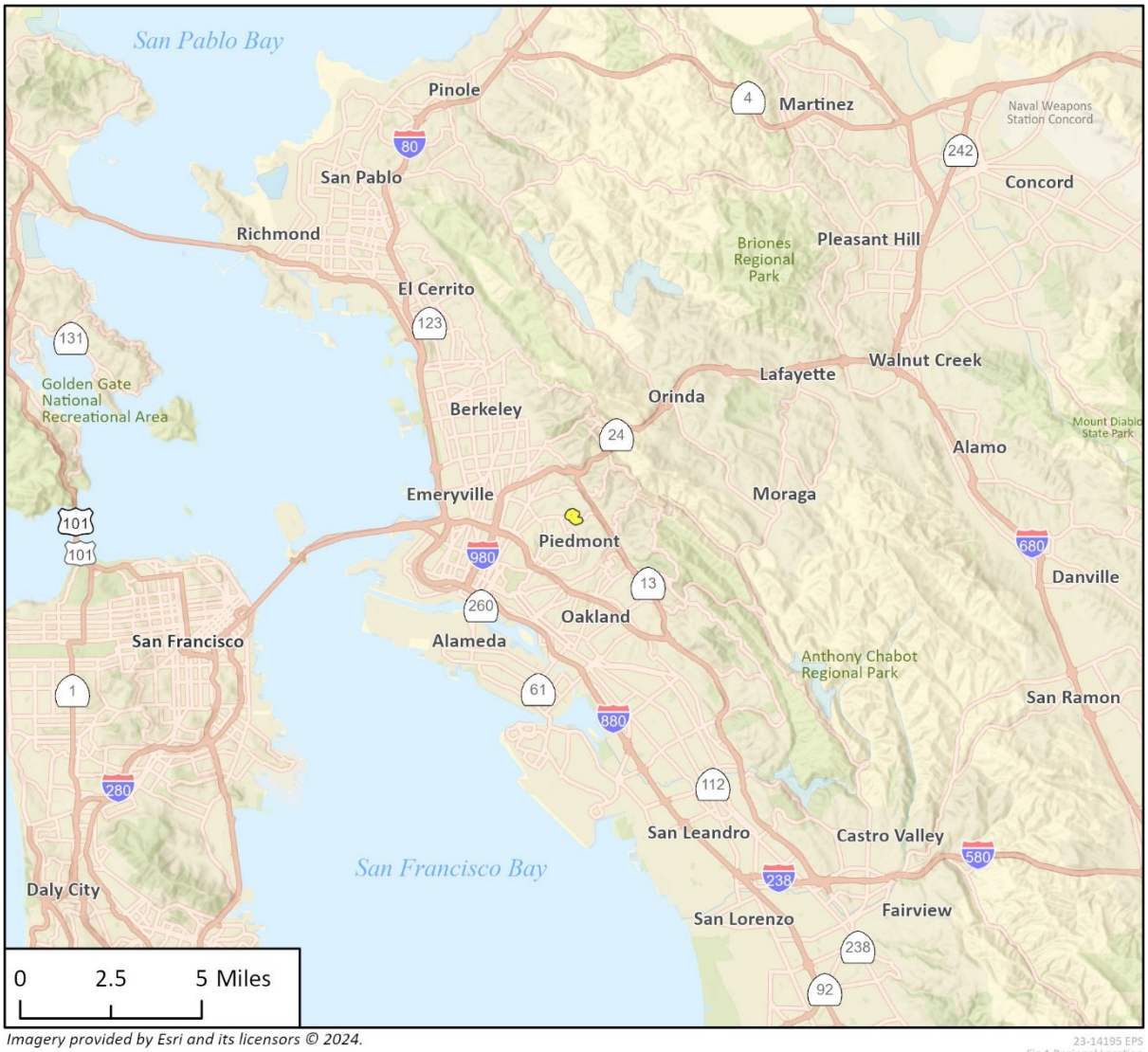
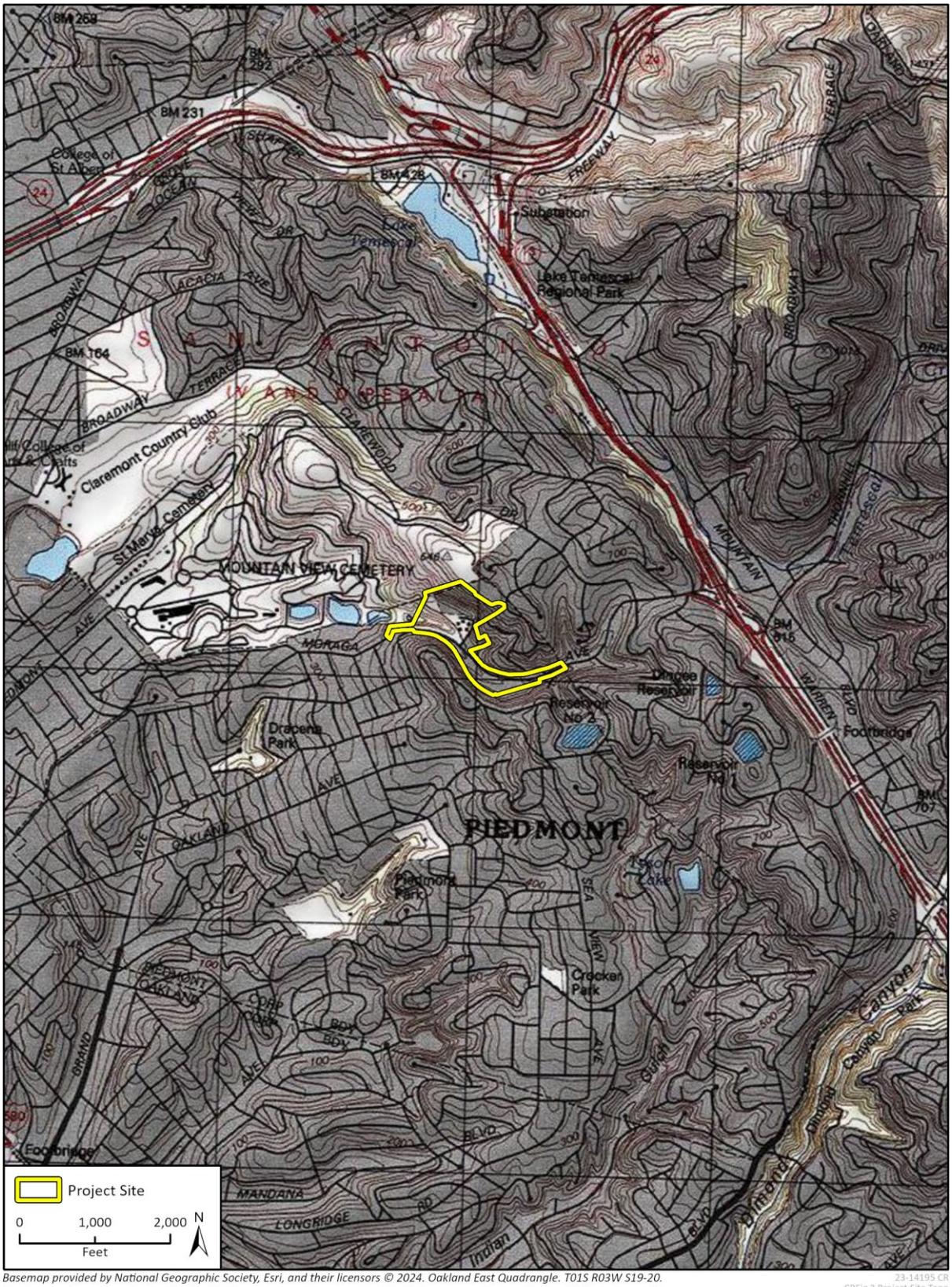


Figure 2 Project Site



Basemap provided by National Geographic Society, Esri, and their licensors © 2024. Oakland East Quadrangle. T01S R03W S19-20.
The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map have changed since the original topographic map was assembled.

23-14195 CR
CRFig 2 Project Site Topo

Figure 3 Project Site with Assessor's Parcel Numbers

Imagery provided by Microsoft Bing and its licensors © 2024.

23-14195 CR
Fig 3 Project Parcels

2 Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources, which must be adhered to before and during implementation of the project.

2.1 California Environmental Quality Act

California Public Resources Code (PRC) Section 21084.1 requires lead agencies to determine if a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or cultural significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the National Register of Historic Places (NRHP) are automatically listed in the CRHR, as are California Historical Landmarks 770 and above; both are therefore historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5(c) provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a "unique archaeological resource" as identified in PRC Section 21083.2. PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: 1) it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information, 2) has a special and particular quality such as being the oldest of its type or the best available example of its type, or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources will be less than significant and need not be considered further (*CEQA Guidelines* Section 15064.5[c][4]). *CEQA Guidelines* Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (*CEQA Guidelines* Section 15064.5 [b][1]). *Material impairment* is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (*CEQA Guidelines* Section 15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a][b]).

The requirements for mitigation measures under CEQA are outlined in *CEQA Guidelines* Section 15126.4(a)(1). In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impacts of the project. Generally, a project which is found to comply with the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards) is considered to be mitigated below a level of significance (*CEQA Guidelines* Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (*CEQA Guidelines* Section 15126.4[b][3]).

In accordance with CEQA, the City of Piedmont certified an EIR analyzing the environmental effects of implementation of the City of Piedmont's 2023-2031 Housing Element update, including adoption of a Specific Plan in the Moraga Canyon area.

2.1.1 National Register of Historic Places

Although the project does not have a federal nexus, properties which are listed in or have been formally determined eligible for listing in the NRHP are automatically listed in the CRHR. The following is therefore presented to provide applicable regulatory context. The NRHP was authorized by Section 101 of the National Historic Preservation Act and is the nation's official list of cultural resources worthy of preservation. The NRHP recognizes the quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects. Per 36 CFR Part 60.4, a property is eligible for listing in the NRHP if it meets one or more of the following criteria:

Criterion A: Is associated with events that have made a significant contribution to the broad patterns of our history

Criterion B: Is associated with the lives of persons significant in our past

Criterion C: Embodies the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

Criterion D: Has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several of these seven qualities, if not all, defined as follows:

Location: The place where the historic property was constructed or the place where the historic event occurred

Design: The combination of elements that create the form, plan, space, structure, and style of a property

Setting:	The physical environment of a historic property
Materials:	The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property
Workmanship:	The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory
Feeling:	A property's expression of the aesthetic or historic sense of a particular period of time
Association:	The direct link between an important historic event or person and a historic property

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The National Park Service states that 50 years is the general estimate of the time needed to develop the necessary historical perspective to evaluate significance (National Park Service 1997: 41). Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

2.1.2 California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC Sections 5024.1 and Title 14 Section 4852. The CRHR is an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (PRC Section 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (PRC Section 5024.1(b)). Unlike the NRHP however, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation 2011). Furthermore, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2011). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995: 2).

A property is eligible for listing in the CRHR if it meets one of more of the following criteria:

Criterion 1:	Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
Criterion 2:	Is associated with the lives of persons important to our past
Criterion 3:	Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
Criterion 4:	Has yielded, or may be likely to yield, information important in prehistory or history

2.2 California Senate Bill 18 of 2004

California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction, and are identified, upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research's *Tribal Consultation Guidelines* (2005), "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places." SB 18 refers to PRC Section 5097.9 and 5097.995 to define cultural places as:

- A Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9)
- A Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (PRC Section 5097.995).

2.3 California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification.

2.4 California Public Resources Code Section 5097.98

Section 5097.98 of the PRC states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant [MLD]) that it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

2.5 Local Regulations

2.5.1 City of Piedmont General Plan

The Design and Preservation Element (Chapter 8) of the Piedmont General Plan contains two goals (Goals 30 and 31), each with associated policies and actions, pertaining to historical resources regulations:

Goal 30 Archaeological Resources – Protect Piedmont's archaeological resources

Policy 30.1: Archaeological Resource Protection. Ensure that future construction and/or earth movement does not result in the loss of important archaeological resources.

Action 30.A: Procedures for Managing Archaeological Resources Implement. The following procedure in the event that archaeological deposits or features are discovered and/or disturbed: (1) Work within 50 feet of the discovery should cease until the find is flagged, secured, and assessed by a qualified archaeologist. (2) If the find is determined to be isolated or recent, then construction may resume. If it is potentially significant, appropriate mitigation measures should be developed and the City and property owner should be notified. Movement of significant materials by personnel other than a qualified archaeologist should be prohibited. (3) Following resolution, a report documenting the methods, findings, and recommendations of the archaeologist should be prepared.

Action 30.B: Procedures for Managing Native American Remains Follow. Accepted protocol in the event that human remains from the period of pre-European settlement or later are encountered during construction. This includes halting work in the immediate area until the Alameda County Coroner and California Native American Heritage Commission have been contacted. As appropriate, it may also include contact with the Most Likely Descendant to make recommendations for the respectful treatment of remains and related burial goods, and accompanying documentation

Policy 30.2: Archaeological Resources Assessment and Treatment. Prior to approval of development projects (excluding small structures exempt under CEQA) that have the potential to impact an archaeological resource(s), such as through grading, excavation for foundations or basements, or new swimming pools, an Archaeological Resources Assessment shall be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall be completed in accordance with the California Office of Historic Preservation guidance and will follow the Archaeological Resource Management Reports (ARMR): Recommended Contents and Format guidelines. If the Archaeological Resource Assessment identifies resources that may be affected by the project, Phase II testing and evaluation will be required. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be identified in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit to characterize the nature of the buried portions of sites.

Policy 30.3: Tribal Cultural Resources. For future projects that are determined through tribal consultation to potentially affect tribal cultural resources, in order to mitigate potential adverse impacts to Native American cultural objects and human remains discovered during construction, project proponents shall retain tribal cultural monitors to monitor work done in areas of Tribal concern, as determined through tribal consultation. In the event that Native American cultural objects and/or human remains are discovered during construction, all earth-disturbing work in the

vicinity of the find shall be temporarily suspended or redirected until an archaeologist meeting the Professional Qualifications Standards of the Secretary of the Interior (36 CFR Part 61) has evaluated the nature and significance of the find as a cultural resource and an appropriate local Native American representative is consulted. If the City, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with local Native American Tribes and group(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American Tribe and tribal representative and, if applicable, a qualified archaeologist.

Goal 31 Historic Preservation – Identify, preserve, and maintain Piedmont's cultural and historic resources and recognize these resources as an essential part of the city's character and heritage.

Policy 31.1: Comprehensive Approach to Preservation. Take a comprehensive approach to historic preservation in Piedmont, considering cultural history as well as architectural history, neighborhoods as well as individual buildings, the natural landscape as well as the built environment, and archaeological resources as well as living history.

Policy 31.2: Preserving Historic Resources. Ensure that planning and building decisions, including zoning and design review approvals, are sensitive to historic resources and promote the conservation of Piedmont's historic neighborhoods. The demolition of historically important structures shall be strongly discouraged.

Policy 31.3: Context-Sensitive Design. Ensure that the repair, maintenance, and expansion of Piedmont's historically important structures uses appropriate materials and architectural details and respects historic context.

Policy 31.4: Restoration. Promote the restoration of original period details to older Piedmont homes and where feasible, the modification of exterior alterations that were unsympathetic to the original design of the home.

Policy 31.5: Older Public Buildings. Sustain exemplary standards of stewardship for historic buildings owned by the city, including Piedmont City Hall and the Community Hall. Ensure that the rehabilitation of older public buildings adheres to generally accepted preservation standards.

Policy 31.6: Historic Landscapes. Preserve important historic landscape features, including parks, landscaped traffic islands, and neighborhood entry pillars dating back to Piedmont's early subdivisions. Ensure that new public works such as street lights, street furniture, and sidewalks are compatible with the historic context of Piedmont's neighborhoods.

Policy 31.7: Adaptive Reuse. Where it is no longer feasible to continue using an older building for its originally intended use, encourage adaptive reuse of the structure rather than demolition and replacement

Policy 31.8: Replacement of Historic Structures. In the event that a historically important structure is destroyed by fire or earthquake, or is deemed unsafe and in need of replacement, encourage the new structure to respect the historic architectural context.

Policy 31.9: Recent Past. Anticipate the need to recognize and preserve structures from the "recent past", that is, the "California modern" era between 1945 and 1960.

Action 31.A: State Historic Building Code. Allow the use of the State Historic Building Code in appropriate circumstances to achieve the preservation of important historic structures, provided that public health and safety are assured.

Action 31.B: Historic Preservation Ordinance. Consider adopting a historic preservation ordinance that establishes a program of designating local landmarks and establishes a process for review of alterations to these landmarks.

Action 31.C: Financial Incentives to Preservation. Consider financial incentives to preservation, including state and federal historic preservation tax credits and tax relief programs, grants and funds for preservation, and Mills Act preservation contracts.

Policy 31.10: Historical Resources Assessment and Treatment. A historic resources assessment including State of California Department of Parks and Recreation (DPR) 523 forms shall be prepared prior to the approval of development projects involving the demolition or substantial alteration (alteration of 30 percent or more of the building exterior) of buildings 45 years or older. DPR forms shall include a Primary Record (523A), Location Map (523J), and appropriate detailed recording forms (e.g., BSO Record (523B), Archaeological Site Record (523C), or District Record (523D)). The forms shall be prepared by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (as defined in Code of Federal Regulations, Title 36, Part 61). If the property is already listed in the NRHP or CRHR or if DPR forms or an historical resources evaluation (HRE) has been prepared for the property in the past five years, preparation of new DPR forms shall not be required.

If a building to be demolished or substantially altered is identified as a historical resource, efforts shall be made to the greatest extent possible to ensure that the alteration of the identified historical resources is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Where compliance with the Standards and/or avoidance is not possible, documentation of the historical resource in the form of a Historic American Building Survey (HABS)-like report shall be prepared. The documentation shall be completed by a qualified architectural historian or historian who meets the PQS.

2.5.2 Single-Family, Multifamily, Commercial, and Mixed-Use Standards and Guidelines

The City of Piedmont does not have a historic preservation ordinance; however, as detailed in the General Plan Design and Preservation Element, regulation pertinent to historic preservation is typically affected through certain provisions of the City's single-family, multifamily, commercial and mixed-use design standards and guidelines, in coordination with the city's zoning ordinance, as follows:

> "Most of the preservation activity in Piedmont occurs through the design review program. Although Piedmont does not have designated historic districts, the entire city is effectively treated as a neighborhood conservation district through the application of design guidelines that reflect prevailing architectural styles and context. These guidelines are reinforced by zoning standards that maintain residential uses, limit excessive height and bulk, and discourage replacement of older homes with substantially larger homes. The combination of zoning and design review has effectively protected the older building stock and in many cases led to the restoration of original architectural features.
>
> [To the extent permitted by State law, N]o addition, alteration, or new construction may be approved in Piedmont unless it is found to be harmonious with existing and proposed development in the neighborhood. In addition to looking at height and bulk, the Planning Commission examines details such as the line and pitch of the roof, exterior materials, and the treatment of windows and doors. Staff also considers these features in administrative and staff-level design review applications. Adherence to these standards over the past few decades has helped sustain property values and substantially reduced the threat of demolition" (City of Piedmont 2009.

Piedmont's design standards and guidelines consider the aesthetic design, compatibility, and safety for each feature. These attributes are evaluated in relation to the neighborhood, adjacent parcels, and the site itself. According to the Design and Preservation Element, the Piedmont design standards and guidelines "incorporate many of the same principles as the Secretary of the Interior's Standards, including guidelines for the treatment of windows, doors, roofs, and porches" (City of Piedmont 2009).

3 Natural and Cultural Setting

This section provides background information pertaining to the natural and cultural context of the project site. It places the project site within the broader natural environment that has sustained populations throughout history. This section also provides an overview of regional indigenous history, local ethnography, and post-contact history. This background information describes the distribution and type of cultural resources documented near the project site to inform the cultural resources sensitivity assessment.

3.1 Natural Setting

The project site lies in the Oakland Hills in Alameda County at an approximate elevation ranging from 105 meters (345 feet) to 208 meters (685 feet) above mean sea level. None of the surrounding area retains its natural setting, with the project site located in a residential area characterized by a mix of single-family homes, a corporation yard, and a cemetery. The MSCP area itself also does not retain its natural setting with much of the project, north of Moraga Road, having been previously used as a sandstone quarry. Vegetation within the vicinity of the site consists of ornamental trees, including low ground cover, consistent with urban environmental settings and has manicured landscapes.

3.2 Cultural Setting

3.2.1 Indigenous History

Before the arrival of European settlers, Alameda County, including the City of Piedmont, was the ancestral homeland of the Chochenyo people, one of the many tribal groupings which constitute the indigenous Ohlone people of Northern California. The Chochenyo inhabited the East Bay for thousands of years; evidence of their long presence includes shell mounds in the vicinity of the Bay shoreline and arrowheads, tools, funeral burials, and ornaments occasionally unearthed in settlement sites. Most villages were located along the shoreline and creeks, the nearest to Piedmont being Huichin from Temescal Creek in North Oakland to present-day Richmond.

The MCSP area lies in the San Francisco Bay Area archaeological region (Milliken et al. 2007, Moratto 1984). Milliken et al. (2007) generally divided the prehistoric chronology of the Bay Area into five periods: the Early Holocene (8000–3500 Before the Common Era [BCE]), Early Period (3500–500 BCE), Lower Middle Period (500 BCE to CE 430 CE), the Upper Middle Period (430–1050 CE), and the Late Period (1050 CE–contact).

It is presumed that early Paleoindian groups lived in the area prior to 8000 BCE; however, no evidence for that period has been discovered in the Bay Area to date (Milliken et al. 2007). Sites dating to this period may be submerged or deeply buried as a result of rising sea levels and widespread sediment deposition that has occurred since the Terminal Pleistocene (Byrd et al. 2017). For this reason, the Terminal Pleistocene Period (ca. 11,700–8000 BCE) is not discussed here.

The earliest intensive study of archaeology of the San Francisco Bay Area began with N. C. Nelson of the University of California, Berkeley, between 1906 and 1908. He documented over 400 shell

mounds throughout the area. Nelson was the first to identify the Bay Area as a discrete archaeological region (Moratto 1984).

Early Holocene (8000–3500 BCE)

Archaeological evidence from the early Holocene is limited as many sites dating to this period are likely buried under Holocene alluvial deposits (Moratto 1984, Ragir 1972). The available data suggest that the Early Holocene in the San Francisco Bay Area is characterized by a mobile forager pattern and the presence of millingslabs, handstones, and a variety of leaf-shaped projectile points. Two archaeological sites (CA-CCO-696 and CA-CCO-637) that date to this period have been identified in Contra Costa County at the Los Vaqueros Reservoir. The earliest date for the Early Holocene comes from the CA-CCO-696, approximately 7000 BCE (Milliken et al. 2007).

Early Period (3500–600 BCE)

The Early Period saw increased sedentism with the introduction of new ground stone technologies (i.e., mortar and pestle), an increase in regional trade, and the first cut shell beads. The earliest evidence for the use of the mortar and pestle dates to 3800 BCE and comes from CA-CCO-637. By 1500 BCE, mortars and pestles had almost completely replaced millingslabs and handstones. The advent of the mortar and pestle indicates a greater reliance on processing nuts, especially acorns. Faunal evidence from various sites indicates a diverse faunal exploitation pattern based on mussel and other shellfish, marine mammals, terrestrial mammals, and birds (D'Oro 2009).

The earliest cut bead horizon is also associated with this period. Rectangular *Haliotis* spp. (abalone) and Olivella *(Callianax biplicata,* snail*)* beads have been identified at several Early Period sites, including CA-CCO-637, CA-SCL-832 in Sunnyvale, and CA-ALA-307 in Berkeley (Milliken et al. 2007). These early examples of cut beads were recovered from mortuary contexts.

Lower Middle Period (500 BCE–430 CE)

The Lower Middle Period saw numerous changes from the previous period. The presence of chipped stone points and bone tools became typical. Rectangular shell beads, common during the Early Period, disappear completely and are replaced by split-beveled and saucer Olivella beads. In addition to the changes in beads, *Haliotis* spp. ornaments, bone tools and ornaments, and basketry awls also became typical, indicating the development of coiled basketry technology. Mortars and pestles continued to be the dominant grinding tool (Luby and Gruber 1999, Milliken et al. 2007).

Evidence for the Lower Middle Period in the Bay Area comes from sites such as the Emeryville shell mound (CA-ALA-309) and Ellis Landing (CA-CCO-295). CA-ALA-309 is one of the largest shell mounds in the Bay Area and contains multiple cultural sequences. The lower levels of the site, which date to the Middle Period, contain flexed burials with bone implements, chert bifaces, charmstones, and oyster shells (Moratto 1984).

Upper Middle Period (430–1050 CE)

Around 430 CE, Olivella saucer bead trade networks that had been established during earlier periods collapsed and over half of known sites occupied during the Lower Middle Period were abandoned. Olivella saucer beads were replaced with Olivella saddle beads. New types of material culture appear within these sites, including elaborate, decorative blades, fishtail charmstones, new *Haliotis* ornament forms, and mica ornaments. Sea otter bones became more abundant, while salmon and other fish became less abundant, suggesting changes in faunal exploitation patterns from earlier

periods (Milliken et al. 2007, Simons and Carpenter 2009). Excavations at CA-ALA-309 indicate that a shift from mussels to oysters to clams may have occurred (Gifford 1916), and isotopic analysis confirms that San Francisco Bay individuals shifted from hunting higher-trophic-level foods in the Early Period to gathering foods like plants and shellfish in the Middle and Upper periods (Burns et al. 2012). Subsistence analyses at various sites dating to this period indicate a diverse diet that included numerous species of fish, mammals, birds, shellfish, and plant resources that varied by location in the Bay Area (Hylkema 2002).

Late Period (1050 CE–contact)

The Late Period saw an increase in social complexity, indicated by differences in burials and an increased level of sedentism relative to preceding periods, as evidenced by mortars weighing up to 90.7 kilograms (Lentz 2012: 198). An increase in imported Napa Valley obsidian occurred during this time for the production of smaller points, preforms and simple flake tools. Small, finely worked projectile points of the Stockton Serrated series associated with bow and arrow technology appear around 1250 CE. Olivella shell beads disappeared and were replaced with Olivella lipped and spire-lopped beads in the south bay and clamshell disk beads in the north bay, where thicker and larger beads indicated higher affluence. The toggle harpoon, hopper mortar, and magnesite tube beads also appeared during this period (Milliken et al. 2007, Lentz 2012, Von Der Porten et al. 2014). This period saw an increase in the intensity of resource exploitation that correlates with an increase in population (Moratto 1984). Many of the well-known sites of earlier periods, such as the Emeryville shell mound (CA-ALA-309) and the West Berkeley site (CA-ALA-307), were abandoned, as indicated by the lack of Late Period elements. Researchers have suggested that the abandonment of these sites may have resulted from fluctuating climates and drought that occurred throughout the Late Period (Lightfoot and Luby 2002).

3.2.2 Ethnographic Setting

The MCSP Area lies within the traditional tribal territory of the Ohlone (or Costanoan) people. Ohlone territory extends along the California coast from the point where the San Joaquin and Sacramento Rivers merge into the San Francisco Bay extending to Point Sur. Their inland boundary was limited to the interior Coast Ranges (Kroeber 1925: 462). The Ohlone language belongs to the Penutian family, with several distinct dialects throughout the region (Kroeber 1925: 462). It is divided into eight regional dialects: Karkin, Chochenyo, Ramaytush, Awaswas, Taymen, Mutsun, Rumsen, and Chalon (Jones 2015)

The pre-contact Ohlone were semi-sedentary, with a settlement system characterized by base camps and seasonal reserve camps composed of tule reed houses with thatched roofs made of matted grass (Schick 1994, Skowronek 1998). Just outside base camps, large sweat houses were built into the ground near stream banks used for spiritual ceremonies and possibly hygiene (Schick 1994, Jones 2015). Villages were divided into small polities, each of which was governed by a chief responsible for settling disputes, acting as a war leader during times of conflict, and supervising economic and ceremonial activities (Skowronek 1998, Kroeber 1925: 468). Social organization appeared flexible to ethnographers and any sort of social hierarchy was not apparent to mission priests (Skowronek 1998).

Archaeological investigations inform our understanding of Ohlone mortuary rituals. Cemeteries were set away from villages and visited during the annual Mourning Anniversary (Leventhal and DiGiuseppe 2009). Ceremonial human grave offerings might include Olivella beads, as well as tools

like drills, mortars, pestles, hammerstones, bone awls, and used flakes (Leventhal and DiGiuseppe 2009). Ohlone mythology included animal characterization and animism, which was the basis for several creation narratives. Ritually burying of animals, such as a wolf, squirrel, deer, mountain lion, gray fox, elk, badger, grizzly bear, blue goose, and bat ray, was commonly practiced. Similar to human burials, ceremonial offerings were added to ritual animal graves like shell beads, ornaments, and exotic goods (Kroeber 1925, Field and Leventhal 2003, Jones 2010).

Ohlone subsistence strategies were based on hunting, gathering, and fishing (Kroeber 1925: 467, Skowronek 1998). Larger animals, like bears, might be avoided, but smaller game was hunted and snared on a regular basis (Schick 1944: 17). Like it was for tribal societies throughout California, the acorn was an important staple and was prepared by leaching acorn meal in openwork baskets and in holes dug into the sand (Kroeber 1925: 467). The Ohlone also practiced controlled burning to facilitate plant growth (Kroeber 1925: 467, Skowronek 1998). During specific seasons or in times of drought, the reserve camps would be used for gathering seasonal food and accessing food storage (Schick 1994). Fishing would be done with nets and gorge hooks out of tule reed canoes (Schick 1994: 16–17). Mussels were a particularly important food resource. Sea mammals such as sea lions and seals were hunted and beached whales were exploited (Kroeber 1925: 467).

Seven Franciscan missions were built within Ohlone territory in the late 1700s, and all members of the Ohlone group were eventually brought into the mission system (Kroeber 1925: 462, Skowronek 1998). After the establishment of the missions, Ohlone population was reduced from roughly 10,000 people in 1770 to 1,300 by 1814 (Skowronek 1998). In 1973, the population of people with Ohlone descent was estimated at fewer than 300. The descendants of the Ohlone united in 1971 and have since arranged political and cultural organizations to revitalize aspects of their culture (Skowronek 1998). Today, the descendant communities of the Ohlone can be found in multiple tribes throughout Northern and Central California.

3.2.3 Post-contact Setting

Post-contact history for the State of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, signals the beginning of the American Period when California became a territory of the United States.

Spanish Period (1769–1822)

Spanish exploration of California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Kyle 2002).

By the eighteenth century, Spain developed a three-pronged approach to secure its hold on the territory and counter against other foreign explorers. The Spanish established military forts known as presidios, as well as missions and pueblos (towns) throughout Alta California. The 1769 overland expedition by Captain Gaspár de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and

colonization matters in assigned territories of the Americas. Portolá established the Presidio of San Diego as the first Spanish settlement in Alta California in 1769. Franciscan Father Junípero Serra also founded Mission San Diego de Alcalá that same year, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823. In 1776, the Spanish had founded Mission San Francisco de Asís, thereby establishing a foothold in what is now the San Francisco Bay Area. The mission and presidio relied on Indian labor (Cole 1999). Construction of missions and associated presidios was a major emphasis during the Spanish Period in California to strengthen Spanish colonial power and integrate the Native American population into Christianity and communal enterprise. Spanish control resulted in the subjugation of indigenous peoples and disruption of their traditional ways of life. Incentives were also provided to bring settlers to pueblos or towns; just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles).

Spain began making land grants in 1784, typically to retiring soldiers, although the grantees were only permitted to inhabit and work the land. The land titles technically remained property of the Spanish king (Livingston 1914). In 1820 Rancho San Antonio was transferred to Luís María Peralta by Pablo Vicente de Solá, the last Spanish governor of Alta California. This rancho encompassed modern-day Piedmont, in addition to parts of what is now Oakland and Berkeley (Kyle 2002).

Mexican Period (1822–1848)

Several factors kept population growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and resistance among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Gutierrez and Orsi 1998).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. Commonly, former soldiers and well-connected Mexican families were the recipients of these land grants, which now included the title to the land (Graffy 2010).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

American Period (1848–Present)

The United States went to war with Mexico in 1846. The war ended in 1848 with the Treaty of Guadalupe Hidalgo, ushering California into its American Period.

California's first Constitutional Convention met for 37 days in Monterey, from September 1 to October 13, 1849. The constitution, written in both English and Spanish, was approved by the delegates on October 10 to 11, 1849 and ratified by the electorate one month later. California

officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as United States territories (Waugh 2003). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the Southern California economy through 1850s. The discovery of gold in the northern part of the state led to the Gold Rush beginning in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom.

A severe drought in the 1860s decimated cattle herds and drastically affected rancheros' source of income. In addition, property boundaries that were loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. Rancheros often were encumbered by debt and the cost of legal fees to defend their property. As a result, much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944). Native American people continued to be displaced from their homes on land in growing urban centers, rural areas used for cattle farming, and mining areas.

Local History

In 1852, settler Walter Blair acquired a 600-acre tract of former Rancho San Antonio land from the Peralta family, on which he developed a dairy, quarry, and Blair Park, an early amusement park. The amusement park was developed, in part, to encourage people to travel on his cable car system, which expanded into the Key Route System and ended in the park. He also constructed the Piedmont Hotel and Claremont Hotel, also as a tool to attract visitors via his cable car line. In the latter half of the nineteenth century, the park was an attraction frequented by residents of nearby Oakland. In 1877 James Gamble, the president of Western Union Telegraph, acquired a 350-acre portion of Blair's land and constructed his home on Hillside Avenue. Gamble established the Piedmont Land Company to subdivide and sell the remainder of the property for residential development. Growth in the area was slow, however and, through the 1880s, there were only seven houses in what is now the boundaries of Piedmont (City of Piedmont 2022).

Following the completion of the Transcontinental Railroad in 1869, waves of migration and immigration caused the population of the Bay Area to boom. Following the 1906 San Francisco Earthquake and Fire, many displaced people settled in the East Bay, with the city of Oakland expanding rapidly through annexation of the smaller communities which surrounded it. Residents of then-unincorporated Piedmont, concerned about the impact that annexation into a much larger municipality would have on taxes and public services, voted to incorporate as a city in 1907.

In the months leading up to incorporation, following the 1906 earthquake and fire, Piedmont's population grew tenfold. The community's explosive expansion led community leaders to file for incorporation, a proposition that was submitted to voters twice before securing a majority in September of that same year. Several institutional properties were constructed in the years immediately following incorporation, including City Hall (1908), at least two schools (1911 and 1912), Piedmont Community Church (1916), and Piedmont High School (1921). Between 1907 and 1940, approximately 2,500 homes were built in Piedmont—nearly 70 percent of the City's existing housing stock. The form of Piedmont's growth was influenced by the City Beautiful urban planning movement, which promoted the idea that city planning and design could not be separated from social issues and should encourage civic pride and engagement. The Piedmont community attracted

noted architects, writers, poets, and artists. However, this ideology is now recognized as having failed to take into account the needs of poor or working-class people.

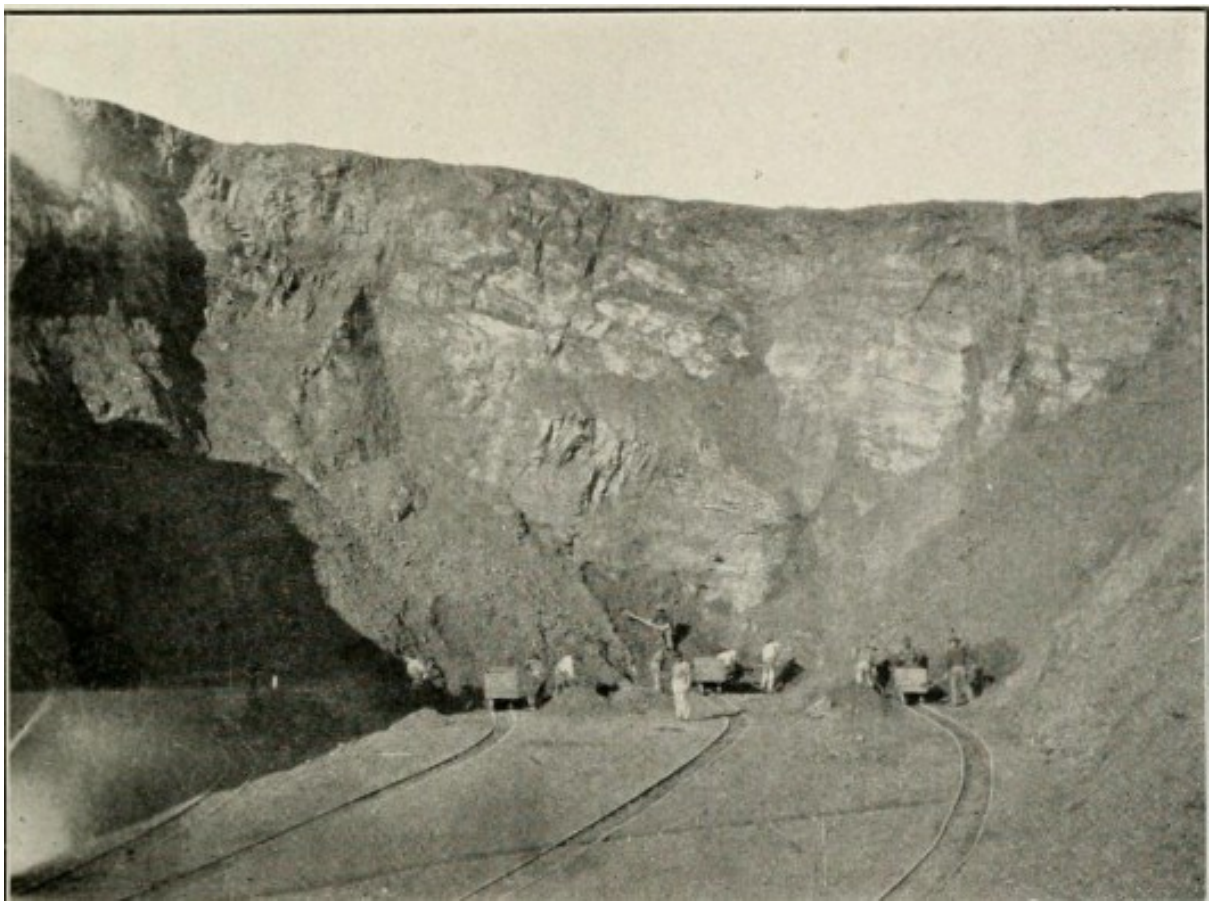
Property History

The MCSP Area was known as Blair Park and historically encompassed the Piedmont Corporation Yard. Blair Park was named after Walter Blair, the first European settler to reside in the area that would become Piedmont (Walking Piedmont 2023). When Blair first came to the area in 1853, it was primarily large ranchos. Blair purchased 600 acres of the former Rancho San Antonio from the Peralta family and ran a dairy and farm on the property, that extended from the cemetery wall to beyond present-day Blair Avenue and supplied milk and butter to the surrounding area and San Francisco. In 1884, Blair developed 40 acres of his land for a "picnic park," which eventually became the 75-acre Blair Park, an amusement park, at the end of the Oakland-Piedmont Railroad horsecar line, the regional transportation line that he helped to develop. The park, with small sail boats, pony rides, and acrobats served as a way to lure riders to the cable cars.

Walter Blair passed away in 1888. Blair Park kept operating with its various attractions until 1905. Thereafter, a portion of Blair Park was sold to the Mountain View Cemetery. The city of Piedmont was incorporated in 1907 and subsequently began establishing and codifying city institutions and services. During the early 1900s, various cities in the Bay Area constructed corporation yards in order to facilitate growing and developing cities, which began to rely more on motor equipment to carry out City projects, like paving streets. According to historical newspaper accounts, the prospect of using a portion of the remaining Blair Park land for a municipal corporation yard was discussed as early as 1913. At that time, the mayor argued that quarrying rock from the site could be used to pay for it (*Oakland Tribune* 10/03/1913). Before that time, the property was the site of the red rock quarry operated by local businessman W.H. Maxwell (Oakland Geology 2017). Located at the head of Blair Park, it was a popular material for local driveways (*Oakland Tribune* 1972). Known locally as Blair Quarry (though established after Blair's death), it began operating as early as 1901 and was described by the Mining Bureau as being on Moraga Road, just east of Mountain View Cemetery.[1] Reports from 1906 continued, "the rock is chert (phthanite), mostly red, some yellowish, and is extensively used as road-dressing in Piedmont district and the cemetery" (Lewis 1906) (Figure 4). It went on to describe that quarry operations were expanded to the south side of the road, and were tunneling 50 yards west and below the Blair Quarry in the quest of "blue rock," or metamorphosed sandstone, though it appears that it was not as successful as the red rock quarry. A comparison of available topographic maps shows that between 1897, the earliest available map, and 1932 that material was removed from the hillside, flattening the topography to its current configuration (USGS 2024).

[1] Blair Quarry on Moraga Road is not the same quarry historically known as Blair's Quarry, which was in present-day Dracena Park and was a popular swimming hole in the late 1890s and early 1900s.

Figure 4 1906 Image of Blair Quarry from Moraga Avenue



In late 1913, the remaining portion of the Blair Park property and an adjacent property called Blackberry Brae, totaling 52.39 acres, was optioned for sale to the City of Piedmont to develop a playground and corporation yard (*Oakland Tribune* 12/10/1913). Residential development in the former park, adjacent to the MCSP Area, began to emerge by 1918 (*Oakland Tribune* 1918). Available topographical maps show that there was one building at the end of Red Rock Road by 1915 (USGS 2023). The corporation yard was established by the 1920s, as depicted in a 1929 Sanborn map, and likely incorporated the existing building (Walking Piedmont 2023). Quarry operations appear to have largely ended by this time. Though a 1947 topographic notes the former quarry location, no archival evidence suggests quarry activities were ongoing.

According to historical aerial photographs, the corporation yard was the only development north of Moraga Avenue in this area for many years. Over the following years, the corporation yard continued to develop, reaching its current state by approximately 2000. It was during that period when Coaches Field and Kennelly Skatepark were constructed. The MCSP Area has remained unchanged since that time.

4 Methods

This section presents the methods for each task completed during the preparation of this study.

4.1 Background and Archival Research

4.1.1 Archival Research

Rincon completed background and archival research in support of this study in November 2024. A variety of primary and secondary source materials were consulted. Sources included, but were not limited to, historical maps, aerial photographs, and written histories of the area. The following sources were used to develop an understanding of the project site and its context:

- Alameda County Assessor's Office
- Historical aerial photographs accessed via NETR Online
- Historical aerial photographs accessed via University of California, Santa Barbara Library FrameFinder
- Sanborn Fire Insurance Company Maps accessed through the Los Angeles County Public Library
- Historical USGS topographic maps
- Historical newspaper clippings obtained from Newspapers.com, ProQuest Historical Newspapers.com, and the California Digital Newspaper Collection
- Geologic Maps via USGS National Geologic Map Database
- United States Department of Agriculture Web Soil Survey
- City of Oakland Building and Planning Department
- Olmstead Archives at National Park Service
- Frederick Law Olmstead National Historic Site archives
- Library of Congress
- Historical Resources Evaluation – Piedmont Corporation Yard (Rodriquez et al 2021)

4.1.2 California Historical Resources Information System Records Search

On September 16, 2024, Rincon received California Historical Resources Information System (CHRIS) records search results (No. 24-0286) from the Northwest Information Center (NWIC) (Appendix A). The NWIC is the official state repository for cultural resources records and reports for the county in which the project falls. The purpose of the records search is to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.50-mile radius surrounding it. Rincon also reviewed the NRHP, CRHR, California Historical Landmarks list, and Built Environment Resources Directory. Additionally, Rincon reviewed the Archaeological Determination of Eligibility list.

4.1.3 Sacred Lands File Search

Rincon contacted the NAHC on June 2, 2024, to request a search of the SLF, as well as a contact list of Native Americans culturally affiliated with the MCSP Area (Appendix B). On July 24, 2024, the City sent letters to 19 Native American contacts in the area to request SB 18 consultation and to request information on potential cultural resources in the project vicinity that may be impacted by project development. Follow up calls and emails were sent on July 25, 2024, and on various dates in August, September, and October 2024. Appendix B provides the results of Rincon's outreach effort.

4.2 Field Survey

Rincon Cultural Resources Specialists Elaine Foster and Robert Guardado conducted a pedestrian survey of the MSCP area on November 14, 2024. Rincon conducted a pedestrian survey using transect intervals spaced 15 meters. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historical debris (e.g., metal, glass, ceramics). Ground disturbances, such as burrows and drainages and areas of high sensitivity, such as along creek alignments and their immediate vicinity, were also thoroughly visually inspected. Inaccessible areas with steep slopes were visually inspected from a safe distance with binoculars. Survey accuracy was maintained using a handheld Global Positioning Satellite unit and a georeferenced map of the MCSP Area.

Under the direction of Rincon Architectural Historian JulieAnn Murphy, Ms. Foster and Mr. Guardado also conducted a built environment survey to confirm the existing conditions of built environment resources in the MCSP Area. Pursuant to California Office of Historic Preservation Guidelines (OHP 1995: 2), properties over 45 years of age were evaluated for listing in the NRHP and recorded or updated on California Department of Parks (DPR) 523 series forms. Site characteristics and conditions were documented using notes and digital photographs which are maintained at the Rincon Oakland office.

5 Findings

5.1 Background Research

5.1.1 Previous Cultural Resources Studies

The CHRIS records search and background research identified 21 cultural resources studies within 0.5 mile of the project site (Appendix A). Of these studies, four (S-0522661, -022815, -052209, and -052486) include a portion of the MCSP Area. Approximately 70 percent of the MSCP Area has been studied and surveyed within the last 24 years. Known studies that occurred within the MCSP Area are discussed in further detail below.

Historical Resources Evaluation

This study was not listed by the CHRIS and was located in Rincons archival records. This study is a historical resources evaluation for the Piedmont Corporation Yard prepared by Rincon in 2021 in support of the 2023-2031 Housing Element Implementation Project EIR (City of Piedmont 2024). The study area includes approximately 70 percent of the current MCSP Area and the fieldwork and background research identified 898 Red Rock Road, the Piedmont Corporation Yard as a historic-age property which was recorded and evaluated for historical resources eligibility on DPR series forms (Appendix C). The historical resources evaluation (Appendix C of the 2023-2031 Housing Element Implementation Project EIR) concluded 898 Red Rock Road is not eligible for listing in the NRHP and CRHR and as such, does not qualify as a historical resource.

S-052661

Study S-052661 is a cultural resources assessment prepared by Historic Resources Associates in 2006 in support of the proposed installation of antennas and cellular equipment for Sprint in the City of Piedmont, Alameda County (Historic Resources Associates 2006). The study area includes a portion of the corporation yard, approximately 5 percent of the MCSP Area. The study summarizes the methods and results of archival research and a field survey. No cultural resources were identified within or immediately adjacent to the current MCSP Area as a result of this study.

S-022815

Study S-022815 is an archaeological resources investigations report prepared by David Chavez and Jan Hupman in 2000 in support of the East Bay Infiltration/Inflow Correction Program in the city of Piedmont, Alameda County (Chavez and Hupman 2000). The study area includes a portion of the Moraga Road, approximately 15 percent of the MCSP Area. The study summarizes the methods and results of archival research and a field survey. No cultural resources were identified within or immediately adjacent to the current MCSP Area as a result of this study.

S-052209

Study S-052209 is an architectural evaluation study prepared by Historic Resources Associates in 2017 in support of the proposed collocation of telecommunication equipment for Sprint in the city of Piedmont, Alameda County (Historic Resources Associates 2017). The study area includes a portion of Moraga Road, the Coaches Field, the corporation yard, Kennelly Skatepark and Blair Park

Open Space, approximately 30 percent of the MCSP Area. The study summarizes the methods and results of archival research and a field survey. [redacted]. None of these resources are located within or adjacent to the current MCSP Area.

S-052486

Study S-052486 is a cultural resources assessment prepared by Michelle D. Noble in 2018 in support of the Piedmont Corporation Yard Tower Installation in the city of Piedmont, Alameda County (Noble 2018). The study area includes a portion of the corporation yard, approximately 10 percent of the MCSP Area. The study summarizes the methods and results of archival research and a field survey. The report identified one historic-period built environment resource (Mountain View Cemetery District [P-01-011355]) within the 2018 study area and identifies a portion of the Mountain View Cemetery District as located within the MCSP Area, bounding the western margin of the current project. This resource is discussed in further detail in the following section.

5.1.2 Previously Recorded Cultural Resources

The CHRIS records search and background research identified three cultural resources within 0.5 mile of the project site. Resources recorded in the search radius are listed in Table 1 below. [redacted]. These resources are discussed in further detail below.

Table 1 Known Cultural Resources

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	Eligibility Status	Relationship to Project Site
[redacted]	–	[redacted]	[redacted]	[redacted]	Unknown	Outside
Not Assigned	–	Historic-Period	898 Red Rock Road, Piedmont Corporation Yard	2021 (Rodriguez et al.)	Recommended ineligible	**Within**
P-01-011355	–	Historic-Period	Mountain View Cemetery District	1998 (Oakland Cultural Heritage Survey); 2013 (Supernowiez)	Recommended Eligible	**Within**

Source: NWIC 2024

P-01-011355

Resource P-01-011355 is a historic-period cemetery district documented in 1998 as the Mountain View Cemetery District (Oakland Cultural Heritage Survey 1998). This district encompasses approximately 220 acres of land at the eastern terminus of Piedmont Avenue in eastern Oakland Hills. The cemetery district was designed in 1864 by Fredrick Law Olmsted in a naturalistic manner with winding roads and picturesque vistas. The district consists of two one-story red brick, Gothic Revival buildings, a neoclassical columbarium and mausoleum, nineteenth century mausoleums, and Greek Revival, Gothic Revival, Romanesque and pyramid tombs. Gravestones span more than 160 years. The cemetery district includes an avenue dedicated to Civil War soldiers lined with

cannon balls. Resource P-01-011355 was updated by Dana E. Supernowiez in 2013, from encompassing 220 acres to 226 acres total. Supernowiez (2013a) noted that the cemetery was established by a group of East Bay pioneers in 1863, under the California Rural Cemetery Act of 1859. Supernowiez (2013b) recommended resource P-01-011355 eligible for inclusion in the NRHP under Criterion A as it appears to be associated with an event or events of significance in this history of Oakland, under Criterion B as it is directly associated with one of the nation's most prestigious landscape architects, and under Criterion C for its variety of buildings, structures and objects representing a significant example of a designed landscape (Supernowiez 2013b).

898 Red Rock Road – Piedmont Corporation Yard

898 Red Rock Road was documented in 2021 as part of the Piedmont Housing Element Update. The resource consists of the Piedmont Corporation Yard, and is the base for the city fleet and plant maintenance facility and the street maintenance crew and is comprised of four buildings organized at the center of drive that encircles the buildings and continues to the entry gate. Buildings include a garage, a maintenance building, an office, and a shed. 898 Red Rock Road is recommended ineligible for listing in the NRHP or CRHR under any eligibility criteria due to a lack of historical or architectural significance and limited integrity (see Appendix C for DPR Form). As this resource has been previously evaluated and does not qualify as a historical resource as per CEQA it is not further considered in this report.

5.1.3 Sacred Land File Search

On July 22, 2024, the NAHC responded to Rincon's SB 18 contacts request and SLF request, stating that the results of the SLF search were negative. The NAHC further provided a list of persons to be contacted for SB 18 consultation. See Appendix B for the NAHC response, including Tribal contacts list(s).

5.1.4 Senate Bill 18 Consultation

The City of Piedmont contacted the NAHC to request a search of the SLF and for an SB 18 consultation list. No California Native American Tribe has requested, in writing, formal notice of and information on proposed projects for the City of Piedmont. However, in an effort to identify potential tribal cultural resources, the City provided notice to those on the consultation list provided by the NAHC.

The NAHC responded to the request on July 22, 2024, stating that the results of the SLF search were negative and provided an SB 18 consultation list. The City emailed letters on July 24, 2024, to the Tribes on this list and the City's letters included a description of the project, its location, and stated that the Tribes had 90 days to respond.

The list of Tribes contacted are included in Table 2 below.

Table 2 Tribes on the Native American Heritage Commission Consultation List

Tribe/Tribal Affiliation	Listed Contact
Amah Mutsun Tribal Band	Valentin Lopez, Chairperson
Amah Mutsun Tribal Band	Ed Ketchum, Vice-Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista	Irene Zwierlein, Chairperson
Confederated Villages of Lisjan	Deja Gould, Language Program Manager
Confederated Villages of Lisjan	Corrina Gould, Chairperson
Confederated Villages of Lisjan	Cheyenne Gould, Tribal Cultural Resources Manager
Costanoan Rumsen Carmel Tribe	Henry Munoz, Cultural Resource Officer
Costanoan Rumsen Carmel Tribe	Samuel Rodriguez, Cultural Resources Officer
Costanoan Rumsen Carmel Tribe	Carla Munoz, Tribal Council
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Costanoan	Kanyon Sayers-Rood, Most Likely Descendent
Muwekma Ohlone Tribe of the SF Bay Area	Charlene Nijmeh, Chairperson
Muwekma Ohlone Tribe of the SF Bay Area	Richard Massiatt, Council Member/Most Likely Descendent
Northern Valley Yokut/Ohlone Tribe	Timothy Perez, Tribal Compliance Officer
Northern Valley Yokut/Ohlone Tribe	Katherine Perez, Chairperson
The Ohlone Indian Tribe	Desiree Vigil, Tribal Historic Preservation Officer
The Ohlone Indian Tribe	Vincent Medina, Cultural Leader
The Ohlone Indian Tribe	Andrew Galvan, Chairperson
Wuksachi Indian Tribe/Eshom Valley Band	Kenneth Woodrow, Chairperson

The City received five responses:

- Irene Zwierlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista responded on July 25, 2024, with recommendations to complete a SLF search at the NAHC and to complete a CHRIS records search. Additionally, if cultural sensitivity is identified within 1 mile of the project, the Amah Mutsun recommend the following:
  - Cultural sensitivity training for all crew, individuals and personnel that will be on-site during all ground-disturbing activities
  - A qualified and trained archaeological monitor is present during all ground disturbing activities
  - A qualified tribal monitor is present during all ground-disturbing activities

  On August 14, August 22, and August 26, 2024, the City responded and left a voicemail requesting confirmation whether the Tribe would like to request SB 18 consultation for this project. On August 26, 2024, the Tribe responded and a consultation meeting with the City, Tribe, and Rincon was held on September 12, 2024. Christopher Zimmer and Michelle Zimmer attended the meeting on behalf of the Tribe and recommended cultural resources training for all construction staff and the development of an accidental discovery plan. The Tribe further expressed concern regarding the fill soils used to infill the quarry in the 1960s and that these soils could contain cultural materials. On September 19, 2024, the Tribe provided recommendations for the inclusion of a Tribal Cultural Resources Sensitivity Training, Stop Work and Notification Upon Discovery protocols, Preservation in Place protocols, Archaeological

Treatment (if a Tribal resource cannot be avoided), protocols for Human Remains and Funerary Objects, and recommendations for an interpretative program if a Tribal resource cannot be preserved in place. On October 29, 2024, the City emailed the Tribe to invite tribal members to participate in a tour and cultural resources survey of the MCSP Area. No response was received to the October 29, 2024 email and the City sent an email on December 11, 2024, noting the City's appreciation for the tribal involvement and attached a draft of the new MCSP cultural and tribal resource policies that have been developed in response to the Tribes' SB 18 consultation. In addition, the City confirmed that the Amah Mutsun would be contacted regarding the development of specific projects in the MCSP Area. The City requested a response by December 20, 2024 with any requests for additional information or meetings otherwise the City would consider consultation closed. No further responses have been received to date.

- Lucy Gill, Project Manager for the Confederated Villages of Lisjan responded on July 24, 2024, requesting SB 18 consultation and requesting copies of any cultural resources studies completed for the project, the SLF search results and the NWIC CHRIS records search results. The City responded on August 14, 2024 notifying the Tribe that a report, SLF search and records search had not been completed and a consultation meeting was held on October 23, 2204. The Tribe requested an introduction to the project and enquired about project specific information that is not currently available. The Tribe further requested confirmation about whether they would have the opportunity to be involved in the consultation process when there were project specifics. The City responded that this would need to be confirmed. The Tribe further requested copies of the records search results and the SLF search results and these were provided to the Tribe on October 16 and December 2, 2024. On October 29, 2024, the City emailed the Tribe to invite Tribal members to participate in a tour and cultural resources survey of the MCSP Area. The Tribe responded that they would not attend. The City sent an email on December 9, 2024, noting the City's appreciation for the tribal involvement and attached a draft of the new tribal cultural resource policies that have been developed in response to SB 18 consultation. Lucy Gill responded on December 11, 2024, requesting two revisions to the draft MCSP policies:
  1) The Tribe requests that in addition to a qualified archaeologist, the Tribe has the opportunity to provide a qualified tribal monitor to also execute the Worker's Environmental Awareness Program. The Tribe may not always feel that this is necessary depending on the project but would like to have this opportunity.
  2) Instead of "outreach to Tribes," the Tribe would like the mitigation measure to read "consultation between Tribes and the appropriate lead agency." We assume this will most likely be the City of Piedmont but understand that the agency may change depending on the project and funding source.

  The above revisions were incorporated into the draft policies and the revised policies were provided to the Tribe on December 17, 2024, along with a request for the Tribe to approve of the changes and confirm that consultation was closed. On December 18, 2024, Lucy Gill responded on behalf of the Tribe that the changes were reviewed and approved and confirmed consultation was closed.

- Samual Rodriguez of the Costanoan Rumsun Carmel Tribe responded on July 25, 2024, noting that the Tribe was not culturally affiliated with the MCSP Area and recommended reaching out to Choychenyo relatives for consultation. The City responded on July 29, 2024, and on August 14, 2024, the City discussed the project with Mr. Rodriguez on a telephone call. Mr. Rodriguez requested a meeting to discuss the project further and a consultation meeting was completed

on October 3, 2024. [redacted].
Mr. Munoz recommended the following:

- Tribal members would like to participate in the archaeological survey, if one is completed for the project.
- Tribal monitoring for all ground-disturbing work and the development of an accidental discovery plan prior to the initiation of construction
- Cultural Resource Training prior to initiation of construction

[redacted]. During the meeting Mr. Munoz requested a map of the MCSP area and the City provided this via email on October 3, 2024. On October 29, 2024,the City emailed the Tribe to invite Tribal members to participate in a tour and cultural
resources survey of the MCSP Area. No response was received to the October 29, 2024, email and the City sent an email on December 11, 2024, noting the City's appreciation for the tribal involvement and attached a draft of the new tribal cultural resource policies that have been developed in response to SB 18 consultation. In addition, the City confirmed that the Costanoan Rumsen Carmel Tribe would be contacted regarding the development of specific projects in the MCSP Area. The City requested a response by December 20, 2024, with any requests for additional information or meetings otherwise the City would consider consultation closed. No further responses have been received to date.

- Kanyon Sayers-Rood of the Indian Canyon Band of Costanoan responded on August 13, 2024, [redacted] requesting consultation. Ms. Sayers-Rood included recommendations for a Native American monitor and an archaeological monitor be present for all ground disturbing activities. The City responded by telephone and email on August 14, 2024, and a consultation meeting was held on August 28, 2024. During the meeting, Ms. Sayers-Rood stated she would defer to the preferences of the Confederated Villages of Lisjan Nation for this project and requested to receive the results of those consultation meetings. The City agreed to share this information and the information was provided on December 11, 2024. [redacted]. On October 29, 2024, the City emailed the Tribe to invite Tribal members to participate in a tour and cultural resources survey of the MCSP Area scheduled for November 14, 2024. No response to this request was received and on December 11, the City emailed the Tribe noting the City's appreciation for the tribal involvement and attached a draft of the tribal cultural resource policies that have been developed in response to the SB 18 consultation completed for this project. The City included a statement that if no response was received by the Tribe by December 20, 2024, then the City would consider consultation closed.
  No further correspondence has been received to date.
- Richard Massiatt of the Muwekma Ohlone Indian Tribe of the San Francisco Bay responded on August 2, 2024 stating the Tribe was interested in the project and would like to discuss the project further. In addition, Alan Levanthal of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area responded on August 4, 2024, requesting the results of a records search if one had been conducted and requested formal SB 18 consultation. The City responded by

telephone and email on August 14, 2024 requesting dates and times for a consultation meeting and notified the Tribe that a records search had not been completed at that time.

On October 29, 2024, the City emailed the Tribe to invite tribal members to participate in a tour and cultural resources survey of the MCSP Area scheduled for November 14, 2024. No response to this request was received. On December 11, the City emailed the Tribe summarizing the results of identification efforts (survey, the SLF search results, and the CHRIS records search results) and attached draft Tribal resource policies for the Tribe's review and input. The City noted in the December 11, 2024 correspondence that as a result SB 18 consultation the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area input will be contacted for specific projects that include ground disturbance in the MCSP area. The City included a statement that if no response was received by the Tribe by December 20, 2024, then the City would consider consultation closed. Mr. Massiatt responded on December 26, 2024 stating "we are interested in your project and would like to have further discussions in assisting you with our services if needed." The City responded on April 29, 2025 that the City considers SB 18 consultation closed for this project and confirmed that the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area would be contacted for specific projects involving ground disturbance in the MCSP Area and included a copy of the developed MCSP Area tribal resource policies regarding tribal resources and draft MCSP published April 18, 2025.

No other Tribes responded during the 90-day period to request consultation pursuant to SB-18.

5.1.5 Aerial Imagery and Historical Topographic Maps Review

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the project site. Historical topographic maps from 1897 to 1915 depict the project site as undeveloped land east of Hayes Creek with railroad lines northeast of the project site (NETR Online 2024, USGS 2024). By 1915, historical topographic maps depict the Mountain View Cemetery District within the western boundary of the current project site, with residential development south of the project site (USGS 2024). By 1942, Moraga Avenue is depicted within the current project site and additional residential development is shown west of the project site (USGS 2024). Topographic maps from 1947 onward no longer depict Hayes Creek and the area is depicted as developed for residential housing. Aerial imagery from 1946 to 1958 depicts two building structures analogous with present day Wildwood Dad's Club Pumpkin Patch parking area within the current MCSP Area, northwest of the intersection of Red Rock Road and Moraga Avenue (NETR Online 2024). In 1958, additional residential development is depicted along the southern boundary of the MCSP Area (NETR Online 2024). Imagery from 1968 to 1980 shows no further development surrounding the MCSP Area (NETR Online 2024, USGS 2024). Between 1982 and 1987, aerial imagery depicts grading west of Wildwood Dad's Club Pumpkin Patch and additional building structures associated with the pumpkin patch (NETR Online 2024). By 1993, a baseball field analogous with present day Coaches Field is shown within the MCSP Area (NETR Online 2024). The Kennelly Skatepark is depicted within the MCSP Area by 2000 (NETR Online 2024). Imagery from 2022 depicts the MCSP Area in its current condition (NETR Online 2024).

5.1.6 Geologic and Soils Map Review

The entire MCSP Area is mapped as underlain by one geologic unit: the Mesozoic-age (66 to 201 million years ago) marine sedimentary and metasedimentary deposit (Dibblee and Minch 2005). The Mesozoic-age deposit is primarily comprised of Jurassic and Cretaceous-aged submetamorphosed eugeosynclinal marine sedimentary and mafic igneous rocks that form in through the precipitation of dissolved minerals from water, often in a marine environment. This marine sediment was deposited during a time span that does not encompass human occupation of the region nor is conducive to the natural burial and preservation of archaeological deposits.

Soils mapping indicates three soil types are present within the MCSP Area including: Maymen loam in the mid to norther portion of the MCSP Area, Los Gatos loam in the mid to eastern portion of the MCSP Area, and Millsholm loam in the western corner, the northeastern corner and the southern portion of the MCSP Area. None of the these soil types contain previously documented buried A horizons within the stratigraphy. Buried A horizons often indicate that a soil has experienced episodic turnover or the burial of newer sediments under older sediments and indicate the potential for buried archaeological deposits.

In summary, given the age of the geologic unit and the absence of buried soil horizons, the MCSP Area has low sensitivity for the presence of subsurface archaeological deposits. Moreover, the degree of previous disturbance within the MCSP associated with the construction of the Coaches Field, corporation yard, parking areas, and Kennelly Skatepark, would further reduce the likelihood for encountering intact subsurface archaeological deposits during project construction.

5.2 Field Survey Results

5.2.1 Built Environment Resources

The field work and background research resulted in the identification of two historic-age properties; one within the MCSP Area, the Piedmont Corporation Yard at 898 Red Rock Road, and one immediately adjacent to the MCSP Area, the Mountain View Cemetery at 5000 Piedmont Avenue. The property at 898 Red Rock Road was previously recorded and evaluated and determined ineligible for listing in NRHP and CRHR for a lack of historic or architectural significance (Appendix C). It is not, therefore, a historical resource for the purposes of CEQA.

Mountain View Cemetery

Background

Mountain View Cemetery was first recorded as the Mountain View Cemetery District in September 1998 as part of the Oakland Cultural Heritage Survey. This survey was undertaken by the City of Oakland Planning Department to support their effort to establish a “Local Register of Historical Resources.” This list categorizes the City of Oakland’s most important buildings and districts, regardless of an official designation.

As part of the effort, the property was recorded on a DPR form that included a Primary Record (DPR A) with Continuation Sheets (DPR L) and a Location Map (DPR J). It did not include an evaluation, and was assigned a NRHP Status Code “7,” indicating it was not evaluated. The map figure, a USGS

map, included the boundary of the property, but erroneously included the area southeast of the cemetery, located in Piedmont and including the MCSP Area.

The 1998 DPR form also included locational data of properties to be included in the district boundary, as outlined in Table 3. A review of the current Assessor's Map for the Mountain View Cemetery property shows that Mountain View Cemetery is comprised of a single, 223-acre parcel (048-7002-003-7). Other parcel numbers also appear to have been updated since that time.

Table 3 Mountain View Cemetery Property List

Address	Building	Build Date (estimated)	1998 Parcel Number	Current Parcel Number
4529 Howe St.	St. Mary's Office	1900s	048A 7002 001	48A-7002-1
4499 Piedmont Ave.	Chapel of Chimes	1927	013 1128 023	013-1128-24
5000 Piedmont Ave.	Mountain View Cemetery	1860s	048A 7002 003	048-7002-3-7
5000 Piedmont Ave.	Chapel	1920s	048A 7002 003 G	048-7002-3-7
5000 Piedmont Ave.	Admin Building	1920s	048A 7002 003 J	048-7002-3-7

The property record was subsequently updated in July 2013 by Dana Supernowicz. It included a three-page update comprised of two Continuation Sheets (DPR L) with an attached map. Similar to the 1998 map, it has an imprecise boundary and includes areas beyond the property's parcel boundary including a portion of the MCSP Area. The update includes a brief description and aerial photograph of a 1964 addition to the 1929 Mausoleum, not described in the 1998 record. The record was further updated to include a Building, Structure, Object Form (DPR B) and included an evaluation. The evaluation recommended the Mountain View Cemetery District eligible for listing in the NRHP. It was recommended eligible under Criterion A for being significant as the largest cemetery in Oakland, the resting place of many prominent Oakland residents, and the influence of its "park-like" setting and designed landscape. It was recommended eligible under Criterion B for its association with Frederick Law Olmstead, as it was reportedly his first solo project and the only cemetery he designed. It was recommended eligible under Criterion C as a significant designed landscape as well as for its important examples of Gothic Revival, Neo-Classical, and Art Deco Architecture. Its period of significance was defined at 1865, coinciding with the development of the cemetery, to 1964, when the last addition was added to the mausoleum. It was assigned an NRHP Status Code "3D," indicating it is a "contributor to a district that has been fully documented according to OHP instructions and appears eligible for listing." The evaluation does not include a refined discussion on the district boundary and does not include a clear discussion of contributing and non-contributing elements of the district.

Current Historical Designation Status

The Mountain View Cemetery is not listed in the NRHP or the CRHR. Though it was recommended a "3D" NRHP Status Code as the result of the 2013 evaluation, the Built Environment Resources Directory does not reflect that recommendation. Instead, it includes the Mountain View Cemetery District with a NRHP Status Code of "7R," indicating it was "Identified in Reconnaissance Level Survey in an Area of Potential Effect: Not evaluated." Its contributing features, as identified in the 1998 record, were assigned a status code of "7N" indicating, "Needs to be reevaluated – formerly coded as may become NR eligible with specific conditions."

The Mountain View Cemetery (APN 48A-7002-3-7) is not a City of Oakland designated landmark, heritage property, or preservation district. It is, however, on the local register as an "Area of Primary Importance" and has rating "A1+" under the City's Rating System, which means it is the "highest importance" and is in an area of primary importance or "National Register quality district." An "A1+" rating was also assigned to the Administration Building (1930) and Chapel and Crematorium Building (1929/1969 addition), both of which are within the cemetery boundary.

Significance and Character-Defining Features

Though the 2013 evaluation provides more detailed history and discussion of significance, it does not correctly apply the NRHP criteria. Specifically, the 2013 evaluation recommends the property eligible under Criterion B for its association with the cemetery's designer landscape architect Frederick Law Olmstead. As provided in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, properties associated with the work of an architect are appropriately eligible under Criterion C.

Instead, Rincon recommends that the cemetery district is significant for listing in the NRHP and CRHR Criterion A/1 for its association with the evolving history of cemetery development and other physical development in Oakland, and Criterion C/3 for its picturesque master plan by reputed landscape architect Frederick Law Olmsted, as well as its buildings, structures and objects of high artistic value. Garavaglia Architecture (2003) outlined the following character-defining features:

- Lower Oakland Hills (below Piedmont) location
- 200 acres in size
- Naturalistic manner of design by Frederick Law Olmsted (1864)
- Winding roads
- Picturesque vistas
- Gated entrance
- Circular fountain
- Office building (1929) by Weeks and Day
- Chapel and Crematorium building (1929) by Weeks and Day
- Columbarium and Mausoleum (1929)
- Newer garden mausoleum with reflecting pool
- "Millionaire's Row" at top of cemetery with nineteenth century mausoleums
- Gravestones
- Chapel of the Chimes (1927) by Julia Morgan at 4499 Piedmont Avenue (Contributing Property)
- St. Mary's Office (1900s) at 4529 Howe Street (Contributing Property)

Cemetery Boundary

Archival, background, and survey work confirmed that neither the historic nor current boundary of the Mountain View Cemetery is or was within the MCSP Area but is immediately adjacent (Figure 5). The DPR record has been updated to reflect Rincon's findings (Appendix D).

Figure 5 Mountain View Cemetery Boundary

5.2.2 Archaeological Resources

Ground visibility was poor (0 to 10 percent) in developed areas north of Moraga Avenue, including the Coaches Field (Photograph 1), Kennelly Skatepark (Photograph 2), and the Piedmont Corporation Yard (Photograph 3). Ground visibility was fair (60 to 70 percent) in accessible undeveloped areas north of Moraga Avenue and along the area south of Moraga Avenue. Approximately 1.9 acres of area north of Moraga Road and east of the Piedmont Maintenance facility and approximately 2 acres of area south of Moraga Road was inaccessible for survey due to steep sloping and vegetation (Figure 6). Vegetation overgrowth and leaf litter generally obscured surface visibility in undeveloped areas. Vegetation generally consisted of oak, pine, and other trees with dry brush and grasses in undeveloped areas, freshwater reeds along creek alignments (Photograph 4), and redwood trees and ornamental trees and grass in developed areas of Coaches Field and the Piedmont Corporation Yard. Coaches Field, Kennelly Skatepark, and the Piedmont Maintenance Facility have been heavily disturbed from construction and general maintenance. Soils in these areas generally consisted of sandy loam and gravel. Soils in undeveloped slope sides and forested areas north of Moraga Road generally consist of a sandy clay loam, with higher concentrations of sand along creek alignments. Soils in the area south of Moraga Road generally consisted of sandy loam with higher concentrations of sand near the roadway and path. Modern refuse was observed throughout the MCSP Area. The area immediately adjacent to the Mountain View Cemetery was given particular attention for any archaeological resources or built environment elements that may be associated with the Mountain View Cemetery District. Rincon did not identify any archaeological or built environment resources in this area and the steep topography in this area further indicated that it would not have been an area previously utilized by the cemetery. [redacted] (Appendix E).

Photograph 1 Coaches Field, View to the West

Photograph 2 Kennelly Skatepark, View to the East

Photograph 3 Piedmont Corporation Yard, View to the North

Photograph 4 Hillside Slope and Vegetation near Creek, View to the West

Figure 6

[redacted]

[redacted]

Photograph 5

[redacted]

Photograph 6

[redacted]

Photograph 7

[redacted]

Photograph 8

[redacted]

6 Conclusions

6.1 Historical Built Environment Resources

The field survey and background research identified one built environment historical resource adjacent to the MCSP Area. As detailed above in Section 5.2.1, Mountain View Cemetery was previously recommended eligible for listing in the NRHP and CRHR and is an identified historical resource by the City of Oakland. The property, therefore, qualifies as a historical resource as defined by CEQA. Though the project would not result in demolition or destruction to the Mountain View Cemetery, adjacent new construction facilitated by the MCSP could result in changes to the historical resource adjacent to the MCSP Area leading to its material impairment, meaning it could alter in an adverse manner those physical characteristics that convey its historical significance and that justify its eligibility for the NRHP and CRHR. The project could therefore result in a substantial adverse change to the significance of a historical resource.

6.1.1 Recommended MCSP Policy

In order to address the potential for future project impacts to the historic Mountain View Cemetery, the following MCSP policy is incorporated into the MCSP:

Visual Impacts to Mountain View Cemetery. The MCSP Area is adjacent to the historical Fredrick Law Olmstead designed Mountain View Cemetery, which is partially defined by its historic setting, inclusive of its naturalistic design and picturesque vistas. In order to maintain its historic setting, proposed new construction adjacent to Mountain View Cemetery in the MCSP Area shall be designed in a manner that minimizes the potential impacts to the viewshed from pathways, roadways or buildings within Mountain View Cemetery grounds. The new construction shall not introduce a visual element that creates a built element of contrast so visually overpowering that it: demands attention; would not be overlooked; and would be dominant in the landscape, thereby amounting to a substantial adverse change in setting to the historical resource. An impact would occur if new construction were of such a large size, reflectivity, or source of light that it would be the major focus of visual attention and dominate the view, noticeably detracting from views of the Mountain View Cemetery's landscape elements.

Prior to the approval of development projects that have the potential to introduce a new visual element to the historic Mountain View Cemetery's historic setting, site-specific visual analysis for new buildings proposed to be abutting to the cemetery boundary shall be conducted and shall consider if modifying proposed new buildings design through revised placement, modified massing, usage of vegetative screening, or other means to reduce visual impacts would be feasible.

6.2 Archaeological and Tribal Resources

This study did not identify any archaeological resources or unique cultural resources in the MCSP Area. However, sensitivity for tribal cultural resources was identified as a result of SB 18 consultation. Currently the General Plan provides policies and actions that oversee the MCSP Area and these are as follows:

Policy 30.1: Archaeological Resource Protection. Ensure that future construction and/ or earth movement does not result in the loss of important archaeological resources.

Action 30.A: Procedures for Managing Archaeological Resources. Implement the following procedure in the event that archaeological deposits or features are discovered and/or disturbed: (1) Work within 50 feet of the discovery should cease until the find is flagged, secured, and assessed by a qualified archaeologist. (2) If the find is determined to be isolated or recent, then construction may resume. If it is potentially significant, appropriate mitigation measures should be developed and the City and property owner should be notified. Movement of significant materials by personnel other than a qualified archaeologist should be prohibited. (3) Following resolution, a report documenting the methods, findings, and recommendations of the archaeologist should be prepared.

Action 30.B: Procedures for Managing Native American Remains. Follow accepted protocol in the event that human remains from the period of pre-European settlement or later are encountered during construction. This includes halting work in the immediate area until the Alameda County Coroner and California Native American Heritage Commission have been contacted. As appropriate, it may also include contact with the Most Likely Descendant to make recommendations for the respectful treatment of remains and related burial goods, and accompanying documentation.

Policy 30.2: Archaeological Resources Assessment and Treatment. Prior to approval of development projects (excluding small structures exempt under CEQA) that have the potential to impact an archaeological resource(s), such as through grading, excavation for foundations or basements, or new swimming pools, an Archaeological Resources Assessment shall be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall be completed in accordance with the California Office of Historic Preservation guidance and will follow the Archaeological Resource Management Reports (ARMR): Recommended Contents and Format guidelines. If the Archaeological Resource Assessment identifies resources that may be affected by the project, Phase II testing and evaluation will be required. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be identified in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit to characterize the nature of the buried portions of sites.

Policy 30.3: Tribal Cultural Resources. For future projects that are determined through tribal consultation to potentially affect tribal cultural resources, in order to mitigate potential adverse impacts to Native American cultural objects and human remains discovered during construction, project proponents shall retain tribal cultural monitors to monitor work done in areas of Tribal concern, as determined through tribal consultation. In the event that Native American cultural objects and/or human remains are discovered during construction, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist meeting the Professional Qualifications Standards of the Secretary of the Interior (36 CFR Part 61) has evaluated the nature and significance of the find as a cultural resource and an appropriate local Native

American representative is consulted. If the City, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with local Native American Tribes and group(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American Tribe and tribal representative and, if applicable, a qualified archaeologist.

6.2.1 Recommended MCSP Policies

In addition to the above, revised General Plan policies, Rincon recommends including the following policies to the MCSP Area to address the concerns and recommendations of the consulting tribal entities:

Impacts to Archaeological and Tribal Cultural Resources within the Specific Plan Area. As a result of consultation efforts completed by the City of Piedmont with tribal representatives, the Moraga Canyon Specific Plan area has been identified as sensitive for the presence of potential tribal cultural resources, specifically tribal archaeological resources. Although much of the Specific Plan area was previously used as a quarry and infilled with soils from the construction of Highway 13, consultation identified the soils used to infill the quarry as potentially containing sensitive tribal archaeological resources. In order to address potential impacts to tribal cultural resources, new construction in the Specific Plan area that requires ground disturbance, shall require the following additional procedures:

- The project proponent will execute a Worker's Environmental Awareness Program for all project personnel working in the Specific Plan area. A qualified archaeologist who meets the Secretary of Interior's Professional Qualifications Standards for Archaeology (National Park Service 1983) shall conduct a training for all construction personnel on archaeological sensitivity prior to the commencement of any construction activities within the Specific Plan area. The Worker's Environmental Awareness Program training will include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. In addition, a representative of a Tribe culturally and geographically affiliated with the MCSP Area shall conduct a Tribal Cultural Sensitivity training for all construction personnel prior to the commencement of any construction activities within the Specific Plan area.

In accordance with General Plan Policy 30.2, and prior to the initiation of development project approval, the project proponent will complete an Archaeological Resources Assessment. In addition to Policy 30.2, this Specific Plan policy requires the Archaeological Resources Assessment to include an analysis for the potential for buried archaeological resources and outreach to Tribes that requested consultation during the development of the Specific Plan. Tribes to be contacted for subsequent consultation under this Specific Plan policy are the Confederated Villages of Lisjan, Indian Canyon Mutsun Band of Costanoan, Amah Mutsun Tribal Band of Mission San Juan Bautista, Costanoan Rumsen Carmel Tribe, and Muwekma Ohlone Indian Tribe of the San Francisco Bay Area. Consultation process shall include the following:

- Interested Tribes will be provided the opportunity to contact the lead agency with any concerns for tribal cultural resources within the development project area.
- If the Archaeological Resources Assessment identifies the potential for archaeological and/or tribal resources to be impacted by the development project, then additional work will be

necessary, including, but not limited to, Phase II archaeological testing, evaluation of cultural/tribal resources for inclusion in the CRHR, and additional tribal consultation. If cultural resources cannot be avoided, mitigation measures will be developed and implemented to mitigate any impacts to historical resources that are archaeological resources. Any mitigation measures for pre-contact resources will be developed in consultation with the City of Piedmont, the project proponent, and applicable tribal representatives.

7 References

Burns, Gregory, Susan Cook Talcott, Kathyrn Demps, Jason Edmonds, John Lambert, Andrew Tremayne, and Jelmer Eerkens

2012 Isotopic Evidence for Changing Residence Patterns through the Middle to Late Holocene in Central California. *SCA Proceedings* 26: 164–171.

Byrd, Brian, Adrian Whitaker, Patricia Mikkelsen, Jeffrey Rosenthal, Todd Jaffke, Philip Kaijankoski, Jack Meyer, Randall Milliken, and Eric Wohlgemuth

2017 "San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4." Report on file with the California Department of Transportation (Caltrans).

California Office of Historic Preservation (OHP)

2006 "California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register)," *California Office of Historic Preservation Technical Assistance Series #10*. Department of Parks and Recreation, Sacramento, California

2011 "California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register)," *California Office of Historic Preservation Technical Assistance Series #6*. Department of Parks and Recreation, Sacramento, California

1995 *Instructions for Recording Historical Resources*. Department of Parks and Recreation, Sacramento, California.

City of Piedmont

2009 General Plan Design and Preservation Element. https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_13659739/File/Government/Departments/Planning%20Division/General%20Plan/2024%20General%20Plan/Final%20draft%20chapter%208-designpreservation%20amendments_CAO%20PM%2012%204%202023.pdf?v=r9Hl0BuZ5&v=r9Hl0BuZ5. Accessed October 2024

2024 2023-2031 Housing Element Implementation Project Environmental Impact Report. https://www.piedmont.ca.gov/services___departments/planning___building/about_planning_/environmental_review. Accessed October 2024

Chavez, David

2000 Archaeological Resources Investigations for the City of Piedmont, East Bay Infiltration/Inflow Correction Program, Piedmont, California.

Cole, Alexandra

1999 Santa Barbara Waterfront Historic Context. Prepared by Preservation Planning Associates. Prepared for the City of Santa Barbara Community Development Department, Planning Division.

Cultural Heritage

1998 DPR 523 Form for P-01-011355. Department of Parks and Recreation.

D'Oro, Stella

2009 "Native California Prehistory and Climate in the San Francisco Bay Area." Master's Thesis, Department of Anthropology, San Jose State University, San Jose, California.

Dumke, Glenn S.

1994 The Boom of the 1880s in Southern California. *Southern California Quarterly* 76(1): 99–114.

Field, Les W. and Alan Leventhal

2003 "What Must It Have Been Like!: Critical Considerations of Precontact Ohlone Cosmology as Interpreted through Central California Ethnohistory." *Wicazo SA Review* 18(2): 95–126.

Garavaglia Architecture

2003 "Substantial Adverse Change/Material Impairment Review: Mountain View Cemetery Mausoleum Project." Mountain View Cemetery Expansion Project DEIR. Gifford, Edward W.

1916 Composition of California Shellmounds. *American Archaeology and Ethnology* 12(1): 1–29.

Graffy, Neal

2010 *Historic Santa Barbara: An Illustrated History.* San Antonio, Texas: Historical Publishing Network.

Historic Resources Associates

2006 Cultural Resources Study of the Moraga Avenue Project. Cingular Wireless Service Site No. SNFCCA2299B 898 Red Rock Road, Piedmont, Alameda County, California 94611.

2017 Architectural Evaluation Study of the Piedmont Fire4 Station, Sprint Site No. FN03XC025, 120 Vista Avenue, Piedmont, Alameda County, California 94611.

Hylkema, Mark G.

2002 Tidal Marsh, Oak Woodlands, and Cultural Florescence in the Southern San Francisco Bay Region. In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp.233–262. Perspectives in California Archaeology, Vol. 6. Cotsen Institute of Archaeology, University of California, Los Angeles.

Jones, Barbara L.

2010 "Mythic Implications of Faunal Assemblages from Three Ohlone Sites." Master's Thesis, Department of Anthropology, San Francisco State University, San Francisco, California.

Jones, Doug

2015 "Ritual and Religion in the Ohlone Cultural Area of Central California." Master's Thesis, Department of Anthropology, San Jose State University, San Jose, California.

Kroeber, Alfred J.

1925 *Handbook of the Indians of California.* Bureau of American Ethnology, Bulletin 78. Originally published 1925, Smithsonian Printing Office, Washington, D.C. Unabridged reprint 1976, Dover Publications, Inc. New York.

Kyle, Douglas E.

2002 *Historic Spots in California.* Stanford, California: Stanford University Press.

Lentz, Kari

2012 Flaked and Groundstone Technology at CA-ALA-554: Mortar Bowls and Stockton Points. *SCA Proceedings* 26: 192–211.

Leventhal, Alan and Diane DiGiuseppe

2009 "Analysis of the Stone, Bone and Shell Artifacts from CA-SCL-869." In *Final Report on the Burial and Archaeological Data Recovery Program Conducted on a Portion of a Middle Period Ohlone Indian Cemetery, Katwáš Ketneyma Waréeptak (The Four Matriarchs Site) CA-SCL-869, Located at 5912 Cahalan Avenue, Fire Station # 12 San Jose, Santa Clara County, California.* Ohlone Families Consulting Services. Submitted to City of San Jose Department of Public Works.

Lewis, Aubry E.

1906 *The Structural and Industrial Materials of California.* Issued by the California State Mining Bureau. Sacramento, California.

Lightfoot, Kent G., and Edward M. Luby

2002 Late Holocene in the San Francisco Bay Area: Temporal Trends in the Use and Abandonment of Shell Mounds in the East Bay. In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp.263–281. Perspectives in California Archaeology, Vol. 6. Cotsen Institute of Archaeology, University of California, Los Angeles.

Livingston, M.M.

1914 *The Earliest Spanish Land Grants in California.* Annual Publication of the Historical Society of Southern California 9(3): 195–199.

Luby, Edward M. and Mark F. Gruber

1999 The Dead Must be Fed: Symbolic Meanings of the Shellmounds of the San Francisco Bay Area. *Cambridge Archaeological Journal* 9(1): 95–105.

Milliken, R. T., R.T. Fitzgerald, M. G. Hylkema, R. Groza, T. Origer, D. G. Bieling, A. Leventhal, R. S. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D. A. Fredrickson

2007 Punctuated Cultural Change in the San Francisco Bay Area. *In California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 99-124. AltaMira Press, Lanham, Maryland.

Moratto, Michael J.

1984 *California Archaeology*. Academic Press, New York.

National Park Service

1983 Secretary of the Interior's Standards and Guidelines for Professional Qualifications in Archaeology and Historic Preservation. Department of the Interior.

1997 *National Register Bulletin-How to Apply the National Register Criteria for Evaluation.* Accessed online at https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf. October 2022.

NETR Online

2024 Historic aerial imagery for the years 1946, 1958, 1968, 1980, 1982, 1993, 2000, 2005, 2010, 2014, 2016 and 2022. Electronic resource, https://www.historicaerials.com/viewer, accessed November 1, 2024.

Noble, Michelle

2018 Phase I Investigation for the Piedmont Corp Yard Tower Project, Piedmont, Alameda County, California.

Oakland Geology

2017 "Red Rock Quarry," January 9. Accessed July 2023. https://oaklandgeology.com/2017/01/09/red-rock-quarry/.

Oakland Tribune

1913 "Park Site Is Cause of Dispute," October 3. Accessed July 2023. https://www.newspapers.com/image/78513582/?terms=%22corporation%20yard%22%20%22piedmont%22%20%22quarry%22&match=1.

1913 "The Cost of Several Parks," December 10. Accessed July 2023. https://www.newspapers.com/image/79699340/?terms=%22blair%20park%22%20%22corporation%20yard%22&match=1.

1918 "Old Blair Park is Now a Modern Residence Center," May 12. Accessed July 2023. https://www.newspapers.com/image/82736775/?terms=%22blair%20park%22%20%22piedmont%22%20&match=1 .

1972 "The Knave," November 12. Accessed July 2023. https://www.newspapers.com/image/547137398/?terms=%22red%20rock%22%20%22piedmont%22&match=1.

Ragir, Sonia

1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley.

Rodriquez, Andrew, Julieann Murphy and Steven Treffers

2021 Historical Resources Evaluation – Piedmont Corporation Yard. On file at the Northwest Information Center, Sonoma, California.

Schick, Grant W.

1994 "The Ohlone and the Oak Woodlands: Cultural adaptation in the Santa Clara Valley, Research Manuscript No. 4." Santa Clara University. Santa Clara, California.

Simons, Dwight and Tim Carpenter

2009 Fish Remains from CA-MRN-44/H, Angel Island, Marin County, California. *Proceedings of the Society for California Archaeology* 21: 69–81.

Skowronek, Russell K.

1998 "Sifting the Evidence: Perceptions of Life at the Ohlone (Costanoan) Missions of Alta California." *Ethnohistory* 45: 675–708.

Sogorea Te' Land Trust, "Lisjan (Ohlone)

N.D. History & Territory," https://sogoreate-landtrust.org/lisjan-history-and-territory/)

Supernowicz, Dana E.

2013a DPR 523 Form for P-01-011355. Department of Parks and Recreation.

2013b DPR 523 Form for P-01-011355. Department of Parks and Recreation.

United States Geological Survey (USGS) Topographic Maps

1897 *Concord, Calif.* 7.5-minute topographical map. Topo View [HTMC, 1897 ed.]. https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=8f6dc00709121b7974fc1ba1648ad180 (accessed November 1, 2024).

1915 *Concord, Calif.* 7.5-minute topographical map. Topo View [HTMC, 1915 ed.]. https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=e5009c21a40689f156e9fee8c4bdfd23 (accessed November 1, 2024).

1942 *Concord, Calif.* 7.5-minute topographical map. Topo View [HTMC, 1942 ed.]. https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=07c9f8fb0961f66c461f743637c2dae9 (accessed November 1, 2024).

1971 *San Francisco, Calif.* 7.5-minute topographical map. Topo View [HTMC, 1971 ed.]. https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=a2730609a23404853f498c7b4b9a69b7 (accessed November 1, 2024).

Van Der Porten, Peter, Katherine Dixon, and Alex DeGeorgey

2014 Seriation of Clam Shell Disk Beads in Central California. *SCA Proceedings* 28: 267–281.

Walking Piedmont

2023 "Blair and Coaches Field Skate and Park Walk." Accessed July 2023. Blair and Coaches Field Skate and Park Walk (walkingpiedmont.com)

2023 "Walking in Walter's Shoes." Accessed July 2023. Walking in Walter's shoes (walkingpiedmont.com)

Waugh, John C.

2003 *On the Brink of Civil War: The Compromise of 1850 and How it Changed the Course of American History.* Wilmington, Delaware: Scholarly Resources Inc.

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Appendix C

DPR 523 Records for 898 Red Rock Road, the Piedmont Corporation Yard

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 *__Resource Name or #:__ 898 Red Rock Road

P1. Other Identifier: Piedmont Corporation Yard / Piedmont Maintenance
***P2. Location:** ☐ **Not for Publication** ☐ **Unrestricted** ***a. County:** Alameda
and
***b. USGS 7.5' Quad:** *Oakland East* **Date:** 1997 **T:** 01S ; **R:** 03W ; **¼ of ¼ of Sec:** 19**;** M.D. B.M.
c. Address: 898 Red Rock Road City: Piedmont Zip: 94611
d. UTM: N/A Zone: N/A ; mE/ mN (G.P.S.)
e. Other Locational Data: 048A-7002-003-03 Elevation: N/A

***P3a. Description:**

Located at 889 Red Rock Road in the city of Piedmont, the Piedmont Corporation Yard is a large irregularly shaped parcel which contains several uses including the city's maintenance yard, Coaches Field, and Kennelly Skatepark. Both the sports field and the skatepark are functionally independent and less than 45 years old, the generally accepted threshold for recording historical resources per guidance from OHP, and were not considered further for historical resources eligibility.

The city's maintenance yard, also known as the Piedmont Corporation Yard, is the base for the city fleet and plant maintenance facility and the street maintenance crew and is comprised of four buildings organized at the center of drive that encircles the buildings and continues to the entry gate. Buildings include a garage, a maintenance building, an office, and a shed. All of the buildings have a primary, south elevation. The maintenance building, office, and shed all front the garage building which features a wide, U-shaped footprint that follows the curve of the encircling drive.

See Continuation Sheet 4.

***P3b. Resource Attributes:** HP9: Public Utility Building
***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other

P5a. Photo or Drawing

P5b. Description of Photo: Primary (south) Elevation of Garage Building, Camera Facing Northeast

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
Circa 1920 (walkingpiedmont.com)

***P7. Owner and Address:**
City of Piedmont
120 Vista Avenue
Piedmont, California, 94611

***P8. Recorded by:**
JulieAnn Murphy
Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura, California 93003

***P9. Date Recorded:**
June 22, 2023

***P10. Survey Type:**
Pedestrian

***P11. Report Citation:**
Rodriguez, A., J. Murphy, S. Treffers, *Historical Resources Evaluation – Piedmont Corporation Yard, 898 Red Rock Road, Piedmont, Alameda County, California,* Rincon Consultants, Inc., Project Number 21-11542, report on file at Northwestern Information Center, Sonoma State University.

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

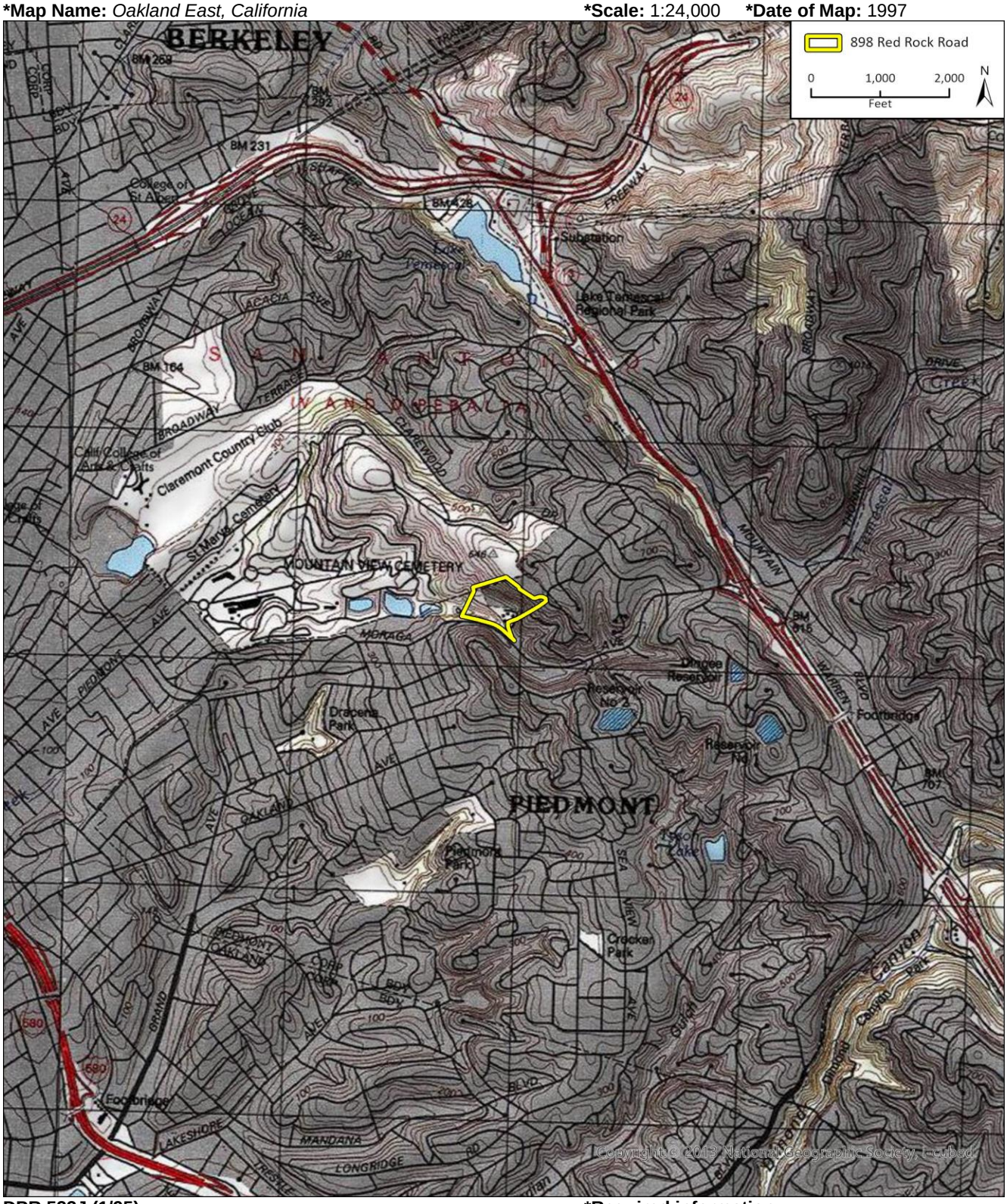
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Page 2 **of** 6 ***Resource Name:** 898 Red Rock Road

***Map Name:** *Oakland East, California* ***Scale:** 1:24,000 ***Date of Map:** 1997



DPR 523J (1/95) ***Required information**

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 3 **of 6** ***NRHP Status Code** 6Z
***Resource Name:** 898 Red Rock Road

B1. Historic Name: Piedmont Corporation Yard
B2. Common Name: Piedmont Maintenance
B3. Original Use: Public Utility B4. Present Use: Public Utility
***B5. Architectural Style:** Non-discernable style
***B6. Construction History:**

Available topographical maps show that there was one building at the end of Red Rock Road by 1915 (USGS 2023). The corporation yard was established by the 1920s, and likely incorporated the existing building (Walking Piedmont 2023). According to historical aerial photographs, the corporation yard was the only development north of Moraga Avenue in this area for many years. The earliest available aerial photograph from 1939 indicates that the property included the garage building, the maintenance building, and a third building that appears to have since been demolished (UCSB 2023).

A historical aerial photograph from 1946 shows the site included a third building at north end of the property that has since been demolished (NETR 2023). The shed building was constructed by 1959, and a third building between the shed and maintenance building in the area of the current office building was demolished and replaced with the current building sometime between 1993 and 2000, according to historical aerial images (NETR 2023). It was during that period when Coaches Field and Kennelly Skatepark were constructed. The site has remained unchanged since that time. In addition to available aerial imagery and newspaper accounts, visual observations confirm that the buildings have been continuously altered over time to adapt to the changing needs of the corporation yard.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** N/A **Original Location:** N/A
***B8. Related Features:** N/A

B9a. Architect(s): N/A b. Builder: N/A
***B10. Significance:** N/A **Theme:** N/A **Area:** N/A
Period of Significance: N/A **Property Type:** N/A **Applicable Criteria:** N/A

The area surrounding the subject property was known as Blair Park and historically encompassed the subject property, as well as a portion of the Mountain View Cemetery to the west. Blair Park was named after Walter Blair, the first European settler in the area that would become Piedmont (Walking Piedmont 2023). When Blair first came to the area in 1853, it was primarily large ranchos. Blair purchased 600 acres of the former Rancho San Antonio from the Peralta family and ran a dairy and farm on the property, that extended from the cemetery wall to beyond present-day Blair Avenue and supplied milk and butter to the surrounding area and San Francisco. In 1884, Blair developed 40 acres of his land for a "picnic park," which eventually became the 75-acre Blair Park, an amusement park, at the end of the Oakland-Piedmont Railroad horsecar line, the regional transportation line that he helped to develop. The park, with small sail boats, pony rides, and acrobats served as a way to lure riders to the cable cars.

See Continuation Sheet 4.

B11. Additional Resource Attributes:

***B12. References:**

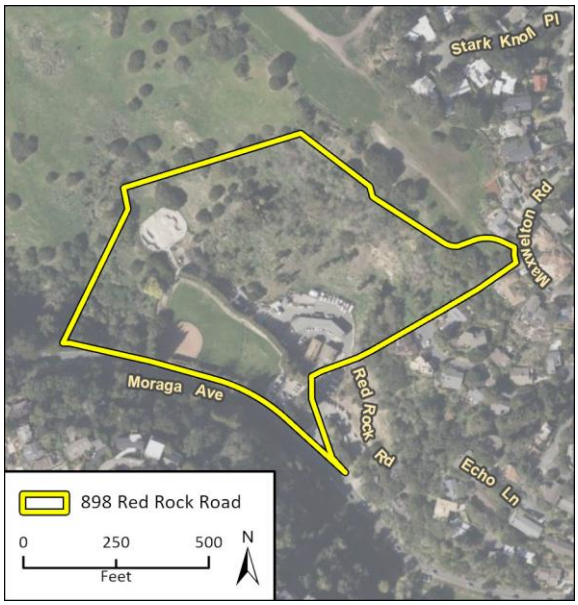
History of Piedmont. 2023. "Walter Blair." Accessed July 2023. https://www.historyofpiedmont.com/blair.
History of Piedmont. 2023. "Blair Park." Accessed July 2023. https://www.historyofpiedmont.com/blair-park
Oakland Geology. 2017. "Red Rock Quarry." January 9. Accessed July 2023. https://oaklandgeology.com/2017/01/09/red-rock-quarry/.

See Continuation Sheet 5.
B13. Remarks: N/A

***B14. Evaluator:** Andrew Rodriguez, Rincon Consultants, Inc.

***Date of Evaluation:** July 13,2023

(This space reserved for official comments.)



State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

Page 4 **of** 6 ***Resource Name OR #:** 898 Red Rock Road
***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: July 13, 2023 ☒ Continuation ☐ Update

***P3a. Description (Continued):**

The garage building is a one to two story building and features a skillion roof that slopes toward the rear of the building with overhanging eave at the primary, south elevation for the length of the building. It has a horizontal wood plank exterior. As described above, the building has an irregular, U-shaped footprint. It continues for 11 bays – four bays at the eastern, two-story portion; a one bay breezeway followed by three bays at the center; and three bays at the western end. The two-story portion has three garage entries with metal rollup doors and one man door with a rollup door at the ground floor with two three-over-three wood frame windows flaking a wood horizontal slide door below a hoist beam at the second floor. The second floor is accessed via an exterior wood stair at the building's east elevation, which also features a two-over-two wood window. The remainder of the building features additional roll-up doors at each bay described above, with the exception of the breezeway between the one- and two-story portions of the building, which provides access to the rear of the building. The rear of the is devoid of openings or ornamentation. The building's west elevation includes an additional vehicular bay.

The two buildings at the western end of the site include the shed and office buildings. Adjacent to a vehicle gas pump, the shed building is a one-story wood frame building with a gable roof and wood plank exterior. It has aluminum horizontal slide windows on each elevation, and a rear entry door at its north elevation. The office building is between the shed and the maintenance building. It is a one-story wood frame building with a gable roof and horizontal wood plank exterior. A deep eave overhangs above the east elevation, covering a concrete ramp with wood railing below. The elevation includes two entry doors. A short stair at the north elevation provides access to a third entry. The west elevation has a short wood stair to a paired door entry and includes two horizontal slide windows. The south elevation includes two horizontal slide windows.

***B10. Significance (Continued):**

Walter Blair passed away in 1888. Blair Park kept operating with its various attractions until 1905. Thereafter, a portion of Blair Park was sold to the Mountain View Cemetery. The City of Piedmont was incorporated in 1907 and subsequently began establishing and codifying city institutions and services. During the early 1900s, various cities in the Bay Area constructed corporation yards in order to facilitate growing and developing cities, which began to rely more on motor equipment to carry out city projects, like paving streets. According to historical newspaper accounts, the prospect of using a portion of the remaining Blair Park land for a municipal corporation yard was discussed as early as 1913. At that time, the mayor argued that quarrying rock from the site could be used to pay for it (Oakland Tribune 10/03/1913). Before that time, the property was the site of the red rock quarry operated by local businessman WH Maxwell (Oakland Geology 2017). Located at the head of Blair Park, it was a popular material for local driveways (Oakland Tribune 1972). In late 1913, the remaining portion of the Blair Park property and an adjacent property called Blackberry Brae, totaling 52.39 acres, was optioned for sale to the City of Piedmont to develop a playground and corporation yard until January 1914 (Oakland Tribune 12/10/1913). It is unclear from available archival records if the City exercised the option at that time, but residential development in the former park began to emerge by 1918 (Oakland Tribune 1918).

The subject property is recommended ineligible for listing in the NRHP or CRHR under any eligibility criteria due to a lack of historical or architectural significance and limited integrity. The subject property was initially developed as a municipal corporation yard for the city by the 1920s. After its incorporation in 1907, Piedmont steadily grew and expanded to provide municipal services for its residents, including establishing parks, municipal buildings, and support infrastructure like the corporation yard. Typical of the function of an incorporated city, the corporation yard was constructed during a period when cities began to rely on motor equipment to carry out city projects, like paving streets. The property at 898 Red Rock Road is typical of the development of municipal services properties of the early twentieth century. Research did not indicate that the property is significant within this trend or associated with any important events in the history of the city, region, state, or nation. Furthermore, the property has been consistently updated over time with a series of new and replaced buildings. The two oldest buildings, the maintenance building and the garage building have been altered with additions and material replacement and do not maintain their historic integrity. The property is therefore recommended ineligible for listing to the NRHP or CRHR under Criterion A/1.

Research through newspapers and ancestry databases did not yield any information on any significant individuals associated with the property. Though originally part of Walter Blair's property, it was developed for the corporation yard several decades after his death and he was not historically associated with its use as the corporation yard. Therefore, the property is recommended ineligible for listing to the NRHP or CRHR under Criterion B/2.

A series of utilitarian buildings constructed between the 1910s through the 1990s, the corporation yard buildings do not embody distinctive characteristics of any architectural style. They do not have distinctive characteristics of a type, period, or method of construction. Archival research was unable to identify information on the builder or architect and it does not represent the work of a master or possess high artistic value. Furthermore, the oldest buildings on site, the garage building and the maintenance building have been altered over time with additions, new windows, infilled openings, and replacement garage doors. The site has also been continuously updated with the consistent addition and removal of buildings. As a result, the property does not retain sufficient integrity as an early twentieth century corporation yard. The property is, therefore, recommended ineligible for listing to the NRHP or CRHR under Criterion C/3. A review of available evidence does not suggest 898 Red Rock Avenue has yielded or has the potential to yield information important to the prehistory or history of Piedmont or the greater Bay Area, California, or the nation. It is recommended ineligible for listing to the NRHP or CRHR under Criterion D/4.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

Page 5 **of** 6 ***Resource Name OR #:** 898 Red Rock Road
***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: July 13, 2023 ☒ Continuation ☐ Update

***B12. References (Continued):**

Oakland Tribune. 1913. "Park Site Is Cause of Dispute," October 3. Accessed July 2023. https://www.newspapers.com/image/78513582/?terms=%22corporation%20yard%22%20%22piedmont%22%20%22quarry%22&match=1.

Oakland Tribune. 1913. "The Cost of Several Parks," December 10. Accessed July 2023. https://www.newspapers.com/image/79699340/?terms=%22blair%20park%22%20%22corporation%20yard%22&match=1.

Oakland Tribune. 1918. "Old Blair Park is Now a Modern Residence Center," May 12. Accessed July 2023. https://www.newspapers.com/image/82736775/?terms=%22blair%20park%22%20%22piedmont%22%20&match=1 .

Oakland Tribune. 1972. "The Knave," November 12. Accessed July 2023. https://www.newspapers.com/image/547137398/?terms=%22red%20rock%22%20%22piedmont%22&match=1.

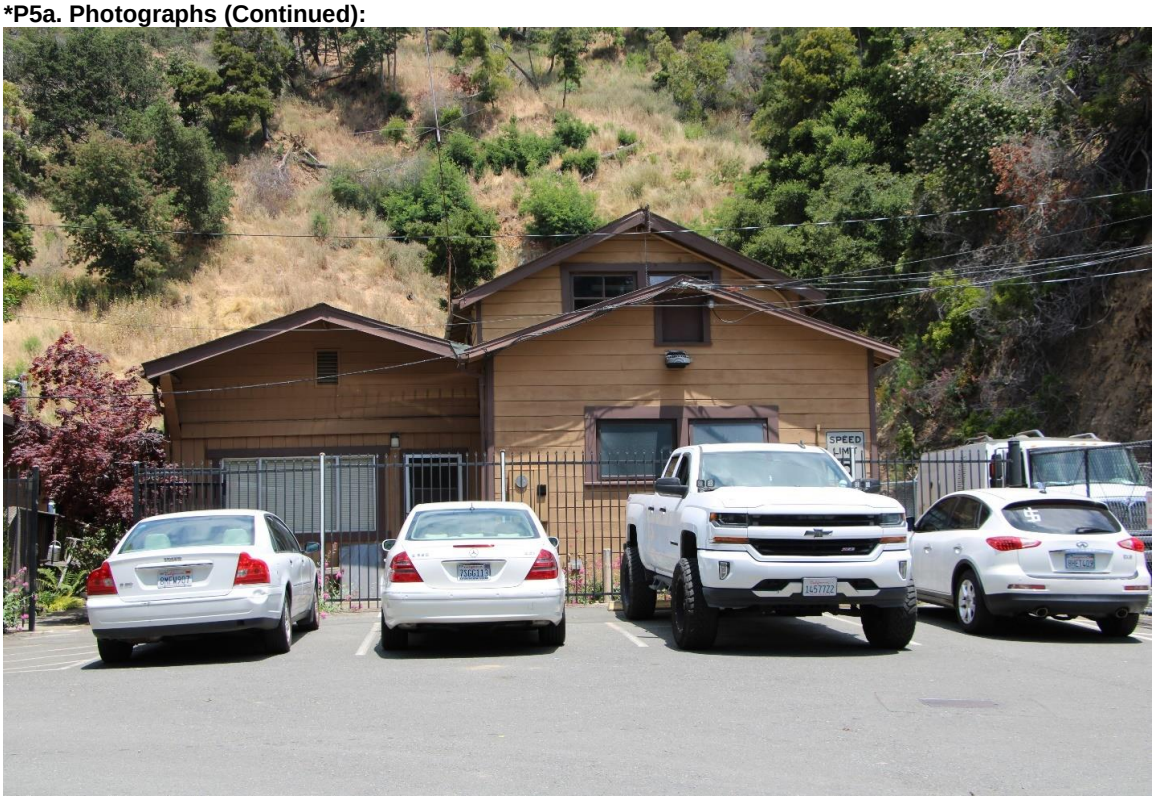
NETR Online. 2023. "Historic Aerials." Various historic aerials and topographic maps of the project area. Accessed July 2023. https://www.historicaerials.com/.

Parcel Quest. 2023. Alameda County property information for 898 Red Rock Road. Accessed July 2023, https://pqweb.parcelquest.com/#home

Walking Piedmont. 2023. "Blair and Coaches Field Skate and Park Walk." Accessed July 2023. "Blair and Coaches Field Skate and Park Walk." Walkingpiedmont.com

Walking Piedmont. 2023. "Walking in Walter's Shoes." Accessed July 2023. "Walking in Walter's Shoes." Walkingpiedmont.com

***P5a. Photographs (Continued):**



Primary Elevation of Maintenance Building, Camera Facing North.

See Continuation Page 6.

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET
Trinomial

Page 6 **of** 6 ***Resource Name OR #:** 898 Red Rock Road
***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: July 13, 2023 ☒ Continuation ☐ Update

***P5a. Photographs (Continued):**

Primary and West Elevation of Shed Building, Camera Facing Northeast.

Rear and East Elevation of Office Building, Camera Facing Southwest.

Appendix D

DPR 523 Records for P-01-011355, Mountain View Cemetery

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

Page 1 **of** 4 ***Resource Name OR #:** Mountain View Cemetery District – P-01-011355
***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: November 2024 ☐ Continuation ☒ Update
DPR 523L (1/95) ***Required information**

In July 2013, Dana E. Supernowicz recorded and evaluated the subject property. Supernowicz's recording included an update of a 1998 DPR form prepared by the City of Oakland.

It included a three-page update comprised of two Continuation Sheets (DPR L) with an attached map. Similar to the USGS map included in the 1998 record, it has an imprecise boundary and includes the area southeast of the cemetery, beyond the cemetery property's parcel boundary. The update includes a brief description and aerial photograph of a 1964 addition to the 1929 Mausoleum, not described in the 1998 record. The record was further updated to include a Building, Structure, Object Form (DPR B) and included an evaluation.

The evaluation recommended the Mountain View Cemetery District eligible for listing in the National Register of Historic Places (NRHP). It was recommended eligible under Criterion A for being significant as the largest cemetery in Oakland, the resting place of many prominent Oakland residents, and the influence of its "park-like" setting and designed landscape. It was recommended eligible under Criterion B for its association with Frederick Law Olmstead, as it was reportedly his first solo project and the only cemetery he designed. It was recommended eligible under Criterion C as a significant designed landscape as well as for its important examples of Gothic Revival, Neo-Classical, and Art Deco Architecture. Its period of significance was defined at 1865, coinciding with the development of the cemetery to 1964, when the last addition was added to the Mausoleum. It was assigned an NRHP Status Code "3D," indicating it is a "contributor to a district that has been fully documented according to OHP instructions and appears eligible for listing." The evaluation does not include a refined discussion on the district boundary and does not include a clear discussion of contributing and non-contributing elements of the district.

The current update was conducted as part of the City of Piedmont's Moraga Canyon Specific Plan (Blind et al.). Since the property was last evaluated in 2013, there have been no major alterations or changes to suggest that it is no longer eligble for listing in the NRHP. The 2013 evaluation, however, did not correctly apply the NRHP criteria. Specifically, the 2013 evaluation recommends the property eligible under Criterion B for its association with the cemetery's designer landscape architect Frederick Law Olmstead. As provided in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, properties associated with the work of an architect are appropriately eligible under Criterion C.

Instead, Blind et al. recommends that the cemetery district is significant under for the NRHP and California Register of Historical Resources (CRHR) Criterion A/1 for its association with the evolving history of cemetery development and other physical development in Oakland, and Criterion C/3 for its picturesque master plan by reputed landscape architect Frederick Law Olmsted as well as its buildings, structures and objects of high artistic value. Its character-defining features include:

- Lower Oakland Hills (below Piedmont) location
- 200+ acres in size
- Naturalistic manner of design by Frederick Law Olmsted (1864)
- Winding roads
- Picturesque vistas
- Gated entrance
- Circular fountain
- Office building (1929) by Weeks and Day
- Chapel and Crematorium building (1929) by Weeks and Day
- Columbarium and Mausoleum (1929)
- Newer garden mausoleum with reflecting pool
- "Millionaire's Row" at top of cemetery with 19th century mausoleums
- Gravestones
- Chapel of the Chimes (1927) by Julia Morgan at 4499 Piedmont Avenue (contributing property)
- St. Mary's Office (1900s) at 4529 Howe Street (contributing property)

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: November 2024 ☐ Continuation ☒ Update
DPR 523L (1/95) ***Required information**

Furthermore, this update changes the cemetery boundary (Figure 1). The 1998 DPR form included locational data of properties to be included in the district boundary, as outlined in

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

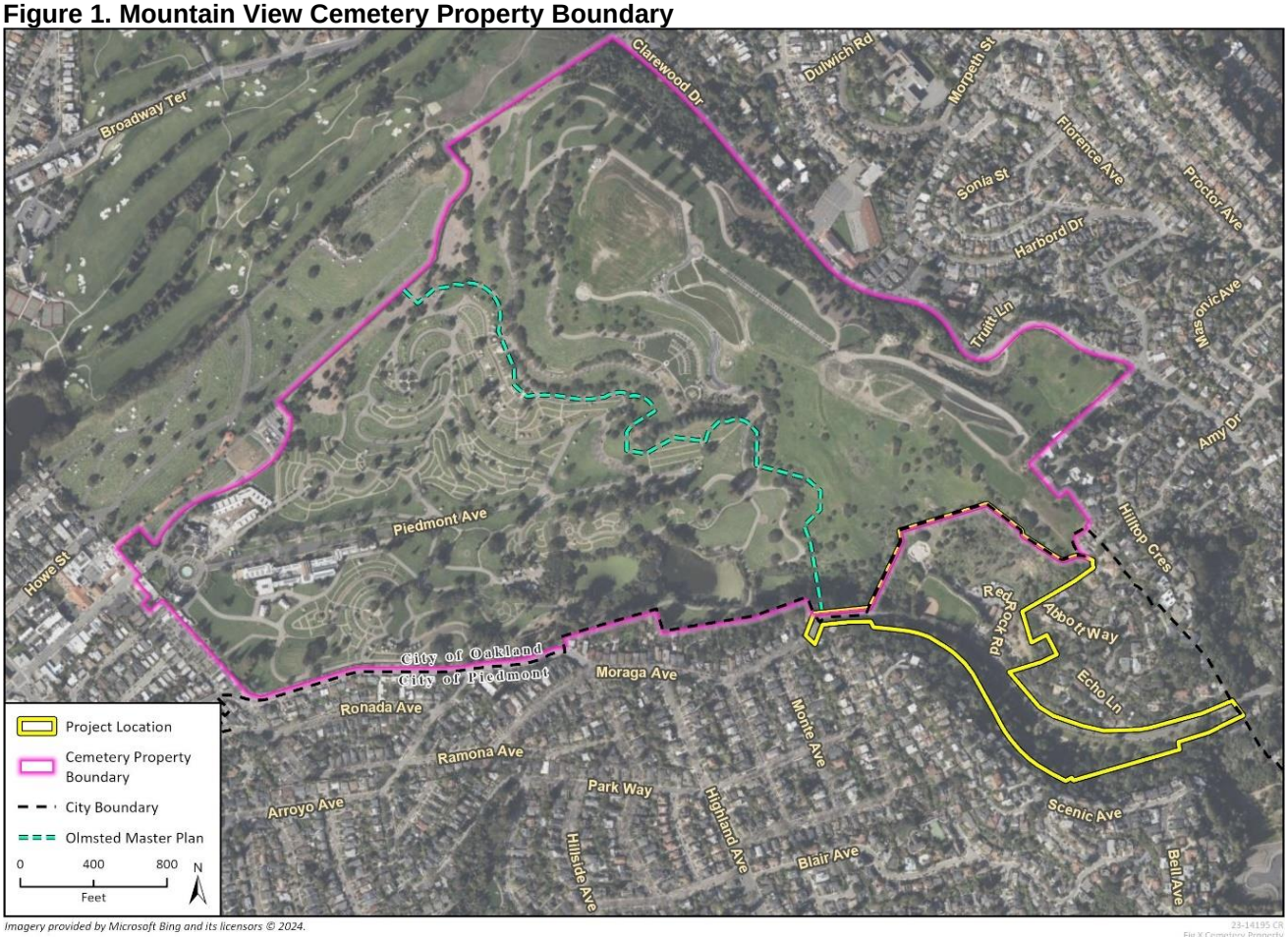
Page 3 **of** 4 ***Resource Name OR #:** Mountain View Cemetery District – P-01-011355
***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: November 2024 ☐ Continuation ☒ Update
DPR 523L (1/95) ***Required information**

Table 1. A review of the current Assessor's Map for the Mountain View Cemetery property shows that Mountain View Cemetery is comprised of a single, 223-acre parcel (048-7002-003-7). Other parcel numbers also appear to have been updated since that time. Archival and background research confirmed that neither the historic nor current boundary of the Mountain View Cemetery is within the boundary of the City of Piedmont. Furthermore, pedestrian survey along the boundary of the "Project Location" and "Cemetery Property Boundary", depicted below, suggests that the landform along this boundary is prohibitively steep for accommodating human internments, and as such would not have been utilized for a cemetery.

Blind, Heather, JulieAnn Murphy, Nichole Jordan, Shannon Carmack, and Debbie Balam

2024. *Cultural Resources Assessment for the Moraga Canyon Specific Plan, Piedmont, Alameda County, California*. Rincon Consultants Project No. 23-14195. Report on file at the Northwest Information Center, Sonoma State University, California.

Figure 1. Mountain View Cemetery Property Boundary



State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

Page 4 **of** 4 ***Resource Name OR #:** Mountain View Cemetery District – P-01-011355
***Recorded by:** JulieAnn Murphy, Rincon Consultants, Inc. ***Date**: November 2024 ☐ Continuation ☒ Update
DPR 523L (1/95) ***Required information**

Table 1. Mountain View Cemetery Property List

Address	Building	Build Date (estimated)	1998 Parcel Number	Current Parcel Number
4529 Howe St.	St. Mary's Office	1900s	048A 7002 001	48A-7002-1
4499 Piedmont Ave.	Chapel of Chimes	1927	013 1128 023	013-1128-24
5000 Piedmont Ave.	Mountain View Cemetery	1860s	048A 7002 003	048-7002-3-7
5000 Piedmont Ave.	Chapel	1920s	048A 7002 003 G	048-7002-3-7
5000 Piedmont Ave.	Admin Building	1920s	048A 7002 003 J	048-7002-3-7

Appendix B

Transportation Analysis Memorandums

Memorandum

Date: Updated August 20, 2025

To: Timothy Haagen, JZMK Partners

From: Sam Tabibnia

Subject: Moraga Canyon Specific Plan – Transportation Data

OK23-0522

This memorandum summarizes the background transportation data and analysis that informs the Circulation and Multi-Modal/Complete Streets Improvements chapter (Chapter 4) of the Moraga Canyon Specific Plan.

This document addresses the following topics:

1. Existing traffic counts
2. Collision Data
3. Trip Generation

1. Existing Traffic Counts

Fehr & Peers contracted with a traffic data collection firm that collected the following data:

- Traffic volume, speed, and vehicle classification counts by direction on Moraga Avenue just east of Red Rock Road from Wednesday September 13 through Sunday September 17, 2023, via pneumatic tubes
- Vehicle turning movement counts as well as pedestrian and bicycle counts at the Moraga Avenue/Red Rock Road intersection on Wednesday September 13, 2023, from 7:00 to 9:30 AM and from 3:30 to 6:30 PM

Attachment A provides the detailed data collection sheets. Major findings from the collected data are summarized below:

- Moraga Avenue has an average daily traffic volume of about 11,000 vehicles on a weekday
- The 85th percentile speed[1] on Moraga Avenue is about 38-39 mph and the median speed is about 35 mph, which are above the posted speed limit of 25 mph
- About 7 percent of vehicles travel at a speed of over 40 mph, and less than 1 percent travel above 45 mph
- About 2% of the vehicles on Moraga Avenue are heavy vehicles (trucks and buses)
- The weekday morning peak hour (the hour with the highest volume during the morning commute period) on Moraga Avenue is from 8:00 AM to 9:00 AM. The total volume is about 1,015 vehicles with 427 eastbound vehicles and 588 westbound vehicles
- The evening peak hour (the hour with the highest volume during the evening commute period) on Moraga Avenue is from 5:00 PM to 6:00 PM. The total volume is about 1,169 vehicles with 740 eastbound vehicles and 430 westbound vehicles
- The weekday morning peak hour at the Moraga Avenue/Red Rock Road intersection is from 8:00 AM to 9:00 AM and about 8 vehicles use Red Rock Road during the peak hour (4 turning in and 4 turning out)
- The evening peak hour (the hour with the highest volume during the evening commute period) at the Moraga Avenue/Red Rock Road intersection is from 4:45 PM to 5:45 PM and about 71 vehicles use Red Rock Road during the peak hour (38 turning in and 33 turning out)
- Up to 3 pedestrians per hour were observed crossing Moraga Avenue at Red Rock Road
- Up to 5 bicycles per hour were observed using both directions of Moraga Avenue

2. Collision Data

The Piedmont Police Department provided data on reported collisions in the study area from 2019 to 2023. **Attachment B** provides the summary collision data. Ten collisions were reported during this period along this segment of Moraga Avenue. One collision involved a bicycle, and no collisions involved pedestrians. No collision fatalities were reported during this period. The most common reported causes were "unsafe speed" and "unsafe turn" (4 collisions each).

[1] The 85th percentile speed is defined as the speed at or below which 85 percent of all vehicles are observed to travel on a roadway.

3. Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access a project on any given day. **Table 1** presents the trip generation for the residential component of the project based on the data and methodology published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual (11th Edition)*. The Project is estimated to generate about 910 daily, 74 AM peak hour, and 79 PM peak hour trips.

Table 1: Project Automobile Trip Generation

Land Use	Size[1]	Daily Trips	AM Peak Hour	PM Peak Hour
Muti-Family Residential[2]	197 DU	890	73	77
Single-Family Residential[3]	2 DU	20	1	2
	Total Trips	***910***	***74***	***79***

Notes:
1. DU = Dwelling Units.
2. ITE Trip Generation (11th Edition) land use category 221 (Multi-Family [Mid-Rise] – Not Close to Rail Transit) in general urban/suburban setting:
   Daily: T = 4.54*(X)
   AM Peak Hour: T = 0.37*(X)
   PM Peak Hour: T = 0.39*(X)
3. ITE Trip Generation (11th Edition) land use category 210 (Single-Family Detached Housing) in General urban/ suburban setting:
   Daily: T = 9.43*(X)
   AM Peak Hour: T = 0.70*(X)
   PM Peak Hour: T = 0.94*(X)

Source: Fehr & Peers, 2025.

Attachments:

A. Traffic Volumes Data

B. Collision Data (2019-2023)

Appendix A
Traffic Volume Data

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 - 9/19/2023
Site Code:

Time	Wednesday 9/13/2023			Thursday 9/14/2023			Friday 9/15/2023			Saturday 9/16/2023			Sunday 9/17/2023			Monday 9/18/2023			Tuesday 9/19/2023			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	9	4	13	6	6	12	7	8	15	17	9	26	22	22	44	-	-	-	-	-	-	8	5	13
1:00 AM	10	2	12	5	1	6	7	2	9	15	11	26	21	17	38	-	-	-	-	-	-	8	2	9
2:00 AM	1	3	4	1	2	3	3	1	4	10	3	13	4	1	5	-	-	-	-	-	-	1	3	4
3:00 AM	1	3	4	3	3	6	2	3	5	5	4	9	2	4	6	-	-	-	-	-	-	2	3	5
4:00 AM	3	1	4	8	1	9	1	2	3	0	2	2	4	3	7	-	-	-	-	-	-	6	1	7
5:00 AM	24	26	50	17	24	41	20	26	46	7	9	16	6	9	15	-	-	-	-	-	-	21	25	46
6:00 AM	66	86	152	72	76	148	49	67	116	35	24	59	20	17	37	-	-	-	-	-	-	69	81	150
7:00 AM	181	252	433	170	254	424	147	244	391	80	65	145	66	51	117	-	-	-	-	-	-	176	253	429
8:00 AM	**429**	**583**	**1,012**	**425**	**592**	**1,017**	**353**	**491**	**844**	146	180	326	144	123	267	-	-	-	-	-	-	**427**	**588**	**1,015**
9:00 AM	303	374	677	299	358	657	307	294	601	265	294	559	252	203	455	-	-	-	-	-	-	301	366	667
10:00 AM	320	303	623	301	280	581	327	292	619	378	374	752	292	263	555	-	-	-	-	-	-	311	292	602
11:00 AM	325	305	630	363	294	657	351	328	679	**406**	**387**	**793**	**316**	**305**	**621**	-	-	-	-	-	-	344	300	644
12:00 PM	344	288	632	349	277	626	386	345	731	**439**	347	786	342	358	**700**	-	-	-	-	-	-	347	283	629
1:00 PM	390	372	762	377	334	711	357	370	727	415	**396**	**811**	325	**360**	685	-	-	-	-	-	-	384	353	737
2:00 PM	459	418	877	383	347	730	449	**450**	899	376	363	739	339	339	678	-	-	-	-	-	-	421	383	804
3:00 PM	583	402	985	653	396	1,049	**623**	409	**1,032**	392	303	695	**343**	303	646	-	-	-	-	-	-	618	399	1,017
4:00 PM	**751**	430	**1,181**	692	372	1,064	583	375	958	323	316	639	304	289	593	-	-	-	-	-	-	722	401	1,123
5:00 PM	734	**432**	1,166	**745**	**427**	**1,172**	600	402	1,002	343	301	644	294	298	592	-	-	-	-	-	-	**740**	**430**	**1,169**
6:00 PM	492	323	815	456	332	788	425	346	771	265	234	499	225	231	456	-	-	-	-	-	-	474	328	802
7:00 PM	238	248	486	240	209	449	264	241	505	197	162	359	179	184	363	-	-	-	-	-	-	239	229	468
8:00 PM	177	153	330	153	126	279	173	153	326	130	135	265	115	108	223	-	-	-	-	-	-	165	140	305
9:00 PM	111	84	195	100	68	168	132	100	232	99	105	204	77	81	158	-	-	-	-	-	-	106	76	182
10:00 PM	43	33	76	34	36	70	81	82	163	60	64	124	31	26	57	-	-	-	-	-	-	39	35	73
11:00 PM	16	16	32	16	25	41	43	30	73	32	37	69	9	6	15	-	-	-	-	-	-	16	21	37
Total	**6,010**	**5,141**	**11,151**	**5,868**	**4,840**	**10,708**	**5,690**	**5,061**	**10,751**	**4,435**	**4,125**	**8,560**	**3,732**	**3,601**	**7,333**	-	-	-	-	-	-	**5,939**	**4,991**	**10,930**
Percent	**54%**	**46%**		**55%**	**45%**		**53%**	**47%**		**52%**	**48%**		**51%**	**49%**		-	-		-	-		**54%**	**46%**	
AM Peak	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	11:00	11:00	11:00	11:00	11:00	11:00	-	-	-	-	-	-	08:00	08:00	08:00
Vol.	429	583	1,012	425	592	1,017	353	491	844	406	387	793	316	305	621							427	588	1,015
PM Peak	16:00	17:00	16:00	17:00	17:00	17:00	15:00	14:00	15:00	12:00	13:00	13:00	15:00	13:00	12:00	-	-	-	-	-	-	17:00	17:00	17:00
Vol.	751	432	1,181	745	427	1,172	623	450	1,032	439	396	811	343	360	700							740	430	1,169

1. Mid-week average includes data between Tuesday and Thursday.

Note: Orange highlights indicate the AM and PM peak hours.

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Vehicle Classification Report Summary

Location: 01 - Moraga Ave, S/O Redd Rock Rd

Count Direction: Eastbound / Westbound

Date Range: 9/13/2023 to 9/17/2023

Site Code:

Direction	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Eastbound	132	23,489	1,830	28	237	13	0	3	3	0	0	0	0	25,735
	0.5%	91.3%	7.1%	0.1%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Westbound	244	20,659	1,615	38	196	7	0	5	3	1	0	0	0	22,768
	1.1%	90.7%	7.1%	0.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Total	376	44,148	3,445	66	433	20	0	8	6	1	0	0	0	48,503
	0.8%	91.0%	7.1%	0.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Wednesday, September 13, 2023
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	9	1	0	0	0	0	0	0	0	0	0	0	**10**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	0	18	4	0	2	0	0	0	0	0	0	0	0	**24**
6:00 AM	0	61	3	0	2	0	0	0	0	0	0	0	0	**66**
7:00 AM	1	162	11	2	4	1	0	0	0	0	0	0	0	**181**
8:00 AM	1	378	46	1	3	0	0	0	0	0	0	0	0	**429**
9:00 AM	0	272	23	1	7	0	0	0	0	0	0	0	0	**303**
10:00 AM	1	279	30	1	7	1	0	0	1	0	0	0	0	**320**
11:00 AM	2	278	40	1	4	0	0	0	0	0	0	0	0	**325**
12:00 PM	2	304	31	1	6	0	0	0	0	0	0	0	0	**344**
1:00 PM	3	349	30	0	8	0	0	0	0	0	0	0	0	**390**
2:00 PM	3	410	39	1	5	0	0	1	0	0	0	0	0	**459**
3:00 PM	2	504	66	2	8	1	0	0	0	0	0	0	0	**583**
4:00 PM	4	685	59	1	2	0	0	0	0	0	0	0	0	**751**
5:00 PM	5	675	49	0	5	0	0	0	0	0	0	0	0	**734**
6:00 PM	3	469	17	1	2	0	0	0	0	0	0	0	0	**492**
7:00 PM	1	228	8	0	1	0	0	0	0	0	0	0	0	**238**
8:00 PM	2	165	10	0	0	0	0	0	0	0	0	0	0	**177**
9:00 PM	1	102	7	0	1	0	0	0	0	0	0	0	0	**111**
10:00 PM	0	39	4	0	0	0	0	0	0	0	0	0	0	**43**
11:00 PM	0	16	0	0	0	0	0	0	0	0	0	0	0	**16**
Total	**31**	**5,417**	**478**	**12**	**67**	**3**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**6,010**
	0.5%	**90.1%**	**8.0%**	**0.2%**	**1.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Wednesday, September 13, 2023
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	21	5	0	0	0	0	0	0	0	0	0	0	**26**
6:00 AM	0	70	12	1	3	0	0	0	0	0	0	0	0	**86**
7:00 AM	5	201	34	3	8	1	0	0	0	0	0	0	0	**252**
8:00 AM	5	517	53	1	6	1	0	0	0	0	0	0	0	**583**
9:00 AM	1	321	39	3	9	0	0	0	1	0	0	0	0	**374**
10:00 AM	1	263	31	2	5	1	0	0	0	0	0	0	0	**303**
11:00 AM	1	259	40	1	4	0	0	0	0	0	0	0	0	**305**
12:00 PM	3	254	25	1	5	0	0	0	0	0	0	0	0	**288**
1:00 PM	5	334	29	1	2	0	0	1	0	0	0	0	0	**372**
2:00 PM	2	372	37	3	4	0	0	0	0	0	0	0	0	**418**
3:00 PM	4	373	25	0	0	0	0	0	0	0	0	0	0	**402**
4:00 PM	6	396	27	1	0	0	0	0	0	0	0	0	0	**430**
5:00 PM	5	409	18	0	0	0	0	0	0	0	0	0	0	**432**
6:00 PM	6	295	21	0	1	0	0	0	0	0	0	0	0	**323**
7:00 PM	5	228	15	0	0	0	0	0	0	0	0	0	0	**248**
8:00 PM	0	143	8	1	1	0	0	0	0	0	0	0	0	**153**
9:00 PM	1	82	1	0	0	0	0	0	0	0	0	0	0	**84**
10:00 PM	1	32	0	0	0	0	0	0	0	0	0	0	0	**33**
11:00 PM	0	15	1	0	0	0	0	0	0	0	0	0	0	**16**
Total	**52**	**4,597**	**421**	**18**	**48**	**3**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**5,141**
	1.0%	**89.4%**	**8.2%**	**0.4%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Project Manager: (415) 310-6469
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Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Thursday, September 14, 2023
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	**3**
4:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
5:00 AM	0	16	0	0	1	0	0	0	0	0	0	0	0	**17**
6:00 AM	0	63	8	1	0	0	0	0	0	0	0	0	0	**72**
7:00 AM	1	153	13	1	2	0	0	0	0	0	0	0	0	**170**
8:00 AM	1	384	38	0	2	0	0	0	0	0	0	0	0	**425**
9:00 AM	1	267	22	1	5	3	0	0	0	0	0	0	0	**299**
10:00 AM	0	263	29	1	8	0	0	0	0	0	0	0	0	**301**
11:00 AM	3	314	34	1	10	1	0	0	0	0	0	0	0	**363**
12:00 PM	3	309	32	0	5	0	0	0	0	0	0	0	0	**349**
1:00 PM	0	329	35	1	12	0	0	0	0	0	0	0	0	**377**
2:00 PM	0	336	39	1	5	2	0	0	0	0	0	0	0	**383**
3:00 PM	2	581	63	0	7	0	0	0	0	0	0	0	0	**653**
4:00 PM	6	618	62	1	5	0	0	0	0	0	0	0	0	**692**
5:00 PM	6	700	35	0	4	0	0	0	0	0	0	0	0	**745**
6:00 PM	5	428	21	0	2	0	0	0	0	0	0	0	0	**456**
7:00 PM	2	225	12	0	1	0	0	0	0	0	0	0	0	**240**
8:00 PM	1	145	5	0	2	0	0	0	0	0	0	0	0	**153**
9:00 PM	0	96	4	0	0	0	0	0	0	0	0	0	0	**100**
10:00 PM	2	29	3	0	0	0	0	0	0	0	0	0	0	**34**
11:00 PM	0	14	2	0	0	0	0	0	0	0	0	0	0	**16**
Total	**33**	**5,291**	**458**	**8**	**71**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,868**
	0.6%	**90.2%**	**7.8%**	**0.1%**	**1.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Thursday, September 14, 2023
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
3:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	19	5	0	0	0	0	0	0	0	0	0	0	**24**
6:00 AM	0	58	16	0	2	0	0	0	0	0	0	0	0	**76**
7:00 AM	3	217	24	0	10	0	0	0	0	0	0	0	0	**254**
8:00 AM	4	538	43	2	5	0	0	0	0	0	0	0	0	**592**
9:00 AM	1	311	35	0	11	0	0	0	0	0	0	0	0	**358**
10:00 AM	4	228	38	1	8	1	0	0	0	0	0	0	0	**280**
11:00 AM	2	261	26	0	5	0	0	0	0	0	0	0	0	**294**
12:00 PM	2	245	25	1	3	0	0	0	0	1	0	0	0	**277**
1:00 PM	4	294	27	1	7	1	0	0	0	0	0	0	0	**334**
2:00 PM	5	315	22	3	2	0	0	0	0	0	0	0	0	**347**
3:00 PM	1	371	23	0	1	0	0	0	0	0	0	0	0	**396**
4:00 PM	8	337	25	1	1	0	0	0	0	0	0	0	0	**372**
5:00 PM	2	404	20	0	1	0	0	0	0	0	0	0	0	**427**
6:00 PM	1	307	22	0	2	0	0	0	0	0	0	0	0	**332**
7:00 PM	4	193	10	0	2	0	0	0	0	0	0	0	0	**209**
8:00 PM	1	117	6	0	2	0	0	0	0	0	0	0	0	**126**
9:00 PM	0	61	7	0	0	0	0	0	0	0	0	0	0	**68**
10:00 PM	0	35	1	0	0	0	0	0	0	0	0	0	0	**36**
11:00 PM	0	22	3	0	0	0	0	0	0	0	0	0	0	**25**
Total	**42**	**4,343**	**380**	**9**	**62**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**4,840**
	0.9%	**89.7%**	**7.9%**	**0.2%**	**1.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Friday, September 15, 2023
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
1:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	18	1	0	1	0	0	0	0	0	0	0	0	**20**
6:00 AM	0	47	2	0	0	0	0	0	0	0	0	0	0	**49**
7:00 AM	0	135	10	1	1	0	0	0	0	0	0	0	0	**147**
8:00 AM	1	310	37	1	4	0	0	0	0	0	0	0	0	**353**
9:00 AM	2	274	25	0	5	0	0	0	1	0	0	0	0	**307**
10:00 AM	1	281	38	1	6	0	0	0	0	0	0	0	0	**327**
11:00 AM	1	303	37	0	10	0	0	0	0	0	0	0	0	**351**
12:00 PM	0	337	43	1	5	0	0	0	0	0	0	0	0	**386**
1:00 PM	3	322	30	0	2	0	0	0	0	0	0	0	0	**357**
2:00 PM	0	390	44	0	14	1	0	0	0	0	0	0	0	**449**
3:00 PM	1	564	51	1	6	0	0	0	0	0	0	0	0	**623**
4:00 PM	1	537	42	0	2	0	0	1	0	0	0	0	0	**583**
5:00 PM	3	566	31	0	0	0	0	0	0	0	0	0	0	**600**
6:00 PM	3	406	15	0	1	0	0	0	0	0	0	0	0	**425**
7:00 PM	1	254	8	0	1	0	0	0	0	0	0	0	0	**264**
8:00 PM	1	163	7	1	1	0	0	0	0	0	0	0	0	**173**
9:00 PM	0	128	4	0	0	0	0	0	0	0	0	0	0	**132**
10:00 PM	1	75	5	0	0	0	0	0	0	0	0	0	0	**81**
11:00 PM	0	41	2	0	0	0	0	0	0	0	0	0	0	**43**
Total	**19**	**5,169**	**434**	**6**	**59**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**5,690**
	0.3%	**90.8%**	**7.6%**	**0.1%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Friday, September 15, 2023
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	22	4	0	0	0	0	0	0	0	0	0	0	**26**
6:00 AM	0	49	15	0	3	0	0	0	0	0	0	0	0	**67**
7:00 AM	6	204	24	1	8	0	0	1	0	0	0	0	0	**244**
8:00 AM	5	439	38	3	5	0	0	0	1	0	0	0	0	**491**
9:00 AM	0	243	44	1	6	0	0	0	0	0	0	0	0	**294**
10:00 AM	3	260	23	1	5	0	0	0	0	0	0	0	0	**292**
11:00 AM	3	284	34	0	6	0	0	0	1	0	0	0	0	**328**
12:00 PM	2	313	28	0	2	0	0	0	0	0	0	0	0	**345**
1:00 PM	5	327	30	1	6	0	0	1	0	0	0	0	0	**370**
2:00 PM	2	401	40	1	6	0	0	0	0	0	0	0	0	**450**
3:00 PM	3	379	26	0	1	0	0	0	0	0	0	0	0	**409**
4:00 PM	0	350	24	0	1	0	0	0	0	0	0	0	0	**375**
5:00 PM	1	384	15	0	2	0	0	0	0	0	0	0	0	**402**
6:00 PM	4	319	21	0	1	0	0	1	0	0	0	0	0	**346**
7:00 PM	5	216	18	0	2	0	0	0	0	0	0	0	0	**241**
8:00 PM	0	149	3	0	0	1	0	0	0	0	0	0	0	**153**
9:00 PM	2	94	4	0	0	0	0	0	0	0	0	0	0	**100**
10:00 PM	1	76	5	0	0	0	0	0	0	0	0	0	0	**82**
11:00 PM	0	28	2	0	0	0	0	0	0	0	0	0	0	**30**
Total	**42**	**4,553**	**398**	**8**	**54**	**1**	**0**	**3**	**2**	**0**	**0**	**0**	**0**	**5,061**
	0.8%	**90.0%**	**7.9%**	**0.2%**	**1.1%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Saturday, September 16, 2023
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	15	2	0	0	0	0	0	0	0	0	0	0	**17**
1:00 AM	0	11	4	0	0	0	0	0	0	0	0	0	0	**15**
2:00 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
6:00 AM	0	31	4	0	0	0	0	0	0	0	0	0	0	**35**
7:00 AM	2	69	6	0	3	0	0	0	0	0	0	0	0	**80**
8:00 AM	1	136	9	0	0	0	0	0	0	0	0	0	0	**146**
9:00 AM	2	243	18	0	1	0	0	1	0	0	0	0	0	**265**
10:00 AM	5	348	23	0	1	1	0	0	0	0	0	0	0	**378**
11:00 AM	3	367	30	0	5	0	0	0	1	0	0	0	0	**406**
12:00 PM	0	403	32	1	3	0	0	0	0	0	0	0	0	**439**
1:00 PM	2	393	17	0	3	0	0	0	0	0	0	0	0	**415**
2:00 PM	1	349	23	0	3	0	0	0	0	0	0	0	0	**376**
3:00 PM	0	370	19	0	3	0	0	0	0	0	0	0	0	**392**
4:00 PM	2	299	18	0	4	0	0	0	0	0	0	0	0	**323**
5:00 PM	2	323	18	0	0	0	0	0	0	0	0	0	0	**343**
6:00 PM	2	251	12	0	0	0	0	0	0	0	0	0	0	**265**
7:00 PM	0	180	16	0	1	0	0	0	0	0	0	0	0	**197**
8:00 PM	0	127	3	0	0	0	0	0	0	0	0	0	0	**130**
9:00 PM	0	91	8	0	0	0	0	0	0	0	0	0	0	**99**
10:00 PM	0	57	3	0	0	0	0	0	0	0	0	0	0	**60**
11:00 PM	0	32	0	0	0	0	0	0	0	0	0	0	0	**32**
Total	**22**	**4,117**	**265**	**1**	**27**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**4,435**
	0.5%	**92.8%**	**6.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Saturday, September 16, 2023
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	22	2	0	0	0	0	0	0	0	0	0	0	**24**
7:00 AM	2	58	4	0	1	0	0	0	0	0	0	0	0	**65**
8:00 AM	4	147	24	1	3	0	0	1	0	0	0	0	0	**180**
9:00 AM	7	260	24	0	3	0	0	0	0	0	0	0	0	**294**
10:00 AM	3	351	19	0	1	0	0	0	0	0	0	0	0	**374**
11:00 AM	1	350	27	1	8	0	0	0	0	0	0	0	0	**387**
12:00 PM	6	326	14	0	1	0	0	0	0	0	0	0	0	**347**
1:00 PM	7	373	16	0	0	0	0	0	0	0	0	0	0	**396**
2:00 PM	5	338	19	0	1	0	0	0	0	0	0	0	0	**363**
3:00 PM	2	275	25	0	1	0	0	0	0	0	0	0	0	**303**
4:00 PM	3	296	16	0	1	0	0	0	0	0	0	0	0	**316**
5:00 PM	1	286	14	0	0	0	0	0	0	0	0	0	0	**301**
6:00 PM	4	216	14	0	0	0	0	0	0	0	0	0	0	**234**
7:00 PM	0	150	11	0	1	0	0	0	0	0	0	0	0	**162**
8:00 PM	0	130	5	0	0	0	0	0	0	0	0	0	0	**135**
9:00 PM	0	97	8	0	0	0	0	0	0	0	0	0	0	**105**
10:00 PM	0	60	4	0	0	0	0	0	0	0	0	0	0	**64**
11:00 PM	0	33	3	0	1	0	0	0	0	0	0	0	0	**37**
Total	**45**	**3,803**	**252**	**2**	**22**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**4,125**
	1.1%	**92.2%**	**6.1%**	**0.0%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Sunday, September 17, 2023
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	22	0	0	0	0	0	0	0	0	0	0	0	**22**
1:00 AM	0	21	0	0	0	0	0	0	0	0	0	0	0	**21**
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
6:00 AM	0	16	4	0	0	0	0	0	0	0	0	0	0	**20**
7:00 AM	0	63	2	0	1	0	0	0	0	0	0	0	0	**66**
8:00 AM	1	133	10	0	0	0	0	0	0	0	0	0	0	**144**
9:00 AM	2	233	16	0	1	0	0	0	0	0	0	0	0	**252**
10:00 AM	0	280	12	0	0	0	0	0	0	0	0	0	0	**292**
11:00 AM	3	300	11	0	2	0	0	0	0	0	0	0	0	**316**
12:00 PM	6	318	17	0	1	0	0	0	0	0	0	0	0	**342**
1:00 PM	3	306	15	0	0	1	0	0	0	0	0	0	0	**325**
2:00 PM	0	320	17	0	2	0	0	0	0	0	0	0	0	**339**
3:00 PM	1	325	17	0	0	0	0	0	0	0	0	0	0	**343**
4:00 PM	3	276	24	0	1	0	0	0	0	0	0	0	0	**304**
5:00 PM	4	275	15	0	0	0	0	0	0	0	0	0	0	**294**
6:00 PM	1	211	10	1	2	0	0	0	0	0	0	0	0	**225**
7:00 PM	1	170	6	0	2	0	0	0	0	0	0	0	0	**179**
8:00 PM	1	103	11	0	0	0	0	0	0	0	0	0	0	**115**
9:00 PM	1	72	4	0	0	0	0	0	0	0	0	0	0	**77**
10:00 PM	0	27	3	0	1	0	0	0	0	0	0	0	0	**31**
11:00 PM	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
Total	**27**	**3,495**	**195**	**1**	**13**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,732**
	0.7%	**93.6%**	**5.2%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Sunday, September 17, 2023
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	22	0	0	0	0	0	0	0	0	0	0	0	**22**
1:00 AM	0	17	0	0	0	0	0	0	0	0	0	0	0	**17**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	1	6	2	0	0	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	15	2	0	0	0	0	0	0	0	0	0	0	**17**
7:00 AM	0	50	1	0	0	0	0	0	0	0	0	0	0	**51**
8:00 AM	0	118	5	0	0	0	0	0	0	0	0	0	0	**123**
9:00 AM	6	188	8	0	1	0	0	0	0	0	0	0	0	**203**
10:00 AM	5	244	13	0	1	0	0	0	0	0	0	0	0	**263**
11:00 AM	3	280	21	0	1	0	0	0	0	0	0	0	0	**305**
12:00 PM	11	334	12	0	1	0	0	0	0	0	0	0	0	**358**
1:00 PM	10	332	16	1	1	0	0	0	0	0	0	0	0	**360**
2:00 PM	4	321	13	0	1	0	0	0	0	0	0	0	0	**339**
3:00 PM	5	289	9	0	0	0	0	0	0	0	0	0	0	**303**
4:00 PM	6	268	15	0	0	0	0	0	0	0	0	0	0	**289**
5:00 PM	4	278	15	0	1	0	0	0	0	0	0	0	0	**298**
6:00 PM	7	217	7	0	0	0	0	0	0	0	0	0	0	**231**
7:00 PM	1	172	11	0	0	0	0	0	0	0	0	0	0	**184**
8:00 PM	0	101	5	0	2	0	0	0	0	0	0	0	0	**108**
9:00 PM	0	73	7	0	1	0	0	0	0	0	0	0	0	**81**
10:00 PM	0	24	2	0	0	0	0	0	0	0	0	0	0	**26**
11:00 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
Total	**63**	**3,363**	**164**	**1**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,601**
	1.7%	**93.4%**	**4.6%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
1:00 AM	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	0	13	1	0	1	0	0	0	0	0	0	0	0	**15**
6:00 AM	0	44	4	0	0	0	0	0	0	0	0	0	0	**48**
7:00 AM	1	116	8	1	2	0	0	0	0	0	0	0	0	**128**
8:00 AM	1	268	28	0	2	0	0	0	0	0	0	0	0	**299**
9:00 AM	1	258	21	0	4	1	0	0	0	0	0	0	0	**285**
10:00 AM	1	290	26	1	4	0	0	0	0	0	0	0	0	**322**
11:00 AM	2	312	30	0	6	0	0	0	0	0	0	0	0	**350**
12:00 PM	2	334	31	1	4	0	0	0	0	0	0	0	0	**372**
1:00 PM	2	340	25	0	5	0	0	0	0	0	0	0	0	**372**
2:00 PM	1	361	32	0	6	1	0	0	0	0	0	0	0	**401**
3:00 PM	1	469	43	1	5	0	0	0	0	0	0	0	0	**519**
4:00 PM	3	483	41	0	3	0	0	0	0	0	0	0	0	**530**
5:00 PM	4	508	30	0	2	0	0	0	0	0	0	0	0	**544**
6:00 PM	3	353	15	0	1	0	0	0	0	0	0	0	0	**372**
7:00 PM	1	211	10	0	1	0	0	0	0	0	0	0	0	**223**
8:00 PM	1	141	7	0	1	0	0	0	0	0	0	0	0	**150**
9:00 PM	0	98	5	0	0	0	0	0	0	0	0	0	0	**103**
10:00 PM	1	45	4	0	0	0	0	0	0	0	0	0	0	**50**
11:00 PM	0	22	1	0	0	0	0	0	0	0	0	0	0	**23**
Total	**25**	**4,697**	**364**	**4**	**47**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,139**
	0.5%	**91.4%**	**7.1%**	**0.1%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	15	3	0	0	0	0	0	0	0	0	0	0	**18**
6:00 AM	0	43	9	0	2	0	0	0	0	0	0	0	0	**54**
7:00 AM	3	146	17	1	5	0	0	0	0	0	0	0	0	**172**
8:00 AM	4	352	33	1	4	0	0	0	0	0	0	0	0	**394**
9:00 AM	3	265	30	1	6	0	0	0	0	0	0	0	0	**305**
10:00 AM	3	269	25	1	4	0	0	0	0	0	0	0	0	**302**
11:00 AM	2	287	30	0	5	0	0	0	0	0	0	0	0	**324**
12:00 PM	5	294	21	0	2	0	0	0	0	0	0	0	0	**322**
1:00 PM	6	332	24	1	3	0	0	0	0	0	0	0	0	**366**
2:00 PM	4	349	26	1	3	0	0	0	0	0	0	0	0	**383**
3:00 PM	3	337	22	0	1	0	0	0	0	0	0	0	0	**363**
4:00 PM	5	329	21	0	1	0	0	0	0	0	0	0	0	**356**
5:00 PM	3	352	16	0	1	0	0	0	0	0	0	0	0	**372**
6:00 PM	4	271	17	0	1	0	0	0	0	0	0	0	0	**293**
7:00 PM	3	192	13	0	1	0	0	0	0	0	0	0	0	**209**
8:00 PM	0	128	5	0	1	0	0	0	0	0	0	0	0	**134**
9:00 PM	1	81	5	0	0	0	0	0	0	0	0	0	0	**87**
10:00 PM	0	45	2	0	0	0	0	0	0	0	0	0	0	**47**
11:00 PM	0	21	2	0	0	0	0	0	0	0	0	0	0	**23**
Total	**49**	**4,130**	**321**	**6**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,546**
	1.1%	**90.8%**	**7.1%**	**0.1%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Vehicle Speed Report Summary

Location: 01 - Moraga Ave, S/O Redd Rock Rd

Direction: Eastbound / Westbound

Date Range: 9/13/2023 to 9/17/2023

Site Code:

Direction	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
Eastbound	38	41	85	486	2,955	10,299	9,376	2,153	255	39	7	1	0	0	0	0	0	25,735
	0.1%	0.2%	0.3%	1.9%	11.5%	40.0%	36.4%	8.4%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Westbound	5	40	57	347	2,890	10,578	7,740	1,017	82	10	2	0	0	0	0	0	0	22,768
	0.0%	0.2%	0.3%	1.5%	12.7%	46.5%	34.0%	4.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Total	43	81	142	833	5,845	20,877	17,116	3,170	337	49	9	1	0	0	0	0	0	48,503
	0.1%	0.2%	0.3%	1.7%	12.1%	43.0%	35.3%	6.5%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	34.6	mph	Mean (Average) Speed	34.5	mph
85th Percentile	38.8	mph	10 mph Pace	29.8 - 39.8	mph
95th Percentile	41.6	mph	Percent in Pace	76.5	%
Westbound			**Westbound**		
50th Percentile (Median)	34.0	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.6	mph	10 mph Pace	29.2 - 39.2	mph
95th Percentile	39.9	mph	Percent in Pace	81.8	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Wednesday, September 13, 2023
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	3	2	2	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	0	0	0	1	2	5	2	0	0	0	0	0	0	0	0	0	**10**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	0	0	0	0	1	9	7	3	3	0	1	0	0	0	0	0	0	**24**
6:00 AM	0	0	1	2	7	12	31	10	3	0	0	0	0	0	0	0	0	**66**
7:00 AM	0	0	0	4	17	54	89	15	2	0	0	0	0	0	0	0	0	**181**
8:00 AM	0	1	0	7	52	177	161	30	1	0	0	0	0	0	0	0	0	**429**
9:00 AM	0	0	1	9	35	112	108	34	4	0	0	0	0	0	0	0	0	**303**
10:00 AM	1	0	0	5	35	124	131	20	4	0	0	0	0	0	0	0	0	**320**
11:00 AM	0	0	2	0	43	128	119	30	3	0	0	0	0	0	0	0	0	**325**
12:00 PM	1	2	0	2	28	125	150	33	3	0	0	0	0	0	0	0	0	**344**
1:00 PM	0	2	0	11	43	167	139	26	2	0	0	0	0	0	0	0	0	**390**
2:00 PM	1	0	3	0	51	197	172	31	3	1	0	0	0	0	0	0	0	**459**
3:00 PM	0	0	0	10	79	256	198	38	2	0	0	0	0	0	0	0	0	**583**
4:00 PM	2	2	3	20	70	336	278	37	3	0	0	0	0	0	0	0	0	**751**
5:00 PM	1	3	1	14	111	350	215	35	3	1	0	0	0	0	0	0	0	**734**
6:00 PM	1	0	1	4	65	210	172	35	3	1	0	0	0	0	0	0	0	**492**
7:00 PM	0	0	1	1	22	92	100	18	4	0	0	0	0	0	0	0	0	**238**
8:00 PM	0	1	0	1	19	67	69	18	2	0	0	0	0	0	0	0	0	**177**
9:00 PM	0	0	0	0	17	34	35	17	6	1	1	0	0	0	0	0	0	**111**
10:00 PM	0	0	0	4	4	15	14	4	2	0	0	0	0	0	0	0	0	**43**
11:00 PM	0	0	0	0	4	8	4	0	0	0	0	0	0	0	0	0	0	**16**
Total	**7**	**11**	**13**	**95**	**706**	**2,479**	**2,202**	**438**	**53**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**6,010**
	0.1%	**0.2%**	**0.2%**	**1.6%**	**11.7%**	**41.2%**	**36.6%**	**7.3%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.6	mph	Mean (Average) Speed	34.4	mph
85th Percentile	38.5	mph	10 mph Pace	29.3 - 39.3	mph
95th Percentile	41.2	mph	Percent in Pace	78.6	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

DATA SOLUTIONS

Wednesday, September 13, 2023
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	1	3	10	8	4	0	0	0	0	0	0	0	0	0	**26**
6:00 AM	0	2	0	0	5	32	38	8	1	0	0	0	0	0	0	0	0	**86**
7:00 AM	0	0	0	3	33	115	86	14	1	0	0	0	0	0	0	0	0	**252**
8:00 AM	3	4	9	16	62	292	182	14	1	0	0	0	0	0	0	0	0	**583**
9:00 AM	0	0	0	3	34	180	143	12	2	0	0	0	0	0	0	0	0	**374**
10:00 AM	0	0	1	6	35	137	112	12	0	0	0	0	0	0	0	0	0	**303**
11:00 AM	0	1	0	4	28	140	114	14	3	1	0	0	0	0	0	0	0	**305**
12:00 PM	1	2	0	2	43	116	106	18	0	0	0	0	0	0	0	0	0	**288**
1:00 PM	0	0	0	4	42	168	136	22	0	0	0	0	0	0	0	0	0	**372**
2:00 PM	0	2	2	2	48	185	148	30	1	0	0	0	0	0	0	0	0	**418**
3:00 PM	0	1	0	2	36	191	153	18	1	0	0	0	0	0	0	0	0	**402**
4:00 PM	0	0	0	3	42	238	136	11	0	0	0	0	0	0	0	0	0	**430**
5:00 PM	0	0	0	10	40	230	140	12	0	0	0	0	0	0	0	0	0	**432**
6:00 PM	0	0	0	5	24	144	130	19	1	0	0	0	0	0	0	0	0	**323**
7:00 PM	0	0	0	5	25	146	63	9	0	0	0	0	0	0	0	0	0	**248**
8:00 PM	0	0	0	2	23	78	43	7	0	0	0	0	0	0	0	0	0	**153**
9:00 PM	0	0	2	2	13	49	15	3	0	0	0	0	0	0	0	0	0	**84**
10:00 PM	0	0	0	4	4	15	8	0	2	0	0	0	0	0	0	0	0	**33**
11:00 PM	0	0	0	0	4	6	5	1	0	0	0	0	0	0	0	0	0	**16**
Total	**4**	**12**	**14**	**74**	**545**	**2,481**	**1,768**	**228**	**14**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,141**
	0.1%	**0.2%**	**0.3%**	**1.4%**	**10.6%**	**48.3%**	**34.4%**	**4.4%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.1	mph	Mean (Average) Speed	33.9	mph
85th Percentile	37.6	mph	10 mph Pace	29.5 - 39.5	mph
95th Percentile	39.9	mph	Percent in Pace	83.25	%

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Thursday, September 14, 2023
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	3	1	1	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	1	1	1	3	1	1	0	0	0	0	0	0	0	0	0	**8**
5:00 AM	0	0	0	2	2	5	5	3	0	0	0	0	0	0	0	0	0	**17**
6:00 AM	0	0	2	5	5	22	24	11	2	1	0	0	0	0	0	0	0	**72**
7:00 AM	0	0	0	2	15	38	80	29	6	0	0	0	0	0	0	0	0	**170**
8:00 AM	0	0	2	6	47	170	159	38	2	1	0	0	0	0	0	0	0	**425**
9:00 AM	0	0	1	8	26	125	108	28	2	1	0	0	0	0	0	0	0	**299**
10:00 AM	0	0	0	2	24	113	130	30	1	1	0	0	0	0	0	0	0	**301**
11:00 AM	2	0	0	10	42	129	144	30	6	0	0	0	0	0	0	0	0	**363**
12:00 PM	0	2	0	3	48	181	89	26	0	0	0	0	0	0	0	0	0	**349**
1:00 PM	3	0	7	4	38	174	123	28	0	0	0	0	0	0	0	0	0	**377**
2:00 PM	0	0	0	8	23	156	149	44	3	0	0	0	0	0	0	0	0	**383**
3:00 PM	2	0	0	16	88	257	249	36	5	0	0	0	0	0	0	0	0	**653**
4:00 PM	1	1	1	7	82	285	263	50	2	0	0	0	0	0	0	0	0	**692**
5:00 PM	4	0	0	2	61	321	303	51	2	1	0	0	0	0	0	0	0	**745**
6:00 PM	0	0	0	3	24	150	192	80	4	2	1	0	0	0	0	0	0	**456**
7:00 PM	0	1	1	7	21	68	96	38	6	2	0	0	0	0	0	0	0	**240**
8:00 PM	0	1	1	1	14	63	61	12	0	0	0	0	0	0	0	0	0	**153**
9:00 PM	0	0	0	2	13	37	36	7	5	0	0	0	0	0	0	0	0	**100**
10:00 PM	0	1	0	0	3	16	10	2	1	1	0	0	0	0	0	0	0	**34**
11:00 PM	0	0	1	0	2	5	7	1	0	0	0	0	0	0	0	0	0	**16**
Total	**12**	**7**	**17**	**90**	**579**	**2,325**	**2,232**	**547**	**48**	**10**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5,868**
	0.2%	**0.1%**	**0.3%**	**1.5%**	**9.9%**	**39.6%**	**38.0%**	**9.3%**	**0.8%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.8	mph	Mean (Average) Speed	34.7	mph
85th Percentile	39.0	mph	10 mph Pace	29.9 - 39.9	mph
95th Percentile	41.5	mph	Percent in Pace	77.7	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Thursday, September 14, 2023
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	1	4	6	9	3	1	0	0	0	0	0	0	0	0	**24**
6:00 AM	0	2	0	1	11	34	27	1	0	0	0	0	0	0	0	0	0	**76**
7:00 AM	0	0	0	5	34	98	98	18	1	0	0	0	0	0	0	0	0	**254**
8:00 AM	0	0	0	5	58	300	204	24	0	0	1	0	0	0	0	0	0	**592**
9:00 AM	0	0	0	2	54	192	99	9	1	1	0	0	0	0	0	0	0	**358**
10:00 AM	0	0	0	1	47	140	80	12	0	0	0	0	0	0	0	0	0	**280**
11:00 AM	0	0	0	0	40	118	112	23	1	0	0	0	0	0	0	0	0	**294**
12:00 PM	0	0	0	3	34	121	102	16	1	0	0	0	0	0	0	0	0	**277**
1:00 PM	0	0	1	8	41	159	109	14	2	0	0	0	0	0	0	0	0	**334**
2:00 PM	0	0	0	5	32	168	128	14	0	0	0	0	0	0	0	0	0	**347**
3:00 PM	0	0	1	5	51	164	148	24	3	0	0	0	0	0	0	0	0	**396**
4:00 PM	0	0	0	3	24	161	156	24	4	0	0	0	0	0	0	0	0	**372**
5:00 PM	0	0	0	0	37	183	191	16	0	0	0	0	0	0	0	0	0	**427**
6:00 PM	0	0	0	2	42	161	108	17	2	0	0	0	0	0	0	0	0	**332**
7:00 PM	0	1	3	1	22	95	75	10	2	0	0	0	0	0	0	0	0	**209**
8:00 PM	0	0	3	0	26	64	29	4	0	0	0	0	0	0	0	0	0	**126**
9:00 PM	0	1	3	4	9	21	23	5	2	0	0	0	0	0	0	0	0	**68**
10:00 PM	0	0	0	1	4	19	8	4	0	0	0	0	0	0	0	0	0	**36**
11:00 PM	0	0	1	0	3	11	8	2	0	0	0	0	0	0	0	0	0	**25**
Total	**0**	**4**	**12**	**49**	**575**	**2,222**	**1,716**	**240**	**20**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4,840**
	0.0%	**0.1%**	**0.2%**	**1.0%**	**11.9%**	**45.9%**	**35.5%**	**5.0%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.2	mph	Mean (Average) Speed	34.1	mph
85th Percentile	37.9	mph	10 mph Pace	29.2 - 39.2	mph
95th Percentile	40.2	mph	Percent in Pace	82.02	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Friday, September 15, 2023
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	3	1	1	0	0	0	0	0	0	0	0	**7**
1:00 AM	0	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	1	1	5	9	0	2	2	0	0	0	0	0	0	0	**20**
6:00 AM	0	0	0	3	1	16	18	9	2	0	0	0	0	0	0	0	0	**49**
7:00 AM	0	0	2	4	13	39	60	24	4	1	0	0	0	0	0	0	0	**147**
8:00 AM	0	1	2	2	33	138	137	34	4	2	0	0	0	0	0	0	0	**353**
9:00 AM	0	2	0	5	30	117	124	24	3	2	0	0	0	0	0	0	0	**307**
10:00 AM	0	1	0	7	38	127	122	29	3	0	0	0	0	0	0	0	0	**327**
11:00 AM	0	0	5	5	33	131	139	34	3	0	1	0	0	0	0	0	0	**351**
12:00 PM	0	0	0	10	29	139	167	34	6	1	0	0	0	0	0	0	0	**386**
1:00 PM	1	0	1	4	52	134	122	37	5	0	1	0	0	0	0	0	0	**357**
2:00 PM	0	0	1	3	47	196	170	27	5	0	0	0	0	0	0	0	0	**449**
3:00 PM	0	0	0	5	67	281	232	34	4	0	0	0	0	0	0	0	0	**623**
4:00 PM	0	0	0	7	53	248	219	49	6	1	0	0	0	0	0	0	0	**583**
5:00 PM	2	0	1	6	48	268	235	32	7	0	1	0	0	0	0	0	0	**600**
6:00 PM	0	0	3	15	55	165	139	43	4	1	0	0	0	0	0	0	0	**425**
7:00 PM	0	0	1	7	35	125	76	14	6	0	0	0	0	0	0	0	0	**264**
8:00 PM	0	0	1	2	28	79	48	15	0	0	0	0	0	0	0	0	0	**173**
9:00 PM	0	0	0	0	16	61	42	12	1	0	0	0	0	0	0	0	0	**132**
10:00 PM	0	0	0	2	10	31	29	5	3	0	0	1	0	0	0	0	0	**81**
11:00 PM	0	0	0	1	1	15	17	7	2	0	0	0	0	0	0	0	0	**43**
Total	**3**	**4**	**17**	**90**	**591**	**2,318**	**2,115**	**466**	**72**	**10**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**5,690**
	0.1%	**0.1%**	**0.3%**	**1.6%**	**10.4%**	**40.7%**	**37.2%**	**8.2%**	**1.3%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.7	mph	Mean (Average) Speed	34.6	mph
85th Percentile	38.8	mph	10 mph Pace	29.9 - 39.9	mph
95th Percentile	41.7	mph	Percent in Pace	77.8	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

DATA SOLUTIONS

Friday, September 15, 2023
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	1	5	0	0	0	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	1	2	10	10	3	0	0	0	0	0	0	0	0	0	**26**
6:00 AM	0	0	0	1	9	28	25	4	0	0	0	0	0	0	0	0	0	**67**
7:00 AM	0	4	4	6	24	101	91	14	0	0	0	0	0	0	0	0	0	**244**
8:00 AM	0	1	2	4	58	219	184	21	2	0	0	0	0	0	0	0	0	**491**
9:00 AM	0	0	0	1	40	140	99	13	1	0	0	0	0	0	0	0	0	**294**
10:00 AM	0	0	1	3	46	128	94	20	0	0	0	0	0	0	0	0	0	**292**
11:00 AM	0	1	0	10	47	144	106	18	2	0	0	0	0	0	0	0	0	**328**
12:00 PM	0	0	2	10	37	150	137	9	0	0	0	0	0	0	0	0	0	**345**
1:00 PM	0	1	1	18	57	166	114	13	0	0	0	0	0	0	0	0	0	**370**
2:00 PM	0	0	0	4	56	192	179	19	0	0	0	0	0	0	0	0	0	**450**
3:00 PM	0	0	0	2	38	174	180	14	1	0	0	0	0	0	0	0	0	**409**
4:00 PM	0	0	0	3	56	187	108	17	3	1	0	0	0	0	0	0	0	**375**
5:00 PM	0	0	1	2	32	207	146	14	0	0	0	0	0	0	0	0	0	**402**
6:00 PM	0	0	0	5	50	183	95	12	1	0	0	0	0	0	0	0	0	**346**
7:00 PM	0	0	0	1	38	119	74	9	0	0	0	0	0	0	0	0	0	**241**
8:00 PM	1	1	1	1	29	63	50	7	0	0	0	0	0	0	0	0	0	**153**
9:00 PM	0	0	0	1	16	58	21	4	0	0	0	0	0	0	0	0	0	**100**
10:00 PM	0	0	0	1	11	50	20	0	0	0	0	0	0	0	0	0	0	**82**
11:00 PM	0	0	0	1	3	14	9	3	0	0	0	0	0	0	0	0	0	**30**
Total	**1**	**8**	**12**	**75**	**655**	**2,335**	**1,749**	**215**	**10**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,061**
	0.0%	**0.2%**	**0.2%**	**1.5%**	**12.9%**	**46.1%**	**34.6%**	**4.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.1	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.5	mph	10 mph Pace	28.9 - 38.9	mph
95th Percentile	39.7	mph	Percent in Pace	83.58	%

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Saturday, September 16, 2023
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	3	5	5	2	1	1	0	0	0	0	0	0	0	**17**
1:00 AM	0	0	0	0	5	5	5	0	0	0	0	0	0	0	0	0	0	**15**
2:00 AM	0	0	0	0	1	0	5	4	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	0	0	1	1	0	1	1	0	1	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	1	3	2	1	0	0	0	0	0	0	0	0	0	**7**
6:00 AM	0	0	0	1	2	9	17	5	1	0	0	0	0	0	0	0	0	**35**
7:00 AM	1	1	0	2	14	16	25	16	5	0	0	0	0	0	0	0	0	**80**
8:00 AM	0	1	0	2	17	56	49	20	1	0	0	0	0	0	0	0	0	**146**
9:00 AM	1	0	0	5	41	100	90	27	0	1	0	0	0	0	0	0	0	**265**
10:00 AM	0	2	2	14	46	149	129	35	1	0	0	0	0	0	0	0	0	**378**
11:00 AM	1	0	5	8	25	143	171	50	1	2	0	0	0	0	0	0	0	**406**
12:00 PM	0	4	7	19	68	171	139	29	2	0	0	0	0	0	0	0	0	**439**
1:00 PM	2	0	2	13	73	185	111	22	7	0	0	0	0	0	0	0	0	**415**
2:00 PM	2	1	1	4	69	167	98	30	4	0	0	0	0	0	0	0	0	**376**
3:00 PM	0	0	1	12	53	150	147	25	4	0	0	0	0	0	0	0	0	**392**
4:00 PM	0	1	3	10	33	114	136	25	1	0	0	0	0	0	0	0	0	**323**
5:00 PM	0	2	0	4	42	128	138	28	1	0	0	0	0	0	0	0	0	**343**
6:00 PM	0	0	0	5	31	86	117	23	3	0	0	0	0	0	0	0	0	**265**
7:00 PM	0	0	0	4	24	76	71	19	3	0	0	0	0	0	0	0	0	**197**
8:00 PM	0	0	0	0	14	48	54	12	1	0	1	0	0	0	0	0	0	**130**
9:00 PM	0	0	0	0	13	42	34	8	1	1	0	0	0	0	0	0	0	**99**
10:00 PM	0	0	1	1	12	26	14	5	1	0	0	0	0	0	0	0	0	**60**
11:00 PM	0	0	0	2	5	11	13	1	0	0	0	0	0	0	0	0	0	**32**
Total	**7**	**12**	**22**	**107**	**593**	**1,690**	**1,571**	**388**	**38**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4,435**
	0.2%	**0.3%**	**0.5%**	**2.4%**	**13.4%**	**38.1%**	**35.4%**	**8.7%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.4	mph	Mean (Average) Speed	34.3	mph
85th Percentile	38.9	mph	10 mph Pace	29.8 - 39.8	mph
95th Percentile	41.7	mph	Percent in Pace	73.5	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Saturday, September 16, 2023
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	2	1	2	3	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	0	0	0	2	6	3	0	0	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	1	0	3	4	0	1	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	0	0	0	4	12	7	0	1	0	0	0	0	0	0	0	0	**24**
7:00 AM	0	0	0	1	5	27	21	8	1	2	0	0	0	0	0	0	0	**65**
8:00 AM	0	0	0	1	37	77	56	6	3	0	0	0	0	0	0	0	0	**180**
9:00 AM	0	1	1	4	51	134	84	18	1	0	0	0	0	0	0	0	0	**294**
10:00 AM	0	0	0	5	34	189	127	19	0	0	0	0	0	0	0	0	0	**374**
11:00 AM	0	1	0	5	46	199	121	14	1	0	0	0	0	0	0	0	0	**387**
12:00 PM	0	3	4	8	71	149	101	11	0	0	0	0	0	0	0	0	0	**347**
1:00 PM	0	1	1	12	74	188	107	11	2	0	0	0	0	0	0	0	0	**396**
2:00 PM	0	1	0	9	53	158	124	16	1	1	0	0	0	0	0	0	0	**363**
3:00 PM	0	0	0	3	32	135	114	18	1	0	0	0	0	0	0	0	0	**303**
4:00 PM	0	0	0	9	30	149	118	9	1	0	0	0	0	0	0	0	0	**316**
5:00 PM	0	0	0	3	31	157	98	11	1	0	0	0	0	0	0	0	0	**301**
6:00 PM	0	2	0	4	30	97	86	13	1	1	0	0	0	0	0	0	0	**234**
7:00 PM	0	0	0	0	26	80	50	5	1	0	0	0	0	0	0	0	0	**162**
8:00 PM	0	0	2	1	28	72	24	6	0	2	0	0	0	0	0	0	0	**135**
9:00 PM	0	0	0	1	18	46	37	2	1	0	0	0	0	0	0	0	0	**105**
10:00 PM	0	0	0	1	7	37	17	2	0	0	0	0	0	0	0	0	0	**64**
11:00 PM	0	0	0	0	3	16	12	4	2	0	0	0	0	0	0	0	0	**37**
Total	**0**	**9**	**8**	**70**	**584**	**1,936**	**1,317**	**176**	**19**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,125**
	0.0%	**0.2%**	**0.2%**	**1.7%**	**14.2%**	**46.9%**	**31.9%**	**4.3%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	33.7	mph	Mean (Average) Speed	33.6	mph
85th Percentile	37.5	mph	10 mph Pace	28.9 - 38.9	mph
95th Percentile	39.9	mph	Percent in Pace	81.12	%

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

DATA SOLUTIONS

Sunday, September 17, 2023
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	6	7	7	2	0	0	0	0	0	0	0	0	0	**22**
1:00 AM	0	0	0	0	2	9	6	2	1	1	0	0	0	0	0	0	0	**21**
2:00 AM	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	0	0	0	4	1	1	0	0	0	0	0	0	0	0	0	**6**
6:00 AM	0	0	0	0	4	5	7	4	0	0	0	0	0	0	0	0	0	**20**
7:00 AM	0	0	0	0	3	14	29	16	4	0	0	0	0	0	0	0	0	**66**
8:00 AM	1	0	1	1	19	54	51	14	3	0	0	0	0	0	0	0	0	**144**
9:00 AM	1	0	0	8	22	110	87	22	2	0	0	0	0	0	0	0	0	**252**
10:00 AM	0	0	0	0	18	107	124	35	6	2	0	0	0	0	0	0	0	**292**
11:00 AM	0	0	0	3	44	107	129	30	2	1	0	0	0	0	0	0	0	**316**
12:00 PM	2	0	0	5	41	134	132	23	5	0	0	0	0	0	0	0	0	**342**
1:00 PM	2	2	6	11	42	144	94	23	0	1	0	0	0	0	0	0	0	**325**
2:00 PM	0	1	5	23	61	138	94	14	2	1	0	0	0	0	0	0	0	**339**
3:00 PM	1	0	1	18	69	159	84	11	0	0	0	0	0	0	0	0	0	**343**
4:00 PM	1	2	2	16	46	127	91	19	0	0	0	0	0	0	0	0	0	**304**
5:00 PM	0	1	0	4	29	116	96	37	10	1	0	0	0	0	0	0	0	**294**
6:00 PM	0	0	1	8	25	76	83	28	3	1	0	0	0	0	0	0	0	**225**
7:00 PM	0	1	0	2	21	82	59	11	3	0	0	0	0	0	0	0	0	**179**
8:00 PM	0	0	0	2	15	43	45	9	1	0	0	0	0	0	0	0	0	**115**
9:00 PM	0	0	0	3	13	32	20	9	0	0	0	0	0	0	0	0	0	**77**
10:00 PM	1	0	0	0	3	11	10	3	2	1	0	0	0	0	0	0	0	**31**
11:00 PM	0	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0	0	**9**
Total	**9**	**7**	**16**	**104**	**486**	**1,487**	**1,256**	**314**	**44**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,732**
	0.2%	**0.2%**	**0.4%**	**2.8%**	**13.0%**	**39.8%**	**33.7%**	**8.4%**	**1.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.3	mph	Mean (Average) Speed	34.2	mph
85th Percentile	38.8	mph	10 mph Pace	29.2 - 39.2	mph
95th Percentile	41.8	mph	Percent in Pace	73.9	%

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

DATA SOLUTIONS

Sunday, September 17, 2023
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	0	4	9	7	0	1	0	0	0	0	0	0	0	0	**22**
1:00 AM	0	0	0	0	4	9	4	0	0	0	0	0	0	0	0	0	0	**17**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	**3**
5:00 AM	0	0	0	0	1	2	5	1	0	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	0	0	0	2	6	4	3	2	0	0	0	0	0	0	0	0	**17**
7:00 AM	0	0	0	0	3	21	19	7	1	0	0	0	0	0	0	0	0	**51**
8:00 AM	0	1	0	6	17	50	38	8	3	0	0	0	0	0	0	0	0	**123**
9:00 AM	0	0	1	2	35	88	68	7	2	0	0	0	0	0	0	0	0	**203**
10:00 AM	0	0	0	0	35	91	123	13	1	0	0	0	0	0	0	0	0	**263**
11:00 AM	0	2	0	3	46	133	107	14	0	0	0	0	0	0	0	0	0	**305**
12:00 PM	0	0	0	1	39	174	121	23	0	0	0	0	0	0	0	0	0	**358**
1:00 PM	0	0	7	16	61	153	108	15	0	0	0	0	0	0	0	0	0	**360**
2:00 PM	0	1	0	20	76	145	92	5	0	0	0	0	0	0	0	0	0	**339**
3:00 PM	0	2	0	9	47	147	86	12	0	0	0	0	0	0	0	0	0	**303**
4:00 PM	0	0	3	10	53	137	75	10	1	0	0	0	0	0	0	0	0	**289**
5:00 PM	0	0	0	3	25	129	127	11	3	0	0	0	0	0	0	0	0	**298**
6:00 PM	0	0	0	0	15	102	93	17	3	1	0	0	0	0	0	0	0	**231**
7:00 PM	0	0	0	5	14	113	45	6	1	0	0	0	0	0	0	0	0	**184**
8:00 PM	0	0	0	3	27	42	33	2	1	0	0	0	0	0	0	0	0	**108**
9:00 PM	0	0	0	1	20	32	25	3	0	0	0	0	0	0	0	0	0	**81**
10:00 PM	0	0	0	0	4	14	7	1	0	0	0	0	0	0	0	0	0	**26**
11:00 PM	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	**6**
Total	**0**	**7**	**11**	**79**	**531**	**1,604**	**1,190**	**158**	**19**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3,601**
	0.0%	**0.2%**	**0.3%**	**2.2%**	**14.7%**	**44.5%**	**33.0%**	**4.4%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	33.9	mph	Mean (Average) Speed	33.6	mph
85th Percentile	37.5	mph	10 mph Pace	29.2 - 39.2	mph
95th Percentile	40.0	mph	Percent in Pace	79.09	%

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	4	4	2	0	0	0	0	0	0	0	0	0	**12**
1:00 AM	0	0	0	0	2	4	4	1	0	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	0	0	0	1	1	5	5	2	1	0	0	0	0	0	0	0	0	**15**
6:00 AM	0	0	1	2	4	13	19	8	2	0	0	0	0	0	0	0	0	**49**
7:00 AM	0	0	0	2	12	32	57	20	4	0	0	0	0	0	0	0	0	**127**
8:00 AM	0	1	1	4	34	119	111	27	2	1	0	0	0	0	0	0	0	**300**
9:00 AM	0	0	0	7	31	113	103	27	2	1	0	0	0	0	0	0	0	**284**
10:00 AM	0	1	0	6	32	124	127	30	3	1	0	0	0	0	0	0	0	**324**
11:00 AM	1	0	2	5	37	128	140	35	3	1	0	0	0	0	0	0	0	**352**
12:00 PM	1	2	1	8	43	150	135	29	3	0	0	0	0	0	0	0	0	**372**
1:00 PM	2	1	3	9	50	161	118	27	3	0	0	0	0	0	0	0	0	**374**
2:00 PM	1	0	2	8	50	171	137	29	3	0	0	0	0	0	0	0	0	**401**
3:00 PM	1	0	0	12	71	221	182	29	3	0	0	0	0	0	0	0	0	**519**
4:00 PM	1	1	2	12	57	222	197	36	2	0	0	0	0	0	0	0	0	**530**
5:00 PM	1	1	0	6	58	237	197	37	5	1	0	0	0	0	0	0	0	**543**
6:00 PM	0	0	1	7	40	137	141	42	3	1	0	0	0	0	0	0	0	**372**
7:00 PM	0	0	1	4	25	89	80	20	4	0	0	0	0	0	0	0	0	**223**
8:00 PM	0	0	0	1	18	60	55	13	1	0	0	0	0	0	0	0	0	**148**
9:00 PM	0	0	0	1	14	41	33	11	3	0	0	0	0	0	0	0	0	**103**
10:00 PM	0	0	0	1	6	20	15	4	2	0	0	0	0	0	0	0	0	**48**
11:00 PM	0	0	0	1	2	9	9	2	0	0	0	0	0	0	0	0	0	**23**
Total	**8**	**7**	**14**	**98**	**590**	**2,062**	**1,873**	**432**	**49**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,139**
	0.2%	**0.1%**	**0.3%**	**1.9%**	**11.5%**	**40.1%**	**36.4%**	**8.4%**	**1.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	34.6	mph	Mean (Average) Speed	34.5	mph
85th Percentile	38.8	mph	10 mph Pace	29.8 - 39.8	mph
95th Percentile	41.6	mph	Percent in Pace	76.5	%

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: 01 - Moraga Ave, S/O Redd Rock Rd
Date Range: 9/13/2023 to 9/17/2023
Site Code:

DATA SOLUTIONS

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	3	3	1	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	0	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	1	2	6	7	2	0	0	0	0	0	0	0	0	0	**18**
6:00 AM	0	1	0	0	6	22	20	3	1	0	0	0	0	0	0	0	0	**53**
7:00 AM	0	1	1	3	20	72	63	12	1	0	0	0	0	0	0	0	0	**173**
8:00 AM	1	1	2	6	46	188	133	15	2	0	0	0	0	0	0	0	0	**394**
9:00 AM	0	0	0	2	43	147	99	12	1	0	0	0	0	0	0	0	0	**304**
10:00 AM	0	0	0	3	39	137	107	15	0	0	0	0	0	0	0	0	0	**301**
11:00 AM	0	1	0	4	41	147	112	17	1	0	0	0	0	0	0	0	0	**323**
12:00 PM	0	1	1	5	45	142	113	15	0	0	0	0	0	0	0	0	0	**322**
1:00 PM	0	0	2	12	55	167	115	15	1	0	0	0	0	0	0	0	0	**367**
2:00 PM	0	1	0	8	53	170	134	17	0	0	0	0	0	0	0	0	0	**383**
3:00 PM	0	1	0	4	41	162	136	17	1	0	0	0	0	0	0	0	0	**362**
4:00 PM	0	0	1	6	41	174	119	14	2	0	0	0	0	0	0	0	0	**357**
5:00 PM	0	0	0	4	33	181	140	13	1	0	0	0	0	0	0	0	0	**372**
6:00 PM	0	0	0	3	32	137	102	16	2	0	0	0	0	0	0	0	0	**292**
7:00 PM	0	0	1	2	25	111	61	8	1	0	0	0	0	0	0	0	0	**209**
8:00 PM	0	0	1	1	27	64	36	5	0	0	0	0	0	0	0	0	0	**134**
9:00 PM	0	0	1	2	15	41	24	3	1	0	0	0	0	0	0	0	0	**87**
10:00 PM	0	0	0	1	6	27	12	1	0	0	0	0	0	0	0	0	0	**47**
11:00 PM	0	0	0	0	3	10	7	2	0	0	0	0	0	0	0	0	0	**22**
Total	**1**	**7**	**10**	**67**	**577**	**2,116**	**1,547**	**203**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,543**
	0.0%	**0.2%**	**0.2%**	**1.5%**	**12.7%**	**46.6%**	**34.1%**	**4.5%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	34.0	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.6	mph	10 mph Pace	29.2 - 39.2	mph
95th Percentile	39.9	mph	Percent in Pace	81.8	%

Project Manager: (415) 310-6469
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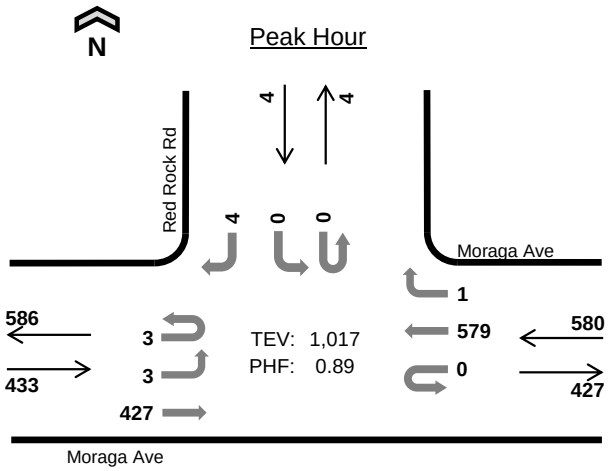
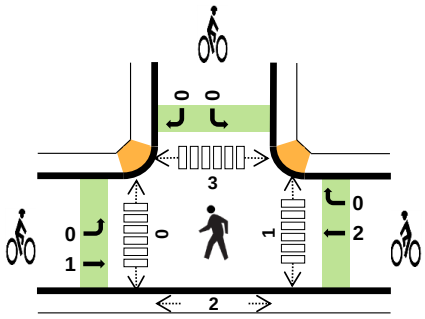
Red Rock Rd
Moraga Ave



Date: 09/13/2023
Count Period: 7:00 AM to 9:30 AM
Peak Hour: 8:00 AM to 9:00 AM



	HV %:	PHF
EB	1.4%	0.78
WB	1.2%	0.96
NB	-	-
SB	25.0%	0.25
TOTAL	1.4%	0.89

Two-and-a-Half-Hour Count Summaries

Interval Start		Moraga Ave Eastbound				Moraga Ave Westbound				N/A Northbound				Red Rock Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	0	87	0	0	0	142	1	0	0	0	0	0	0	0	4	234	0
8:15 AM		2	1	116	0	0	0	151	0	0	0	0	0	0	0	0	0	270	0
8:30 AM		1	0	138	0	0	0	148	0	0	0	0	0	0	0	0	0	287	0
8:45 AM		0	2	86	0	0	0	138	0	0	0	0	0	0	0	0	0	226	1,017
Peak Hour	All	3	3	427	0	0	0	579	1	0	0	0	0	0	0	0	4	1,017	0
	HV	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	1	14	0
	HV%	0%	0%	1%	-	-	-	1%	0%	-	-	-	-	-	-	-	25%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
8:00 AM	2	1	0	1	*4*	0	1	0	0	*1*	0	0	0	0	*0*
8:15 AM	1	0	0	0	*1*	0	1	0	0	*1*	1	0	1	2	*4*
8:30 AM	3	3	0	0	*6*	1	0	0	0	*1*	0	0	2	0	*2*
8:45 AM	0	3	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	6	7	0	1	*14*	1	2	0	0	*3*	1	0	3	2	*6*

Two-and-a-Half-Hour Count Summaries

Interval Start	Moraga Ave Eastbound				Moraga Ave Westbound				N/A Northbound				Red Rock Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	33	0	0	0	37	0	0	0	0	0	0	0	0	0	71	0
7:15 AM	0	1	39	0	0	0	48	3	0	0	0	0	0	0	0	2	93	0
7:30 AM	0	2	39	0	0	0	79	1	0	0	0	0	0	2	0	0	123	0
7:45 AM	1	1	65	0	0	0	95	0	0	0	0	0	0	0	0	3	165	452
8:00 AM	**0**	**0**	**87**	**0**	**0**	**0**	**142**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**234**	615
8:15 AM	**2**	**1**	**116**	**0**	**0**	**0**	**151**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**270**	792
8:30 AM	**1**	**0**	**138**	**0**	**0**	**0**	**148**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**287**	956
8:45 AM	**0**	**2**	**86**	**0**	**0**	**0**	**138**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**226**	**1,017**
9:00 AM	0	2	90	0	0	0	122	0	0	0	0	0	0	0	0	0	214	997
9:15 AM	1	3	67	0	0	0	94	0	0	0	0	0	0	0	0	4	169	896
Count Total	5	13	760	0	0	0	1,054	5	0	0	0	0	0	2	0	13	1,852	0
Peak Hour All	**3**	**3**	**427**	**0**	**0**	**0**	**579**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**1,017**	**0**
Peak Hour HV	**0**	**0**	**6**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**14**	**0**
Peak Hour HV%	**0%**	**0%**	**1%**	**-**	**-**	**-**	**1%**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**25%**	**1%**	**0**

Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	2	0	0	*2*	1	0	0	0	*1*	0	0	0	0	*0*
7:15 AM	1	2	0	0	*3*	0	1	0	0	*1*	1	0	1	0	*2*
7:30 AM	2	1	0	0	*3*	0	0	0	0	*0*	0	0	1	0	*1*
7:45 AM	1	1	0	1	*3*	1	1	0	0	*2*	0	0	0	0	*0*
8:00 AM	**2**	**1**	**0**	**1**	***4***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**1**	**2**	*4*
8:30 AM	**3**	**3**	**0**	**0**	***6***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**2**	**0**	*2*
8:45 AM	**0**	**3**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
9:00 AM	1	6	0	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	1	3	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	12	22	0	2	*36*	3	4	0	0	*7*	2	0	5	2	*9*
Peak Hr	**6**	**7**	**0**	**1**	***14***	**1**	**2**	**0**	**0**	***3***	**1**	**0**	**3**	**2**	***6***

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles

Interval Start	Moraga Ave Eastbound				Moraga Ave Westbound				N/A Northbound				Red Rock Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	11
8:00 AM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	13
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	11
8:30 AM	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	14
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**14**
9:00 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	7	17
9:15 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	20
Count Total	0	1	11	0	0	0	21	1	0	0	0	0	0	0	0	2	36	0
Peak Hour	**0**	**0**	**6**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**14**	**0**

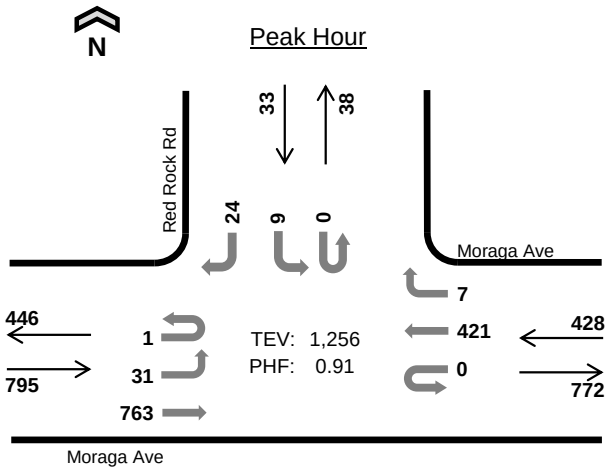
Two-and-a-Half-Hour Count Summaries - Bikes

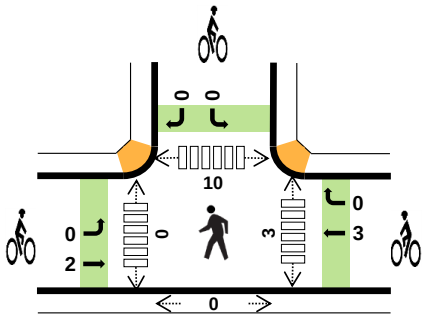
Interval Start	Moraga Ave Eastbound			Moraga Ave Westbound			N/A Northbound			Red Rock Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	4
8:00 AM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	4
8:15 AM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	4
8:30 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	5
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	3	0	0	4	0	0	0	0	0	0	0	7	0
Peak Hour	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Red Rock Rd
Moraga Ave

Date: 09/13/2023
Count Period: 3:30 PM to 6:30 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.3%	0.94
WB	0.0%	0.91
NB	-	-
SB	0.0%	0.31
TOTAL	0.2%	0.91

Three-Hour Count Summaries

Interval Start		Moraga Ave Eastbound				Moraga Ave Westbound				N/A Northbound				Red Rock Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM		0	4	188	0	0	0	95	1	0	0	0	0	0	0	0	1	289	0
5:00 PM		0	2	181	0	0	0	108	1	0	0	0	0	0	1	0	2	295	0
5:15 PM		0	17	191	0	0	0	114	3	0	0	0	0	0	1	0	1	327	0
5:30 PM		1	8	203	0	0	0	104	2	0	0	0	0	0	7	0	20	345	1,256
Peak Hour	All	1	31	763	0	0	0	421	7	0	0	0	0	0	9	0	24	1,256	0
	HV	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
	HV%	0%	0%	0%	-	-	-	0%	0%	-	-	-	-	-	0%	-	0%	0%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	0	0	0	0	*0*	2	2	0	0	*4*	2	0	3	0	*5*
5:00 PM	0	0	0	0	*0*	0	1	0	0	*1*	0	0	0	0	*0*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	3	0	*4*
5:30 PM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	4	0	*4*
Peak Hour	2	0	0	0	*2*	2	3	0	0	*5*	3	0	10	0	*13*

Three-Hour Count Summaries

Interval Start	Moraga Ave Eastbound				Moraga Ave Westbound				N/A Northbound				Red Rock Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:30 PM	1	0	148	0	0	0	105	0	0	0	0	0	0	2	0	9	265	0
3:45 PM	1	3	166	0	1	0	90	1	0	0	0	0	0	0	0	1	263	0
4:00 PM	0	2	180	0	1	0	134	0	0	0	0	0	0	0	0	1	318	0
4:15 PM	0	0	175	0	1	0	108	0	0	0	0	0	0	0	0	1	285	1,131
4:30 PM	0	2	194	0	0	0	87	1	0	0	0	0	0	2	0	1	287	1,153
4:45 PM	**0**	**4**	**188**	**0**	**0**	**0**	**95**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**289**	1,179
5:00 PM	**0**	**2**	**181**	**0**	**0**	**0**	**108**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**295**	1,156
5:15 PM	**0**	**17**	**191**	**0**	**0**	**0**	**114**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**327**	1,198
5:30 PM	**1**	**8**	**203**	**0**	**0**	**0**	**104**	**2**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**20**	**345**	**1,256**
5:45 PM	0	2	146	0	0	0	98	2	0	0	0	0	0	3	0	7	258	1,225
6:00 PM	1	0	157	0	0	0	97	0	0	0	0	0	0	0	0	0	255	1,185
6:15 PM	0	1	153	0	0	0	99	0	0	0	0	0	0	0	0	0	253	1,111
Count Total	4	41	2,082	0	3	0	1,239	11	0	0	0	0	0	16	0	44	3,440	0
Peak Hour All	**1**	**31**	**763**	**0**	**0**	**0**	**421**	**7**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**24**	**1,256**	**0**
Peak Hour HV	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
Peak Hour HV%	**0%**	**0%**	**0%**	**-**	**-**	**-**	**0%**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**0%**	**0%**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:30 PM	1	1	0	0	*2*	0	1	0	0	*1*	1	0	1	0	*2*
3:45 PM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	1	0	0	0	*1*	0	2	0	0	*2*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	1	1	0	0	*2*	2	0	2	0	*4*
4:30 PM	3	1	0	0	*4*	0	0	0	0	*0*	0	0	1	0	*1*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**2**	**2**	**0**	**0**	***4***	**2**	**0**	**3**	**0**	*5*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**3**	**0**	*4*
5:30 PM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**4**	**0**	***4***
5:45 PM	1	0	0	0	*1*	2	5	0	0	*7*	0	0	0	0	*0*
6:00 PM	0	0	0	0	*0*	4	1	0	0	*5*	0	0	0	0	*0*
6:15 PM	0	0	0	0	*0*	1	0	0	0	*1*	0	0	3	0	*3*
Count Total	10	2	0	0	*12*	10	13	0	0	*23*	6	0	17	0	*23*
Peak Hr	**2**	**0**	**0**	**0**	***2***	**2**	**3**	**0**	**0**	***5***	**3**	**0**	**10**	**0**	***13***

Three-Hour Count Summaries - Heavy Vehicles

Interval Start	Moraga Ave Eastbound				Moraga Ave Westbound				N/A Northbound				Red Rock Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
3:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	7
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	5
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	4
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	4
5:30 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	10	0	0	0	2	0	0	0	0	0	0	0	0	0	12	0
Peak Hour	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**

Three-Hour Count Summaries - Bikes

Interval Start	Moraga Ave Eastbound			Moraga Ave Westbound			N/A Northbound			Red Rock Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
3:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	**0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	8
5:00 PM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	7
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	5
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
5:45 PM	0	2	0	0	5	0	0	0	0	0	0	0	7	8
6:00 PM	0	4	0	0	1	0	0	0	0	0	0	0	5	12
6:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	13
Count Total	0	10	0	0	13	0	0	0	0	0	0	0	23	0
Peak Hour	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Appendix B
Collision Data (2019-2023)

Case number	Location	Vehicle vs?	Injury	Hit/run	Non-inj	Date	Day	Time	Cause	Officer
2023-06863	Moraga Ave / Maxwelton Road	Veh	1			7/26/2023	Wed	9:34	Unsafe speed	T. Petit
2022-04541	Moraga Ave / Pala Ave	Object	1			6/5/2022	Sun	5:40	Unsafe Speed	J. Faucher
2021-02280	Moraga Ave / Pala Ave	Fixed object (FO)	1			3/28/2021	Su	1:00	Unsafe turn	J. Singh
2020-7058	Moraga Ave/ Maxwelton Ave	FO	1			9/13/2020	Sun	15:56	Unsafe turn	Cutler
2020-4353	Moraga Ave/ Red Rock Ave	Bike	1			4/28/2020	Tues	12:30	Conflicting	Singh
2020-0451	Moraga Ave/ Maxwelton Road	FO	1			1/14/2020	Tues	7:42	Unsafe turn	Germano
2019-11554	Moraga Ave/ Maxwelton Ave	Animal	1			10/15/2019	Fri	0:00	N/A	Petit
2019-12108	Moraga Ave/ Maxwelton Ave	V	1			10/28/2019	Mon	15:40	Unsafe turn	Wright
2019-6208	Maraga Ave/Maxwelton Ave	PV	1			6/10/2019	Mon	10:47	Unsafe speed	Seumalo
2019-1616	941 Moraga Ave	FO	1			2/13/2019	Weds	4:26	Unsafe speed	Petit

Memorandum

Date: Updated August 20, 2024

To: Andrew Watkins, JZMK Partners

From: Sam Tabibnia, Fehr & Peers

Subject: Moraga Canyon Specific Plan – Sight Distance along Moraga Avenue

OK23-0452

Section 4.17 of the Moraga Canyon Specific Plan (MCSP) outlines various requirements, including sight distance requirements, such as placement of new driveways along Moraga Avenue that would serve the new developments envisioned by the MCSP. This memorandum provides more detail on the sight distance requirements.

The *Highway Design Manual, Seventh Edition* (HDM),[1] published by the California Department of Transportation, establishes roadway design parameters, including minimum sight distance requirements, for various roadway facilities. According to the *HDM* (Section 405.1), the appropriate sight distance applicable to driveways on an arterial roadway, such as Moraga Avenue, is stopping sight distance (SSD), which is defined as the distance required by the driver of a vehicle, traveling at a given speed, to bring the vehicle to a stop after an object on the road becomes visible and in advance of reaching the object. SSD includes the distance traveled during the driver's reaction time (the time between when the driver sees an object on the roadway and applies the brakes) and the distance required to stop the vehicle after braking. SSD is primarily calculated using the roadway operating speed.

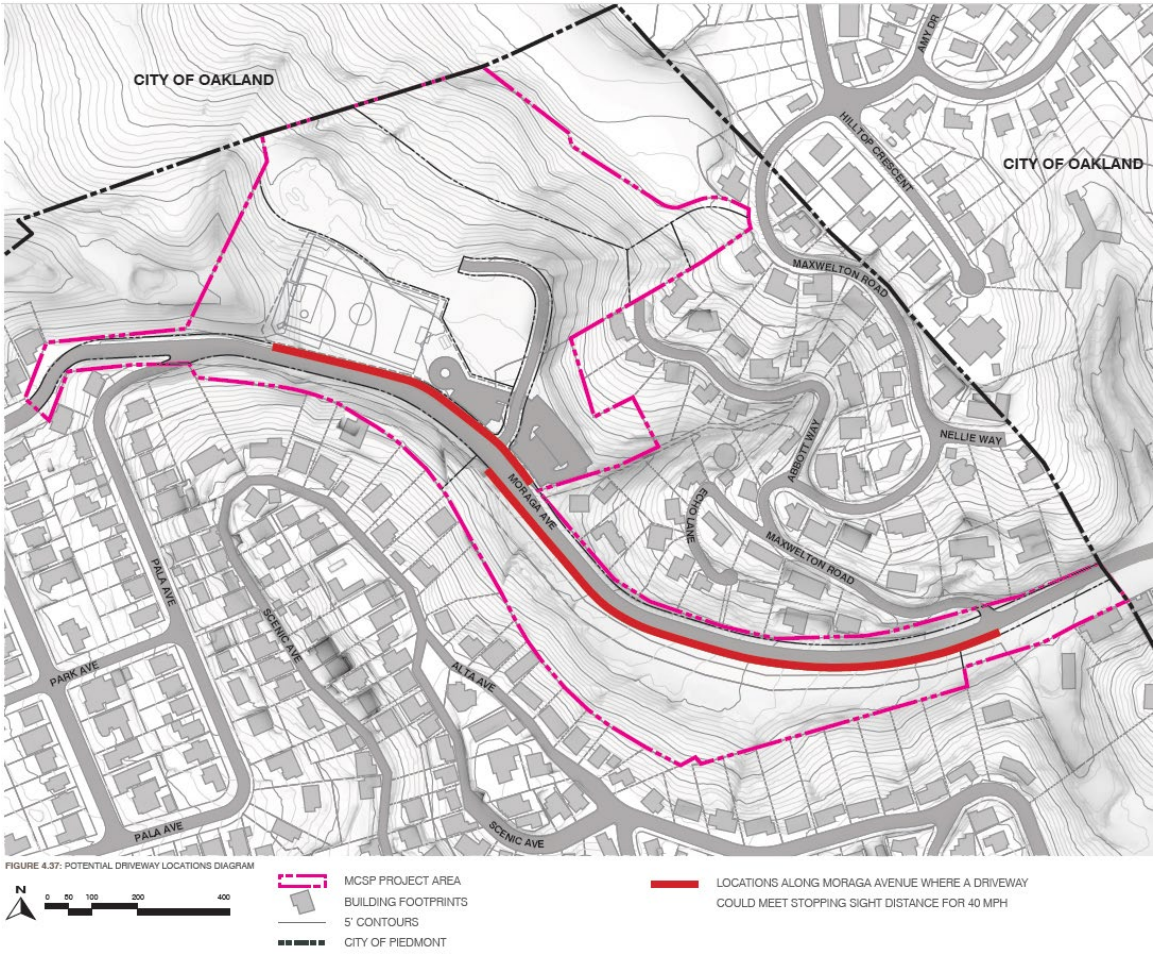
According to the *HDM* (Section 62.8), the 85th percentile speed is used most frequently to measure the operating speed on a particular roadway. The 85th percentile speed is defined as the speed at or below which 85 percent of all vehicles are observed to travel on a roadway. Based on data collected in September 2023 on Moraga Avenue, just east of Red Rock Road, the 85th percentile speed is about 38 mph on eastbound Morage Avenue and 38 mph on westbound Morage Avenue. The 85th percentile speeds in both directions of Moraga Avenue are above the posted speed limit of 25 mph. According to the *HDM* (Table 201.1), the minimum required SSD for vehicles for a design speed of 40 mph (rounding up the measured 85th percentile speed of 38-39 mph) is 300 feet.

[1] https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm

HDM Section 201.3 requires increasing the SSD by 20 percent for roadway segments with sustained downhill slope of 5 percent or more over one mile long. Thus, the SSD for the downhill (westbound) Moraga Avenue is 360 feet, compared to 300 feet for the uphill (eastbound) direction.

Figure 4.37 in the Moraga Canyon Specific Plan document (also shown below) illustrates the locations along Moraga Avenue where a new driveway could meet the minimum sight distance requirements discussed above.

The sight distance will depend on the exact location and orientation of the driveway and the final configuration of Moraga Avenue, including type and location of landscaping and on-street loading. The number and location of the driveways will be determined as part of the final project design for each particular development. Final project designs will include calculation of sight distance for each new driveway to ensure that each new driveway provides at least the minimum required sight distance.



Proposed Signal at the Moraga Avenue/Red Rock Road Intersection

Section 4.9 of the MCSP recommends installation of a traffic signal at the Moraga Avenue/Red Rock Road intersection to improve pedestrian connectivity between Blair Park and Coaches Field and facilitate vehicular turning to and from Red Rock Road.

The SSD requirements described above are also applicable at signalized intersections, where signal heads (i.e., the red, yellow, and green indicators) would need to meet the same SSD requirements. Based on field measurements conducted by Fehr & Peers staff in 2024 on Moraga Avenue, the signal heads for the proposed signal at Red Rock Road would have a sight distance of 320 feet for the uphill (eastbound) direction, which would meet the minimum SSD of 300 feet for the uphill (eastbound) and a sight distance of 390 feet for downhill (westbound) direction, which would meet the minimum SSD of 360 feet for the downhill direction. The final signal design process will confirm these sightlines based on the final location of the signal poles and the final roadway configuration.

Improving the pedestrian connectivity between Blair Park and Coaches Field is also consistent with the previously adopted 2014 *Piedmont Pedestrian and Bicycle Master Plan* and the 2021 *Piedmont Safer Streets* (PSS) Plan. Both documents recommend installing high visibility crosswalks across the north (Red Rock Road) and the east (Moraga Avenue) approaches of the intersection with rectangular rapid flashing beacons (RRFB) for the east crosswalk across Moraga Avenue to warn motorists in both directions of Moraga Avenue when pedestrians are crossing the roadway.

Appendix C

Sewer Analysis

Technical Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To:	Karly Kaufman, MESM, Rincon Consultants, Inc.
From:	Kevin Gustorf, PE Megan Kurtz, PE
Date:	July 16, 2024
Subject:	Sewer Analysis for the City of Piedmont Housing Element Update

1.0 INTRODUCTION

The Regional Housing Needs Allocation (RHNA) is a State of California Housing Law which requires cities to expand their affordable housing options. The RHNA is part of the periodic process of updating local General Plan Housing Element. The City of Piedmont (City) is in the process of preparing their 6th Cycle Housing Element Update (HEU) to incorporate General Plan amendments to comply with their required allocation and future housing needs. **Table 1-1** summarizes the RHNA allocation assigned to the City. Please refer to the Housing Element Update for definitions of the income levels in the table below.

Table 1-1: Summary of RHNA Required Housing Allocation for City

Income Level	Units
Extremely Low and Very Low	163
Low	94
Moderate	92
Above Moderate	238
Total	**587**

Increasing residential capacity has many impacts which necessitate an environmental review to select optimal sites. Rincon Consultants, Inc. (Rincon) is leading the environmental process and has subcontracted with Wood Rodgers, Inc. (Wood Rodgers) to perform a sewer capacity analysis to evaluate the impacts of the required additional development and provide a nexus of approval for future development. This Technical Memorandum (TM) summarizes the City's existing sewer collection system, determines the available capacity in the system, evaluates the capacity impacts of the required additional development and documents the results of a hydraulic model analysis.

It should be noted that this study is a high-level analysis based on available data and assumptions made about the existing sewer infrastructure. Project specific sewer capacity studies must be completed for all proposed development projects greater than four (4) housing units and must include, but are not limited to, the following elements:

1. Sewer flow projections for the proposed development in Piedmont, and from other sources outside of Piedmont located upstream and served by the same sewer lines/trunk lines.
2. Capacity needed to serve the proposed development project from the project site to the trunk line.

3. Actual capacity of the existing sewer system.
4. Actual sewer flow measurements from a minimum of two separate time periods.

The scope of each project specific sewer study shall be coordinated with City staff.

2.0 BACKGROUND

The City is located in Alameda County about 10 miles east of San Francisco. The City of Oakland (Oakland) surrounds the City on all sides. Being completely landlocked and essentially built out has created challenges for new employment and housing within the City. In the 1.7 square miles of City, most of the development is single-family residential homes. Per 2023 estimates from the Division of Finance, there are 3,683 single-family residential homes (SFR), 77 SFR attached homes, 135 multi-family residential (MFR) homes with 2 to 4 units, and 78 MFR homes with 5 or more units. There is limited commercial space with the largest concentration being in the Civic Center area. Refer to **Figure 2-1** for a map of the City and its current land use breakdown.

The City's sewer system consists of approximately 271,009 linear feet (LF) of gravity main ranging from 4 to 18 inches in diameter. There is approximately 39,898 LF of lateral piping. The system has about 1,821 manholes including clean-outs and lamp holes. Elevation ranges in the City from about 46 feet to 620 feet above mean sea level. Elevation generally slopes downward from North to South and East to West. The flow direction for the gravity sewer pipes also follows this trend. The City does not have any pump/lift stations within its sewer collection system.

The City has 10 locations where flow comes into the system from Oakland. Additionally, there are 21 locations where flow leaves the City and flows into Oakland's system. **Figure 2-2** shows these locations as well as the direction of flow and diameter of pipes in the system. **Table 2-1** summarizes the length of pipe by diameter and material.

Table 2-1: Summary of Pipe by Diameter and Material

Diameter (in)	Length by Material (ft)								
	CPP	HDPE	VCP	PVC	DIP	STEEL	TRU	ACP	Unknown
4	22	2,867	0	36	0	0	0	0	1,268
5	430	3,278	94	0	0	0	0	0	0
6	5,138	130,591	30,371	1,717	383	96	66	0	2,046
7	0	0	0	118	0	0	0	0	0
8	4,898	38,780	7,402	1,597	113	0	1,119	0	6,628
10	1,035	9,808	1,702	1,889	316	0	1,638	0	1,572
12	578	1,638	3,176	1,083	0	0	281	0	638
15	420	257	372	855	378	101	0	505	177
16	0	0	698	0	0	0	0	0	0
18	0	566	470	627	0	0	0	0	1,172
Total (ft)	**12,521**	**197,620**	**44,284**	**7,923**	**1,191**	**197**	**3,103**	**505**	**43,562**

****from City provided Geographic Information System (GIS)****

The City is located close to employment centers making it a desirable place to expand housing. However, there are currently only 60 vacant lots scattered throughout the City comprising an

approximate total of 12 acres. The number of lots that are developable is much smaller due to challenging terrain constraints.

The terms of the RHNA requires the City to develop 587 new units; however, the City's HEU identifies a need for 652 additional units. This can be achieved through either a land use (LU) change or through a density bonus (accessory dwelling units added to an already residentially zoned property). **Figure 2-3** shows these lots differentiated by density bonus or LU change. This analysis will consider the addition of 652 units as the minimum required.

Additionally, Senate Bill 9 (SB9) allows for additional development in the form of converting parking lots, gas stations, etc. into residential housing. These are not included in the 652 units identified by the City's HEU; however, the lots are included in the 1,046 units buildout condition identified by the City.

FIGURE 2-1

EXISTING LAND USE

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA

JANUARY 2024

Legend

Land Use

- Estate Residential
- Multi-Family Residential
- Mixed Use and Commercial
- Public Facilities
- Single Family Residential
- City Limits

WOOD RODGERS

NORTH

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feet

FIGURE 2-2

EXISTING SEWER SYSTEM LAYOUT

HOUSING ELEMENT UPDATE
SEWER ANALYSIS
PIEDMONT, CA
JANUARY 2024

Legend

- Manholes - Piedmont
- Manholes - Oakland

Flow

- Entering System
- Leaving System

Sewer Main - Piedmont

- 4"
- 5"
- 6"
- 7"
- 8"
- 10"
- 12"
- 15"
- 16"
- 18"

Sewer Main - Oakland

- City Limits

LandType

- ER
- MFR
- MUC
- PF
- SFR

NORTH

WOOD RODGERS

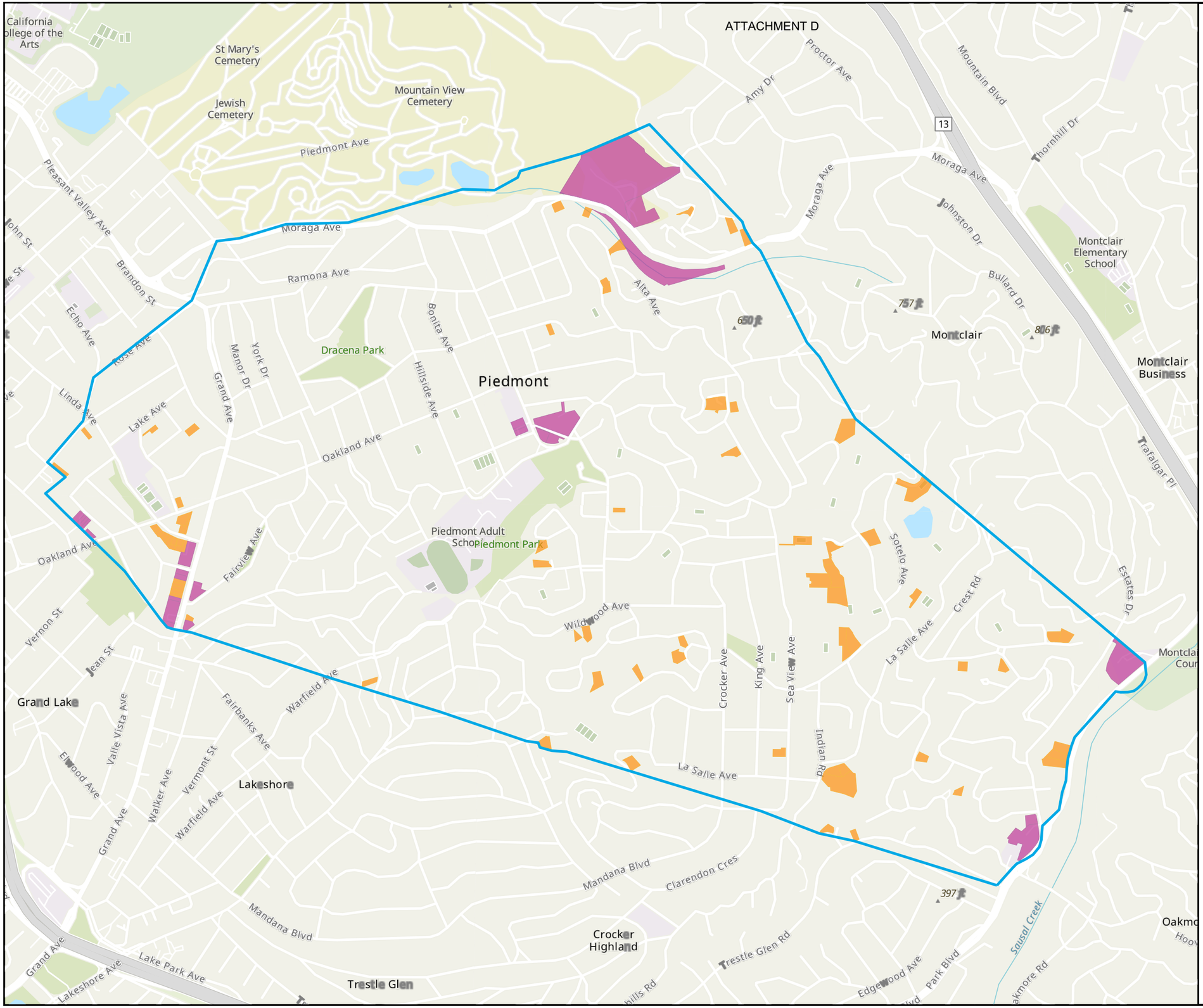


FIGURE 2-3

PROPOSED SITES FOR DENSITY INCREASE OR LAND USE CHANGE

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA
JANUARY 2024

Legend

Proposed Change Type

- Density Bonus
- Land Use

NOTE: THIS FIGURE SHOWS THE 652 SITES IDENTIFIED BY RINCON

WOOD RODGERS

NORTH

J:\Jobs\8585_Rincon\003_Piedmont Sewer Study\GIS\ArcGISPro\JN8585_Clean_DummyMegan\JN8585_Clean_DummyMegan.aprx(AMJ).aprx 1/17/2024 11:11 AM ajoven

feet

3.0 METHODOLOGY

The City provided their GIS files of the existing sewer collection system. The GIS files were imported into InfoSewer, the platform used to model the City's system and determine available sewer capacity. A comparison of the City's GIS data to record drawing information indicated data gaps existed, and data clean-up was required in order to develop the hydraulic model. As such, the City provided a LiDAR surface which was used to determine the rim elevation for each manhole.

A significant portion of the invert data was also missing from the GIS, however the GIS data included manhole depth. Therefore, the inverts were determined by subtracting the depth from the rim elevation obtained from the LiDAR. For simplicity, it was assumed that the invert coming into a manhole was the same as the invert going out (no drop across the manholes). All end-of-line cleanout manholes and lamp holes were removed from the model as these do not connect sewer main lines and typically are only used for maintenance purposes and do not have flow loading allocated to them.

The sewer system was then divided into tributary areas based on connectivity and outlet location from the City's system. Fourteen (14) tributary areas were determined and are shown in **Figure 3-1**. Each tributary area was further broken down into Thiessen polygons around each manhole using geoprocessing tools in GIS. The Thiessen polygons are the basis of load allocation within the model which will be further discussed in the next section.

In order to determine an initial flow factor to load the model, the total number of dwelling units (DU) was divided by the total acreage of the City. This yielded 3.68 DU/acre. From there, Oakland flow factors (gallons per day (gpd) per DU) were multiplied to the 3.68 DU/acre to get a flow factor in gpd/acre for each land use type. Land use factors are summarized in **Table 3-1**. It is noted that these factors were only used for initial model loading purposes, and do not account for model calibration which will be discussed in Section 4-3. It should be noted that open space is omitted from this table as those areas do not produce additional generation.

Table 3-1: Summary of Demand Factors for Each Land Use

Land Use	Oakland Demand Factor	Model Loading Demand Factor (gpd/acre)
SFR	330 gpd/DU	1,213
MFR	250 gpd/DU	919
Commercial	100 gpd/ac	100

The City also provided recent flow data from a number of flow monitors (FM) located throughout the City. The flow data was collected over the course of several months in a different calendar years. The flow monitoring data was compared to the model flows allocated using the aforementioned flow factor, and adjustments were made within the model to better simulate the measured flow conditions. The flow monitor locations are shown in **Figure 3-2**.

The following section will discuss the model development and how the loads were determined and applied for each scenario.

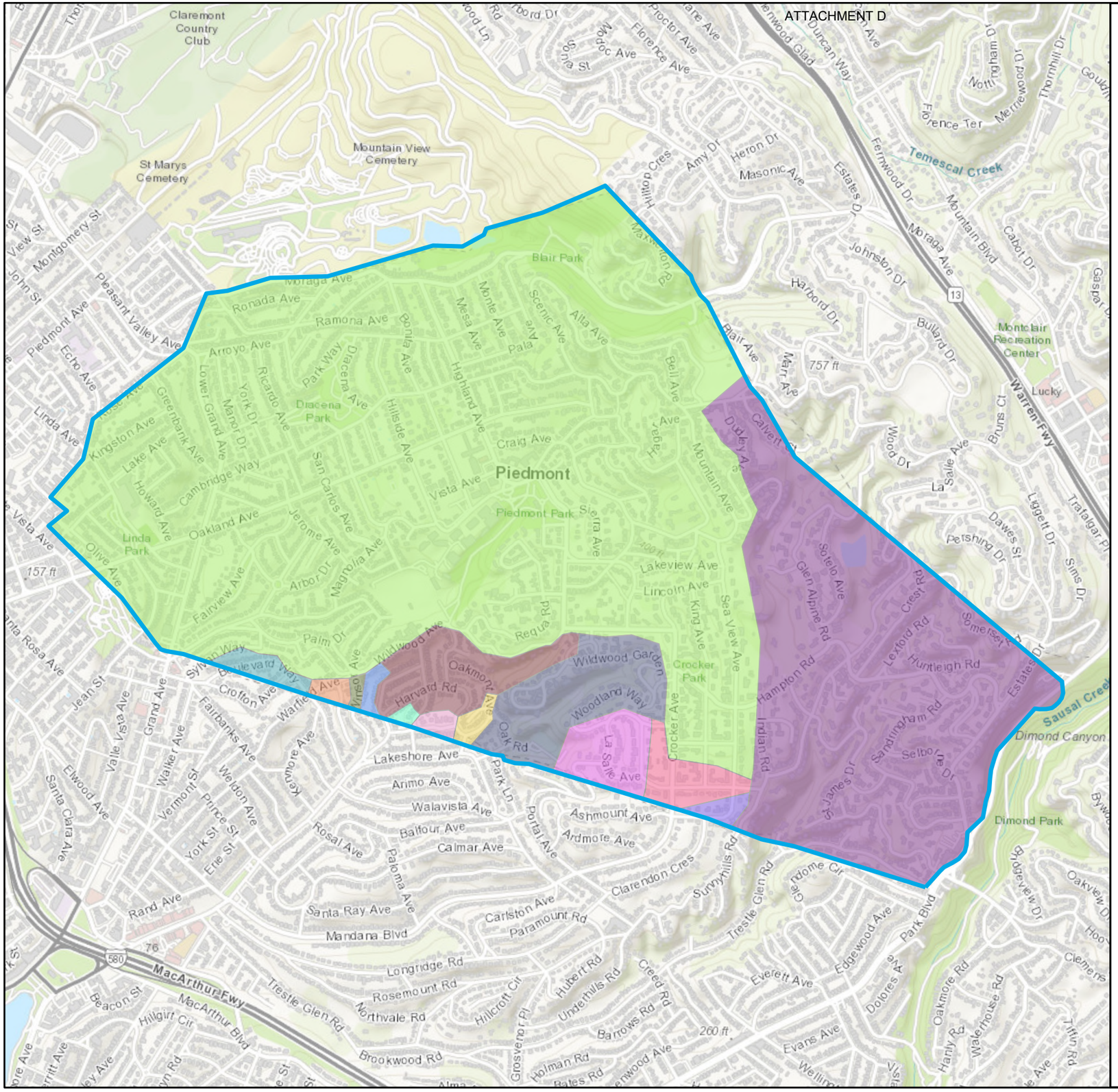
FIGURE 3-1

TRIBUTARY AREAS

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA

JANUARY 2024



Legend

Number

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- City Limits

WOOD RODGERS

NORTH

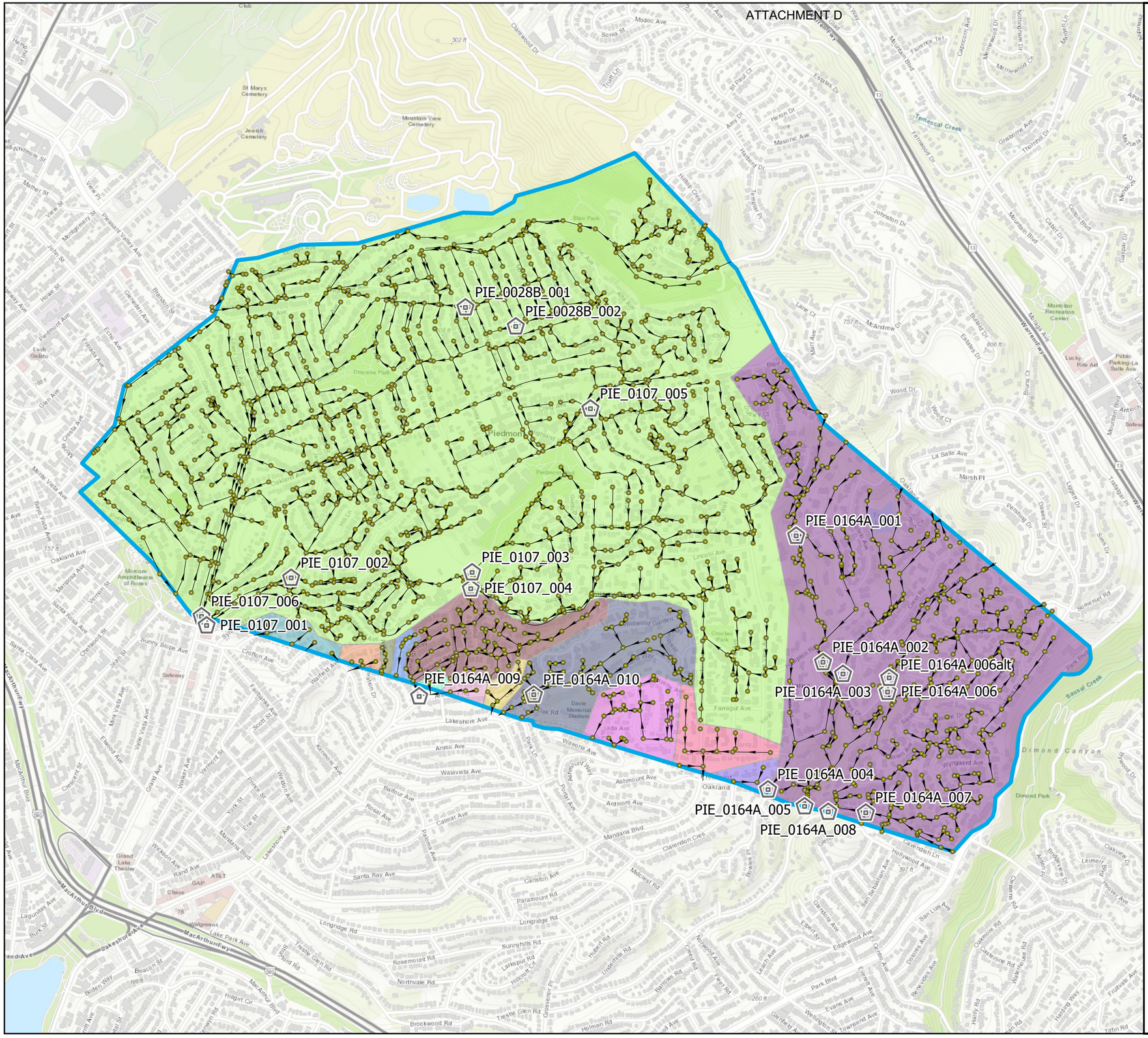
FIGURE 3-2

FLOW MONITOR LOCATIONS

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA

JANUARY 2024



Legend

- Sewer Mains - Piedmont
- Manholes - Piedmont
- Flow Monitor

WOOD RODGERS

NORTH

4.0 HYDRAULIC MODEL

InfoSewer Suite 7.6, SP1, Update #19 was used to model the sewer system. The purpose was to determine if there is existing capacity to accommodate sewer generated from additional development at the proposed sites. This will assist the City in defining a nexus of approval with conditions for where upsizing existing pipes will be required by future developers.

4.1 – Model Scenarios

In total, nine (9) different scenarios were modeled, with three (3) different flow conditions: average dry weather flow (ADWF), peak dry weather flow (PDWF), and peak wet weather flow (PWWF), analyzed under three (3) different buildout conditions. The model scenarios are steady state (not extended period simulations). The scenarios modeled are as follows:

1. Baseline Scenario – Existing Land Use (LU)
    a. ADWF
    b. PDWF
    c. PWWF
2. Interim (preferred) Scenario – Existing LU plus 652 Units Developed
    a. ADWF
    b. PDWF
    c. PWWF
3. Maximum Buildout Scenario – Existing LU plus 1,046 Units Developed (652 Units + 394 Bonus Units)
    a. ADWF
    b. PDWF
    c. PWWF

Each of the 14 tributaries were modeled under all nine scenarios. However, two of the tributaries were very small, with only a few manholes collecting waste from the City (T4 and T14) and are not impacted by any of the proposed additional development areas. Therefore, their sheds were omitted from the model analysis as they had no effect on the system from a capacity analysis perspective.

4.2 – Initial Model Loading

The model was initially loaded using the flow factors discussed in Section 3.0. Each manhole has a Thiessen polygon drawn around it and encompassing the land uses adjacent to it. The area for each land use within the polygon was determined and multiplied by the appropriate flow factor to generate the flow projection. This process produced an initial flow condition to represent the Baseline Scenario – ADWF condition. The flows were further calibrated as discussed later in this section. See **Figure 4-1** for the breakdown of Thiessen polygon and tributary areas.

4.3 – Model Calibration

In order to validate model accuracy, the model is calibrated to field measured conditions. The Baseline Scenario – ADWF condition was calibrated using the flow monitor data gathered by EBMUD and provided by the City. Flow monitor data was provided from the fall and winter months of 2016-2017 and 2022-2023. Based on historical rainfall data, the months of November 2016 and November 2022 were determined to be the closest to ADWF conditions as they had minimal recorded rainfall and had the lowest measured flows.

The calibration effort utilized the flow monitor(s) located closest to the outfalls into the Oakland system since they capture the majority of the wastewater flowing through the City. Each tributary area was calibrated individually if data was available. The flow monitor data was compared to the flow produced

in the model at the corresponding location. The flow monitor data was divided by the model flow to produce a factor used to scale the model flow up or down to match actual measured conditions. For tributaries without any flow monitor data used the highest factor to produce a worst-case scenario. **Table 4-1** summarizes the original and calibrated flows for the ADWF condition.

Table 4-1: Summary of Calibrated Flows for Existing Average Dry Weather Flow

Tributary	Flow Monitor ID	Flow Monitor Flow (gpm)	Model Flow (gpm)	Adjust Factor	Calibrated Total Flow (gpm)
1	PIE_0107_001[1]	237.1	337.5	0.70	236.5
2	PIE_0164A_004, 005, 007, 008[2]	262.2	229.3	1.14	261.5
3	-	-	-	2.52	5.1
5, 6, 7	PIE_0164A_009[2]	43.7	21.5	2.03	43.6
8	-	-	-	2.52	1.3
9	-	-	-	2.52	2.2
10	-			2.52	7.4
11	PIE_016A_010[2]	28.3	11.2	2.52	32.2
12	-	-	-	2.52	15.7
13	-	-	-	2.52	11.3
				TOTAL	**616.8**

Notes:

1. Tributaries 4 and 14 were excluded from the analysis due to their small size and not having any additional flows being contributed.
2. The Adjustment Factor was applied to individual tributary areas. The calibrated total flow does account for the various adjustment factors from upstream tributaries.

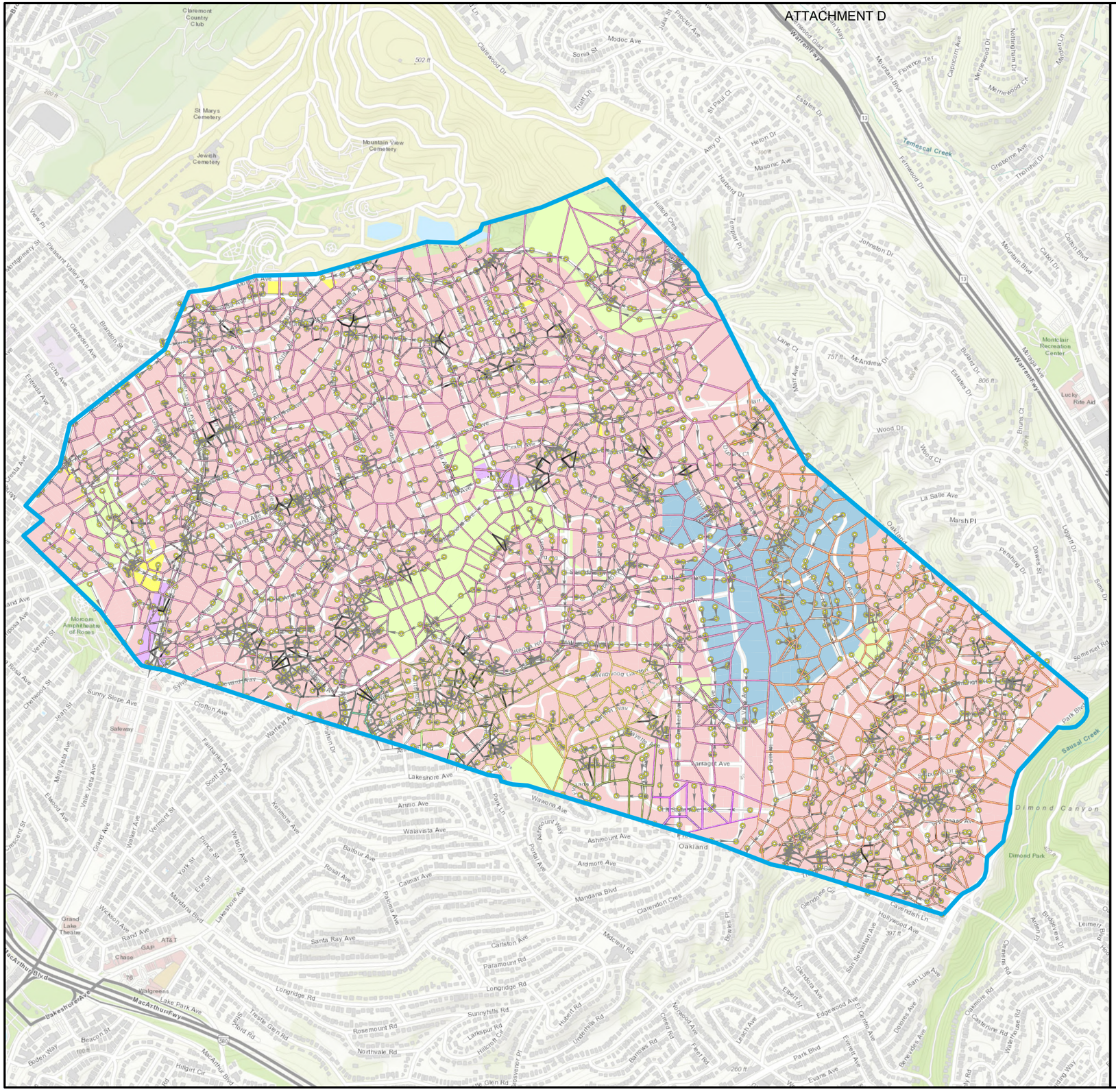
[1] FM data is from 2019
[2] FM data is from 2022

FIGURE 4-1

THIESSEN POLYGONS FOR TRIBUTARY AREA LOADING

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA
JANUARY 2024



Legend

- Sewer Mains - Piedmont
- Manholes - Piedmont

Land Use

- Estate Residential
- Multi-Family Residential
- Mixed Use and Commercial
- Public Facilities
- Single Family Residential

Thiessen Polygons

- T1
- T2
- T3
- T5
- T6
- T7
- T8
- T9
- T10
- T11
- T12
- T13
- City Limits

WOOD RODGERS

NORTH

Once the Baseline - ADWF condition was calibrated, the flows were peaked according to the Oakland peaking factor (PF) formula:

$$PF = 1 + \frac{14}{4 + (population\ is\ 1000s)^{1/2}}\ , where\ 3.75 \geq PF \geq 2.00$$

This Oakland PF formula yielded a PF of 2.91. The ADWF flows were multiplied by the PF to determine the loading for the Baseline - PDWF scenario. The model output results were then compared to the maximum measured flow from November 2022 for each flow monitor. Based on the peak flow data from November 2022, it was determined that the Baseline – PDFW flows in the model should be multiplied by an additional 1.9 to simulate FM data more closely. **Table 4-2** summarizes the calibrated flows for the Baseline - PDWF scenario.

Table 4-2: Summary of Calibrated Flows for Existing Peak Dry Weather Flow

Tributary	Flow Monitor ID	Flow Monitor Flow (gpm)	Model Flow (gpm)	Adjust Factor[3]	Calibrated Total Flow (gpm)
1	-	-	-	1.90	1,307.6
2	PIE_0164A_004, 005, 007, 008	2435.4	929.9	2.62	2,445.6
3	-	-	-	1.90	28.2
5, 6, 7	PIE_0164A_009	263.2	137.5	1.90	240.8
8	-	-	-	1.90	7.0
9	-	-	-	1.90	12.2
10	-	-	-	1.90	41.1
11	PIE_016A_010	147.2	82.6	1.78	178.2
12	-	-	-	1.90	87.1
13	-	-	-	1.90	71.9
				TOTAL	**3,419.7**

Notes:
1. Tributaries 4 and 14 were excluded from the analysis due to their small size and not having any additional flows being contributed.
2. The Adjustment Factor was applied to individual tributary areas. The calibrated total flow does account for the various adjustment factors from upstream tributaries.

The Baseline – PWWF scenario was initially loaded by adding the projected inflow and infiltration (I/I) flows to the Baseline – PDWF condition. The I/I flows were determined utilizing the City of Oakland standard of 1,000 gpd/acre. I/I was allocated evenly to all manholes. It was determined that the January 2023 flow monitor data represented peak rainfall conditions. The model output flow was calibrated by comparing it to the maximum flow measured during the month of January 2023 for each flow monitor. The allocated flows were then adjusted by a corresponding peaking factor to achieve a calibrated flow condition. **Table 4-3** summarizes the calibrated flow condition for the Baseline – PWWF scenario.

It is noted that the flows coming into the City from the City of Oakland could not be determined based on the available flow monitoring data, however it is known that there are flows generated from outside

[3] All sheds were multiplied by 1.9 in addition to the PF of 2.91. Different factors are shown here but the 1.9 was chosen because it was the worst-case scenario.

the City captured in the flow data. Therefore, the flows allocated directly into the City manholes in the model account for the measured flows generated outside of the City.

Table 4-3: Summary of Calibrated Flows for Existing Peak Wet Weather Flow

Tributary	Flow Monitor ID	Flow Monitor Flow (gpm)	Model Flow (gpm)	Adjust Factor	Calibrated Total Flow (gpm)
1	-	-	-	3.30	2,728.8
2	PIE_0164A_004, 005, 007, 008	3172.2	1328.5	2.39	3175.2
3	-	-	-	3.30	98.5
5, 6, 7	PIE_0164A_009	851.4	273.3	3.11	850.5
8	-	-	-	3.30	28.7
9	-	-	-	3.30	44
10	-	-	-	3.30	142.9
11	PIE_016A_010	581.9	176.4	3.30	672.0
12	-	-	-	3.30	318.4
13	-	-	-	3.30	220.7
				TOTAL	**7,635.8**

Notes:
1. Tributaries 4 and 14 were excluded from the analysis due to their small size and not having any additional flows being contributed.
2. The Adjustment Factor was applied to individual tributary areas. The calibrated total flow does account for the various adjustment factors from upstream tributaries.

It should be noted that the calibrated flow for all scenarios includes the flow coming into the Piedmont system from Oakland.

4.4 – Future Scenario Model Loading

The additional flows anticipated under the interim and buildout ADWF condition were calculated using the City of Oakland flow factor for the SFR and MFR land use condition depending on the proposed density. The additional flows are summarized in **Table 4-4**. It should be noted that flows summarized in Table 4-4 were further adjusted within the model based upon the previously determined calibration adjustment factors for each tributary area, as shown in Tables 4-1, 4-2 and 4-3.

Table 5-4: Summary of Additional ADWF

Future Scenario	Land Use	Add'l Units (DUs)	Flow Factor (gpd/DU)	Add'l. Flow (gpd)	Add'l. Flow (gpm)
Interim	SFR	54	330	17,820	12.4
	MFR	598	250	149,500	103.8
Buildout	SFR	394	330	130,020	90.3

The additional ADWF were allocated to the model by adding the flows to the manholes on the frontage of the property or to the nearest manhole (shown in **Figure 4-2**).

Table 4-5 summarizes the flows for each scenario and condition and will be further broken down in the following section talking about the calibration process.

Table 6-5: Summary of Allocated Model Demands

Scenario	Flow (gpm)		
	Existing (Baseline)	Interim [1]	Buildout [1]
ADWF	616.8	875.8	1,041.6
PDWF	3,419.7	4,842.2	5,759.1
PWWF	7,635.8	12,276.3	14,185.9

[1] Total flows shown here are the total flows allocated within the hydraulic model after the calibration process.

4.5 – Model Analysis Results

Each of the scenarios was analyzed in the model to evaluate the available capacity. The focus of the model analysis was to analyze the change in capacity from the existing (Baseline) condition to interim and buildout conditions. The model was analyzed using the City of Oakland sewer design criteria which is summarized in **Table 4-6** below.

Table 4-6: Summary of Design Criteria

Design Criteria	Standard
Velocity	Minimum of 2 feet per second.
	Shall not exceed 10 feet per second.
Inside Diameter	Minimum of 8 inches for sanitary sewer.
	Minimum of 4 inches for house/building connection.
d/D	≤ 0.7 for mains less than 15” in diameter
	≤ 1.0 for mains greater than or equal to 15” diameter
Roughness Coefficient	The greater of 0.013 or the pipe manufacturer's design recommendation.

FIGURE 4-2

LOADING MANHOLES FOR THE INTERIM CONDITION

HOUSING ELEMENT UPDATE SEWER ANALYSIS
PIEDMONT, CA
JANUARY 2024

Legend

Proposed Change Type

- Density Bonus
- Land Use
- Sewer Mains - Piedmont
- Loading Manholes

WOOD RODGERS

NORTH

5.0 CAPACITY RESULTS

The model results reported herein focus on the pipeline capacity in the PWWF scenarios. A pipeline is considered deficient if it exceeds the d/D criteria identified in Table 4-6. The hydraulic model evaluation determined that there are 30 pipe segments that are deficient under the existing PWWF condition, 26 additional pipe segments that become deficient due the interim development condition, and an additional 5 segments under the ultimate buildout condition. The location of these pipe segments is shown on **Figures 5-1 to 5-3**, and the tabular model results are included as an **Attachment**.

It is noted that the hydraulic model was developed based upon the best available information and was not constructed based upon survey or GPS data. It is recommended that the City monitor the 30 pipe segments that were found to be deficient in the existing PWWF condition. As new development is proposed, the City should require a detailed analysis of the downstream sewer collection as a condition for development approval. The detailed analysis should include as built and survey verification of sewer manhole invert elevations, pipe slopes, and pipe diameter. In some cases, localized flow monitoring may be required to verify existing flow conditions.

Additionally, all proposed development projects greater than four (4) housing units will be required to complete a project-specific sewer capacity evaluation as described in the introduction of this report.

FIGURE 5-1

PIPES EXCEEDING CRITERIA (EXISTING PWWF CONDITION)

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA

JANUARY 2024

Legend

- Manholes - Piedmont

Existing d/D

- d/D < 0.7
- d/D > 0.7

NOTE: ALL PIPES WITH VIOLATIONS HAVE A DIAMETER LESS THAN 15"

WOOD RODGERS

NORTH

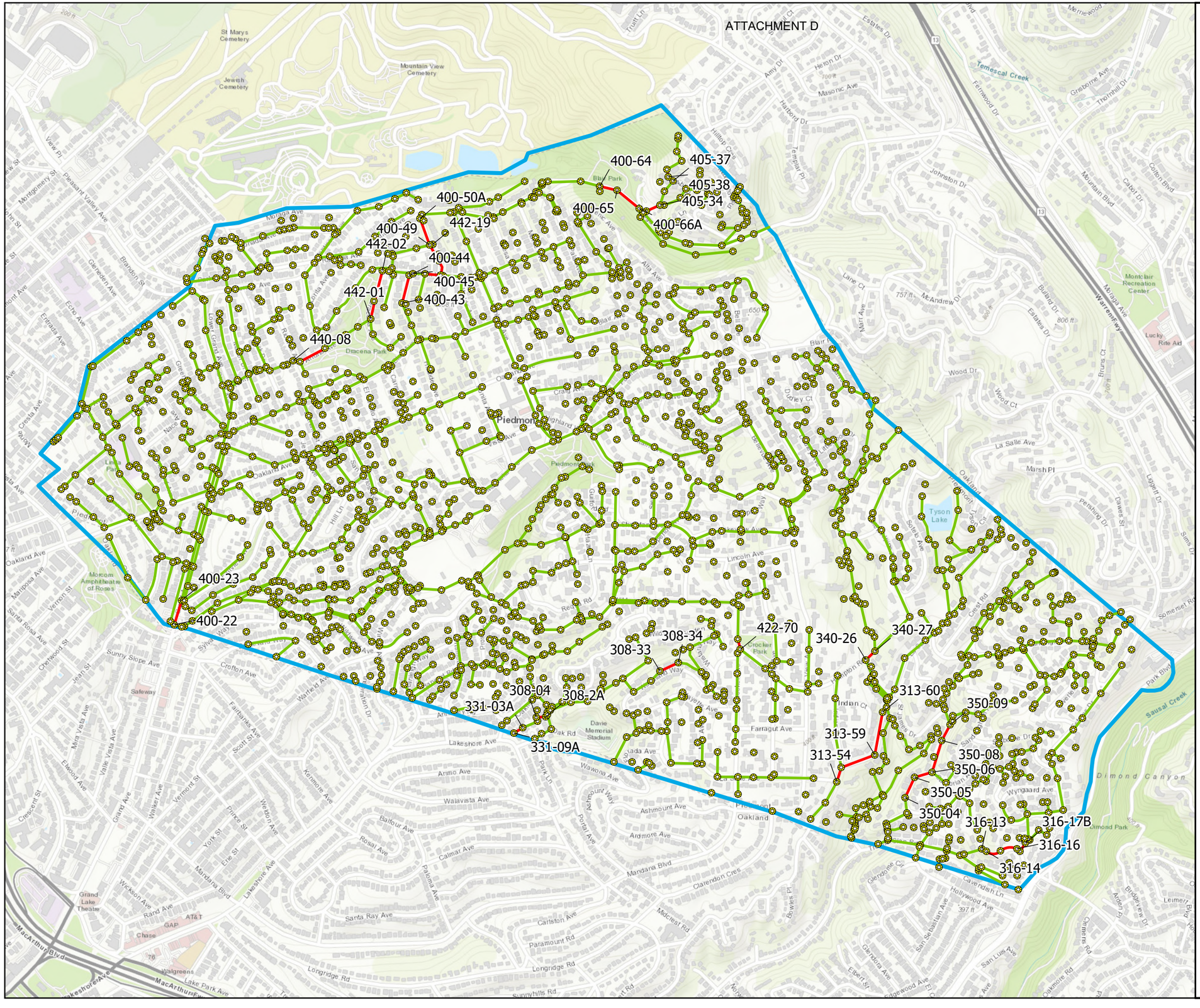
FIGURE 5-2

PIPES EXCEEDING CRITERIA (INTERIM PWWF CONDITION)

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA

JANUARY 2024



Legend

- Manholes - Piedmont

Interim d/D

- d/D < 0.7
- d/D > 0.7

NOTE: ALL PIPES WITH VIOLATIONS HAVE A DIAMETER LESS THAN 15"

WOOD RODGERS

NORTH

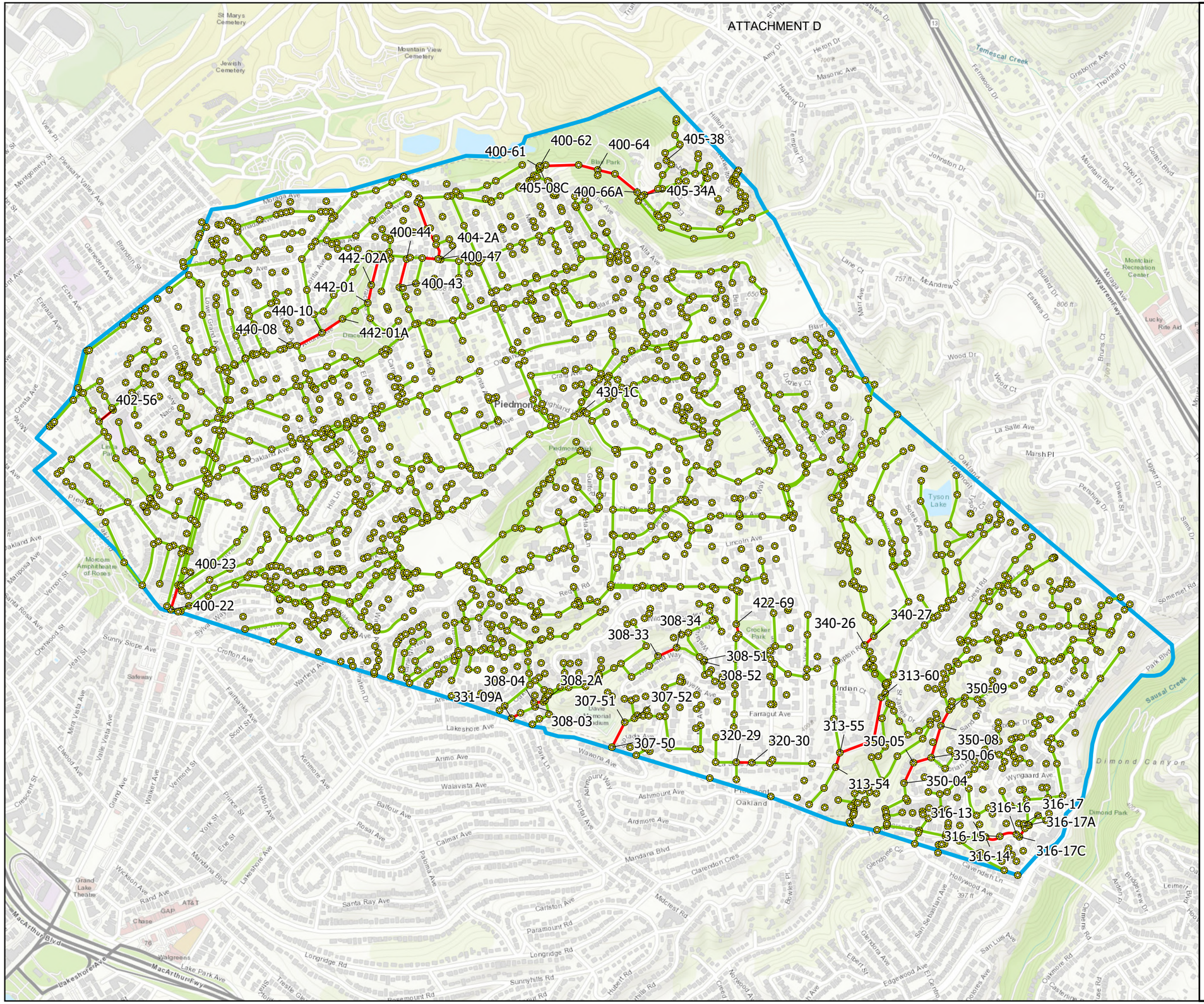
FIGURE 5-3

PIPES EXCEEDING CRITERIA (BUILDOUT PWWF CONDITION)

HOUSING ELEMENT UPDATE SEWER ANALYSIS

PIEDMONT, CA

JANUARY 2024



NOTE: ALL PIPES WITH VIOLATIONS HAVE A DIAMETER LESS THAN 15"

WOOD RODGERS

NORTH

ATTACHMENTS

HYDRAULIC MODEL RESULTS (PWWF SCENARIOS)

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
400-23+400-22	400-23	400-22	10	251.275	0.021	0.793	1	1
400-24+400-23	400-24	400-23	18	357.739	0.021	0.301	0.562	0.601
400-25+400-24	400-25	400-24	18	298.489	0.023	0.288	0.53	0.566
400-26+400-26A	400-26	400-26A	18	59.276	0.017	0.283	0.54	0.575
400-26A+400-76	400-26A	400-76	18	165.347	0.022	0.269	0.506	0.538
400-27+400-26	400-27	400-26	18	198.277	0.026	0.252	0.474	0.502
400-28+400-28A	400-28	400-28A	18	119.43	0.025	0.25	0.476	0.503
400-28A+400-27	400-28A	400-27	18	247.814	0.017	0.278	0.533	0.567
400-29+400-29A	400-29	400-29A	12	220.574	0.049	0.214	0.465	0.489
400-29A+400-28	400-29A	400-28	12	85.805	0.064	0.201	0.432	0.454
400-30+400-29	400-30	400-29	12	208.098	0.05	0.212	0.463	0.487
400-30A+400-30	400-30A	400-30	12	143.772	0.06	0.202	0.438	0.46
400-31+400-30A	400-31	400-30A	10	142.634	0.123	0.215	0.47	0.494
400-32+400-31	400-32	400-31	10	140.751	0.124	0.21	0.466	0.489
400-33+400-32	400-33	400-32	12	61.5	0.033	0.227	0.513	0.539
400-34+400-33	400-34	400-33	12	30.795	0.044	0.211	0.472	0.495
400-35+400-34	400-35	400-34	10	199.288	0.144	0.2	0.444	0.465
400-36+400-35	400-36	400-35	10	134.262	0.123	0.206	0.464	0.486
400-37+400-36	400-37	400-36	10	190.21	0.101	0.215	0.49	0.514
400-38+400-37	400-38	400-37	10	240.755	0.05	0.254	0.606	0.639
400-39+400-38	400-39	400-38	12	43.929	0.049	0.199	0.453	0.474
400-40+400-39	400-40	400-39	10	190.13	0.069	0.232	0.546	0.573
400-41+400-40	400-41	400-40	10	192.236	0.083	0.219	0.514	0.538
400-42+400-41	400-42	400-41	12	157.347	0.035	0.183	0.472	0.49
400-43+400-42	400-43	400-42	15	240.488	0.006	0.211	0.567	0.59
400-44+400-43	400-44	400-43	12	285.746	0.002	0.346	1	1
400-45+400-44	400-45	400-44	12	41.175	0.058	0.153	0.405	0.419
400-45+442-03	400-45	442-03	8	239.881	0.108	0.23	0.608	0.628
400-46+400-45	400-46	400-45	12	120.07	0.078	0.202	0.541	0.56
400-47+400-46	400-47	400-46	8	157.824	0.015	0.557	1	1
400-48+400-47	400-48	400-47	12	154.072	0.016	0.246	1	1
400-49+400-48	400-49	400-48	12	177.887	0.001	0.473	1	1
400-50+400-50A	400-50	400-50A	12	44.788	0.07	0.168	0.526	0.538
400-50A+400-49	400-50A	400-49	12	281.243	0.021	0.228	1	1
400-51+400-50	400-51	400-50	12	281.034	0.076	0.162	0.51	0.521
400-52+400-51	400-52	400-51	10	35.728	0.037	0.246	1	1
400-56+400-52	400-56	400-52	12	400.798	0.049	0.169	0.578	0.591
400-57+400-56	400-57	400-56	12	105.31	0.074	0.149	0.508	0.518
400-58+400-57	400-58	400-57	12	207.125	0.06	0.157	0.54	0.551
400-59+400-59A	400-59	400-59A	12	9.571	0.051	0.158	0.565	0.575
400-59A+400-58	400-59A	400-58	12	115.082	0.051	0.16	0.566	0.577
400-60+400-59	400-60	400-59	12	62.394	0.053	0.156	0.56	0.57
400-62+400-60	400-62	400-60	12	110.789	0.042	0.156	0.592	0.602
400-64+400-62	400-64	400-62	12	577.678	0.026	0.175	0.698	0.712
400-65+400-64	400-65	400-64	8	177.23	0.03	0.284	1	1
400-66+400-66A	400-66	400-66A	8	56.975	0.04	0.248	1	1
400-66A+400-65	400-66A	400-65	8	284.781	0.021	0.309	1	1
400-67B+400-66	400-67B	400-66	8	238.018	0.076	0.15	0.21	0.228
400-68+400-67B	400-68	400-67B	8	87.992	0.083	0.143	0.201	0.218
400-68A+400-68	400-68A	400-68	6	48.521	0.488	0.023	0.03	0.036
400-69+400-68	400-69	400-68	8	205.738	0.067	0.142	0.204	0.22
400-73A+400-69	400-73A	400-69	8	362.879	0.072	0.137	0.198	0.213
400-76+400-25	400-76	400-25	18	259.642	0.027	0.255	0.475	0.504
402-1a+402-35	402-1A	402-35	6	286.46	0.046	0.078	0.09	0.101
402-1B+402-46	402-1B	402-46	8	291.826	0.062	0.204	0.261	0.285
402-1C+402-39	402-1C	402-39	8	229.062	0.101	0.022	0.084	0.086
402-1D+402-34	402-1D	402-34	8	53.93	0.016	0.126	0.138	0.149
402-1E+402-37	402-1E	402-37	6	281.676	0.098	0.053	0.066	0.076
402-27+400-22	402-27	400-22	8	50.242	0.07	0.027	0.088	0.092
402-28+402-27	402-28	402-27	6	542.546	0.024	0.028	0.125	0.13
402-29+400-24	402-29	400-24	8	47.962	0.083	0.124	0.235	0.245
402-2A+402-54	402-2A	402-54	6	156.004	0.048	0.066	0.074	0.08
402-31+402-29	402-31	402-29	8	95.568	0.136	0.107	0.205	0.214
402-32+402-31	402-32	402-31	8	41.16	0.033	0.072	0.22	0.223
402-33+402-32	402-33	402-32	8	379.819	0.013	0.071	0.271	0.272
402-34+402-31	402-34	402-31	8	155.817	0.204	0.083	0.12	0.129
402-35+402-1D	402-35	402-1D	8	426.424	0.005	0.104	0.124	0.14

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
402-36+402-1A	402-36	402-1A	6	442.801	0.018	0.042	0.06	0.072
402-37+402-34	402-37	402-34	8	490.325	0.044	0.067	0.134	0.144
402-38+402-37	402-38	402-37	6	287.498	0.039	0.063	0.176	0.185
402-39+402-38	402-39	402-38	8	149.192	0.053	0.035	0.109	0.113
402-3A+402-58	402-3A	402-58	8	20.831	0.055	0.107	0.141	0.155
402-3B+402-3A	402-3B	402-3A	6	215.006	0.091	0.024	0.038	0.047
402-41+402-1E	402-41	402-1E	6	259.928	0.063	0.03	0.044	0.053
402-42+400-25	402-42	400-25	8	42.519	0.052	0.256	0.367	0.397
402-43+402-42	402-43	402-42	8	158.861	0.027	0.3	0.435	0.472
402-44+402-43	402-44	402-43	8	144.23	0.058	0.031	0.104	0.106
402-45+402-43	402-45	402-43	8	207.861	0.04	0.269	0.345	0.378
402-46+402-45	402-46	402-45	8	37.387	0.049	0.25	0.322	0.352
402-48A+402-46	402-48A	402-46	6	86.951	0.216	0.04	0.09	0.093
402-51+402-1B	402-51	402-1B	8	291.113	0.051	0.211	0.27	0.295
402-52+402-51	402-52	402-51	8	225.371	0.027	0.239	0.311	0.341
402-53+402-52	402-53	402-52	8	63.535	0.044	0.21	0.272	0.297
402-54+402-53	402-54	402-53	6	421.646	0.135	0.055	0.108	0.114
402-56+402-53	402-56	402-53	8	114.736	0.101	0.164	0.203	0.222
402-57+402-56	402-57	402-56	8	125.864	0.053	0.112	0.149	0.165
402-58+402-57	402-58	402-57	8	194.921	0.032	0.124	0.164	0.182
402-59+402-59A	402-59	402-59A	6	284.41	0.081	0.043	0.059	0.071
402-59A+402-3A	402-59A	402-3A	6	110.076	0.074	0.086	0.131	0.14
402-60+402-59	402-60	402-59	6	29.719	0.022	0.045	0.061	0.072
402-62+402-3A	402-62	402-3A	8	56.406	0.019	0.1	0.118	0.132
402-63+402-62	402-63	402-62	6	380.152	0.05	0.104	0.122	0.137
402-64+402-63	402-64	402-63	6	18.895	0.143	0.071	0.083	0.093
402-66+402-6A	402-66	402-6A	6	226.424	0.015	0.076	0.087	0.097
402-6A+402-64	402-6A	402-64	6	419.652	0.027	0.098	0.111	0.122
402-70+402-71	402-70	402-71	6	166.047	0.017	0.198	0.203	0.207
402-71+402-91	402-71	402-91	6	151.432	0.091	0.142	0.149	0.156
402-72+402-71	402-72	402-71	6	155.264	0.007	0.068	0.086	0.1
402-76+402-46	402-76	402-46	8	59.481	0.064	0.112	0.126	0.138
402-78+402-78A	402-78	402-78A	6	141.121	0.058	0.154	0.171	0.186
402-78A+402-76	402-78A	402-76	6	123.64	0.008	0.265	0.297	0.325
402-79+402-79A	402-79	402-79A	6	71.332	0.081	0.069	0.08	0.089
402-79A+402-79B	402-79A	402-79B	6	38.398	0.009	0.156	0.177	0.195
402-79B+402-79C	402-79B	402-79C	6	105.418	0.021	0.172	0.189	0.204
402-79C+402-78	402-79C	402-78	6	170.921	0.091	0.125	0.14	0.152
402-80+402-79	402-80	402-79	6	294.772	0.03	0.044	0.058	0.068
402-81+402-56	402-81	402-56	6	182.067	0.002	0.522	0.653	0.732
402-82+402-81	402-82	402-81	6	23.804	0.036	0.247	0.295	0.318
402-83+402-82	402-83	402-82	6	137.141	0.134	0.019	0.033	0.042
402-86+402-82	402-86	402-82	6	250.715	0.003	0.458	0.568	0.622
402-87+402-86	402-87	402-86	6	150.405	0.073	0.17	0.187	0.201
402-88+402-87	402-88	402-87	6	103.723	0.147	0.141	0.153	0.163
402-91+402-90	402-91	402-88	6	208.348	0.019	0.216	0.234	0.25
402-92+402-91	402-92	402-91	6	119.469	0.027	0.028	0.048	0.061
402-93+402-86	402-93	402-86	6	52.987	0.022	0.083	0.152	0.161
402-96+402-93	402-96	402-93	6	182.526	0.059	0.032	0.103	0.107
402-99+402-42	402-99	402-42	6	283.966	0.034	0.038	0.053	0.064
403-01+400-23	403-01	400-23	10	68.087	0.015	0.062	0.093	0.109
403-02+403-01	403-02	403-01	10	78.001	0.023	0.05	0.078	0.091
403-03+403-02	403-03	403-02	10	262.328	0.022	0.043	0.063	0.077
403-04+403-03	403-04	403-03	6	229.62	0.037	0.063	0.094	0.116
403-05+403-04	403-05	403-04	6	205.899	0.106	0.044	0.064	0.079
403-07+403-05	403-07	403-05	6	161.478	0.039	0.044	0.066	0.081
403-08+403-07	403-08	403-07	6	129.907	0.126	0.027	0.038	0.046
403-10+400-23	403-10	400-23	8	25.263	0.047	0.128	0.176	0.189
403-11+403-10	403-11	403-10	6	150.737	0.029	0.161	0.248	0.263
403-13+403-11	403-13	403-11	6	199.418	0.028	0.156	0.176	0.193
403-14+403-13	403-14	403-13	6	275.143	0.025	0.155	0.173	0.187
403-17+403-10	403-17	403-10	8	357.103	0.09	0.067	0.075	0.082
403-18+403-17	403-18	403-17	8	347.371	0.104	0.061	0.066	0.071
403-19+403-18	403-19	403-18	8	144.104	0.065	0.016	0.027	0.034
403-1A+403-24	403-1A	403-24	6	201.878	0.021	0.051	0.077	0.094
403-1B+403-90	403-1B	403-90	6	159.929	0.015	0.039	0.059	0.073
403-21+403-14	403-21	403-14	6	286.169	0.025	0.101	0.12	0.136

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
403-21A+403-21B	403-21A	403-21B	6	115.613	0.155	0.034	0.043	0.049
403-21B+403-21	403-21B	403-21	6	236.013	0.168	0.055	0.064	0.072
403-24+400-26A	403-24	400-26A	6	44.069	0.119	0.108	0.138	0.16
403-25+403-24	403-25	403-24	6	80.178	0.088	0.101	0.128	0.149
403-26+403-25	403-26	403-25	6	190.912	0.138	0.072	0.091	0.106
403-27+403-25	403-27	403-25	6	94.21	0.115	0.058	0.069	0.078
403-28+403-27	403-28	403-27	8	261.227	0.131	0.029	0.034	0.038
403-2A+400-26	403-2A	400-26	6	396.649	0.054	0.117	0.159	0.175
403-2C+403-37	403-2C	403-37	6	201.391	0.021	0.046	0.061	0.073
403-30+403-2A	403-30	403-2A	6	292.903	0.122	0.069	0.09	0.106
403-30A+403-30	403-30A	403-30	6	131.466	0.004	0.056	0.082	0.099
403-31+403-30	403-31	403-30	6	48.359	0.08	0.063	0.081	0.094
403-32+403-31	403-32	403-31	6	140.495	0.128	0.043	0.057	0.067
403-33+403-32	403-33	403-32	6	61.873	0.06	0.033	0.046	0.055
403-34+400-27	403-34	400-27	6	163.436	0.059	0.052	0.061	0.068
403-37+400-26	403-37	400-26	6	49.481	0.087	0.065	0.076	0.085
403-39+400-28	403-39	400-28	6	47.031	0.032	0.13	0.204	0.218
403-40+403-39	403-40	403-39	6	121.098	0.065	0.105	0.166	0.176
403-41+403-40	403-41	403-40	6	211.727	0.094	0.088	0.144	0.151
403-44+403-41	403-44	403-41	6	151.396	0.16	0.063	0.117	0.121
403-46+403-44	403-46	403-44	6	97.707	0.079	0.067	0.131	0.134
403-48+400-28	403-48	400-28	8	89.567	0.048	0.091	0.108	0.122
403-50+403-48	403-50	403-48	8	261.572	0.107	0.073	0.086	0.096
403-51+403-50	403-51	403-50	8	197.699	0.131	0.058	0.07	0.079
403-52+403-51	403-52	403-51	6	134.717	0.125	0.065	0.079	0.09
403-53+403-52	403-53	403-52	6	133.236	0.019	0.045	0.061	0.073
403-54+403-52	403-54	403-52	6	82.214	0.09	0.048	0.055	0.062
403-56+403-51	403-56	403-51	8	106.613	0.149	0.03	0.035	0.039
403-57+400-28A	403-57	400-28A	6	41.828	0.123	0.102	0.12	0.134
403-58+403-57	403-58	403-57	6	276.292	0.078	0.088	0.109	0.125
403-60+403-58	403-60	403-58	6	236.132	0.125	0.066	0.084	0.097
403-61A+403-60	403-61A	403-60	6	217.363	0.057	0.076	0.093	0.107
403-64+400-29	403-64	400-29	6	368.877	0.034	0.044	0.057	0.067
403-66+400-31	403-66	400-31	6	36.965	0.143	0.079	0.09	0.099
403-67+403-66	403-67	403-66	6	149.187	0.018	0.107	0.122	0.134
403-68+403-67	403-68	403-67	6	203.964	0.057	0.076	0.083	0.088
403-69+400-32	403-69	400-32	8	78.646	0.015	0.045	0.063	0.075
403-70+403-69	403-70	403-69	6	220.971	0.154	0.032	0.041	0.048
403-73+400-34	403-73	400-34	6	24.534	0.064	0.053	0.061	0.068
403-82+403-85	403-82	403-85	6	39.498	0.018	0.059	0.073	0.083
403-85+403-26	403-85	403-26	6	258.573	0.057	0.084	0.104	0.12
403-88+403-1A	403-88	403-1A	6	228.194	0.021	0.043	0.06	0.071
403-90+403-61A	403-90	403-61A	6	87.146	0.011	0.105	0.124	0.139
403-93+403-93A	403-93	403-93A	6	24.242	0.078	0.023	0.038	0.048
403-93A+403-85	403-93A	403-85	6	44.466	0.07	0.059	0.073	0.084
404-01+400-41	404-01	400-41	10	27.205	0.069	0.119	0.149	0.167
404-03A+404-01	404-03A	404-01	6	310.858	0.09	0.066	0.072	0.077
404-04A+404-01	404-04A	404-01	6	115.602	0.093	0.202	0.259	0.293
404-06+404-04A	404-06	404-04A	8	235.355	0.099	0.135	0.172	0.193
404-08+404-06	404-08	404-06	6	104.725	0.088	0.199	0.253	0.285
404-09+404-08	404-09	404-08	6	173.026	0.016	0.037	0.058	0.071
404-10+404-08	404-10	404-08	6	331.969	0.078	0.201	0.255	0.285
404-11+404-10	404-11	404-10	6	54.007	0.025	0.261	0.335	0.377
404-12+404-11	404-12	404-11	6	69.137	0.043	0.211	0.268	0.298
404-13+404-12	404-13	404-12	6	135.236	0.064	0.186	0.236	0.262
404-14+404-13	404-14	404-13	6	108.213	0.119	0.159	0.201	0.221
404-15+404-14	404-15	404-14	6	52.6	0.037	0.188	0.245	0.272
404-16+404-15	404-16	404-15	6	58.525	0.009	0.259	0.338	0.373
404-17+404-16	404-17	404-16	6	238.21	0.106	0.138	0.177	0.193
404-18+404-97	404-18	404-97	6	291.773	0.164	0.021	0.033	0.041
404-19+404-11	404-19	404-11	6	435.953	0.025	0.086	0.108	0.126
404-20+404-19	404-20	404-19	6	104.541	0.056	0.066	0.08	0.09
404-21A+404-20	404-21A	404-20	6	547.858	0.089	0.042	0.051	0.058
404-23+404-14	404-23	404-14	6	220.466	0.053	0.067	0.074	0.08
404-25+404-15	404-25	404-15	6	22.433	0.203	0.03	0.038	0.044
404-28+404-17	404-28	404-17	6	70.528	0.138	0.074	0.113	0.12
404-2A+400-47	404-2A	400-47	8	22.642	0.6	0.119	0.158	0.174

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
404-30+404-28	404-30	404-28	6	330.115	0.057	0.081	0.092	0.101
404-31A+404-30	404-31A	404-30	6	443.885	0.026	0.054	0.067	0.076
404-32+404-97	404-32	404-97	6	77.914	0.182	0.065	0.076	0.086
404-33A+404-6A	404-33A	404-6A	6	132.566	0.04	0.053	0.063	0.071
404-36+404-2A	404-36	404-2A	8	181.466	0.08	0.194	0.259	0.286
404-37+404-36	404-37	404-36	6	169.299	0.012	0.088	0.11	0.126
404-38+404-37	404-38	404-37	6	302.494	0.01	0.064	0.08	0.092
404-39+404-36	404-39	404-36	8	93.444	0.081	0.187	0.252	0.277
404-3B+404-06	404-3B	404-06	6	224.262	0.105	0.034	0.044	0.051
404-40+404-39	404-40	404-39	6	120.888	0.041	0.113	0.118	0.123
404-42+404-39	404-42	404-39	8	49.295	0.091	0.169	0.234	0.258
404-42A+404-42	404-42A	404-42	8	51.354	0.07	0.18	0.248	0.274
404-43+404-42A	404-43	404-42A	8	23.148	0.02	0.218	0.31	0.339
404-44+404-44A	404-44	404-44A	5	336.666	0.007	0.073	0.1	0.119
404-44A+400-52	404-44A	400-52	5	321.686	0.022	0.073	0.102	0.123
404-45+404-42A	404-45	404-42A	8	33.563	0.024	0.111	0.136	0.155
404-46+404-45	404-46	404-45	6	121.622	0.086	0.106	0.132	0.152
404-48+404-46	404-48	404-46	6	187.045	0.07	0.102	0.125	0.143
404-4A+400-46	404-4A	400-46	6	264.411	0.044	0.053	0.063	0.071
404-50+404-48	404-50	404-48	6	128.197	0.129	0.086	0.103	0.116
404-52+404-50	404-52	404-50	6	179.978	0.1	0.087	0.102	0.115
404-54+404-52	404-54	404-52	6	129.818	0.149	0.061	0.075	0.085
404-56+404-54	404-56	404-54	6	173.609	0.183	0.023	0.034	0.041
404-58+404-54	404-58	404-54	6	141.847	0.01	0.065	0.081	0.093
404-60+404-46	404-60	404-46	6	220.276	0.021	0.046	0.062	0.073
404-61+404-43	404-61	404-43	8	324.06	0.016	0.228	0.326	0.356
404-61A+404-61	404-61A	404-61	6	48.427	0.061	0.236	0.338	0.369
404-63+404-61A	404-63	404-61A	6	294.606	0.049	0.246	0.354	0.386
404-65+404-63	404-65	404-63	6	128.515	0.106	0.201	0.287	0.311
404-66A+404-65	404-66A	404-65	6	27.3	0.049	0.043	0.054	0.063
404-67+404-65	404-67	404-65	6	180.54	0.075	0.215	0.308	0.333
404-69+404-67	404-69	404-67	6	125.193	0.138	0.182	0.26	0.28
404-6A+404-32	404-6A	404-32	6	209.859	0.12	0.06	0.071	0.079
404-70A+404-69	404-70A	404-69	6	36.127	0.016	0.093	0.102	0.11
404-72+404-71	404-72	404-69	6	190.27	0.061	0.206	0.305	0.328
404-73+404-72	404-73	404-72	6	145.613	0.114	0.021	0.035	0.044
404-76+404-72	404-76	404-72	6	292.545	0.236	0.146	0.213	0.227
404-76A+404-76	404-76A	404-76	6	261.569	0.02	0.2	0.222	0.242
404-80+404-76A	404-80	404-76A	6	352.316	0.028	0.174	0.193	0.208
404-80A+404-80B	404-80A	404-80B	6	79.595	0.108	0.067	0.072	0.077
404-80B+404-80C	404-80B	404-80C	6	67.37	0.069	0.087	0.097	0.105
404-80C+404-80	404-80C	404-80	6	89.853	0.069	0.095	0.108	0.119
404-83+404-80	404-83	404-80	6	114.828	0.227	0.036	0.043	0.048
404-86+404-86A	404-86	404-86A	6	64.559	0.488	0.077	0.134	0.14
404-86A+404-94	404-86A	404-94	6	21.942	0.154	0.105	0.19	0.199
404-87+404-86	404-87	404-86	6	43.747	0.1	0.085	0.182	0.189
404-89+404-87	404-89	404-87	6	218.876	0.088	0.077	0.152	0.157
404-90+404-89	404-90	404-89	6	14.061	0.574	0.038	0.091	0.092
404-92+404-87	404-92	404-87	6	93.134	0.355	0.019	0.029	0.035
404-94+404-76	404-94	404-76	6	23.271	0.02	0.176	0.324	0.341
404-97+404-17	404-97	404-17	6	118.798	0.076	0.099	0.118	0.133
405-01+400-52	405-01	400-52	6	64.293	0.028	0.162	0.177	0.191
405-03+405-03A	405-03	405-03A	6	96.866	0.016	0.128	0.141	0.152
405-03A+405-01	405-03A	405-01	6	317.909	0.005	0.23	0.25	0.267
405-04A+400-56	405-04A	400-56	6	15.92	0.018	0.102	0.11	0.117
405-06A+400-58	405-06A	400-58	6	16.476	0.025	0.084	0.092	0.1
405-07A+400-59A	405-07A	400-59A	6	26.079	0.084	0.042	0.052	0.059
405-08+405-09B	405-08	405-09B	6	10	0.195	0.055	0.109	0.113
405-08A+400-60	405-08A	400-60	6	31.605	0.028	0.132	0.21	0.224
405-08B+405-08	405-08B	405-08	6	131.913	0.158	0.039	0.047	0.052
405-08C+405-08A	405-08C	405-08A	6	84.63	0.043	0.062	0.071	0.078
405-09B+405-08A	405-09B	405-08A	6	115.825	0.328	0.051	0.099	0.104
405-11+400-64	405-11	400-64	6	52.599	0.585	0.015	0.059	0.061
405-1B+400-66A	405-1B	400-66A	8	85.97	0.047	0.073	0.317	0.32
405-2B+405-1B	405-2B	405-1B	8	351.25	0.085	0.059	0.235	0.238
405-34+400-66	405-34	400-66	6	180.54	0.233	0.145	0.708	0.719
405-35+405-34	405-35	405-34	6	144.429	0.437	0.081	0.534	0.537

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
405-37+405-35	405-37	405-35	6	133.242	0.287	0.088	0.598	0.601
405-38+405-37	405-38	405-37	6	63.994	0.105	0.106	1	1
405-39+405-38	405-39	405-38	6	74.178	0.089	0.103	1	1
405-3B+405-2B	405-3B	405-2B	8	341.124	0.052	0.062	0.219	0.22
405-40+405-39	405-40	405-39	6	169.764	0.294	0.068	0.495	0.497
405-41+405-40	405-41	405-40	6	106.569	0.11	0.052	0.518	0.52
405-42+405-41	405-42	405-41	6	126.311	0.189	0.039	0.306	0.307
405-44+405-44A	405-44	405-44A	6	42.45	0.21	0.137	0.205	0.218
405-44A+405-60	405-44A	405-60	6	66.549	0.206	0.139	0.208	0.222
405-45+405-34	405-45	405-34	6	41.038	0.028	0.185	0.291	0.311
405-46+405-45	405-46	405-45	6	181.024	0.211	0.105	0.139	0.151
405-47+405-46	405-47	405-46	6	102.16	0.503	0.079	0.106	0.116
405-48+405-47	405-48	405-47	6	111.107	0.071	0.109	0.156	0.171
405-49+405-48	405-49	405-48	6	154.205	0.439	0.022	0.03	0.035
405-4B+405-3B	405-4B	405-3B	8	372.914	0.068	0.043	0.146	0.148
405-51+405-48	405-51	405-48	6	97.924	0.118	0.086	0.126	0.135
405-53+405-51	405-53	405-51	6	60.44	0.053	0.09	0.14	0.15
405-54+405-53	405-54	405-53	6	17.409	0.454	0.02	0.028	0.034
405-56+405-53	405-56	405-53	6	128.525	0.048	0.079	0.086	0.091
405-58+400-67B	405-58	400-67B	6	240.709	0.334	0.026	0.034	0.039
405-60+400-73A	405-60	400-73A	6	236.921	0.234	0.147	0.213	0.229
405-61+405-60	405-61	405-60	6	168.359	0.153	0.056	0.066	0.074
405-62+405-61	405-62	405-61	6	33.232	0.391	0.033	0.039	0.044
405-64+405-64A	405-64	405-64A	6	37.313	0.075	0.143	0.165	0.182
405-64A+405-64B	405-64A	405-64B	6	41.47	0.016	0.212	0.308	0.333
405-64B+405-64C	405-64B	405-64C	6	56.484	0.413	0.101	0.141	0.152
405-64C+405-44	405-64C	405-44	6	36.458	0.607	0.099	0.135	0.146
405-65+405-64	405-65	405-64	6	94.265	0.331	0.083	0.098	0.111
405-66+405-65	405-66	405-65	6	26.192	0.104	0.105	0.123	0.138
405-67+405-66	405-67	405-66	6	27.963	0.045	0.111	0.133	0.151
405-68+405-68A	405-68	405-68A	6	46.955	0.219	0.05	0.064	0.074
405-68A+405-67	405-68A	405-67	6	25.363	0.478	0.052	0.064	0.073
405-69+405-68	405-69	405-68	6	28.017	0.001	0.187	0.229	0.263
405-72+405-69	405-72	405-69	6	19.857	0.748	0.016	0.024	0.029
405-88+405-03	405-88	405-03	6	306.623	0.012	0.11	0.119	0.127
420-02+420-94	420-02	420-94	15	324.261	0.034	0.236	0.298	0.337
420-03+420-3D	420-03	420-3D	15	165.261	0.05	0.202	0.256	0.288
420-04+420-03	420-04	420-03	18	225.719	0.004	0.298	0.384	0.436
420-04A+420-04	420-04A	420-04	18	234.228	0.026	0.187	0.237	0.266
420-05+420-04A	420-05	420-04A	18	105.927	0.022	0.193	0.244	0.275
420-06+420-05	420-06	420-05	15	268.649	0.032	0.224	0.285	0.322
420-07+420-06	420-07	420-06	15	236.322	0.027	0.231	0.295	0.333
420-08+420-07	420-08	420-07	15	95.854	0.103	0.157	0.199	0.223
420-09+420-1E	420-09	420-08	12	220.799	0.085	0.22	0.282	0.316
420-10+420-09	420-10	420-09	12	222.446	0.009	0.391	0.515	0.591
420-12+420-12A	420-12	420-12A	12	80.1	0.397	0.138	0.173	0.192
420-12A+420-12B	420-12A	420-12B	12	26.254	0.324	0.145	0.183	0.203
420-12B+420-2C	420-12B	420-2C	12	50.571	0.037	0.248	0.316	0.354
420-13+420-13A	420-13	420-13A	12	48.86	0.098	0.189	0.235	0.262
420-13A+420-12	420-13A	420-12	12	264.131	0.053	0.225	0.285	0.319
420-14+420-1A	420-14	420-1A	12	48.846	0.109	0.181	0.226	0.252
420-15+420-14	420-15	420-14	12	156.478	0.075	0.199	0.247	0.276
420-16+420-2B	420-16	420-2B	12	196.784	0.067	0.196	0.246	0.275
420-17+420-16	420-17	420-16	12	187.27	0.064	0.198	0.249	0.278
420-18+420-3B	420-18	420-3B	12	192.961	0.065	0.194	0.243	0.272
420-19+420-18	420-19	420-18	12	26.676	0.056	0.195	0.247	0.276
420-1A+420-13	420-1A	420-13	12	119.163	0.069	0.205	0.256	0.286
420-20+420-20B	420-20	420-20B	10	185.914	0.054	0.193	0.252	0.279
420-20A+420-20	420-20A	420-20	8	17.748	0.078	0.172	0.226	0.251
420-20B+420-19	420-20B	420-19	8	302.55	0.057	0.258	0.339	0.378
420-21+420-21A	420-21	420-21A	10	202.119	0.051	0.139	0.178	0.197
420-21A+420-20A	420-21A	420-20A	8	244.64	0.054	0.187	0.246	0.273
420-22+420-21	420-22	420-21	10	179.91	0.023	0.161	0.21	0.233
420-23+420-22	420-23	420-22	10	142.91	0.017	0.165	0.217	0.24
420-23+423-11A	420-23	423-11A	6	224.699	0.038	0.276	0.361	0.4
420-2A+420-15	420-2A	420-15	12	84.506	0.063	0.207	0.258	0.288
420-2B+420-2A	420-2B	420-2A	12	32.878	0.112	0.174	0.218	0.244

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
420-2C+420-10	420-2C	420-10	15	66.17	0.071	0.17	0.216	0.242
420-3A+420-02	420-3A	420-02	15	52.449	0.041	0.215	0.272	0.306
420-3B+420-3C	420-3B	420-3C	12	183.059	0.06	0.198	0.249	0.278
420-3C+420-17	420-3C	420-17	12	44.631	0.057	0.202	0.254	0.285
420-3D+420-3A	420-3D	420-3A	18	179.72	0.042	0.168	0.212	0.238
420-94+420-01	420-94	420-01	18	290.186	0.024	0.252	0.325	0.366
421-01+420-02	421-01	420-02	8	161.534	0.066	0.136	0.162	0.183
421-01A+421-01	421-01A	421-01	8	9.567	0.202	0.019	0.025	0.03
421-03+421-01	421-03	421-01	8	159.642	0.056	0.13	0.157	0.178
421-04+421-1A	421-04	421-1A	8	20.328	0.085	0.113	0.135	0.152
421-05+421-04	421-05	421-04	8	92.535	0.067	0.112	0.135	0.153
421-06+421-05	421-06	421-05	8	69.637	0.023	0.141	0.17	0.193
421-07+421-06	421-07	421-06	8	69.341	0.03	0.102	0.122	0.137
421-08+421-07	421-08	421-07	8	69.331	0.094	0.072	0.085	0.096
421-08A+421-08	421-08A	421-08	8	52.086	0.118	0.062	0.074	0.083
421-09+421-08A	421-09	421-08A	8	41.798	0.082	0.063	0.074	0.083
421-11+421-06	421-11	421-06	6	53.881	0.108	0.075	0.096	0.112
421-12+421-11	421-12	421-11	6	36.746	0.208	0.038	0.05	0.059
421-13+421-12	421-13	421-12	6	62.336	0.091	0.033	0.044	0.052
421-14+421-11	421-14	421-11	6	148.452	0.045	0.073	0.087	0.098
421-15+421-14	421-15	421-14	6	56.017	0.159	0.04	0.047	0.053
421-16+421-17	421-16	421-17	6	86.756	0.218	0.043	0.048	0.053
421-17+421-09	421-17	421-09	8	208.013	0.063	0.058	0.069	0.077
421-18+421-17	421-18	421-17	8	57.349	0.078	0.035	0.04	0.045
421-1A+421-03	421-1A	421-03	8	134.585	0.061	0.126	0.151	0.171
422-01+422-3B	422-01	422-3B	6	27.871	0.138	0.087	0.097	0.106
422-03+422-01	422-03	422-01	6	41.772	0.113	0.087	0.094	0.101
422-05+422-03	422-05	422-03	6	155.263	0.208	0.025	0.035	0.042
422-09+422-98A	422-09	422-98A	6	180.317	0.321	0.103	0.126	0.144
422-10+422-09	422-10	422-09	6	101.542	0.008	0.238	0.296	0.343
422-11+422-10	422-11	422-10	6	114.379	0.01	0.224	0.275	0.317
422-12+422-11	422-12	422-11	6	47.622	0.019	0.169	0.212	0.247
422-13+422-12	422-13	422-12	6	77.831	0.15	0.1	0.124	0.142
422-14+422-13	422-14	422-13	6	68.153	0.086	0.111	0.137	0.156
422-16+422-16A	422-16	422-16A	6	122.738	0.034	0.102	0.124	0.141
422-16A+422-14	422-16A	422-14	6	76.484	0.196	0.074	0.09	0.103
422-17+422-16	422-17	422-16	6	38.843	0.269	0.038	0.053	0.064
422-19+422-17	422-19	422-17	6	200.631	0.039	0.039	0.063	0.079
422-1B+422-98D	422-1B	422-98D	8	44.466	0.215	0.033	0.04	0.046
422-1C+422-8A	422-1C	422-8A	8	186.032	0.12	0.037	0.087	0.091
422-20+422-19	422-20	422-19	6	73.479	0.076	0.026	0.04	0.05
422-22+422-22A	422-22	422-22A	6	170.711	0.183	0.11	0.159	0.178
422-22A+422-98A	422-22A	422-98A	6	63.166	0.325	0.097	0.14	0.158
422-24+422-22	422-24	422-22	6	253.466	0.145	0.114	0.142	0.164
422-25+422-24	422-25	422-24	6	10.065	0.214	0.099	0.122	0.139
422-26+422-25	422-26	422-25	8	245.565	0.095	0.03	0.041	0.049
422-27+422-26	422-27	422-26	8	135.266	0.088	0.021	0.029	0.035
422-29+422-24	422-29	422-24	6	102.021	0.125	0.025	0.037	0.045
422-2B+422-1B	422-2B	422-1B	8	203.641	0.202	0.023	0.028	0.032
422-2C+422-1C	422-2C	422-1C	8	100.222	0.094	0.034	0.089	0.09
422-30+422-25	422-30	422-25	6	209.529	0.05	0.127	0.153	0.173
422-31+422-30	422-31	422-30	6	37.84	0.114	0.1	0.119	0.134
422-32+422-31	422-32	422-31	6	126.925	0.069	0.105	0.124	0.139
422-34+422-32	422-34	422-32	6	26.469	0.186	0.063	0.075	0.085
422-35+422-34	422-35	422-34	6	116.656	0.138	0.045	0.058	0.067
422-36+422-35	422-36	422-35	6	192.718	0.076	0.028	0.042	0.051
422-39+422-32	422-39	422-32	6	287.446	0.068	0.051	0.059	0.066
422-3B+431-3C	422-3B	431-3C	8	208.416	0.06	0.078	0.088	0.097
422-41+422-41A	422-41	422-41A	6	100.881	0.264	0.025	0.034	0.04
422-41A+422-14	422-41A	422-14	6	15.664	0.177	0.047	0.058	0.067
422-44+422-44A	422-44	422-44A	6	95.751	0.269	0.054	0.058	0.061
422-44A+420-1A	422-44A	420-1A	6	12.094	0.221	0.061	0.069	0.075
422-45+420-2A	422-45	420-2A	6	16.972	0.253	0.043	0.053	0.061
422-46+422-45	422-46	422-45	6	95.614	0.28	0.028	0.036	0.042
422-47+422-47A	422-47	422-47A	6	22.906	0.664	0.025	0.036	0.043
422-47A+420-3C	422-47A	420-3C	6	6.304	0.175	0.051	0.066	0.077
422-48+422-47	422-48	422-47	6	146.067	0.158	0.03	0.04	0.046

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
422-50+420-18	422-50	420-18	6	258.167	0.037	0.073	0.088	0.1
422-50A+422-50	422-50A	422-50	6	168.537	0.028	0.068	0.077	0.085
422-51+420-19	422-51	420-19	8	314.064	0.039	0.204	0.25	0.286
422-52+422-51	422-52	422-51	8	209.889	0.076	0.171	0.208	0.238
422-54+422-98	422-54	422-98	8	211.579	0.062	0.177	0.214	0.245
422-54A+422-54	422-54A	422-54	8	111.122	0.058	0.179	0.216	0.247
422-55+422-54A	422-55	422-54A	8	188.479	0.003	0.391	0.482	0.562
422-56+422-55	422-56	422-55	6	84.055	0.153	0.087	0.108	0.125
422-58+422-56	422-58	422-56	6	98.766	0.153	0.075	0.096	0.112
422-59+422-58	422-59	422-58	6	121.167	0.104	0.062	0.073	0.082
422-5C+422-54A	422-5C	422-54A	4	36.489	0.001	0.125	0.194	0.242
422-60+422-59	422-60	422-59	6	15.12	0.068	0.031	0.044	0.053
422-63+422-58	422-63	422-58	6	172.353	0.146	0.048	0.065	0.077
422-63A+422-63	422-63A	422-63	6	44.734	0.075	0.033	0.045	0.053
422-64+422-63	422-64	422-63	6	158.465	0.028	0.045	0.059	0.07
422-68+422-55	422-68	422-55	8	53.956	0.015	0.224	0.267	0.302
422-69+422-68	422-69	422-68	8	337.247	0.008	0.262	0.313	0.355
422-6A+422-99	422-6A	422-99	8	39.941	0.478	0.041	0.073	0.078
422-70+422-69	422-70	422-69	6	104.825	0.002	0.561	0.707	1
422-71+422-70	422-71	422-70	6	45.412	0.071	0.107	0.122	0.134
422-72+422-71	422-72	422-71	6	205.618	0.048	0.112	0.125	0.136
422-74+422-72	422-74	422-72	6	348.339	0.02	0.123	0.135	0.146
422-76+422-74	422-76	422-74	6	331.711	0.012	0.037	0.06	0.075
422-78+422-70	422-78	422-70	6	314.186	0.039	0.216	0.258	0.292
422-79+422-79A	422-79	422-79A	6	60.39	0.061	0.126	0.159	0.183
422-79A+422-78	422-79A	422-78	6	84.767	0.057	0.131	0.166	0.193
422-7A+422-6A	422-7A	422-6A	8	79.167	0.208	0.04	0.083	0.088
422-80+422-79	422-80	422-79	6	187.745	0.069	0.09	0.103	0.114
422-81+422-80	422-81	422-80	6	211.733	0.045	0.089	0.1	0.11
422-82+422-81	422-82	422-81	6	28.898	0.036	0.081	0.088	0.095
422-83+422-79	422-83	422-79	6	167.3	0.029	0.101	0.135	0.16
422-86+422-83	422-86	422-83	6	185.51	0.014	0.107	0.145	0.173
422-87+422-86	422-87	422-86	6	76.004	0.006	0.119	0.162	0.193
422-87B+422-87	422-87B	422-87	6	103.314	0.036	0.026	0.045	0.057
422-88+422-87	422-88	422-87	6	343.156	0.072	0.058	0.072	0.082
422-89+422-88	422-89	422-88	6	198.133	0.052	0.029	0.044	0.055
422-8A+422-7A	422-8A	422-7A	8	116.01	0.01	0.078	0.166	0.175
422-92+422-92A	422-92	422-92A	6	67.308	0.043	0.103	0.122	0.138
422-92A+422-78	422-92A	422-78	6	72.054	0.041	0.159	0.176	0.19
422-93+422-92	422-93	422-92	6	327.472	0.059	0.042	0.062	0.075
422-93A+422-93	422-93A	422-93	6	113.259	0.092	0.031	0.042	0.051
422-96+422-92	422-96	422-92	6	137.528	0.1	0.055	0.062	0.067
422-98+422-52	422-98	422-52	8	164.257	0.093	0.162	0.196	0.224
422-98A+422-98B	422-98A	422-98B	8	140.506	0.169	0.114	0.152	0.173
422-98B+422-98C	422-98B	422-98C	8	367.374	0.069	0.142	0.191	0.217
422-98C+422-98D	422-98C	422-98D	10	16.764	0.089	0.101	0.136	0.154
422-98D+420-2C	422-98D	420-2C	15	100.806	0.019	0.091	0.122	0.139
422-99+420-13A	422-99	420-13A	8	261.137	0.134	0.062	0.104	0.111
423-01+420-19	423-01	420-19	6	181.03	0.038	0.16	0.18	0.197
423-01A+423-01	423-01A	423-01	6	124.694	0.006	0.227	0.257	0.282
423-02+423-01A	423-02	423-01A	6	191.842	0.01	0.183	0.206	0.226
423-03+423-02	423-03	423-02	6	190.053	0.097	0.1	0.11	0.119
423-05+423-03	423-05	423-03	6	165.881	0.085	0.075	0.085	0.094
423-08+423-05	423-08	423-05	6	42.829	0.264	0.043	0.048	0.052
423-11+420-20	423-11	420-20	6	187.215	0.026	0.311	0.41	0.458
423-11A+423-11	423-11A	423-11	6	214.913	0.085	0.226	0.295	0.326
423-14+423-5A	423-14	423-5A	8	256.677	0.071	0.034	0.04	0.045
423-15+432-78	423-15	432-78	8	371.207	0.012	0.094	0.113	0.128
423-16+423-1E	423-16	423-1E	6	341.297	0.07	0.067	0.079	0.089
423-19+420-23	423-19	420-23	6	173.967	0.076	0.2	0.257	0.287
423-1A+420-21A	423-1A	420-21A	8	331.501	0.022	0.055	0.089	0.093
423-1D+423-19	423-1D	423-19	6	222.951	0.131	0.151	0.201	0.223
423-1E+423-15	423-1E	423-15	6	21.133	0.11	0.074	0.087	0.097
423-20+423-1D	423-20	423-1D	6	174.284	0.13	0.148	0.197	0.218
423-21+423-20	423-21	423-20	6	183.82	0.075	0.165	0.221	0.244
423-22+423-21	423-22	423-21	6	260.186	0.063	0.143	0.205	0.228
423-23+423-22	423-23	423-22	6	232.365	0.042	0.155	0.222	0.246

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
423-24+423-23	423-24	423-23	6	100.605	0.112	0.109	0.163	0.181
423-27+423-24	423-27	423-24	6	234.821	0.107	0.109	0.162	0.179
423-28+423-27	423-28	423-27	6	19.292	0.026	0.136	0.212	0.233
423-29+423-28	423-29	423-28	6	62.263	0.082	0.098	0.153	0.167
423-2A+423-29	423-2A	423-29	6	35.695	0.068	0.098	0.152	0.163
423-2B+423-16	423-2B	423-16	6	121.767	0.098	0.024	0.037	0.046
423-31+423-21	423-31	423-21	6	97.988	0.184	0.067	0.071	0.075
423-32+423-27	423-32	423-27	6	100.5	0.197	0.022	0.033	0.04
423-34+423-29	423-34	423-29	6	104.186	0.175	0.018	0.031	0.039
423-36+423-19	423-36	423-19	6	44.832	0.123	0.083	0.094	0.104
423-38+423-36	423-38	423-36	6	27.426	0.059	0.084	0.094	0.103
423-39+423-38	423-39	423-38	6	79.954	0.027	0.047	0.061	0.071
423-40+420-23	423-40	420-23	8	303.295	0.012	0.269	0.359	0.397
423-42+423-42A	423-42	423-42A	8	196.359	0.13	0.141	0.186	0.204
423-42A+423-40	423-42A	423-40	8	308.73	0.063	0.17	0.226	0.247
423-43+423-43A	423-43	423-43A	6	154.037	0.025	0.058	0.07	0.079
423-43A+423-42	423-43A	423-42	6	26.727	0.074	0.055	0.069	0.08
423-46+423-46A	423-46	423-46A	8	215.973	0.151	0.126	0.169	0.184
423-46A+423-42	423-46A	423-42	8	224.244	0.145	0.134	0.176	0.192
423-47+423-46	423-47	423-46	8	85.431	0.026	0.135	0.204	0.219
423-48+423-48A	423-48	423-48A	8	157.486	0.005	0.173	0.202	0.226
423-48A+423-77	423-48A	423-77	8	109.083	0.013	0.139	0.164	0.185
423-49+423-48	423-49	423-48	8	251.286	0.103	0.083	0.095	0.104
423-4A+423-64	423-4A	423-64	8	154.559	0.095	0.059	0.068	0.075
423-50+423-49	423-50	423-49	6	88.424	0.159	0.1	0.114	0.126
423-50+423-62	423-50	423-62	8	22.362	0.178	0.075	0.086	0.094
423-51+423-50	423-51	423-50	8	177.879	0.062	0.083	0.098	0.109
423-52+423-74A	423-52	423-74A	8	266.232	0.08	0.067	0.078	0.087
423-53+423-52	423-53	423-52	6	213.928	0.075	0.063	0.069	0.075
423-55+423-52	423-55	423-52	6	114.712	0.195	0.052	0.062	0.07
423-59+423-55	423-59	423-55	6	248.84	0.082	0.055	0.062	0.068
423-5A+420-22	423-5A	420-22	8	46.934	0.041	0.044	0.056	0.064
423-60+423-46	423-60	423-46	8	65.152	0.001	0.355	0.416	0.469
423-61+423-60	423-61	423-60	8	304.153	0.008	0.175	0.202	0.225
423-62+423-61	423-62	423-61	8	349.978	0.115	0.09	0.103	0.113
423-63+423-50	423-63	423-50	6	172.869	0.033	0.148	0.168	0.184
423-64+423-63	423-64	423-63	6	217.308	0.107	0.107	0.119	0.13
423-65+423-4A	423-65	423-4A	8	171.73	0.108	0.05	0.056	0.062
423-66+423-65	423-66	423-65	8	80.466	0.116	0.032	0.037	0.041
423-67+423-40	423-67	423-40	6	53.226	0.04	0.086	0.098	0.109
423-72+423-67	423-72	423-67	6	155.141	0.014	0.081	0.092	0.102
423-74A+423-51	423-74A	423-51	8	340.094	0.058	0.079	0.092	0.103
423-77+423-47	423-77	423-47	8	35.583	0.061	0.099	0.139	0.152
430-01+430-01A	430-01	430-01A	10	26.762	0.088	0.217	0.297	0.33
430-01A+400-22	430-01A	400-22	10	77.04	0.038	0.254	0.359	0.403
430-02+430-02A	430-02	430-02A	10	305.338	0.021	0.31	0.428	0.48
430-02A+430-01	430-02A	430-01	10	98.494	0.021	0.311	0.434	0.486
430-04+430-02	430-04	430-02	10	381.246	0.026	0.29	0.4	0.448
430-04A+430-04	430-04A	430-04	10	203.252	0.029	0.28	0.386	0.432
430-05+430-04A	430-05	430-04A	10	25.206	0.033	0.27	0.371	0.414
430-05+430-05A	430-05	430-05A	10	187.503	0.031	0.27	0.371	0.414
430-05A+430-05B	430-05A	430-05B	15	77.967	0.038	0.172	0.226	0.251
430-05B+420-94	430-05B	420-94	15	140.872	0.018	0.207	0.273	0.304
430-06+430-05	430-06	430-05	10	319.525	0.03	0.391	0.556	0.634
430-08+430-06	430-08	430-06	10	305.825	0.034	0.361	0.514	0.579
430-09+430-08	430-09	430-08	10	330.643	0.052	0.316	0.446	0.499
430-10+430-09	430-10	430-09	10	22.722	0.073	0.288	0.404	0.45
430-11+430-10	430-11	430-10	10	109.835	0.071	0.277	0.394	0.438
430-13+430-11	430-13	430-11	10	297.43	0.083	0.264	0.376	0.417
430-14+430-13	430-14	430-13	10	37.169	0.063	0.283	0.404	0.45
430-15+430-14	430-15	430-14	10	156.057	0.06	0.286	0.409	0.456
430-16+430-15	430-16	430-15	10	83.748	0.047	0.303	0.436	0.487
430-17+430-17A	430-17	430-17A	10	18.371	0.083	0.092	0.111	0.125
430-17A+430-16	430-17A	430-16	10	165.725	0.062	0.277	0.398	0.442
430-17B+430-17A	430-17B	430-17A	12	293.884	0.007	0.356	0.535	0.6
430-18+430-17B	430-18	430-17B	12	36.062	0.01	0.323	0.48	0.535
430-19+430-19A	430-19	430-19A	10	189.137	0.018	0.351	0.529	0.592

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
430-19A+430-18	430-19A	430-18	10	216.933	0.041	0.285	0.42	0.464
430-1C+430-26	430-1C	430-26	8	56.763	0.014	0.446	0.667	0.774
430-20+430-20A	430-20	430-20A	8	206.648	0.097	0.296	0.445	0.492
430-20A+430-20C	430-20A	430-20C	8	151.69	0.088	0.308	0.461	0.511
430-20C+430-20D	430-20C	430-20D	8	22.317	0.117	0.286	0.426	0.47
430-20D+430-20E	430-20D	430-20E	8	178.698	0.12	0.287	0.425	0.47
430-20E+430-20F	430-20E	430-20F	8	100.85	0.098	0.304	0.452	0.501
430-20F+430-20G	430-20F	430-20G	12	154.868	0.11	0.173	0.248	0.272
430-20G+430-19	430-20G	430-19	12	133.073	0.047	0.214	0.31	0.341
430-21+430-21A	430-21	430-21A	10	143.346	0.041	0.261	0.392	0.43
430-21A+430-21B	430-21A	430-21B	10	42.835	0.023	0.303	0.46	0.508
430-21B+430-21C	430-21B	430-21C	15	86.711	0.006	0.249	0.372	0.408
430-21C+430-20	430-21C	430-20	15	90.032	0.066	0.137	0.201	0.218
430-22+430-21	430-22	430-21	10	230.222	0.083	0.217	0.324	0.354
430-23+430-22	430-23	430-22	10	260.435	0.053	0.241	0.362	0.397
430-24+430-23	430-24	430-23	10	227.712	0.04	0.26	0.392	0.43
430-25+430-24	430-25	430-24	10	51.664	0.03	0.274	0.407	0.448
430-26+430-25	430-26	430-25	10	199.129	0.014	0.33	0.469	0.523
430-27+430-1C	430-27	430-1C	8	113.597	0.036	0.323	0.469	0.521
430-28+430-27	430-28	430-27	8	97.873	0.042	0.308	0.431	0.48
430-29+430-29A	430-29	430-29A	8	86.407	0.068	0.266	0.356	0.397
430-29A+430-28	430-29A	430-28	8	134.998	0.08	0.258	0.344	0.383
430-30+430-29	430-30	430-29	8	82.911	0.073	0.249	0.336	0.373
430-31+430-30	430-31	430-30	8	95.274	0.067	0.183	0.267	0.291
430-32+430-31	430-32	430-31	8	85.703	0.018	0.252	0.374	0.409
431-01+430-05A	431-01	430-05A	10	103.182	0.013	0.186	0.22	0.247
431-02+430-05	431-02	430-05	10	28.47	0.154	0.038	0.049	0.058
431-03+431-01A	431-03	431-01	10	84.79	0.009	0.2	0.236	0.266
431-04+431-03	431-04	431-03	10	106.751	0.028	0.151	0.177	0.199
431-05+431-04	431-05	431-04	10	55.346	0.026	0.151	0.177	0.199
431-06+431-05	431-06	431-05	10	123.714	0.029	0.147	0.172	0.192
431-07+431-06	431-07	431-06	10	223.742	0.046	0.13	0.151	0.168
431-08+431-07	431-08	431-07	6	140.164	0.009	0.298	0.343	0.381
431-10+431-08	431-10	431-08	6	249.777	0.017	0.229	0.261	0.289
431-11+431-17	431-11	431-17	6	122.606	0.123	0.073	0.089	0.102
431-12+431-11	431-12	431-11	6	77.618	0.134	0.065	0.078	0.089
431-13+431-12	431-13	431-12	6	37.028	0.057	0.05	0.067	0.08
431-17+431-10	431-17	431-10	6	174.353	0.127	0.086	0.103	0.117
431-1A+431-08	431-1A	431-08	6	42.784	0.127	0.023	0.036	0.044
431-21+431-10	431-21	431-10	6	277.344	0.022	0.154	0.168	0.18
431-23+431-21	431-23	431-21	6	199.748	0.038	0.127	0.136	0.143
431-25+431-23	431-25	431-23	6	81.626	0.085	0.07	0.076	0.08
431-29+431-07	431-29	431-07	10	8.791	0.32	0.05	0.06	0.068
431-2A+431-02	431-2A	431-02	10	232.571	0.066	0.042	0.055	0.064
431-2B+431-2A	431-2B	431-2A	10	241.513	0.052	0.041	0.053	0.062
431-2C+431-2B	431-2C	431-2B	10	112.04	0.056	0.027	0.036	0.043
431-2D+431-2C	431-2D	431-2C	10	120.148	0.061	0.021	0.027	0.031
431-30+431-29	431-30	431-29	10	52.727	0.007	0.116	0.14	0.159
431-33+431-30	431-33	431-30	10	157.189	0.002	0.143	0.173	0.197
431-34+431-33	431-34	431-33	10	160.831	0.021	0.081	0.097	0.109
431-36+431-34	431-36	431-34	10	205.008	0.032	0.072	0.085	0.095
431-38+420-07	431-38	420-07	10	118.915	0.015	0.155	0.191	0.22
431-39+431-38	431-39	431-38	6	89.428	0.016	0.088	0.122	0.146
431-3A+431-59	431-3A	431-59	10	24.6	0.237	0.05	0.06	0.068
431-3C+431-36	431-3C	431-36	10	175.705	0.029	0.072	0.083	0.092
431-40+431-40A	431-40	431-40A	6	135.153	0.009	0.052	0.073	0.088
431-40A+431-39	431-40A	431-39	6	43.664	0.008	0.083	0.11	0.129
431-42+431-39	431-42	431-39	6	117.574	0.194	0.022	0.033	0.04
431-44+431-38	431-44	431-38	10	104.413	0.197	0.08	0.096	0.11
431-45+431-44	431-45	431-44	10	89.219	0.079	0.098	0.118	0.134
431-46+431-45	431-46	431-45	10	94.142	0.015	0.145	0.175	0.199
431-46A+431-46	431-46A	431-46	6	30.587	0.023	0.061	0.082	0.098
431-46B+431-46A	431-46B	431-46A	8	149.653	0.045	0.024	0.034	0.041
431-47+431-46	431-47	431-46	10	212.843	0.077	0.092	0.11	0.124
431-48+431-47	431-48	431-47	6	108.887	0.071	0.105	0.117	0.127
431-49A+431-48	431-49A	431-48	6	152.317	0.013	0.102	0.12	0.135
431-50+431-49A	431-50	431-49A	6	35.968	0.055	0.055	0.063	0.071

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431-53+431-47	431-53	431-47	10	57.263	0.034	0.091	0.112	0.128
431-55+431-53	431-55	431-53	6	48.275	0.06	0.058	0.073	0.084
431-57+431-55	431-57	431-55	6	368.779	0.115	0.045	0.052	0.058
431-59+431-53	431-59	431-53	10	125.189	0.031	0.081	0.1	0.114
431-60A+431-3A	431-60A	431-3A	10	126.137	0.113	0.032	0.043	0.05
431-62+431-60A	431-62	431-60A	8	114.769	0.124	0.037	0.048	0.057
431-62A+431-62B	431-62A	431-62B	6	191.215	0.179	0.022	0.033	0.041
431-62B+431-62	431-62B	431-62	8	59.439	0.232	0.026	0.035	0.041
431-64+431-65	431-64	431-65	5	62.91	0.11	0.031	0.047	0.058
431-65+431-65A	431-65	431-65A	6	111.943	0.16	0.078	0.085	0.091
431-65A+431-65B	431-65A	431-65B	6	99.669	0.1	0.089	0.101	0.11
431-65B+431-3A	431-65B	431-3A	6	113.231	0.212	0.079	0.091	0.101
431-71+431-2B	431-71	431-2B	6	26.181	0.19	0.027	0.037	0.043
431-73+430-06	431-73	430-06	8	104.34	0.023	0.146	0.178	0.203
431-74+431-73	431-74	431-73	8	101.525	0.045	0.123	0.148	0.168
431-75+431-74	431-75	431-74	8	210.041	0.05	0.115	0.139	0.158
431-76+431-75	431-76	431-75	6	129.282	0.147	0.044	0.056	0.066
431-77+431-76	431-77	431-76	6	26.879	0.105	0.038	0.047	0.054
431-81+431-75	431-81	431-75	8	112.112	0.059	0.103	0.122	0.138
431-83+431-81	431-83	431-81	6	107.883	0.12	0.045	0.053	0.059
431-86+431-81	431-86	431-81	8	127.538	0.065	0.092	0.109	0.122
431-87+431-86	431-87	431-86	8	152.505	0.06	0.091	0.107	0.119
431-88+431-87	431-88	431-87	6	70.525	0.118	0.031	0.041	0.049
431-89+431-89A	431-89	431-89A	6	40.383	0.053	0.087	0.097	0.107
431-89A+431-87	431-89A	431-87	6	56.071	0.09	0.113	0.128	0.141
431-90+431-90A	431-90	431-90A	6	112.542	0.133	0.036	0.045	0.051
431-90A+431-89A	431-90A	431-89A	6	35.229	0.073	0.061	0.074	0.084
431-92+431-89	431-92	431-89	6	283.641	0.141	0.026	0.037	0.045
431-93+430-06	431-93	430-06	6	107.193	0.032	0.057	0.077	0.091
431-94+431-93	431-94	431-93	6	258.638	0.094	0.038	0.047	0.054
431-96+431-13	431-96	431-13	6	329.484	0.073	0.031	0.044	0.053
432-01+430-08	432-01	430-08	8	67.186	0.025	0.093	0.116	0.134
432-03+432-01	432-03	432-01	8	260.444	0.08	0.069	0.084	0.096
432-04+432-03	432-04	432-03	8	104.196	0.067	0.054	0.071	0.084
432-06+432-04	432-06	432-04	6	111.822	0.182	0.049	0.059	0.067
432-08+432-06	432-08	432-06	6	189.78	0.021	0.065	0.077	0.086
432-09+432-04	432-09	432-04	6	172.487	0.075	0.027	0.041	0.05
432-10+430-09	432-10	430-09	6	133.452	0.055	0.044	0.054	0.063
432-14A+430-10	432-14A	430-10	8	85.415	0.088	0.099	0.113	0.124
432-15+432-14A	432-15	432-14A	8	106.206	0.03	0.118	0.135	0.149
432-16+432-15	432-16	432-15	8	68.465	0.092	0.087	0.099	0.108
432-1A+432-04	432-1A	432-04	6	194.55	0.044	0.04	0.052	0.062
432-1C+430-29	432-1C	430-29	6	32.043	0.075	0.103	0.118	0.131
432-1D+430-29	432-1D	430-29	8	68.964	0.042	0.032	0.04	0.046
432-1E+430-26	432-1E	430-26	8	450.007	0.052	0.032	0.039	0.045
432-20+432-16	432-20	432-16	8	65.452	0.051	0.088	0.1	0.111
432-21+432-20	432-21	432-20	8	281.271	0.04	0.049	0.06	0.068
432-22+432-21	432-22	432-21	8	44.921	0.163	0.031	0.035	0.039
432-25+432-20	432-25	432-20	6	142.565	0.203	0.034	0.042	0.047
432-26+432-20	432-26	432-20	6	129.279	0.212	0.068	0.071	0.075
432-30+432-37	432-30	432-37	6	37.076	0.017	0.103	0.119	0.132
432-30A+432-30	432-30A	432-30	6	111.568	0.139	0.051	0.057	0.062
432-32+432-37	432-32	432-37	6	198.11	0.102	0.059	0.071	0.08
432-33+432-32	432-33	432-32	6	26.897	0.057	0.037	0.049	0.058
432-37+432-37A	432-37	432-37A	6	26.653	0.024	0.129	0.155	0.175
432-37A+430-16	432-37A	430-16	6	9.488	0.042	0.119	0.144	0.164
432-39+430-17	432-39	430-17	10	75.012	0.278	0.067	0.08	0.091
432-40+432-39	432-40	432-39	6	57.708	0.148	0.147	0.176	0.2
432-42+432-40	432-42	432-40	6	125.996	0.132	0.149	0.178	0.201
432-43+432-42	432-43	432-42	6	74.876	0.081	0.055	0.063	0.069
432-45+432-45A	432-45	432-45A	6	244.855	0.105	0.145	0.17	0.189
432-45A+432-42	432-45A	432-42	6	57.247	0.054	0.173	0.204	0.229
432-45B+432-45	432-45B	432-45	6	65.067	0.143	0.109	0.125	0.138
432-46A+432-45	432-46A	432-45	6	74.937	0.041	0.106	0.125	0.141
432-47+432-47A	432-47	432-47A	6	64.06	0.079	0.064	0.076	0.086
432-47A+432-46A	432-47A	432-46A	6	51.915	0.077	0.079	0.094	0.105
432-48+432-47	432-48	432-47	6	164.468	0.147	0.033	0.042	0.048

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
432-49+432-45B	432-49	432-45B	6	150.541	0.138	0.102	0.116	0.128
432-49A+432-49	432-49A	432-49	6	173.908	0.059	0.052	0.061	0.068
432-50+432-49	432-50	432-49	6	179.856	0.117	0.095	0.105	0.113
432-52B+432-52C	432-52B	432-52C	6	217.288	0.093	0.075	0.08	0.085
432-52C+432-50	432-52C	432-50	6	240.596	0.079	0.082	0.092	0.1
432-54A+432-42	432-54A	432-42	6	159.975	0.012	0.046	0.066	0.079
432-56+432-56A	432-56	432-56A	6	307.998	0.076	0.113	0.136	0.155
432-56A+430-20	432-56A	430-20	10	67.356	0.09	0.06	0.072	0.082
432-57A+432-57B	432-57A	432-57B	6	166.862	0.072	0.048	0.057	0.064
432-57B+432-56	432-57B	432-56	8	238.264	0.016	0.062	0.075	0.085
432-58+432-56	432-58	432-56	6	289.166	0.055	0.092	0.111	0.126
432-5A+430-18	432-5A	430-18	6	88.448	0.25	0.041	0.047	0.052
432-60+432-58	432-60	432-58	6	146.247	0.074	0.075	0.091	0.103
432-61+432-60	432-61	432-60	6	212.994	0.024	0.093	0.108	0.12
432-61A+432-61	432-61A	432-61	6	32.759	0.064	0.048	0.057	0.065
432-62+430-24	432-62	430-24	6	230.617	0.067	0.045	0.157	0.162
432-63+432-62	432-63	432-62	6	467.052	0.014	0.051	0.166	0.171
432-64+430-25	432-64	430-25	6	57.24	0.073	0.077	0.226	0.235
432-65+432-64	432-65	432-64	6	53.56	0.022	0.095	0.26	0.271
432-68+432-65	432-68	432-65	6	284.271	0.047	0.068	0.177	0.185
432-69+432-68	432-69	432-68	6	183.58	0.021	0.061	0.084	0.1
432-72+432-69	432-72	432-69	6	343.066	0.071	0.034	0.046	0.055
432-73+430-1C	432-73	430-1C	8	49.163	0.026	0.13	0.151	0.168
432-74+432-73	432-74	432-73	8	39.591	0.034	0.117	0.135	0.15
432-75+432-74	432-75	432-74	6	263.228	0.089	0.049	0.056	0.063
432-78+432-74	432-78	432-74	8	92.784	0.029	0.112	0.128	0.14
432-79+432-78	432-79	432-78	6	166.834	0.103	0.039	0.048	0.055
432-7A+430-20E	432-7A	430-20E	6	189.721	0.014	0.033	0.057	0.071
432-81+430-28	432-81	430-28	6	17.774	0.29	0.042	0.112	0.115
432-82+432-81	432-82	432-81	6	95.602	0.213	0.043	0.117	0.119
432-84+432-1C	432-84	432-1C	6	267.453	0.062	0.03	0.044	0.053
432-85+432-1C	432-85	432-1C	6	254.824	0.1	0.079	0.088	0.095
432-86B+432-85	432-86B	432-85	6	215.938	0.085	0.045	0.053	0.06
433-01+433-01A	433-01	433-01A	6	231.164	0.115	0.22	0.263	0.297
433-01A+430-30	433-01A	430-30	6	221.973	0.088	0.241	0.288	0.326
433-02+433-01	433-02	433-01	6	49.303	0.053	0.249	0.299	0.34
433-03+433-01	433-03	433-01	6	137.31	0.151	0.075	0.083	0.089
433-05+433-03	433-05	433-03	6	157.859	0.124	0.068	0.072	0.077
433-08+433-11	433-08	433-11	6	325.474	0.212	0.059	0.067	0.074
433-09+433-08	433-09	433-08	6	122.831	0.352	0.028	0.035	0.04
433-11+433-02	433-11	433-02	6	254.491	0.148	0.166	0.197	0.222
433-12+433-11	433-12	433-11	6	153.441	0.11	0.165	0.195	0.22
433-14+433-12	433-14	433-12	6	207.136	0.146	0.151	0.178	0.2
433-15+433-14	433-15	433-14	6	197.439	0.233	0.022	0.032	0.039
433-18+433-14	433-18	433-14	6	62.254	0.313	0.123	0.143	0.159
433-19+433-18	433-19	433-18	6	60.611	0.115	0.154	0.178	0.198
433-21+433-19	433-21	433-19	6	165.014	0.158	0.141	0.161	0.179
433-22+433-21	433-22	433-21	5	323.805	0.046	0.212	0.243	0.269
433-24+433-22	433-24	433-22	6	108.541	0.047	0.163	0.184	0.202
433-26+433-25	433-26	433-24	5	525.9	0.031	0.205	0.234	0.258
433-27+433-26	433-27	433-26	5	121.176	0.056	0.167	0.189	0.208
433-28+433-27	433-28	433-27	5	198.71	0.139	0.061	0.069	0.075
433-2F+433-34	433-2F	433-34	6	101.705	0.152	0.032	0.041	0.048
433-30+433-27	433-30	433-27	5	268.221	0.072	0.118	0.134	0.148
433-31+433-30	433-31	433-30	6	168.069	0.004	0.166	0.187	0.204
433-32+433-31	433-32	433-31	6	331.497	0.025	0.062	0.073	0.082
433-34+433-02	433-34	433-02	6	77.262	0.047	0.124	0.151	0.172
433-37+433-34	433-37	433-34	6	200.01	0.103	0.091	0.109	0.123
433-40+433-37	433-40	433-37	6	181.842	0.098	0.082	0.098	0.111
433-44+433-40	433-44	433-40	6	137.742	0.375	0.046	0.058	0.067
433-46+433-44	433-46	433-44	6	128.131	0.444	0.015	0.025	0.032
433-48+433-44	433-48	433-44	6	123.493	0.018	0.073	0.084	0.093
433-53+433-21	433-53	433-21	6	224.684	0.104	0.05	0.063	0.073
433-55+433-53	433-55	433-53	6	102.44	0.343	0.034	0.039	0.044
434-01+430-32	434-01	430-32	8	51.929	0.132	0.094	0.157	0.169
434-02+434-01	434-02	434-01	6	74.792	0.108	0.139	0.238	0.255
434-03+434-02	434-03	434-02	6	132.677	0.089	0.132	0.239	0.255

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
434-05+434-03	434-05	434-03	6	210.746	0.13	0.104	0.207	0.221
434-08+434-05	434-08	434-05	6	193.764	0.159	0.092	0.192	0.204
434-09+434-08	434-09	434-08	6	22.074	0.189	0.077	0.178	0.188
434-12+434-09	434-12	434-09	6	115.259	0.122	0.082	0.194	0.205
434-13+434-12	434-13	434-12	6	58.338	0.41	0.025	0.032	0.037
434-15+434-12	434-15	434-12	6	115.891	0.077	0.074	0.207	0.216
434-16+434-15	434-16	434-15	6	72.359	0.197	0.054	0.161	0.167
434-18+434-16	434-18	434-16	6	413.451	0.122	0.045	0.173	0.177
434-1B+434-42	434-1B	434-42	6	82.306	0.175	0.028	0.09	0.093
434-20+434-18	434-20	434-18	6	170.103	0.179	0.029	0.038	0.045
434-25+434-16	434-25	434-16	6	222.582	0.085	0.043	0.052	0.059
434-28+434-02	434-28	434-02	6	201.095	0.104	0.06	0.066	0.071
434-29+430-32	434-29	430-32	6	175.338	0.025	0.269	0.355	0.391
434-30+434-29	434-30	434-29	6	198.242	0.018	0.291	0.384	0.422
434-31+434-3A	434-31	434-3A	6	232.096	0.026	0.252	0.334	0.364
434-32+434-31	434-32	434-31	6	93.892	0.049	0.103	0.112	0.121
434-33+434-32	434-33	434-32	6	149.348	0.072	0.082	0.087	0.092
434-34+434-31	434-34	434-31	6	295.958	0.097	0.132	0.197	0.217
434-38+434-34	434-38	434-34	6	142.021	0.125	0.077	0.138	0.145
434-39+434-38	434-39	434-38	6	93.098	0.322	0.057	0.106	0.109
434-3A+434-30	434-3A	434-30	6	201.611	0.02	0.275	0.365	0.4
434-41+434-39	434-41	434-39	6	312.81	0.143	0.04	0.114	0.117
434-42+434-42A	434-42	434-42A	6	62.66	0.142	0.056	0.107	0.113
434-42B+423-2A	434-42A	423-2A	6	441.407	0.019	0.129	0.202	0.213
434-44+434-34	434-44	434-34	6	36.606	0.16	0.093	0.115	0.132
434-45+434-44	434-45	434-44	6	40.848	0.096	0.101	0.124	0.142
434-46+434-45	434-46	434-45	6	95.787	0.373	0.022	0.031	0.037
434-49+434-45	434-49	434-45	6	178.44	0.063	0.094	0.116	0.133
434-51+434-49	434-51	434-49	6	42.192	0.189	0.063	0.079	0.09
434-52+434-51	434-52	434-51	6	50.195	0.048	0.078	0.096	0.11
434-56+434-52	434-56	434-52	6	76.205	0.271	0.039	0.05	0.058
434-57+434-56	434-57	434-56	6	32.21	0.062	0.023	0.04	0.05
440-01+400-28	440-01	400-28	15	190.972	0.027	0.244	0.423	0.448
440-02+440-02A	440-02	440-02A	15	79.48	0.027	0.234	0.413	0.435
440-02A+440-01	440-02A	440-01	15	199.721	0.03	0.23	0.404	0.425
440-03+440-02	440-03	440-02	16	102.708	0.054	0.18	0.313	0.329
440-04+440-03	440-04	440-03	16	125.149	0.032	0.204	0.358	0.376
440-05+440-04	440-05	440-04	16	86.978	0.039	0.159	0.314	0.326
440-06+440-1A	440-06	440-1A	16	98.124	0.026	0.172	0.346	0.36
440-07+440-07A	440-07	440-07A	16	38.027	0.05	0.146	0.291	0.302
440-07A+440-06	440-07A	440-06	16	144.437	0.075	0.133	0.263	0.273
440-08+440-07	440-08	440-07	16	70.304	0.109	0.121	0.239	0.248
440-09+440-08	440-09	440-08	12	69.045	0.005	0.379	1	1
440-10+440-09	440-10	440-09	8	280.514	0.049	0.357	1	1
440-12+440-12A	440-12	440-12A	8	254.284	0.024	0.166	0.202	0.23
440-12A+440-10	440-12A	440-10	8	198.089	0.175	0.139	0.162	0.181
440-13+440-12	440-13	440-12	8	312.954	0.037	0.144	0.175	0.199
440-14+440-13	440-14	440-13	8	153.063	0.058	0.128	0.154	0.175
440-15+440-14	440-15	440-14	8	62.859	0.071	0.118	0.142	0.162
440-16+440-15	440-16	440-15	8	115.415	0.135	0.082	0.096	0.108
440-17+440-16	440-17	440-16	8	289.836	0.128	0.045	0.058	0.067
440-18+440-17	440-18	440-17	8	223.944	0.069	0.042	0.056	0.065
440-19+440-18	440-19	440-18	8	219.131	0.059	0.034	0.046	0.055
440-1A+440-05	440-1A	440-05	16	32.406	0.1	0.127	0.246	0.256
440-20+440-19	440-20	440-19	8	220.799	0.006	0.032	0.051	0.063
441-01+440-01	441-01	440-01	10	307.426	0.042	0.102	0.121	0.136
441-02+441-01	441-02	441-01	6	209.141	0.072	0.15	0.176	0.197
441-03+441-02	441-03	441-02	6	71.169	0.187	0.093	0.107	0.118
441-04+441-03	441-04	441-03	6	117.64	0.203	0.082	0.094	0.103
441-05+441-04	441-05	441-04	6	55.962	0.042	0.086	0.093	0.098
441-06+441-04	441-06	441-04	6	177.614	0.012	0.109	0.126	0.141
441-08+441-06	441-08	441-06	6	127.65	0.069	0.067	0.073	0.079
441-101+441-60	441-101	441-60	8	208.695	0.048	0.064	0.075	0.083
441-13+441-13A	441-13	441-13A	6	299.448	0.061	0.086	0.101	0.113
441-13A+441-02	441-13A	441-02	6	362.673	0.064	0.092	0.11	0.125
441-16+441-13	441-16	441-13	6	154.676	0.046	0.088	0.1	0.109
441-17+441-16	441-17	441-16	6	244.672	0.038	0.086	0.092	0.098

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
441-19+441-19A	441-19	441-19A	6	95.95	0.032	0.086	0.106	0.122
441-19A+441-01	441-19A	441-01	6	62.568	0.03	0.095	0.12	0.139
441-21+441-19	441-21	441-19	6	618.255	0.028	0.055	0.077	0.092
441-23+441-21	441-23	441-21	6	72.593	0.05	0.042	0.054	0.062
441-24+440-01	441-24	440-01	6	35.474	0.194	0.024	0.034	0.041
441-26+440-04	441-26	440-04	6	261.507	0.038	0.121	0.126	0.13
441-27+440-04	441-27	440-04	8	5.711	0.683	0.133	0.152	0.168
441-28+441-27	441-28	441-27	8	238.57	0.025	0.255	0.297	0.333
441-29+441-29A	441-29	441-29A	8	286.291	0.036	0.222	0.258	0.289
441-29A+441-28	441-29A	441-28	8	243.827	0.011	0.309	0.361	0.406
441-30+441-29	441-30	441-29	8	92.847	0.038	0.218	0.253	0.282
441-31+441-30	441-31	441-30	6	128.862	0.033	0.321	0.376	0.423
441-32+441-31	441-32	441-31	6	92	0.112	0.087	0.105	0.119
441-33+441-32	441-33	441-32	6	293.21	0.008	0.161	0.19	0.215
441-34+441-33	441-34	441-33	6	44.027	0.385	0.058	0.067	0.075
441-35A+441-98	441-35A	441-98	6	282.676	0.017	0.058	0.072	0.083
441-38+441-31	441-38	441-31	6	166.595	0.038	0.261	0.298	0.329
441-39+441-38	441-40	441-38	6	179.595	0.06	0.231	0.261	0.287
441-43+441-43A	441-43	441-43A	6	139.047	0.069	0.089	0.107	0.121
441-43A+441-31	441-43A	441-31	6	65.025	0.059	0.106	0.126	0.143
441-44+441-43	441-44	441-43	6	23.293	0.037	0.095	0.112	0.126
441-45+441-44	441-45	441-44	6	60.74	0.053	0.071	0.084	0.095
441-46+441-45	441-46	441-45	6	55.229	0.056	0.053	0.062	0.069
441-49+441-40	441-49	441-40	6	36.974	0.03	0.135	0.162	0.183
441-50+441-93	441-50	441-93	6	47.432	0.042	0.182	0.202	0.219
441-51+441-93	441-51	441-93	6	142.591	0.039	0.087	0.093	0.099
441-52+441-95	441-52	441-95	6	49.281	0.068	0.115	0.13	0.141
441-54+441-52	441-54	441-52	6	95.567	0.095	0.104	0.114	0.123
441-56+441-54	441-56	441-54	6	347.065	0.105	0.092	0.1	0.106
441-58+441-56	441-58	441-56	6	47.657	0.122	0.084	0.088	0.091
441-59+441-49	441-59	441-49	6	70.164	0.039	0.106	0.13	0.149
441-60+441-59	441-60	441-59	8	122.487	0.06	0.065	0.077	0.087
441-62+441-62A	441-62	441-62A	8	98.156	0.11	0.029	0.035	0.039
441-62A+441-101	441-62A	441-101	8	80.774	0.121	0.039	0.047	0.053
441-65+441-30	441-65	441-30	6	235.882	0.053	0.035	0.048	0.058
441-67+441-28	441-67	441-28	6	85.222	0.118	0.039	0.048	0.054
441-70+441-27	441-70	441-27	8	85.738	0.031	0.125	0.143	0.157
441-71+441-70	441-71	441-70	8	104.973	0.03	0.121	0.137	0.151
441-72+441-71	441-72	441-71	8	265.764	0.044	0.107	0.12	0.131
441-73+441-72	441-73	441-72	8	30.55	0.067	0.081	0.093	0.103
441-74+441-73	441-74	441-73	8	97.278	0.033	0.092	0.104	0.114
441-75+441-74	441-75	441-74	8	247.881	0.044	0.077	0.086	0.094
441-76+441-75	441-76	441-75	6	104.156	0.017	0.135	0.147	0.157
441-77+441-76	441-77	441-76	6	128.867	0.133	0.048	0.055	0.06
441-91+440-09	441-91	440-09	6	133.001	0.005	0.106	0.121	0.133
441-93+441-40	441-93	441-40	6	282.432	0.087	0.174	0.193	0.209
441-95+441-97	441-95	441-97	6	174.327	0.007	0.284	0.309	0.33
441-97+441-50	441-97	441-50	6	232.362	0.041	0.181	0.198	0.213
441-98+441-34	441-98	441-34	6	149.167	0.055	0.066	0.08	0.09
442-01+442-01B	442-01	442-01B	8	150.928	0.116	0.231	0.6	0.621
442-01A+440-10	442-01A	440-10	8	246.366	0.076	0.26	0.697	0.727
442-01B+442-01A	442-01B	442-01A	8	144.724	0.277	0.187	0.461	0.476
442-02+442-02A	442-02	442-01	8	498.857	0.029	0.327	1	1
442-03+442-02	442-03	442-02	8	65.77	0.099	0.237	0.63	0.653
442-04+442-03	442-04	442-03	6	55.596	0.018	0.062	0.085	0.103
442-08+440-12A	442-08	440-12A	8	290.983	0.136	0.087	0.1	0.11
442-09+442-09A	442-09	442-09A	8	252.939	0.024	0.116	0.132	0.146
442-09A+442-08	442-09A	442-08	8	299.283	0.031	0.122	0.138	0.152
442-10+442-09	442-10	442-09	8	196.903	0.049	0.087	0.1	0.111
442-11+442-10	442-11	442-10	8	115.854	0.023	0.087	0.102	0.114
442-12+442-11	442-12	442-11	8	25.759	0.128	0.046	0.056	0.063
442-17+442-12	442-17	442-12	6	247.387	0.075	0.066	0.078	0.088
442-19+442-17	442-19	442-17	6	196.907	0.085	0.024	0.039	0.048
442-1B+442-04	442-1B	442-04	6	336.51	0.007	0.059	0.08	0.094
442-22+400-48	442-22	400-48	6	141.506	0.137	0.027	0.038	0.045
442-26+440-15	442-26	440-15	6	317.236	0.103	0.088	0.11	0.127
442-27+442-26	442-27	442-26	6	293.46	0.093	0.084	0.104	0.12

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
442-28+442-27	442-28	442-27	8	216.274	0.043	0.063	0.078	0.089
442-29+442-28	442-29	442-28	8	179.524	0.009	0.049	0.078	0.096
442-30+442-29	442-30	442-29	6	126.544	0.022	0.05	0.076	0.094
442-31+442-30	442-31	442-30	6	135.235	0.002	0.076	0.105	0.126
442-34+440-16	442-34	440-16	6	112.113	0.011	0.171	0.194	0.214
442-35+442-34	442-35	442-34	6	59.625	0.074	0.07	0.087	0.1
442-36+442-35	442-36	442-35	6	103.18	0.033	0.069	0.086	0.098
442-37+442-36	442-37	442-36	6	97.964	0.137	0.032	0.041	0.048
310-44+310-44A	310-44	310-44A	10	103.918	0.127	0.435	0.477	0.504
310-46+310-44	310-46	310-44	10	326.616	0.1	0.29	0.344	0.346
310-47+310-46	310-47	310-46	8	151.445	0.088	0.249	0.228	0.28
310-48+310-47	310-48	310-47	8	152.968	0.203	0.197	0.181	0.22
310-49+310-48	310-49	310-48	8	154.536	0.243	0.183	0.169	0.204
310-60+310-49	310-60	310-49	8	231.058	0.034	0.294	0.27	0.328
310-61+310-61A	310-61	310-61A	8	117.386	0.063	0.231	0.214	0.256
310-61A+310-60	310-61A	310-60	6	17.065	0.071	0.35	0.323	0.395
310-62+310-61	310-62	310-61	6	79.134	0.042	0.348	0.307	0.394
310-63+310-62	310-63	310-62	8	90.121	0.051	0.22	0.195	0.247
310-64+310-63	310-64	310-63	8	34.437	0.051	0.216	0.192	0.242
310-65+310-64	310-65	310-64	8	103.447	0.204	0.152	0.135	0.168
310-66+310-65	310-66	310-65	6	50.268	0.168	0.231	0.204	0.255
310-67+310-66	310-67	310-66	6	72.028	0.045	0.278	0.245	0.307
310-68+310-67	310-68	310-67	6	92.645	0.102	0.211	0.187	0.232
310-69+310-68	310-69	310-68	6	46.468	0.074	0.166	0.148	0.191
310-70+310-69	310-70	310-69	6	117.642	0.276	0.119	0.106	0.134
313-53+313-52	313-53	313-52	8	217.881	0.043	0.486	0.633	0.617
313-54+313-53	313-54	313-53	8	236.626	0.042	0.483	0.633	0.615
313-55+313-54	313-55	313-54	8	149.47	0.014	0.682	1	1
313-56+313-55	313-56	313-55	8	343.237	0.085	0.102	0.089	0.102
313-57+313-56	313-57	313-56	8	350.283	0.061	0.074	0.066	0.079
313-58+313-57	313-58	313-57	6	225.639	0.032	0.097	0.085	0.1
313-59+313-55	313-59	313-55	10	356.113	0.006	0.567	0.747	0.747
313-60+313-59	313-60	313-59	8	432.559	0.011	0.656	1	1
316-01+310-46	316-01	310-46	8	22.062	0.113	0.026	0.025	0.037
316-03+316-01	316-03	316-01	6	114.939	0.616	0	0	0
316-05+310-46	316-05	310-46	8	267.024	0.086	0.316	0.425	0.39
316-07+316-07A	316-07	316-07A	6	35.673	0.407	0.041	0.037	0.047
316-07A+316-05	316-07A	316-05	6	98.205	0.298	0.059	0.053	0.069
316-11+316-05	316-11	316-05	8	142.214	0.095	0.299	0.409	0.371
316-13+316-11	316-13	316-11	6	224.6	0.273	0.297	0.442	0.384
316-15+316-13	316-15	316-13	6	205.291	0.035	0.51	1	1
316-16+316-15	316-16	316-15	6	174.907	0.008	1	1	1
316-17+316-17A	316-17	316-17A	6	20.868	0.02	0.56	1	1
316-17A+316-17B	316-17A	316-17B	6	25.604	0.034	0.482	1	1
316-17B+316-17C	316-17B	316-17C	6	99.293	0.015	0.632	1	1
316-17C+316-16	316-17C	316-16	6	38.483	0.015	0.655	1	1
316-1A+316-32	316-1A	316-32	6	103.838	0.054	0.048	0.256	0.175
316-1B+316-30	316-1B	316-30	6	155.088	0.117	0.214	0.381	0.302
316-20+316-17	316-20	316-17	6	40.446	0.144	0.32	0.512	0.425
316-23+316-20	316-23	316-20	6	251.433	0.127	0.317	0.449	0.39
316-24+316-23	316-24	316-23	6	104.705	0.268	0.138	0.119	0.127
316-24A+316-24	316-24A	316-24	6	33.79	0.07	0.176	0.151	0.157
316-27+316-27A	316-27	316-27A	6	175.908	0.051	0.093	0.081	0.094
316-27A+316-23	316-27A	316-23	6	184.401	0.03	0.125	0.11	0.134
316-28+316-23	316-28	316-23	6	213.904	0.108	0.252	0.426	0.348
316-28A+316-28	316-28A	316-28	6	105.316	0.173	0.045	0.041	0.054
316-29+316-28	316-29	316-28	6	147.067	0.062	0.265	0.461	0.372
316-30+316-29	316-30	316-29	6	319.658	0.107	0.225	0.393	0.316
316-32+316-32A	316-32	316-32A	6	51.758	0.127	0.18	0.36	0.275
316-32A+316-1B	316-32A	316-1B	6	77.243	0.091	0.214	0.401	0.312
316-34+316-32	316-34	316-32	6	312.633	0.114	0.175	0.295	0.235
316-35+316-34	316-35	316-34	6	145.295	0.031	0.218	0.353	0.284
316-36+316-35	316-36	316-35	6	306.416	0.047	0.188	0.311	0.245
316-37+316-36	316-37	316-36	6	350.676	0.091	0.072	0.232	0.163
316-40+316-20	316-40	316-20	6	13.253	0.552	0.054	0.172	0.127
316-41+316-40	316-41	316-40	6	132.27	0.156	0.062	0.232	0.164
316-42+316-41	316-42	316-41	6	93.337	0.151	0.057	0.233	0.16

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316-45+316-11	316-45	316-11	8	227.5	0.093	0.126	0.111	0.133
316-46+316-45	316-46	316-45	6	28.668	0.105	0.147	0.129	0.151
316-47+316-46	316-47	316-46	6	227.266	0.071	0.142	0.125	0.145
316-48+316-47	316-48	316-47	6	109.087	0.066	0.121	0.106	0.123
316-4A+316-79	316-4A	316-79	6	125.701	0.196	0.04	0.037	0.051
316-50+316-48	316-50	316-48	6	51.442	0.09	0.058	0.052	0.067
316-52+316-45	316-52	316-45	8	22.613	0.096	0.047	0.043	0.059
316-53+316-52	316-53	316-52	8	296.66	0.1	0.037	0.033	0.044
316-56+310-47	316-56	310-47	6	64.888	0.26	0.05	0.046	0.065
316-57+316-56	316-57	316-56	6	31.254	0.415	0.033	0.03	0.042
316-59+310-48	316-59	310-48	6	66.984	0.166	0.066	0.058	0.068
316-61+310-49	316-61	310-49	6	115.718	0.018	0.052	0.05	0.08
316-63+310-61A	316-63	310-61A	6	120.714	0.009	0.151	0.137	0.186
316-65+316-63	316-65	316-63	6	284.291	0.021	0.11	0.099	0.129
316-68+316-65	316-68	316-65	6	141.074	0.165	0.054	0.048	0.06
316-75+310-66	316-75	310-66	6	79.013	0.06	0.138	0.123	0.152
316-77+316-75	316-77	316-75	6	112.926	0.257	0.087	0.077	0.094
316-79+316-77	316-79	316-77	6	93.298	0.029	0.085	0.078	0.11
316-82+310-67	316-82	310-67	6	89.989	0.008	0.133	0.117	0.138
316-84+310-68	316-84	310-68	6	68.206	0.019	0.203	0.177	0.205
316-85+316-84	316-85	316-84	6	64.95	0.062	0.095	0.085	0.106
316-87+316-85	316-87	316-85	6	106.436	0.218	0.062	0.055	0.064
316-90+310-70	316-90	310-70	6	56.48	0.045	0.163	0.146	0.188
316-92+316-90	316-92	316-90	6	119.865	0.176	0.114	0.102	0.128
316-93+316-92	316-93	316-92	6	99.275	0.042	0.158	0.14	0.17
316-94+316-93	316-94	316-93	6	40.215	0.04	0.148	0.131	0.156
316-96+316-94	316-96	316-94	6	83.06	0.365	0.082	0.072	0.083
316-98+316-96	316-98	316-96	6	106.119	0.01	0.186	0.161	0.175
340-03+340-02	340-03	340-02	10	15.823	0.037	0.045	0.077	0.065
340-05+340-02	340-05	340-02	10	84.619	0.019	0.455	0.549	0.55
340-08+340-08A	340-08	340-08A	10	56.949	0.113	0.252	0.313	0.303
340-08A+340-08B	340-08A	340-08B	10	28.051	0.391	0.187	0.229	0.223
340-08B+340-08C	340-08B	340-05	10	85.516	0.053	0.313	0.387	0.376
340-09+340-08	340-09	340-08	10	91.712	0.298	0.196	0.243	0.234
340-10+340-09	340-10	340-09	10	81.038	0.056	0.274	0.36	0.344
340-11+340-11A	340-11	340-11A	10	143.873	0.049	0.281	0.355	0.346
340-11A+340-10	340-11A	340-10	10	70.349	0.018	0.362	0.487	0.463
340-12+340-11	340-12	340-11	10	248.349	0.112	0.226	0.285	0.277
340-13+340-12	340-13	340-12	10	68.334	0.015	0.375	0.48	0.469
340-14+340-13	340-14	340-13	10	117.214	0.057	0.259	0.329	0.321
340-17+340-14	340-17	340-14	10	281.512	0.1	0.221	0.281	0.273
340-19+340-17	340-19	340-17	10	161.919	0.014	0.356	0.471	0.454
340-1A+340-48	340-1A	340-48	8	162.934	0.077	0.088	0.079	0.098
340-22+340-22A	340-22	340-22A	10	76.722	0.034	0.27	0.362	0.347
340-22A+340-19	340-22A	340-19	8	113.424	0.09	0.286	0.383	0.369
340-24+340-24A	340-24	340-24A	10	205.652	0.064	0.224	0.302	0.286
340-24+342-2B	340-24	342-2B	8	209.331	0.068	0.279	0.377	0.358
340-24A+340-22	340-24A	340-22	10	14.441	0.067	0.221	0.298	0.284
340-25+340-24	340-25	340-24	10	63.821	0.068	0.297	0.41	0.387
340-26+340-25	340-26	340-25	10	172.35	0.057	0.3	0.425	0.398
340-27+340-26	340-27	340-26	8	126.141	0.01	0.703	1	1
340-28+340-27	340-28	340-27	15	141.821	0.018	0.205	0.278	0.266
340-29+340-28	340-29	340-28	15	52.751	0.005	0.275	0.376	0.36
340-30+340-30A	340-30	340-30A	8	41.543	0.023	0.45	0.632	0.604
340-30A+340-30B	340-30A	340-30B	15	271.938	0.005	0.278	0.372	0.359
340-30B+340-29	340-30B	340-29	15	53.606	0.019	0.2	0.267	0.257
340-31+340-30	340-31	340-30	10	48.404	0.07	0.24	0.323	0.31
340-32+340-31	340-32	340-31	10	285.136	0.077	0.231	0.292	0.29
340-33+340-32	340-33	340-32	10	60.411	0.037	0.277	0.327	0.338
340-34+340-33	340-34	340-33	10	60.443	0.09	0.217	0.235	0.255
340-35+340-35A	340-35	340-35A	10	4.821	0.402	0.149	0.157	0.172
340-35A+340-34	340-35A	340-34	10	56.442	0.003	0.522	0.565	0.635
340-40+340-35	340-40	340-35	10	173.918	0.034	0.274	0.289	0.318
340-41+340-40	340-41	340-40	10	107.281	0.069	0.22	0.229	0.254
340-42+340-41	340-42	340-41	10	89.816	0.079	0.211	0.219	0.243
340-43+340-42	340-43	340-42	10	77.205	0.084	0.206	0.215	0.237
340-44+340-44A	340-44	340-44A	8	18.035	0.135	0.143	0.125	0.146

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340-44A+340-43	340-44A	340-43	8	110.651	0.101	0.157	0.138	0.162
340-45+340-44	340-45	340-44	8	80.706	0.017	0.193	0.171	0.208
340-46+340-45	340-46	340-45	8	51.876	0.116	0.087	0.079	0.105
340-47+340-46	340-47	340-46	8	70.054	0.039	0.111	0.1	0.13
340-48+340-47	340-48	340-47	8	154.134	0.032	0.113	0.101	0.129
340-49+340-1A	340-49	340-1A	8	59.34	0.066	0.084	0.075	0.091
340-50+340-49	340-50	340-49	8	135.225	0.06	0.073	0.065	0.079
340-51+340-50	340-51	340-50	8	220.958	0.066	0.058	0.051	0.06
341-04+340-08	341-04	340-08	6	171.422	0.354	0.055	0.049	0.057
341-08+341-08B	341-08	341-08B	6	68.74	0.061	0.254	0.224	0.277
341-08B+340-05	341-08B	340-05	6	65.938	0.062	0.256	0.226	0.282
341-12+341-1C	341-12	341-1C	6	68.189	0.012	0.362	0.316	0.387
341-13+341-12	341-13	341-12	6	130.898	0.031	0.272	0.238	0.288
341-17+341-13	341-17	341-13	6	295.802	0.07	0.21	0.184	0.222
341-19+341-17	341-19	341-17	6	303.538	0.13	0.15	0.133	0.165
341-1B+341-39	341-1B	341-39	6	303.943	0.066	0.115	0.226	0.188
341-1C+341-1D	341-1C	341-1D	6	89.06	0.038	0.272	0.239	0.293
341-1D+341-08	341-1D	341-08	6	77.988	0.02	0.333	0.292	0.361
341-20+341-19	341-20	341-19	6	157.531	0.074	0.165	0.146	0.18
341-22A+341-20	341-22A	341-20	6	34.287	0.329	0.109	0.097	0.117
341-24+341-22A	341-24	341-22A	5	145.794	0.062	0.198	0.174	0.208
341-27+341-24	341-27	341-24	5	120.934	0.008	0.294	0.257	0.307
341-2C+341-2D	341-2C	341-2D	8	111.126	0.013	0.053	0.048	0.067
341-2D+340-22	341-2D	340-22	8	149.332	0.025	0.074	0.067	0.086
341-30+341-27	341-30	341-27	5	163.185	0.019	0.175	0.154	0.188
341-31+341-30	341-31	341-30	6	119.576	0.042	0.063	0.057	0.076
341-35+340-25	341-35	340-25	6	26.663	0.143	0.087	0.076	0.085
341-36+340-27	341-36	340-27	8	483.277	0.103	0.153	0.199	0.191
341-37+341-36	341-37	341-36	8	386.777	0.068	0.167	0.219	0.208
341-38+341-37	341-38	341-37	6	149.967	0.028	0.179	0.298	0.264
341-39+341-38	341-39	341-38	6	80.557	0.066	0.135	0.234	0.203
341-3A+341-37	341-3A	341-37	6	19.039	0.01	0.272	0.317	0.318
341-40A+341-5A	341-40A	341-5A	6	227.205	0.11	0.068	0.15	0.114
341-41+341-3A	341-41	341-3A	6	106.828	0.147	0.135	0.158	0.154
341-42+341-41	341-42	341-41	6	96.064	0.172	0.115	0.143	0.135
341-44+341-42	341-44	341-42	6	137.052	0.095	0.081	0.138	0.12
341-45A+341-44	341-45A	341-44	6	194.323	0.021	0.052	0.179	0.136
341-46+340-30	341-46	340-30	6	84.343	0.16	0.035	0.033	0.049
341-48+340-31	341-48	340-31	6	28.321	0.037	0.065	0.194	0.143
341-4B+340-33	341-4B	340-33	6	75.395	0.375	0.055	0.151	0.109
341-50+340-40	341-50	340-40	6	117.674	0.185	0.093	0.102	0.103
341-51+341-50	341-51	341-50	6	268.752	0.015	0.159	0.138	0.151
341-5A+341-5B	341-5A	341-5B	6	341.886	0.086	0.08	0.162	0.132
341-5B+341-1B	341-5B	341-1B	6	209.901	0.059	0.105	0.185	0.16
342-01+342-2B	342-01	342-2B	10	97.134	0.011	0.267	0.312	0.33
342-02+342-01	342-02	342-01	8	325.929	0.057	0.232	0.273	0.287
342-03+342-02	342-03	342-02	8	272.139	0.053	0.232	0.275	0.289
342-04+342-03	342-04	342-03	7	118.3	0.084	0.243	0.291	0.303
342-05+342-04	342-05	342-04	6	237.395	0.118	0.084	0.073	0.083
342-08+342-08A	342-08	342-08A	8	293.385	0.028	0.186	0.27	0.259
342-08A+342-46A	342-08A	342-46A	6	104.142	0.12	0.202	0.283	0.275
342-09+342-1A	342-09	342-1A	6	89.657	0.103	0.134	0.184	0.187
342-11+342-1A	342-11	342-1A	6	54.864	0.391	0.093	0.13	0.123
342-14+342-11	342-14	342-11	6	253.448	0.062	0.098	0.181	0.163
342-15+342-14	342-15	342-14	6	83.338	0.381	0.05	0.112	0.095
342-17+342-15	342-17	342-15	6	241.71	0.061	0.066	0.169	0.135
342-18+342-17	342-18	342-17	6	202.756	0.049	0.043	0.172	0.126
342-1A+342-08	342-1A	342-08	8	164.591	0.029	0.183	0.246	0.245
342-1B+313-60	342-1B	313-60	10	135.922	0.01	0.468	0.611	0.605
342-20+342-09	342-20	342-09	6	104.31	0.026	0.178	0.253	0.251
342-21+342-20	342-21	342-20	6	247.163	0.108	0.112	0.171	0.165
342-21A+342-21	342-21A	342-21	6	123.475	0.289	0.072	0.064	0.077
342-23+342-21	342-23	342-21	6	254.692	0.085	0.068	0.159	0.135
342-24+342-44	342-24	342-44	6	191.518	0.007	0.084	0.282	0.206
342-2B+342-1B	342-2B	342-1B	10	34.171	0.005	0.549	0.749	0.749
342-42+342-21A	342-42	342-21A	6	107.221	0.041	0.043	0.041	0.066
342-44+342-23	342-44	342-23	6	312.092	0.114	0.055	0.145	0.116

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
342-46+342-46A	342-46	342-46A	6	307.273	0.102	0.158	0.139	0.169
342-46A+342-04	342-46A	342-04	6	119.902	0.046	0.33	0.41	0.423
342-48+342-46	342-48	342-46	6	231.552	0.103	0.146	0.129	0.156
342-49+342-48	342-49	342-48	6	380.277	0.131	0.113	0.101	0.125
342-50+342-49	342-50	342-49	6	162.425	0.121	0.106	0.094	0.115
342-52+342-50	342-52	342-50	6	103.661	0.097	0.096	0.085	0.102
342-54+342-52	342-54	342-52	6	104.64	0.085	0.094	0.082	0.092
343-02+340-43	343-02	340-43	8	71.31	0.061	0.24	0.27	0.291
343-03+343-02	343-03	343-02	8	230.122	0.026	0.295	0.336	0.36
343-03A+343-03	343-03A	343-03	6	115.321	0.422	0.046	0.041	0.05
343-05+343-03	343-05	343-03	8	138.881	0.073	0.217	0.25	0.265
343-06+343-05	343-06	343-05	6	121.015	0.2	0.153	0.135	0.161
343-07+343-06	343-07	343-06	6	134.036	0.099	0.173	0.152	0.18
343-08+343-07	343-08	343-07	6	128.861	0.151	0.148	0.13	0.153
343-10+343-08	343-10	343-08	6	35.525	0.13	0.048	0.043	0.058
343-12+343-08	343-12	343-08	6	139.291	0.183	0.125	0.109	0.124
343-14+343-12	343-14	343-12	6	55.366	0.087	0.046	0.045	0.075
343-15+343-14	343-15	343-14	6	123.778	0.207	0.028	0.028	0.045
343-17+343-05	343-17	343-05	8	231.666	0.08	0.162	0.212	0.214
343-18+343-17	343-18	343-17	8	122.277	0.126	0.14	0.187	0.186
343-19+343-18	343-19	343-18	8	236.188	0.013	0.24	0.329	0.325
343-20+343-19	343-20	343-19	8	113.101	0.084	0.149	0.172	0.186
343-22+343-20	343-22	343-20	8	154.534	0.008	0.25	0.224	0.297
343-26+343-22	343-26	343-22	6	100.556	0.057	0.216	0.194	0.254
343-27+343-26	343-27	343-26	6	157.367	0.125	0.175	0.157	0.204
343-28+343-27	343-28	343-27	6	81.637	0.147	0.159	0.143	0.186
343-30+343-28	343-30	343-28	6	161.63	0.149	0.079	0.069	0.078
343-33+343-28	343-33	343-28	6	194.583	0.129	0.139	0.126	0.168
343-34+343-33	343-34	343-33	6	130.129	0.115	0.123	0.113	0.156
343-35+343-34	343-35	343-34	6	131.69	0.085	0.115	0.106	0.146
343-36+343-35	343-36	343-35	6	43.078	0.125	0.074	0.068	0.095
343-38+343-36	343-38	343-36	6	107.558	0.153	0.057	0.053	0.074
343-40+343-38	343-40	343-38	6	60.166	0.038	0.062	0.057	0.077
343-44+343-35	343-44	343-35	6	164.635	0.095	0.061	0.057	0.081
343-45+343-44	343-45	343-44	6	113.677	0.161	0.027	0.027	0.046
343-47+343-34	343-47	343-34	6	59.835	0.168	0.048	0.044	0.057
350-01+310-44	350-01	310-44	10	139.968	0.441	0.233	0.238	0.258
350-02+350-01	350-02	350-01	10	29.437	0.141	0.311	0.317	0.345
350-04+350-3A	350-04	350-3A	10	155.902	0.014	0.577	0.595	0.662
350-05+350-04	350-05	350-04	10	221.254	0.002	1	1	1
350-06+350-05	350-06	350-05	10	182.214	0.007	0.715	0.747	1
350-08+350-06	350-08	350-06	10	333.064	0.006	0.769	0.794	1
350-09+350-08	350-09	350-08	10	176.456	0.004	1	1	1
350-10+350-09	350-10	350-09	10	161.507	0.016	0.512	0.529	0.576
350-11+350-10	350-11	350-10	8	39.297	0.014	0.816	1	1
350-12+350-11	350-12	350-11	8	63.568	0.114	0.398	0.413	0.445
350-13+350-12	350-13	350-12	8	66.691	0.107	0.398	0.416	0.448
350-14+350-13	350-14	350-13	8	98.865	0.083	0.422	0.443	0.476
350-15+350-14	350-15	350-14	8	103.551	0.073	0.435	0.458	0.491
350-16+350-15	350-16	350-15	8	154.686	0.074	0.424	0.448	0.479
350-17+350-16	350-17	350-16	8	94.003	0.026	0.559	0.602	0.649
350-18+350-17	350-18	350-17	8	70.729	0.093	0.239	0.209	0.247
350-20+350-18	350-20	350-18	8	307.882	0.028	0.314	0.273	0.324
350-21+350-20	350-21	350-20	8	185.998	0.068	0.173	0.152	0.179
350-22+350-21	350-22	350-21	8	191.06	0.133	0.137	0.12	0.142
350-23+350-22	350-23	350-22	8	69.263	0.07	0.145	0.128	0.15
350-24+350-23	350-24	350-23	8	257.01	0.074	0.131	0.115	0.132
350-25+350-24	350-25	350-24	8	38.589	0.115	0.106	0.093	0.107
350-27+350-25	350-27	350-25	8	252.01	0.391	0.071	0.062	0.068
350-29+350-27	350-29	350-27	8	24.808	0.059	0.095	0.082	0.088
350-3A+350-02	350-3A	350-02	10	230.463	0.126	0.318	0.325	0.353
351-01+350-06	351-01	350-06	6	179.489	0.181	0.094	0.082	0.096
351-02+351-01	351-02	351-01	6	167.891	0.033	0.08	0.071	0.089
351-04+351-1B	351-04	351-1B	6	52.957	0.019	0.25	0.222	0.281
351-05+351-04	351-05	351-04	6	134.088	0.173	0.131	0.117	0.148
351-10+351-05	351-10	351-05	6	126.822	0.372	0.093	0.084	0.109
351-11+351-10	351-11	351-10	6	58.513	0.312	0.059	0.052	0.06

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
351-13+351-10	351-13	351-10	6	170.007	0.114	0.08	0.074	0.107
351-14+351-14A	351-14	351-14A	6	52.139	0.027	0.047	0.045	0.072
351-14A+351-13	351-14A	351-13	6	39.673	0.022	0.087	0.081	0.115
351-17+351-13	351-17	351-13	6	231.142	0.092	0.051	0.047	0.063
351-19+350-11	351-19	350-11	6	75.182	0.26	0.035	0.033	0.046
351-1B+350-09	351-1B	350-09	6	42.761	0.021	0.248	0.22	0.283
351-21+350-13	351-21	350-13	6	55.969	0.09	0.06	0.054	0.068
351-23+350-15	351-23	350-15	6	32.997	0.07	0.106	0.094	0.112
351-24+351-23	351-24	351-23	6	144.095	0.307	0.059	0.052	0.061
351-26+350-18	351-26	350-18	6	31.761	0.255	0.064	0.056	0.065
351-27+350-20	351-27	350-20	8	30.742	0.265	0.124	0.109	0.128
351-28+351-27	351-28	351-27	8	27.842	0.237	0.113	0.1	0.119
351-29+351-28	351-29	351-28	6	196.32	0.12	0.189	0.166	0.197
351-30+351-29	351-30	351-29	6	89.304	0.079	0.198	0.174	0.206
351-31+351-30	351-31	351-30	6	104.241	0.048	0.196	0.172	0.208
351-32+351-31	351-32	351-31	6	122.666	0.02	0.236	0.207	0.246
351-33+351-32	351-33	351-32	6	45.185	0.224	0.114	0.1	0.12
351-35+351-33	351-35	351-33	6	184.576	0.264	0.092	0.081	0.098
351-37+351-35	351-37	351-35	6	192.07	0.115	0.072	0.065	0.085
351-38+351-37	351-38	351-37	6	97.852	0.147	0.042	0.039	0.054
351-39+350-22	351-39	350-22	6	73.813	0.066	0.095	0.083	0.094
351-42+350-23	351-42	350-23	8	86.704	0.051	0.057	0.051	0.061
351-45+350-25	351-45	350-25	8	127.032	0.06	0.037	0.034	0.047
351-59+310-44	351-59	310-44	6	103.226	0.477	0.075	0.066	0.076
351-61+351-59	351-61	351-59	6	163.2	0.21	0.084	0.074	0.081
352-02+350-17	352-02	350-17	8	197.958	0.022	0.436	0.521	0.524
352-03+352-02	352-03	352-02	8	104.124	0.071	0.317	0.363	0.37
352-09+352-03	352-09	352-03	8	131.885	0.082	0.302	0.347	0.353
352-10+352-09	352-10	352-09	8	119.362	0.096	0.223	0.278	0.265
352-11+352-10	352-11	352-10	6	76.372	0.162	0.107	0.093	0.099
352-16+352-09	352-16	352-09	8	126.85	0.113	0.172	0.169	0.192
352-17+352-16	352-17	352-16	8	296.001	0.115	0.171	0.151	0.183
352-20+352-17	352-20	352-17	8	50.454	0.1	0.17	0.15	0.182
352-21+352-20	352-21	352-20	8	144.353	0.134	0.062	0.055	0.066
352-23+352-21	352-23	352-21	8	186.727	0.08	0.061	0.054	0.061
352-25+352-20	352-25	352-20	8	91.342	0.095	0.148	0.131	0.162
352-26+352-26A	352-26	352-26A	8	25	0.114	0.123	0.109	0.137
352-26A+352-25	352-26A	352-25	8	65.992	0.15	0.122	0.109	0.136
352-27+352-26	352-27	352-26	8	209.229	0.144	0.087	0.077	0.092
352-28+352-27	352-28	352-27	8	170.62	0.138	0.074	0.066	0.079
352-29+352-28	352-29	352-28	8	113.68	0.116	0.074	0.065	0.075
352-30+352-29	352-30	352-29	6	39.047	0.165	0.041	0.038	0.053
352-31+352-26	352-31	352-26	8	111.568	0.143	0.077	0.069	0.089
352-32+352-31	352-32	352-31	8	117.429	0.05	0.086	0.077	0.101
352-33+352-32	352-33	352-32	6	94.785	0.331	0.045	0.042	0.06
352-34+352-33	352-34	352-33	6	155.923	0.096	0.041	0.039	0.057
352-37+352-32	352-37	352-32	8	97.337	0.138	0.052	0.045	0.052
352-41A+352-10	352-41A	352-10	8	218.468	0.083	0.21	0.276	0.259
352-43+352-57	352-43	352-57	8	173.5	0.152	0.105	0.093	0.113
352-44+352-43	352-44	352-43	8	161.89	0.071	0.12	0.106	0.124
352-47+352-44	352-47	352-44	6	140.725	0.287	0.117	0.103	0.12
352-48+352-47	352-48	352-47	6	96.706	0.051	0.119	0.104	0.114
352-51+352-47	352-51	352-47	6	160.469	0.299	0.081	0.072	0.084
352-52+352-51	352-52	352-51	6	41.057	0.037	0.115	0.1	0.112
352-55+352-43	352-55	352-43	6	19.496	0.285	0.035	0.033	0.046
352-57+352-41A	352-57	352-41A	8	251.29	0.097	0.187	0.257	0.238
352-58+352-57	352-58	352-57	8	133.874	0.13	0.134	0.217	0.185
352-60+352-58	352-60	352-58	8	93.926	0.476	0.016	0.065	0.048
352-63+352-58	352-63	352-58	8	94.907	0.135	0.13	0.197	0.17
352-64+352-63	352-64	352-63	8	40.252	0.217	0.092	0.109	0.104
352-66+352-64	352-66	352-64	8	204.104	0.561	0.073	0.063	0.071
352-67+352-66	352-67	352-66	8	93.652	0.051	0.114	0.099	0.109
352-67A+352-67	352-67A	352-67	8	118.212	0.065	0.031	0.029	0.043
352-77+352-63	352-77	352-63	8	23.496	0.116	0.065	0.155	0.119
352-80+352-77	352-80	352-77	8	181.337	0.302	0.048	0.122	0.091
352-82+352-80	352-82	352-80	8	158.328	0.055	0.032	0.176	0.121
412-36+412-35	412-36	412-35	8	478.327	0.109	0.117	0.117	0.242

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
412-37+412-36	412-37	412-36	6	249.108	0.007	0.065	0.065	0.457
304-1A+304-3A	304-1A	304-3A	8	146.636	0.082	0.047	0.046	0.047
304-3A+304-5A	304-3A	304-5A	8	129.529	0.067	0.061	0.096	0.097
304-5A+304-6A	304-5A	304-6A	8	21.996	0.22	0.052	0.076	0.076
331-16+331-14	331-16	331-14	6	326.423	0.108	0.154	0.15	0.154
331-18+331-176	331-18	331-16	6	91.494	0.041	0.138	0.134	0.138
330-06+330-05	330-06	330-05	8	323.902	0.035	0.306	0.565	0.638
330-07+330-06	330-07	330-06	8	198.699	0.056	0.268	0.483	0.54
330-08+330-07	330-08	330-07	8	40.806	0.026	0.321	0.6	0.681
330-09+330-08	330-09	330-08	8	36.765	0.063	0.255	0.457	0.508
330-10+330-09	330-10	330-09	8	109.295	0.034	0.259	0.466	0.521
330-11+330-10	330-11	330-10	8	117.31	0.093	0.186	0.325	0.361
330-13+330-11	330-13	330-11	8	169.911	0.015	0.272	0.495	0.557
330-14+330-13	330-14	330-13	8	72.788	0.015	0.264	0.481	0.539
330-15+330-14	330-15	330-14	8	100.494	0.048	0.19	0.335	0.372
330-17+330-15	330-17	330-15	8	187.344	0.073	0.164	0.287	0.32
330-18+330-18A	330-18	330-18A	8	116.202	0.009	0.227	0.41	0.464
330-18A+330-17	330-18A	330-17	8	12.546	0.175	0.129	0.224	0.249
330-19+330-18	330-19	330-18	8	18.704	0.113	0.119	0.207	0.232
330-20+330-19	330-20	330-19	6	83.557	0.12	0.165	0.293	0.33
330-21+330-20	330-21	330-20	6	147.365	0.147	0.14	0.248	0.281
330-22+330-21	330-22	330-21	6	150.419	0.154	0.126	0.225	0.257
330-23+330-22	330-23	330-22	6	271.91	0.16	0.099	0.177	0.205
330-24+330-23	330-24	330-23	6	57.291	0.273	0.069	0.115	0.12
331-08A+330-08	331-08A	330-08	6	269.638	0.067	0.022	0.038	0.052
331-22+331-29	331-22	331-29	6	108.88	0.149	0.074	0.123	0.13
331-26+330-05	331-26	330-05	8	56.942	0.035	0.133	0.226	0.246
331-27+331-26	331-27	331-26	6	100.098	0.034	0.144	0.246	0.268
331-28+331-27	331-28	331-27	6	164.922	0.095	0.109	0.184	0.199
331-29+331-29A	331-29	331-29A	6	162.483	0.041	0.121	0.205	0.217
331-29A+331-28	331-29A	331-28	6	139.565	0.009	0.188	0.325	0.35
331-31+330-09	331-31	330-09	6	285.684	0.042	0.201	0.348	0.376
331-32+331-31	331-32	331-31	6	113.467	0.083	0.153	0.262	0.282
331-33+331-32	331-33	331-32	6	16.952	0.092	0.14	0.237	0.256
331-34+331-33	331-34	331-33	6	141.827	0.169	0.078	0.13	0.139
331-35+331-34	331-35	331-34	6	189.889	0.03	0.096	0.161	0.171
331-46+331-33	331-46	331-33	6	124.461	0.045	0.122	0.206	0.221
331-47+331-46	331-47	331-46	6	31.347	0.188	0.047	0.078	0.084
331-49+331-46	331-49	331-46	6	175.188	0.187	0.063	0.105	0.111
331-52+331-26	331-52	331-26	6	132.731	0.019	0.15	0.255	0.275
331-53+331-52	331-53	331-52	6	101.169	0.047	0.107	0.18	0.192
331-54+331-53	331-54	331-53	6	186.87	0.015	0.112	0.189	0.201
331-61+330-07	331-61	330-07	6	47.029	0.05	0.055	0.091	0.1
331-65+330-10	331-65	330-10	6	40.587	0.112	0.097	0.164	0.176
331-66+331-65	331-66	331-65	6	175	0.016	0.144	0.245	0.262
331-67+331-66	331-67	331-66	6	89.889	0.044	0.085	0.143	0.151
331-71+330-11	331-71	330-11	6	107.607	0.086	0.099	0.166	0.185
331-72+331-71	331-72	331-71	6	105.367	0.076	0.095	0.16	0.177
331-73+331-72	331-73	331-72	6	40.888	0.101	0.08	0.135	0.148
331-75+331-73	331-75	331-73	6	134.654	0.093	0.068	0.114	0.125
331-77+331-75	331-77	331-75	6	92.123	0.014	0.072	0.121	0.133
331-80+330-13	331-80	330-13	6	119.22	0.118	0.049	0.082	0.089
331-85+330-18A	331-85	330-18A	6	259.176	0.029	0.143	0.244	0.265
331-86+331-85	331-86	331-85	6	125.888	0.157	0.088	0.148	0.159
331-87+331-86	331-87	331-86	6	51.487	0.143	0.072	0.121	0.13
331-88+331-87	331-88	331-87	6	62.17	0.225	0.056	0.093	0.098
331-92+330-20	331-92	330-20	6	62.852	0.337	0.048	0.081	0.086
331-58+331-57	331-58	331-57	8	47.246	0.008	0.159	0.159	0.159
331-59+331-58	331-59	331-58	8	110.745	0.01	0.059	0.059	0.059
331-5A+331-90	331-5A	331-90	6	174.92	0.01	0.244	0.244	0.244
331-06+331-06A	331-06	331-06A	6	327.667	0.06	0.22	0.22	0.22
331-06A+331-04	331-06A	331-04	6	67.846	0.067	0.302	0.302	0.302
331-08+331-06	331-08	331-06	6	230.994	0.065	0.126	0.126	0.126
300-28+300-27	300-28	300-27	8	191.138	0.014	0.463	0.495	0.508
300-29+300-28	300-29	300-28	8	149.071	0.03	0.364	0.378	0.387
300-29+308-2A	300-29	308-2A	6	27.631	0.071	0.486	0.504	0.516
300-2A+300-37	300-2A	300-37	10	18.318	0.17	0.231	0.241	0.246

ID	Upstream MH	Downstream MH	Diameter	Length	Slope	Existing d/D	Interim d/D	Buildout d/D
300-30+300-29	300-30	300-29	10	20.23	0.051	0.35	0.363	0.371
300-32+300-30	300-32	300-30	10	36.781	0.062	0.332	0.344	0.351
300-33+300-32	300-33	300-32	10	217.354	0.102	0.274	0.285	0.29
300-35+300-33	300-35	300-33	10	167.331	0.135	0.252	0.262	0.267
300-37+300-35	300-37	300-35	10	149.975	0.018	0.421	0.44	0.449
300-39+300-39A	300-39	300-39A	6	81.629	0.167	0.438	0.45	0.46
300-39A+300-2A	300-39A	300-2A	6	168.773	0.084	0.547	0.571	0.585
300-42+300-39	300-42	300-39	6	306.137	0.179	0.203	0.214	0.216
308-03+331-03A	308-03	331-03A	6	160.036	0.04	0.636	0.661	0.683
308-04+308-03	308-04	308-03	6	42.955	0.028	0.709	0.743	0.772
308-07+308-2A	308-07	308-2A	6	118.801	0.063	0.143	0.143	0.149
308-09+308-07	308-09	308-07	6	131.242	0.088	0.118	0.118	0.121
308-11+308-09	308-11	308-09	6	118.01	0.345	0.075	0.075	0.077
308-14+308-14A	308-14	308-14A	8	114.992	0.071	0.131	0.131	0.133
308-14A+300-32	308-14A	300-32	8	35.824	0.076	0.135	0.135	0.138
308-17+308-14	308-17	308-14	8	148.413	0.511	0.073	0.073	0.074
308-19+308-17	308-19	308-17	6	96.991	0.242	0.108	0.108	0.11
308-24A+308-24B	308-24A	308-24B	6	66.756	0.406	0.099	0.112	0.113
308-24B+300-2A	308-24B	300-2A	6	23.665	0.444	0.105	0.117	0.119
308-25+300-42	308-25	300-42	6	264.833	0.166	0.167	0.167	0.168
308-2A+308-04	308-2A	308-04	6	94.67	0.023	0.751	0.792	1
308-31+300-39	308-31	300-39	6	168.976	0.483	0.272	0.277	0.284
308-32+308-31	308-32	308-31	6	205.252	0.039	0.514	0.525	0.541
308-33+308-32	308-33	308-32	6	129.784	0.024	0.564	0.579	0.597
308-34+308-33	308-34	308-33	6	201.32	0.011	0.696	0.72	0.751
308-37+308-34	308-37	308-34	6	251.143	0.021	0.505	0.521	0.538
308-39+308-37	308-39	308-37	6	279.016	0.011	0.462	0.485	0.497
308-43+308-39	308-43	308-39	6	264.646	0.013	0.352	0.376	0.386
308-44+308-43	308-44	308-43	6	29.984	0.006	0.392	0.423	0.435
308-46+308-44	308-46	308-44	6	101.041	0.019	0.249	0.274	0.279
308-47+308-46	308-47	308-46	6	50.722	0.013	0.258	0.288	0.292
308-48+308-47	308-48	308-47	6	112.023	0.035	0.184	0.208	0.21
308-49+308-44	308-49	308-44	6	138.915	0.151	0.08	0.08	0.082
308-51+308-37	308-51	308-37	6	54.639	0.319	0.135	0.135	0.141
308-52+308-51	308-52	308-51	6	18.814	-0.201	1	1	1
308-54+308-52	308-54	308-52	6	133.647	0.127	0.143	0.143	0.149
308-55+308-54	308-55	308-54	6	44.787	0.045	0.153	0.153	0.161
308-57+308-55	308-57	308-55	6	100.771	0.13	0.102	0.102	0.107
308-58+308-57	308-58	308-57	6	75.976	0.001	0.253	0.253	0.267
308-60+308-58	308-60	308-58	6	57.151	0.152	0.048	0.048	0.051
331-03A+331-09A	331-03A	331-09A	6	102.407	0.025	0.776	1	1
307-51+307-50	307-51	307-50	8	276.302	0.007	0.589	0.589	1
307-52+307-51	307-52	307-51	8	103.479	0.052	0.319	0.319	0.411
307-53+307-52	307-53	307-52	8	178.664	0.096	0.083	0.083	0.114
307-56+307-53	307-56	307-53	6	51.214	0.219	0.071	0.071	0.097
307-58+307-52	307-58	307-52	8	43.067	-0.051	1	1	1
307-59+307-58	307-59	307-58	8	57.786	0.098	0.249	0.249	0.309
307-61+307-59	307-61	307-59	8	56.57	0.109	0.237	0.237	0.291
307-63+307-61	307-63	307-61	8	105.944	0.242	0.189	0.189	0.229
307-64+307-63	307-64	307-63	6	53.823	0.083	0.358	0.358	0.437
307-65+307-64	307-65	307-64	6	91.307	0.009	0.337	0.337	0.431
307-66+307-65	307-66	307-65	6	199.536	0.106	0.145	0.145	0.182
307-67+307-66	307-67	307-66	6	159.108	0.123	0.114	0.114	0.137
307-71+307-64	307-71	307-64	6	318.14	0.07	0.291	0.291	0.342
307-72+307-71	307-72	307-71	6	259.873	0.013	0.344	0.344	0.421
307-75+307-72	307-75	307-72	6	48.521	0.034	0.219	0.219	0.264
307-76+307-75	307-76	307-75	6	238.544	0.073	0.157	0.157	0.178
320-29+320-28	320-29	320-28	8	170.268	0.043	0.286	0.312	0.389
320-30+320-29	320-30	320-29	6	154.235	0.008	0.478	0.576	0.774
320-31+320-30	320-31	320-30	6	176.873	0.008	0.385	0.486	0.62
320-32+320-31	320-32	320-31	6	420.886	0.009	0.202	0.278	0.336
322-68+320-29	322-68	320-29	6	204.27	0.039	0.275	0.275	0.331
322-69+322-68	322-69	322-68	6	247.052	0.064	0.202	0.202	0.231
322-72+320-31	322-72	320-31	6	42.628	0.277	0.108	0.134	0.155

Moraga Canyon Specific Plan – Fehr & Peers Responses to Transportation Comments (August 20, 2025)

#	Comment	Response
	Tom Brohard letter dated May 1, 2025	
1	1) Traffic Speeds - The documents continue to incorrectly rely on the 85th percentile speed rather than the "Design Speed" which is typically 10 mph above the 85th percentile speed. For Moraga Avenue, the design speed should be at least 50 mph and could be as high as 55 mph depending on current speed measurements. The vehicle speeds relied upon by the Public Review Draft were likely influenced by the speed feedback signing which apparently was in place and operating when vehicle speeds were measured in September 2023 (See Page 29). The speed measurements also do not necessarily reflect current conditions and traffic speeds.	The comment states that the design speed should be 10 mph above the measured 85th percentile speed. However, no sources or standards are referenced. According to the *Highway Design Manual* (HDM), Index 101.1(2)(a), setting a design speed higher than the operating speed would only be appropriate for existing limited access highways and conventional highways in rural areas. Since Moraga Avenue is in a suburban setting with numerous intersecting roadways and private driveways, it is not considered a limited access highway or a conventional highway in a rural area, and therefore, setting a design speed higher than the operating speed may not be appropriate. According to the HDM (Index 101.1(2)(a)): > For existing lower-speed conventional highways in urban areas … with observed or proposed operating speeds of 45 mph or less, the design speed should be selected to be consistent with the highway context which may discourage high-speed operating behavior. Select a design speed that is logical with respect to topography, operating speed (or anticipated operating speed if the corridor is being redesigned and the physical characteristics of the highway are being changed), adjacent land use, design volumes for all users, collision history, access control, and facility type. Consistent with this guidance in the HDM, selecting a design speed of 40 mph on Moraga Avenue, which is above the observed 85th percentile speed, is appropriate. Since Moraga Avenue connects to SR 13, this design speed is consistent with the HDM guidance to use a minimum design speed of 35 mph for local facilities that connect to a freeway or expressway (Index 101.1(2)(c)(2)). Furthermore, if the roadway is

#	Comment	Response
		designed with a higher design speed that would encourage or facilitate speeds well above the posted speed limit, motorists would be encouraged to operate at those higher speeds more routinely. The comment also states that the collected speed data may have been influenced by the existing speed feedback sign located on westbound Morage Avenue just west of Red Rock Road. Since the speed feedback sign, as well as the existing speed limit signs, are part of the existing infrastructure along the corridor, they represent current conditions along the corridor in the study area and their effects should be included in the speed data used for the analysis. However, the existing speed feedback sign is estimated to have minimal effect on the speeds along the corridor. Although the speed feedback sign is only provided in the westbound direction, vehicles on both eastbound and westbound Moraga Avenue have similar measured speeds, which exceed the posted speed limit. In addition, the speed data collected in September 2023 is consistent with past speed data collected along the corridor. Since the speed measurements were conducted less than two years ago on the segment of the corridor under study and no major roadway modifications or development projects have been implemented in the last two years, the speed measurements reflect current conditions. Therefore, the collected speed data remains valid and new speed data is not required.
2	2) Stopping Sight Distance - Use of the proper design speed which is 10 mph higher than the 85th percentile speed will result in longer distances for stopping, particularly in the downhill eastbound direction. It is critically important for motorists to see and react properly to the traffic signal indications at Red Rock Road with pedestrians crossing Moraga Avenue, even with advance flashing beacons for the traffic signal. The proposed signing with the flashing beacons should refer to the traffic signal rather than the pedestrian crossing which would be a part of the traffic signal. In addition, the proposed pedestrian refuge island should be deleted as its	As described in response to Comment #1, the comment does not reference any sources or standards that design speed should be 10 mph above the measured 85th percentile speed. According to the HDM, using the measured 85th percentile speed to determine the design speed on Moraga Avenue is appropriate. The proposed traffic signal at Red Rock Road, as well as the potential driveways along the south side of Moraga Avenue would also meet the longer stopping sight distance for the westbound downhill direction of

#	Comment	Response
	placement would actually encourage pedestrians to wait in the middle of Moraga Avenue rather than to walk entirely across and clear the roadway out of traffic. Traffic signal equipment and signing should not be installed within the roadway.	Moraga Avenue (which corresponds to 360 feet for a design speed of 40 mph). The image in the Specific Plan (Figure 4.8 on page 35) will be updated to show a flashing beacon with a signal ahead sign. The proposed refuge island on the east side of the Moraga Avenue/Red Rock Road intersection would provide raised medians on both sides of the crossing and be at least 8 feet wide to provide adequate waiting space for pedestrians and cyclists if they do not complete the crossing during one signal phase. In addition, the intersection signal would be timed to provide adequate time for pedestrians to cross the intersection in one signal cycle. Furthermore, the proposed refuge island would also narrow the travel lanes in both directions of Moraga Avenue adjacent to the median to discourage excessive speeding.
3	3) Residential Development - If located on the south side of Moraga Avenue, at least two and probably three access driveways to serve the apartments will be needed. The driveways introduce many additional points of conflict with Moraga Avenue traffic and also create the possibility of random midblock pedestrian and bicycle crossings. These potential safety issues can be eliminated before they can occur by building the residential units on the north side of Moraga Avenue where vehicle access will occur with the protection of the proposed traffic signal.	The number of driveways for potential development on Blair Park on the south side of Moraga Avenue has not been determined. Minimal midblock pedestrian crossings would be expected along this segment of Moraga Avenue because there are no major destinations on the north side of the street opposite Blair Park, except for Coaches Field, which the proposed signal on Red Rock Road would provide the shortest path, which would discourage midblock crossings.
	Ralph Catalano at the Piedmont City Council on October 7, 2024 and consequent correspondence	

#	Comment	Response
4	Our City Council will soon choose either the north or south side of Moraga Avenue as the site for a new 200-household neighborhood required by State law. That choice will reflect how safely pedestrians and bicyclists can cross Moraga Avenue at Red Rock. This is true because the south side option presumes that children residing in Blair Park will cross Moraga at the Red Rock intersection when leaving for, or returning from, either school or Coaches Field. As is now the case on the existing sidewalk west of Red Rock, a fence on the proposed sidewalk along Blair Park would likely be built to keep children from "dashing" across Moraga where about 2,200 of the 15,000 cars using the road each day will travel at speeds exceeding 40 MPH. The Blair Park fence would "funnel" pedestrians to the Red Rock intersection where they could activate a planned "stop light" presumably visible for a sufficient distance to allow motorists on Moraga to stop safely.	Based on traffic data collected in September 2023, Moraga Avenue just east of Red Rock Road has an average traffic volume of about 11,000 vehicles per day. The speed surveys also conducted in September 2023 show about 7 percent of motorists traveling above 40 mph.
5	At the Planning Commission meeting of September 25, the city's traffic consultant opined that stopping sight distances for drivers approaching the Red Rock intersection from either direction on Moraga Avenue would be safe. He reported basing his opinion on Caltrans guidelines. Several of us who live in Moraga Canyon found the consultant's report surprising because a 2010 EIR prepared for proposed playfields in Blair Park found that sight distances on the segment of Moraga that includes the intersection at Red Rock did *not* meet Caltrans stopping sight distance standards. Hoping to understand this important contradiction, I applied the Caltrans guidelines to the proposed Red Rock intersection. Results were the same as reported in the earlier EIR -- stopping sight distances were less than Caltrans deems safe. The Caltrans Highway Design Manual is very technical but includes two tables (attached) that succinctly provide the information regarding stopping sight distances. The first table (i.e., 405.1B) lists the appropriate	The comment correctly states that stopping sight distance (SSD) is the correct sight distance to use for motorists on Moraga Avenue, and correctly describes the process and identifies the operating speed, the design speed, and the SSD of 300 feet for a design speed of 40 mph. HDM Index 201.3 requires increasing the SSD by 20 percent for roadway segments with sustained downhill slope of 5 percent or more over one mile long. Thus, the SSD for the downhill (westbound) Moraga Avenue is 360 feet. Based on field measurements conducted by Fehr & Peers staff in 2024 on Moraga Avenue, the signal heads for the proposed signal at Red Rock Road would have a sight distance of 320 feet for the uphill (eastbound) direction, which would meet the minimum SSD of 300 feet for the uphill direction and a sight distance of 390 feet for downhill (westbound) direction, which would meet the minimum SSD of 360 feet for the downhill direction. The signal design process will confirm the

#	Comment	Response
	guidelines for various types of roads and intersections. For signalized intersections such as that proposed at Red Rock and Moraga, a footnote to the table refers the reader to a second table (i.e., 201.1) showing stopping sight distances for various "design speeds." Design speed for existing roads equals the "operational speed" adjusted for circumstances specific to the analyzed road segment. Operational speed equals the 85th percentile of vehicle speeds observed traveling on the road segment in question. The September 25 Planning Commission staff report cited an operational speed of 39 MPH and a design speed of 40 MPH for Moraga Avenue at Red Rock and Blair Park. Table 201.1 in the Caltrans Highway Design Manual shows a stopping sight distance of 300 feet for a signalized intersection on a roadway with a "design speed" of 40 MPH. I have attached two Google maps showing my results. Each shows the segment of Moraga Avenue that includes the Red Rock intersection. Figure A shows about 190 feet between the point at which drivers traveling east on Moraga first see the Red Rock intersection and the intersection itself. Figure B shows about 380 feet between the point at which vehicles traveling west first see the intersection and the intersection itself. If correct, these graphs imply no safe location for a signalized intersection near the current Red Rock Road. Even if the city took private property on Moraga Avenue and moved the intersection 110 feet to the east to provide a 300 foot sight distance for vehicles traveling east, vehicles traveling west would encounter an unsafe 270-foot sight distance.	sightlines based on the final location of the signal poles and the final roadway configuration.
6	Also note that 200 households would likely generate over 1,200 vehicular entrances and exits from Blair Park each day. The guidelines described above imply no connecting road between Blair Park and Moraga Avenue could be safely located between the current Red Rock intersection and the "first sight" point shown on Figure B for vehicles traveling west. A	The Institute of Transportation Engineers (ITE) *Trip Generation Manual* provides vehicle trip generation data for various land use types based on data collected at similar sites throughout the country. According to the *Trip Generation Manual,* typical multi-family housing generates about 4.54 vehicle trips on a typical weekday. Thus, the approximately 200

#	Comment	Response
	connector in this segment would cause dangerous stacking of vehicles making left turns into Blair Park from a point within 300 feet of first sight by drivers traveling west on Moraga. All 1200 or so daily trips out of and into Blair Park would, therefore, occur on a single connector east of the first sight point on Figure B. AM stacking in Blair Park and PM stacking on Moraga at such a single connector would be considerable with the latter causing stacking on the Moraga/Thornhill exit of Route 13 which has a dangerously short stopping sight distance. Assuming the above is correct, it would seem that any scheme to house 200 families in Moraga Canyon will be dangerous by Caltrans standards. Pedestrian and bicyclist safety, however, favors planning Piedmont's new neighborhood for the north side of Moraga. This is true because residents would have no reason to cross Moraga where the only land use would be the relocated Corporation Yard. As noted above, design speed can be modified to reflect local circumstances. Caltrans, for example, modifies design speed shown in Table 201.1 to reflect the grade of roads. Downhill grades increase design speed whereas uphill grades decrease them. The staff report did not describe the grade of the road segment in question, but Moraga Avenue is not flat. The downhill, or westerly, grade decreases at Red Rock but for the purposes of this analysis, I assumed the grade was constant. If so, grade adjusting my analyses would not affect my conclusion that a pedestrian crossing at Red Rock would not be safe. Any shortening of the 300 foot stopping sight distance for drivers approaching Red Rock from the west (i.e., traveling east) would be canceled by lengthening of that for drivers approaching from the east (i.e., traveling west). There would be no safe location for a pedestrian crossing at Red Rock.	housing units would generate about 910 vehicle trips on a typical weekday. The number and location of driveways serving the proposed development at Blair Park have not been determined yet and will be determined as part of the project design for the development. As stated in Section 4.17 of the Specific Plan, each proposed driveway would have a left-turn lane on westbound Moraga Avenue, which would provide space for vehicles to wait for gaps in the on-coming traffic to tun left into the driveway without interfering with the through traffic on westbound Moraga Avenue. Thus, westbound Moraga Avenue would experience minimal queues, which are not expected to spill back to the SR 13 off-ramps, about 0.7 mile east of Blair Park.
7	The above result assumes a design speed of 40 MPH. As noted above, however, about 2,200 vehicles a day will *exceed* 40 MPH when traveling on Moraga Avenue. Indeed, the Highway Design Manual recommends (Page 100-2) that the Design Speed for local roads connecting to a State	As described in response to comment #4, speed surveys conducted in September 2023 on Moraga Avenue show about 7 percent of motorists traveling above 40 mph..

#	Comment	Response
	highway like Route 13 be 45 MPH or higher. If we assume this design speed (i.e., 45 MPH), housing 200 families in Blair Park would appear even more dangerous than implied by my conservative analyses described above. The argument entertained at the Planning Commission meeting, moreover, that narrowing Moraga Avenue could yield safer speeds assumes that the resulting "stacking" of vehicles on Route 13 at the Moraga/Thornhill exit during peak traffic hours would be safe. Stopping sight distance to that exit on Route 13 while traveling east is, however, far below safe levels given the speeds traveled on that highway.	As described in response to comment #2, HDM guidance is a minimum design speed of 35 mph for local facilities that connect to a freeway, which the proposed design speed of 40 mph exceeds. As previously described, the proposed signal at the intersection of Red Rock Road and the driveways for the proposed development at Blair Park would be consistent with the applicable design standards, including meeting or exceeding the minimum stopping sight distance for a design speed of 40 mph.
	Tom Brohard letter dated October 2, 2024	
8	1. Traffic Speeds and Critical Speeds – In 2011, my reports questioned the 25 MPH speed limit and the data that was collected at that time. Speed limits are established at about the 85th percentile speed as measured in an engineering and traffic survey. Establishing an enforceable speed limit requires starting at the 5 MPH increment closest to that speed. The 85th percentile speed (or critical speed), is the speed at which 85 percent of the vehicles travel at or less under light, free-flowing conditions in good weather. Current speeds need to be measured in both directions on Moraga Avenue in the vicinity of Red Rock Road, with at least 100 vehicles measured in each direction. The speeds uphill and downhill should be averaged together and the critical speed calculated.	Based on data collected in September 2023 just east of Red Rock Road, the 85th percentile speed in both directions of Moraga Avenue is about 38 mph.

#	Comment	Response
9	2. Design Speeds – When selecting a design speed from the measured speeds, typically a speed of 10 MPH above the critical speed is chosen. At the design speed, about 95 percent of the traffic would be travelling at or below that speed. If the critical speed was found to be 43 or 44 MPH, then a design speed of 55 MPH should be utilized. If the critical speed was found to be 42 or 41 MPH, then a design speed of 50 MPH should be utilized.	As described in response to comment #1, the comment does not reference any sources or standards that design speed should be 10 mph above the measured 85th percentile speed. According to the HDM, using the measured 85th percentile speed to determine the design speed on Moraga Avenue is appropriate. .
10	3. Stopping Sight Distance – The chart from the Caltrans Design Manual attached to Ralph's draft letter does not account for the roadway profile grade. Downhill grades require additional stopping distance and uphill roadway grades require less stopping distance. For Moraga Avenue, the roadway grade at Red Rock Road should be considered. The stopping sight distance on a flat road would be 500' as shown in the chart for 55 MPH and 430' for 50 MPH. In each case, the impact of the roadway grade should be added for downhill traffic and subtracted for uphill traffic.	As described in the response to comment #5, For a 40-mph design speed, the stopping sight distance (SSD) is 300 feet on a flat roadway and 360 feet on a roadway with a sustained downhill. The proposed signal at Red Rock Road, as well as potential driveways along the south side of Moraga Avenue along Blair Park (as shown on Figure 4.37) would have an SSD of at least 300 feet for the eastbound (uphill) direction and 360 feet for the westbound (downhill) direction.
11	4. Residential Development – Section 3.11 of the Administrative Draft indicates that up to 197 multi-family units and 2 single family homes could be constructed in the area available. From the 11th Edition of Trip Generation Manual published by the Institute of Transportation Engineers (ITE), each affordable housing unit would be expected to generate about 5 weekday daily trips and each multi-family housing unit would generate about 7 weekday daily trips. I understand that the City Council is continuing to consider the location of the housing, but all housing will either be on the north side of Moraga Road or all on the south side. With residential development north of Moraga Avenue, all vehicle access would occur from Red Rock Road, a proposed signalized intersection that would also serve the Corporate Yard and Coaches Field. With residential development on the south side of Moraga Avenue, multiple driveways would be constructed to serve the new housing and parking along the	Comment noted. Comment does not raise any technical issues and no response is needed.

#	Comment	Response
	side of Moraga Avenue at Blair Field. Page 99 of the Administrative Draft illustrates that at least 3 driveways would be provided, with each creating uncontrolled vehicle access to and from Moraga Avenue. These three vehicle access driveways would create numerous additional conflict points with Moraga Avenue traffic compared to providing a single access point for residential development on the north side at Red Rock Road controlled by a traffic signal.	
12	5. Moraga Avenue/Red Rock Road Configuration – Page 70 of the Administrative Draft illustrates a traffic signal with pedestrian facilities and advance flashing beacons for this intersection. With the housing development that is proposed and if it is located on the north side of Moraga Avenue, a traffic signal would be warranted and should be installed. I do not believe that a traffic signal would be warranted if the housing is built on the south side of the roadway. Furthermore, traffic safety would be compromised with several driveways that would create additional conflict points on Moraga Avenue. Based on this finding alone regarding traffic safety, the housing should be constructed on the north side of Moraga Avenue. Several suggestions should also be considered as follows:	Comment noted. Comment does not raise any technical issues and no response is needed.
13	a. Traffic Signal Operation – With only one through lane in each direction, separate left turn phasing (arrows) would not be needed on Moraga Avenue. When constructing the traffic signal, provisions such as wiring and larger pole foundations should be included that would easily and economically accommodate left turn phasing in the future should it be desired.	Eastbound Moraga Avenue currently provides a left-turn lane at the intersection with Red Rock Road. The left-turn lane would continue to be maintained with the proposed signal at the intersection, and it is recommended to have a protected signal phasing.

#	Comment	Response
14	b. Moraga Avenue – The roadway should include a separate eastbound left turn lane with a 150' reverse taper and adequate length to accommodate 10 MPH slowing in the through lane and slowing to 15 MPH for left turns from the downhill design speed. Moraga Avenue should also include an eastbound acceleration lane that mirrors the eastbound left turn lane and allows smooth acceleration and merging into the single lane for eastbound traffic.	As described above, Moraga Avenue already has an eastbound left-turn lane at the intersection with Red Rock Road, which the Specific Plan would maintain. The driveways for potential development on the south side of Moraga Avenue would also have left-turn lanes on westbound Moraga Avenue as described in Section 4.17 of the Specific Plan. The number, location, and length of these left-turn lanes would be determined as part of the design for the development project. No acceleration lanes would be provided in either direction of Moraga Avenue because there are no applicable standards that require acceleration lanes. This would be consistent with the current configuration of Moraga Avenue through Piedmont, where no acceleration lanes are provided.
15	c. Red Rock Road – The roadway should intersect Moraga Avenue at a 90-degree angle (squared off) and there should not be a free right turn into Red Rock Road from the east – all traffic should be controlled by the traffic signal.	The project would reconfigure the intersection to eliminate the current slip right-turn on westbound Moraga Avenue at Red Rock Road and square the intersection to ensure that all movements at the intersection would be controlled by the proposed signal.
16	d. Pedestrian Crosswalks – One should be across Red Rock Drive and only on one side across Moraga Avenue with accessible ramps (probably the east side for Blair Park). "Walk" "Don't Walk" pedestrian indications should be provided for the crosswalks, together with sufficient time for pedestrians to cross Moraga Avenue. Raised islands for pedestrians to stand on in the middle of Moraga Avenue would not be safe and should not be provided. Pedestrian crossings of the west leg should be prohibited with signs and pedestrian barricades.	Comment is consistent with the Specific Plan. See Figure 4.7 in the Specific Plan, which shows crosswalks across the north and west approaches of the intersection, with pedestrian crossings prohibited on the west approach of the intersection as there are no sidewalks along the south side of Moraga Avenue west of Red Rock Road. The proposed refuge island on the east side of the Moraga Avenue/Red Rock Road intersection would provide raised medians on both sides of the crossing and be at least 8 feet wide to provide adequate waiting space for pedestrians and cyclists if they do not complete the crossing during one signal phase. In addition, the intersection signal would be timed to provide adequate time for pedestrians to cross the intersection in one signal cycle. Furthermore, the proposed refuge island would also

#	Comment	Response
		narrow the travel lanes in both directions of Moraga Avenue adjacent to the median to discourage excessive speeding.
17	e. Advance Flashing Beacons – Advance flashing beacons should be installed on Moraga Avenue with traffic signal warning signs, not a Pedestrian warning sign as illustrated. "Signal Ahead" pavement markings adjacent to the flashing beacons should also be painted.	The image in the Specific Plan (Figure 4.8 on page 35) will be updated to show a flashing beacon with a signal ahead sign. In addition, "Signal Ahead" pavement markings would also be painted.
18	f. Public Transit – Drop Off/Pick Up Zones – The location of public transit stops on the far side of the signalized intersection on Moraga Avenue and Red Rock Road is appropriate. These bus zones could also be used for drop off/pick up zones for the new housing and for Coaches Field so that users would not be required to enter the site.	Comment noted.
19	g. Sidewalks and Bicycle Facilities – I agree with the proposed sidewalks shown in Chapter 4.8. Existing bicycle facilities are shown on Chapter 4.10, with the proposed bicycle facilities shown on Chapter 4.11. Based on the counts cited from September 2023 in Chapter 4.10 of "up to 5 bicyclists per hour were observed in both directions", I do not believe that the bicycle lane network proposed in Chapter 4.11 is needed. Today's low bike volume together with the profile grades facing additional bike riders with the required professional quality of the riders would not seem to justify the expense. Constructing the proposed facilities for the few bicyclists would require significant cutting, filling, grading, and drainage structures.	Comment noted.
20	6. Provide Stopping Sight Distances – Trees, bushes, and side slopes should be cut back to provide stopping sight distances for downhill and for uphill traffic on Moraga Avenue of the traffic signal indications and the	The comment is consistent with Section 4.17 of the Specific Plan which calls for minimizing landscaping to ensure adequate sight lines along Moraga Avenue. The location and size of the traffic signal indications

#	Comment	Response
	flashing beacons. It may be necessary to provide an additional traffic signal indication on the far-left approach at 18' high to obtain the needed stopping sight distance for the design speed.	will be determined as part of the final design for the signal based on the final configuration of the roadway.
	Ralph Catalano at the Piedmont City Council on March 1, 2024	
21	Today's staff report implies that you can consider the Moraga Canyon Sports Field EIR (State Clearinghouse Number 2009112054) when formulating the Moraga Canyon Specific Plan. That EIR found that new entrances and exits to Blair Park would create a significant and unavoidable safety hazard for motorists, pedestrians and bicyclists on Moraga Avenue. How did LSA consultants, the authors of the EIR, come to such a conclusion? Caltrans has adopted US DOT equations that use road alignment, slope, and sight distances to calculate maximum speeds for safe stopping at intersections. As described on pages 253 to 255 of the EIR, LSA engineers assumed two entrances/exists to Blair Park positioned at Caltrans recommended distances from each other and from Red Rock and Maxwelton. They measured the shortest sight line to these intersections at 385 feet. Using the Caltrans equations, they estimated the maximum safe speed to be 35 MPH. 15% of trips on Moraga exceeded that speed.	The Moraga Canyon Sports Field EIR applied the corner sight distance (CSD), which is generally applicable to intersection of two public roads. In fact, the HDM specifically states that CSD is not applied to urban driveways (Index 405.1(2)(d)). The appropriate sight distance requirement applicable to the proposed driveways on Moraga Avenue is stopping sight distance (SSD), as described in response to comment #5. The measured sightline of 385 feet referenced in the Moraga Canyon Sports Field EIR, which is generally consistent with the measured sightlines for the Moraga Canyon Specific Plan, exceeds the minimum SSD of 300 feet for the uphill (eastbound) and 360 feet for the downhill (westbound) direction for a design speed of 40 mph on Moraga Avenue.
22	Today, your consultants tell you that they have found locations for entrances to Blair Park that provide a longer minimum sight line than assumed by LSA. With this longer sight line, they calculate the fastest safe speed at 40 MPH. **They than claim, without documentation, that no one on Moraga travels at speeds greater than 40 MPH**.	As described in response to comment #4, data collected in September 2023 on Maraga Avenue show about 7 percent of vehicles traveling above 40 mph and less than 1 percent traveling above 45 mph.

#	Comment	Response
23	I am surprised to learn that your consultants have found two entrance/exits with a minimum sight line that, when added to the DOT/Caltrans equations, produces a 40 MPH safe speed. But let's stipulate, for the sake of the conversation, that this is true. The simple fact remains, however, that the distribution of speeds observed on Moraga shows that at least 10% of trips ***exceed*** 40 MPH. This distribution was found before the preparation of the LSA EIR and was found again in subsequent studies including that for the City of Piedmont Bicycle and Pedestrian Safety Plan (I have attached that distribution and accompanying crash analysis). So, how big is the problem? Assuming conservative trip generation of 4 per household, 132 families in Blair Park would generate more than 500 entrances from and exits to Moraga Avenue per day. How many of these will be at a time when they encounter a vehicle traveling faster than 40 MPH? Moraga Avenue will, according to the Housing Element EIR, carry about 15,000 trips a day. About 10%, or 1,500, of these will exceed 40 MPH. That implies more than 1 per minute. So, virtually every one of the 500 entrances or exits from Blair Park will likely encounter a safety hazard as defined by Caltrans. And this circumstance assumes your consultants' yet to be verified locations for entrances/exits. The risk will be even greater should the LSA locations prove correct. And remember, it remains city policy that projects will not be approved in Piedmont unless they provide safe sightlines. Indeed, the Housing Element EIR you have adopted states you will enforce that policy.	The Institute of Transportation Engineers (ITE) *Trip Generation Manual* provides vehicle trip generation data for various land use types based on data collected at similar sites throughout the country. According to the *Trip Generation Manual,* typical multi-family housing generates about 4.54 vehicle trips on a typical weekday. Thus, the approximately 200 housing units would generate about 910 vehicle trips on a typical weekday. As described earlier, the potential driveways on Moraga Avenue would meet the stopping sight distance standard for 40 mph. Note that the established standard does not imply that all vehicles traveling above the design speed (40 mph) would not have adequate time to stop their vehicles and avoid a collision. The established standards are based on parameters such as driver perception and reaction times and vehicle braking and stopping characteristics and account for factors such as drivers with slow reaction times or driving above the design speed. This is evidenced by the current conditions on Moraga Avenue, where several segments of the roadway do not meet the SSD for 40 mph and many existing driveways and intersections along the corridor provide shorter sightlines than the potential driveways along Blair Park, and yet the reported collision data shows relatively low crash rates along Moraga Avenue than stated in the comment. The number and location of the driveways on Moraga Avenue have not been determined and will be determined as part of the final project design. The sight distance will depend on the exact location and orientation of the driveway and the final configuration of Moraga Avenue, including type and location of landscaping and on-street loading. Final project designs will include calculation of sight distance for each new driveway to ensure that each new driveway provides the minimum required sight distance.

PIEDMONT PLANNING COMMISSION

Regular Meeting Minutes for Monday, September 8, 2025 – DRAFT

A regular session of the Piedmont Planning Commission was held on Monday, September 8, 2025, both in person and via ZOOM teleconference, in accordance with Government Code Section 54954.2 (a). The agenda for this meeting was posted for public inspection on August 25, 2025 and amended and posted August 26, 2025.

CALL TO ORDER

Chair Jajodia called the meeting to order at 5:32 p.m.

ROLL CALL

Present: Chair Aradhana Jajodia and Commissioners Raffi Zaroukian, Michael Beuselinck, Wayne Rowland, and Thomas Yee

Absent: Commissioner Julie Ortiz

Staff: Planning & Building Director Kevin Jackson, Senior Planner Pierce Macdonald, Senior Planner Gopika Nair, Assistant Planner Lamis Chabbani, Associate Planner Tiffany Edwards, Administrative Assistant Mark Enea, Assistant City Attorney Karen Murphy and Fire Captain Michael Carlisle.

PUBLIC FORUM

There was no **Public Testimony** received.

DISCLOSURES

Director Jackson indicated that there are three recusals: Commissioner Beuselinck has ownership interest in a property within 500 feet of the property at 78 Fairview Avenue and Chair Jajodia has ownership interest in a property within 500 feet of the study area for the Moraga Canyon Specific Plan and ownership interest in a property within 500 feet of the property at 316 Pala Avenue.

REGULAR AGENDA

The Commission considered the following items of regular business:

Approval of Minutes

Resolution 25-PL-25
RESOLVED, that the Planning Commission approves the August 11, 2025 meeting minutes.
Moved by Beuselinck and Seconded by Rowland
Ayes: Beuselinck, Jajodia, Rowland and Yee
Noes: None
Abstain: Zaroukian
Absent: Ortiz

Removal of Applications from Regular Session to Consent Calendar

By procedural motion, the Commission placed the following application on the Consent Calendar as noted:

- 100 Palm Drive, DRFW2025-006 (Fence Design Review Permit)

Resolution 26-PL-25
RESOLVED, that the Planning Commission approves the consent calendar as noted.
Moved by Yee and Seconded by Zaroukian
Ayes: Beuselinck, Jajodia, Rowland, Yee and Zaroukian
Noes: None
Abstain: None
Absent: Ortiz

At the end of the meeting, the following Resolution was approved adopting the Consent Calendar items.

Fence Wall Site Feature Design Review Permit, 100 Palm Drive, DRFW2025-006

Resolution 006-DRFW-25

WHEREAS, the Property Owner proposes to install a heat pump and construct a 4-foot-tall wooden screen painted to match the house exterior within the street yard setback along Wildwood Avenue which requires a design review permit; and

WHEREAS, after reviewing the application, plans and any and all testimony and documentation submitted in connection with such application and after visiting the subject property, the Piedmont Planning Commission finds that as outlined in the staff report the project is categorically exempt under California Environmental Quality Act, CEQA, pursuant to CEQA Guidelines Section 15303 Class 3 (e), is consistent with the General Plan policies and programs with no exceptions as provided in the staff report; and

WHEREAS, regarding the design review permit, the Planning Commission finds that, as conditioned, the project is approved because it complies with the design review criteria under Section 17.66.060 of the Piedmont City Code as follows:

1. The proposed design is consistent with the City's General Plan and Piedmont Design Standards and Guidelines. The following building features are consistent with the original architecture and neighborhood development, the freestanding fence, height, material and width, and the location of the fence are consistent.

2. The design has little or no effect on neighboring properties' existing views, privacy, and access to direct and indirect light because the distance the project and neighboring homes is appropriate. There are no significant views blocked by the low fence.

3. The proposed design does not adversely affect pedestrian or vehicular safety because the project does not modify onsite safety conditions, and it maintains adequate visibility for pedestrians and motorists at the intersections for Wildwood and Palm Drive.

4. The application complies with the following Design Standards and Guidelines and General Plan policies and programs: Chapter 3: Site Design and Chapter 4: Building Design.

5. The project is consistent with General Plan policies and programs, including the Land Use Element, Housing Element, and Design and Preservation Element, including Design and Preservation Policies 29.2, 29.3, 29.5, 29.9, and 31.3.

RESOLVED, that based on the findings and facts set forth heretofore, the Piedmont Planning Commission approves the design review permit application for the construction at 100 Palm Drive, Piedmont, California, in accordance with the plans and specifications on file with the City, subject to the following three conditions:

1. **Sound**. The proposed heat pump unit shall meet the sound requirements of a maximum 50 decibels (dBA) at the nearest property line as provided in Building Code Section 8.02.020 EE.

2. **Exposed Conduits**. Any new exposed conduits shall be bundled with existing conduits and painted to match the adjacent wall color. Minor modifications shall be subject to staff review and approval.

3. **Defense of Legal Challenges**. The Property Owner shall indemnify, defend and hold harmless the City, its Council, Planning Commission, advisory boards, officers, employees, consultants and agents (hereinafter "City") from any claim, action or proceeding (hereinafter "Proceeding")brought against the City to attack, set aside, void or annul the City's actions regarding any development or land use permit, application, license, denial, approval or authorization, including, but not limited to, variances, use permits, developments plans, specific plans, general plan amendments,

zoning amendments, approvals and certifications pursuant to the California Environmental Quality Act, and/or any mitigation monitoring program, or brought against the City due to actions or omissions in any way connected to the Property Owner's project("Challenge").City may, but is not obligated to, defend such Challenge as City, in its sole discretion, determines appropriate, all at Property Owner's sole cost and expense. This indemnification shall include, but not be limited to, damages, fees and/or costs awarded against the City, if any, and costs of suit, attorney's fees and other costs, liabilities, and expenses incurred in connection with such proceeding whether incurred by the Property Owner, City, and/or parties initiating or bringing such Proceeding. If the Property Owner is required to defend the City as set forth above, the City shall retain the right to select the counsel who shall defend the City. Per Government Code Section 66474.9, the City shall promptly notify Property Owner of any Proceeding and shall cooperate fully in the defense.

Moved by Jajodia and Seconded by Rowland
Ayes: Beuselinck, Jajodia, Rowland, Yee and Zaroukian
Noes: None
Abstain: None
Absent: Ortiz

Informational Report on Permit Applications Received and Approved

Director Jackson provided information on the number of permit applications received and processed during the month of August 2025. There was a total of 48 planning permits submitted and 31 approved, 20 were expedited design reviews, nine for Director, four for Planning Commission review, one for Accessory Dwelling Unit (ADU), three for Fence and Wall, and one each for SB 9 Urban Lot Split and SB 9 Housing Development.

Director Jackson stated that August had 48 submissions compared to the seven-month average of 30, with approvals also increasing by 60 percent over prior months.
For building permits, in August 2025, there were 118 building permit applications submitted and 108 were approved.

Director Jackson stated that the total of 118 building permit applications was about 22% higher than previous months on average.

There was no **Public Testimony** received.

Public Hearing: Consideration of Recommendation to the City Council to Adopt the Moraga Canyon Specific Plan and Amend City Code Chapter 17

Chair Jajodia recused herself due to her ownership interest in a property within 500 feet of the study area and handed the Agenda Item over to Vice Chair Rowland to act as Chair.

Director Jackson introduced Senior Planner Macdonald, Assistant City Attorney Murphy, and Andrew (Drew) Watkins from JZMK Consultants, along with Sam Tabibnia from Fehr & Peers, Karly Kaufman and John Moreland from Rincon Consultants.

Director Jackson provided background information on the project and process and stated that tonight's public hearing is for the Planning Commission to consider a resolution recommending City Council adoption of the Moraga Canyon Specific Plan (MCSP), finding it meets the goals of Program 1.L of the 6th Cycle Housing Element. He clarified that the City Council has already made decisions and given direction; the Commission's role is only to determine whether the Draft Specific Plan, as modified in March 2024, adequately addresses Program 1.L.

Director Jackson elaborated on what a Specific Plan is and is not, stating that a Specific Plan is not a construction project. Instead, it is a framework, a set of standards that would guide and regulate development within a defined study area. The Specific Plan is not a project but the framework for future projects. Director Jackson stated that this evening's

presentation will summarize common public comments, provide responses, and review the proposed revisions.

Mr. Watkins presented a slideshow describing the contents of the MCSP, as well as its history, schedule, and approach. He presented two development options: Option A, with flatter terrain along Moraga Avenue; and Option B, with hillside views but more difficult topography. Both options include improvements to Moraga Avenue.

Mr. Watkins presented a summary of public feedback and outlined Moraga Avenue improvements, including a future signal at Red Rock Road, driveway access, and updated bicycle lanes. With a posted 25 mile per hour speed limit and roadway constraints, the proposed changes aim to improve safety, slow traffic, enhance safe pedestrian crossings and ensure proper access for new development.

Mr. Tabibnia presented slides showing traffic data from September 2023 indicating about 11,000 vehicles on a typical weekday on Moraga Avenue, along with speed, pedestrian and bicycle details, and presented accident data. Using the Institute of Transportation Engineers (ITE) Trip Generation Manual, it was estimated the MCSP project would add about 910 daily vehicle trips. Mr. Tabibnia explained their analysis of possible driveway locations on Moraga Avenue, stopping sight distance per the Caltrans Highway Design Manual and noted that the MCSP recommends a signal at Moraga Avenue and Red Rock Road with flashing beacons to improve pedestrian crossings, vehicles turning and slow traffic.

Mr. Watkins presented slides related to access, emergency response, and evacuation along Moraga Avenue. Measures include emergent signal timing, coordination with Oakland and Caltrans, temporary reversible lanes during evacuation, limited street parking in high-risk periods, multiple evacuation routes, school coordination, staggered evacuation orders, carpooling, pedestrian and bicycle options, landscape standards, intersections designed to aid evacuation, and other measures.

Captain Carlisle presented and noted that he and Fire Chief Brannigan have been engaged throughout the MCSP preparation and will continue as the process moves forward. He said improvements on either side of Moraga Avenue, including better access, water supply, ember resistant construction, updated standards, sprinklers, and fire safe landscaping, would strengthen wildfire protection and create a buffer for firefighting. He shared that current emergency response planning is a significant difference compared to the 1991 fire evacuation.

Ms. Kaufman presented slides describing the California Environmental Quality Act (CEQA) process for the Specific Plan, which began with the Housing Element Implementation Environmental Impact Report (EIR). The EIR anticipated up to 199 units in the Plan area and identified significant and unavoidable impacts in historical resources, greenhouse gases, construction noise, vehicle miles traveled, wastewater capacity and wildfire. CEQA discourages repeating analysis already done, and if no new or worse impacts arise, and an Addendum to the prior EIR can be prepared to show CEQA requirements are satisfied. Future development projects will still require CEQA disclosure.

Mr. Watkins presented slides that outlined recommended Specific Plan changes. He addressed some of the public comments previously received and provided a recap of the Program 1.L goals. The presentation concluded with a slide summarizing the next steps, which listed upcoming public meetings and opportunities to receive updates via the Moraga Canyon Specific Plan e-Newsletter and Planning & Building Department e-Newsletter.

Commissioner Questions
Commissioner Yee asked if it is relevant that the Housing Element EIR indicates 3.5 acres for the residential dwelling units but in the Specific Plan the two options are about 4.7 acres. Ms. Kaufman responded and explained that this is not a CEQA issue. The EIR originally estimated housing based on best judgment, and the addendum will reflect updated conditions and show that the related impacts have been properly addressed.

Commissioner Beuselink noted that Fire Captain Carlisle gave an example of the Paradise fire and an uncontrolled intersection in Chico. He asked for the Captain's thoughts on controlled versus uncontrolled intersections, whether a controlled one can become uncontrolled, and if the Fire Department has a plan for that. Captain Carlisle explained that evacuation is the police department's primary responsibility while the Fire Department would be managing other tasks. The Genasys system directs residents in Piedmont neighborhoods along different routes to ease intersection issues. If power is available, Fire, Police, or neighboring agencies can control intersections; if not, police officers direct traffic to prioritize evacuation.

Commissioner Zaroukian asked if, when a developer comes with a proposed development, whether they choose Option A or Option B, would the Planning Commission be held to approve one of the options. Director Jackson responded, stating that after issuing a notice of availability and reviewing responses, the City negotiates with the developer with the proposal that best meets the City's goals. The process is public. Concurrent with the development agreement review, the developer may go through design review before the Planning Commission, which recommends to City Council. The developer then applies for additional permits such as building and grading.

Commissioner Rowland voiced concern about handling emergencies in the limited space, noting discussion of two lanes in one direction. He asked if a specific framework exists for that scenario. Captain Carlisle responded, reiterating that it is the Police Department's responsibility. Once law enforcement takes control, both lanes can be designated as exit only, with no entry allowed, which is how it is designed to work. Senior Planner Macdonald explained that the Genasys system provides detailed evacuation instructions.

Director Jackson clarified that the Moraga Canyon Specific Plan does not design evacuation or emergency processes, which are handled through the Genasys system by Police, Fire and other agencies. The Specific Plan focuses on improving the Moraga Avenue roadway.

Public Testimony was received from:

Vivien Mather, an Oakland neighbor, Kathleen Hurley, resident of Harbord Drive, Ellen Greenberg, resident of Jerome Avenue, Todd Kaiser, resident of Echo Lane, Alice Talcott, resident of Wildwood Avenue, Andy Madeira, resident of Cambridge Way, Jill Lindenbaum, resident of Scenic Avenue, on Chandler, resident of Bonita Avenue, Liz Lummis O'Neil, resident of Maxwelton Road, Gregor Ross, resident of Moraga Avenue, Irene Cheng, resident of Sunnyside Avenue, Randy Wu, resident of York Drive, Frances Fisher, resident of Fairview Avenue, Fritha Knudsen, resident of Pala Avenue, Xuemei Wong, resident of Moraga Avenue, Andrea Stark, resident of Moraga Avenue, Anja Eriksen, resident of Lane Court in Oakland, Deborah Leland, resident of Maxwelton Road, Deepti Sethi, resident of Abbott Way, Michael Krumboltz, resident of Harbord Drive in Oakland, Claire Parisa, resident of Sunnyside Avenue, Elise Collins, resident of Piedmont, Justin Zucker, resident of Linda Avenue, Marjorie Blackwell, resident of Pala Avenue, Silver, resident of Harbord Avenue, and Tom O'Neil.

Commissioner Discussion

At Commissioner Rowland's request, Director Jackson explained that the Commission's role is to determine if the Specific Plan conforms to the General Plan, including Housing Element Program 1.L. The Specific Plan is not a development project but a framework of provisions and standards for potential housing and public facilities. If the Specific Plan adequately addresses the goals set forth in Housing Element Program 1.L, the Commission is obligated to recommend approval to City Council.

Commissioner Beuselinck noted the Moraga Canyon Specific Plan sets the framework for public facility improvements and housing development. He said the City Council directed the Draft Specific Plan be evaluated against Program 1.L goals. While many concerns exist about traffic, density, and safety, he believes the MCSP follows City Council direction, and he reserves judgment until a specific development is proposed. He supports adopting the resolution within this limited scope.

Commissioner Yee agreed with Commissioner Beuselinck, noting the Commission's role is to evaluate the Specific Plan's alignment with the General Plan, which he believes the MCSP meets. He acknowledged concerns about density, traffic and evacuation but said lessons have been learned since 1991 and the MCSP includes fire preparedness measures. He stated his support for the MCSP.

Commissioner Zaroukian agreed with his fellow Commissioners.

Commissioner Rowland also agreed, noting the Specific Plan is only a framework, not an actual development. Commissioner Rowland said the MCSP provides room to address public safety concerns and fulfils State housing mandates. He stated his support for the MCSP as a framework.

Resolution 27-PL-25

WHEREAS, State of California housing element law, as set forth in Government Code §§ 65302 and 65580, et seq., requires the City of Piedmont to periodically prepare and update its Housing Element in its General Plan, and to establish goals, policies, and programs to accommodate the maintenance, diversification, and expansion of the City's housing supply to accommodate the City of Piedmont's regional housing needs allocation (RHNA) of 587 housing units, comprised of 238 above moderate income units, 92 moderate income units, 94 low income units, and 163 extremely and very low income units; and

WHEREAS, the 6th Cycle Housing Element must be adopted to comply with State law, accommodate the RHNA, affirmatively further fair housing, and facilitate and encourage a variety of housing types for all income levels, including multifamily housing (Gov. Code Sections 65583.2 and 65583(c)); and

WHEREAS, the preparation, adoption, and implementation of the 6th Cycle Housing Element includes a diligent ongoing effort to include all economic segments of the community; and

WHEREAS, to comply with State housing element law, the City Council of the City of Piedmont has prepared and adopted, on March 20, 2023, the 2023-2031 6th Cycle Housing Element (the 6th Cycle Housing Element); and

WHEREAS, Piedmont's 6th Cycle Housing Element includes Program 1.L, which calls for the drafting of a specific plan, as provided in Government Code §65450 et seq., for a study area consisting of 18.25 acres of City-owned land and the Moraga Avenue roadway near the northern boundary of the City. The intent is to facilitate the development of below-market-rate housing to help meet the demand for affordable housing in the City. In

order for the City to meet its RHNA requirements, the Specific Plan needs to accommodate at least 132 housing units at all income levels. Housing Element Program 1.L sets forth several goals for the specific plan as follows:
• To enable construction of housing at a minimum of 132 units, on portions of the site, totaling approximately 3.5 acres of land, yielding a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI) and a minimum of 72 units affordable to households earning more than 80 percent of the AMI;
• Improved safety. New habitable structures shall be built to meet fire code requirements for Wildland Urban Interface Areas;
• Replacement and/or modernization of existing Public Works Department facilities, offices, storage areas, vehicle storage areas, etc., so that service capacity is maintained or increased, and so that the facilities meet current building and fire code requirements.
• The inclusion of recreation facilities, including but not limited to an under14 soccer field, youth baseball/softball field, batting cages, artificial field turf, ballfield seating, a skate spot, a picnic area, and parking for these facilities; and
• The provision of all public utilities to new housing and all City facilities to be constructed within the specific plan area in a manner consistent with public safety standards and Piedmont Climate Action Plan goals and programs;
• The inclusion of improvements to pedestrian and vehicular circulation, as determined necessary by the City Engineer, to provide safe pedestrian, bicycle, and motor vehicle movements, ensure safe evacuation routes, and provide optimal emergency response; and
• The inclusion of a comprehensive landscape plan for areas planned for development. The landscape plan shall prioritize to the extent practicable: fire safety and the preservation of significant open space, scenic views, and native and heritage trees; and

WHEREAS, beginning in August 2023, the City has conducted extensive community outreach in support of the preparation of a Draft Moraga Canyon Specific Plan including neighborhood and stakeholder engagement; an online survey; a November 30, 2023, community workshop; study sessions held by the Planning Commission, Park Commission and Recreation Commission in 2023, 2024, and 2025; and a second online survey regarding the four plan options presented at the community workshop that was available in December 2023 and January 2024; and

WHEREAS, the City Council held study sessions on January 22 and March 1, 2024, to receive information from staff and JZMK Partners on the results of the community engagement and discussions by the various commissions, and four preliminary site plan options; and

WHEREAS, at its regular meeting of March 18, 2024, the City Council received a report from staff and a presentation from JZMK, at the conclusion of which the Council reached consensus on providing the following direction for the preparation of a Draft Moraga Specific Plan:
• Exclude site plan options 2 and 4 as presented to the City Council on March 1, 2024;
• Include site plan options 1 and 3 to provide flexibility to potential developers to choose a plan that optimizes the development of housing and community benefits, including improvements to the Moraga Avenue roadway;
• Explore increasing the number of market-rate units, originally at 72, to up to 139 in order to better fund community amenities;
• Eliminate a skating facility as a goal of the plan, and instead seek the development of other community facilities, such as a dog park, a playground, or a pickleball court; and
• Include the community benefits of an under-14 soccer field, youth baseball/softball field, batting cages, artificial field turf, and ballfield seating.

WHEREAS, Planning Commission held three study sessions in 2024 that introduced preliminary drafts of several chapters of the Draft Moraga Canyon Specific Plan to

facilitate discussions to inform the draft content of the Specific Plan and received written reports and presentations from staff and JZMK Partners, as follows:
• On August 12th the Planning Commission received a report introducing the type of contentmin each chapter and more in-depth information to facilitate a discussion of the architectural design approaches and draft design standards for new multifamily housing construction in the MCSP study area (chapter 7), as well as information on the City Council study sessions, the community workshop held on November 30th, and a summary of public comments received during the City Council study sessions and afterwards;
• On September 23rd the Planning Commission received a report to facilitate a discussion of the development requirements for new multifamily housing, City facilities and infrastructure in the MCSP study area, contained in draft chapters covering general development regulations (chapter 3), circulation (chapter 4), site design (chapter 5), and building design (chapter 6); and
• On October 14th the Planning Commission received a report to facilitate a discussion regarding the landscape design requirements for new multifamily housing, as well as requirements for public services, utilities, and infrastructure in the MCSP study area, contained in draft chapters cover landscaping standards (chapter 8) and public services, infrastructure, and utilities (chapter 9); and

WHEREAS, on April 18, 2025, the City of Piedmont made available a Draft Moraga Canyon Specific Plan for public review and comment; and

WHEREAS, on April 28 and 30, 2025, the City Council held study sessions to receive copies of the Draft Moraga Canyon Specific Plan and a presentation from City staff and JZMK Partners on the content of the Specific Plan to facilitate an understanding of the content through a series of questions and responses and took public comment; and

WHEREAS, Section 25.3 of the Piedmont City Code outlines the powers and duties of the Planning Commission including to consider and make recommendations to the City Council on real property, subdivisions, lot building restrictions, planning and zoning matters, matters affecting the design and aesthetics of buildings, structures and other improvements and methods of encouraging and promoting good design in construction in order to maintain the high quality of aesthetic values which make the City unique; and

WHEREAS, as provided in Government Code Sections 65352 – 65352.5, the City of Piedmont referred the Moraga Canyon Specific Plan to all California Native American tribes on the contact list provided by the Native American Heritage Commission and to other entities listed, and consulted with Native American Tribes that requested consultation, resulting in new policies in Chapter 10 of the Moraga Canyon Specific Plan; and

WHEREAS, on June 4, 2025, the Piedmont Park Commission held a duly noticed public meeting at which time it reviewed the Draft Moraga Canyon Specific Plan, the staff report and all attachments, a presentation on the Specific Plan by JZMK Partners, and oral and written public comments, and recommended to the Piedmont City Council that the Council adopt provisions in the Draft Moraga Canyon Specific Plan related to landscaping on City-owned land and within the public right-of-way in that they address the landscaping goals of Housing Element Program 1.L; and

WHEREAS, on June 18, 2025, the Piedmont Recreation Commission held a duly noticed public meeting at which time it reviewed the Draft Moraga Canyon Specific Plan, the staff report and all attachments, a presentation on the Specific Plan by JZMK Partners, and oral and written public comments, and recommended to the Piedmont City Council that the Council adopt provisions in the Draft Moraga Canyon Specific Plan related to

facilities and public property under the control of the City for the purpose of public recreation; and

WHEREAS, on September 8, 2025, the Piedmont Planning Commission held a duly noticed public hearing at which time it reviewed the Draft Moraga Canyon Specific Plan, the staff report and all attachments, a presentation on the Specific Plan by JZMK Partners, and oral and written public comments; and

WHEREAS, an addendum to the 2023-2031 Housing Element Environmental Impact Report (EIR), State Clearinghouse no. 2022020362, has been prepared by the City's team of staff and consultants pursuant to the California Environmental Quality Act (CEQA) which studied and disclosed the potential environmental impacts from changes to the project associated with development and operation pursuant to the proposed MCSP and concluded that there would be no new impacts, new information, nor increased impacts beyond those studied in the EIR; and

WHEREAS, the September 8, 2025, public hearing met the requirements of Government Code Sections 65090 et. seq., 65453 and 65353, and City Code division 17.62; and

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Piedmont does hereby resolve, declare, determine, and order, based on substantial evidence in the record, as follows:

SECTION 1. Findings.

A. That the above recitations are true and correct.

B. That an addendum has been prepared pursuant to the California Environmental Quality Act (CEQA) which studied the potential environmental impacts of changes to the project, and determined that the potential environmental impacts of development and operation pursuant to the MCSP would be no greater than, nor introduce new impacts not studied and disclosed in, the 2023-2031 Housing Element Implementation EIR and that only minor changes or additions are required. Overall, the proposed MCSP would not result in new impacts or information of substantial importance that would generate new, more severe impacts or require new mitigation measures compared to those identified for the MCSP, as analyzed in the Housing Element EIR. As such, the proposed MCSP would not result in conditions identified in CEQA Guidelines Section 15162, and a Subsequent or Supplemental EIR is not required for the proposed MCSP. Development and operation pursuant to the proposed MCSP would be subject to all previously required mitigation measures from the Housing Element EIR, as applicable. The Mitigation Monitoring and Reporting Program (MMRP) adopted for the Housing Element Implementation Project would continue to be applicable to the proposed MCSP. In addition, the MCSP would not introduce new or substantially more severe cumulatively considerable impacts beyond those analyzed in the Housing Element EIR. Therefore, no new or substantially more severe cumulative impacts would occur as a result of the MCSP.

C. That the Draft Moraga Canyon Specific Plan addresses the goals of Program 1.L of the City of Piedmont's 6th Cycle Housing Element related to real property, subdivisions, lot building restrictions, planning and zoning matters, matters affecting the design and aesthetics of buildings, structures and other improvements and methods of encouraging and promoting good design in construction, in that the Specific Plan plans for and/or envisions the development of: residential housing for an anticipated 199 households, public infrastructure and utilities to support the development, an enhanced Public Works Department corporation yard, a multi-sport field with natural or synthetic turf the size of a U14 soccer field with baseball/softball field overlay with spectator bleachers, restrooms, and batting cages; other community facilities, such as a dog park, playground or picnic

area; and roadway improvements.

SECTION 2. Recommendations
A. The Planning Commission recommends that the City Council approve the following changes to the text of the Draft Moraga Canyon Specific Plan:

1. **Sight Stopping Distance and Signage**. MCSP Chapter 4, Section 4.9 on page 35 provides an example of the type of traffic signage and flashing beacon that alerts drivers to be aware of pedestrian crossings. In response to public comment and on the advice of the City's consultant traffic engineers, the Planning Commission recommends changes to Chapter 4, including the image and caption for Figure 4.8 to show the typical traffic caution signage and flashing beacon for the approach to a signalized intersections and stopped cars at the signal, as provided by the City's consultant traffic engineers. The Planning Commission recommends revisions to the text and graphics of pages 35 and 46 as follows (changes shown in bold and underlined text):

a. Page 35, change the second to last sentence in the first paragraph of Section 4.9 to read "Figure 4.8 is an example of the flashing beacons placed prior to the intersection to warn motorists of upcoming **signal and** pedestrian crossings." In addition, replace the existing image with the one shown in Exhibit 1 and change the caption to read "**Signal Ahead Signage with Flashing Beacon Imagery.**"

b. Page 35, change MCSP Section 4.9 to include a requirement for stopping sight distance analysis at the time of development agreement to determine appropriate locations for traffic signal, signage, and beacons, to read as follows "**Stopping sight distance analysis shall be conducted for the design and engineering of the intersection to include but not limited to appropriate design and location(s) of signal, roadway signage, and beacons. See Chapter 10, Section 10.5.6.2, Development Agreement**."

c. Page 46, change the last sentence of the third paragraph of Section 4.17 to read "According to the HDM (Table 201.1), the minimum required SSD for vehicles for a design speed of 40 mph (rounding up the measured 85th percentile speed of 38-39 mph) is 300 feet. **HDM Section 201.3 requires increasing the SSD by 20 percent for roadway segments with sustained downhill slope of 5 percent or more over one mile long. Thus, the SSD for the downhill (westbound) Moraga Avenue is 360 feet, compared to 300 feet for the uphill (eastbound) direction**. **Stopping sight distance analysis shall be conducted for the design and engineering of each proposed driveway. See Chapter 10, Section 10.5.6.4.A, Initial Design Review**."

2. **Transit Stops**. MCSP Chapter 4, Section 4.12 Public Transit, on page 38 includes direction regarding the placement of new transit stops along Moraga Avenue to serve new and existing residents in the MCSP area and neighboring areas. The Planning Commission recommends a change to increase the flexibility of the location of new bus stops as part of development under the MCSP. For example, upon further research, new bus stops on Moraga Avenue near Highland Avenue may achieve the goals of expanding public transit as a permanent or interim measure. The proposed change to Section 4.12 is shown below in bold and underlined text.

"The following actions should be pursued to improve bus service during development of the MCSP area:
1. Coordinate with AC Transit to introduce bus service along the Moraga Avenue corridor.
2. Provide bus stops in both directions of Moraga Avenue near the proposed signal at Red Rock Road to better accommodate bus riders needing to cross the street.

Carefully consider the space requirements and safety of alternative locations for bus stops, including interim bus stops, to be located ½ mile or less walking distance from the entrance or entrances of all housing units affordable to lower income residents.
3. Provide amenities, such as a shelter with bench and trash receptacle at the bus stops."

3. **Common Useable Open Space**. MCSP Chapter 5, Section 5.7.1, Common Useable Open Space, on page 51 includes a requirement that a minimum of 15 percent of the land used for multifamily development shall be designated as Common Useable Open Space. Comments received from the public recommend aligning the MCSP standards for common useable open space with the minimum requirements for affordable housing from the California Tax Credit Allocation Committee (TCAC). The TCAC requires the minimum common space for low-income housing tax credit (LIHTC) developments and large family LIHTC developments, which require less land dedicated to common useable open space, as low as 2.3 percent. The Planning Commission recommends reducing the total amount of land dedicated to common useable open space in MCSP Chapter 5, Section 5.7.1, from 15 percent to 10 percent. This change would continue to provide space for tenants to interact, children to play, and landscape amenities.

4. **Private Useable Open Space**. MCSP Chapter 5, Section 5.7.2, Private Useable Open Space, on page 53 requires the developer of multifamily units in the MCSP area to provide a minimum of 80 square feet of space accessible to the tenant and guests of each unit. A larger area of 100 square feet is the required standard for residences located on the ground floor. Comments received from the public request that the City change the standard for private useable open space by removing this requirement entirely. The Planning Commission recommends reducing the private useable open space area to 80 square feet for both ground floor units and units located on upper floor levels. In addition, the Planning Commission recommends allowing development to satisfy the private useable open space standard by transferring the same area to the development's common useable open space (in addition to the required 10 percent of the lot standard, described above).

5. **Affordability Levels**. Section 10.5.6.2, Development Agreement, on Page 120 of the Draft MCSP includes, as required term #3, affordable housing units. The Planning Commission recommends amending the affordability levels of the units to provide additional flexibility while continuing to meet Housing Element goals. Proposed change is shown below in bold and underlined font.

"3. The provision of affordable housing, with a minimum of 60 units affordable to households earning **low and very low incomes, including a minimum of 40 units affordable to those with** very low and extremely low incomes, as well as units affordable to households earning moderate incomes, or less, as a minimum of 10% of any proposed market-rate units, and housing units shall include a minimum of 50% of units with two bedrooms or more to serve families."

6. **Implementation**. The Planning Commission recommends changes to the text of Chapter 10, Section 10.5.6.2, Development Agreement, to incorporate recommended changes to Chapter 4, described above, and to incorporate revision recommended by the Piedmont Fire Department, as follows:

a. Section 10.5.6.2.A, Application Requirements, change the list of application requirements to include the addition of a new item 11. as follows: "**11. Stopping Sight Distance Analysis for the design and engineering of the traffic signal and pedestrian crossing at the intersection of Moraga Avenue and Red Rock Road, showing design and location(s) of signal, traffic signage, and beacons and**

including analysis of current traffic speeds."

b. Section 10.5.6.2.B change the required terms of the future development agreement to include additional details about the future development proposal's compliance with Fire Code regulations, as follows (changed text is shown in bold and underlined font): "Fire protection for new development meeting Environmental Hazards Element policy 19.9 and Fire Code requirements, **including but not limited to** fire sprinkler plan, evacuation improvements**, fire access roads and points of access off of Moraga Avenue, turnarounds,** and one or more new fire hydrants to serve the development, as well as required water pressure and flow."

c. Section 10.5.6.4, Design Review, subsection A, change the requirements for initial design review permit to include design and engineering for each driveway for the future development, including but not limited to stopping sight distance analysis, as follows (changed text is shown in bold and underlined font): "An Initial Design Review Permit shall be administered pursuant to Division 17.66 of the Piedmont City Code, except as set forth below. An Initial Design Review Permit application shall include the following: conceptual site plan, access and circulation plan, **including design and engineering of each driveway, including but not limited to current traffic speeds and stopping sight distance analysis**, frontage improvements, landscape plan, building massing, and architectural style…"

7. **Sound Study.** Piedmont General Plan policies and programs address the noise of construction, including the noise from future construction related to the MCSP. These General Plan provisions would continue to apply to development pursuant to the MCSP. The Planning Commission recommends changes to Chapter 10, Section 10.5.7, Environmental Measures, to incorporate the following new measure to manage potential noise resulting from MCSP development and operations (new text shown in bold and underlined font):

10.5.7.8 SOUND STUDY
To ensure consistency with Chapter 8 of the Piedmont City Code, if new or relocated recreational uses that produce amplified or equipment-related noise are proposed within 500 feet of residences, a noise study shall be conducted to determine the noise levels from the proposed recreational use to residences within 500 feet. If noise levels are found to exceed the standards within Chapter 8 of the Piedmont City Code, or other noise limit if appropriate and supported by the findings of the noise study, noise reduction measures shall be implemented such that noise levels would be below the applicable standard. The noise study shall be provided to the City as part of the Initial Design Review Permit process.
If the City's Corporation Yard is relocated to within 500 feet of residences, a noise study shall be conducted to determine the noise levels from Corporation Yard to residences within 500 feet. If noise levels are found to exceed the standards within Chapter 8 of the Piedmont City Code, or other noise limit if appropriate and supported by the findings of the noise study, noise reduction measures shall be implemented such that noise levels would be below the applicable standard. The noise study shall be provided to the City as part of the Initial Design Review Permit process."

B. The Planning Commission recommends that the City Council find that the MCSP complies with the Piedmont General Plan and City Charter and protects public health, safety, and welfare, because the City of Piedmont and the region are burdened by an affordable housing crisis and the MCSP plans for a mixed-income, multifamily neighborhood in close proximity to job centers, transit, and community services, in accordance with Piedmont Housing Element Program 1.L, because the Moraga Canyon Specific Plan is a subtype of General Plan pursuant to City Charter Section 9.01, and

because proposed City Code Chapter 17 amendments to implement the Moraga Canyon Specific Plan do not change the boundaries of any zoning district nor change any property from one zoning district to another.

C. The Planning Commission recommends that the City Council approve the Addendum to the 2023-2031 Housing Element Implementation Environmental Impact Report.

D. The Planning Commission recommends that the City Council approve the Draft Moraga Canyon Specific Plan with the changes described above in that the MCSP chapters, programs, and actions address the goals Housing Element Program 1.L and the City Council's March 18, 2024, direction to staff (https://piedmont.ca.gov/services___departments/planning___building/general_plan___other_policy_documents/moraga_canyon_specific_plan).

SECTION 3. All portions of this resolution are severable. If an individual component of this Resolution is adjudged by a court to be invalid and unenforceable, then the remaining portions will continue in effect.

Moved by Yee and Seconded by Beuselinck
Ayes:, Beuselinck, Rowland, Yee and Zaroukian
Noes: None
Abstain: None
Absent: Ortiz
Recused: Jajodia

Resolution 28-PL-25

WHEREAS, State of California housing element law, as set forth in Government Code §§ 65302 and 65580, et seq., requires the City of Piedmont to periodically prepare and update its Housing Element in its General Plan, and to establish goals, policies, and programs to accommodate the maintenance, diversification, and expansion of the City's housing supply to accommodate the City of Piedmont's regional housing needs allocation (RHNA) of 587 housing units, comprised of 238 above moderate income units, 92 moderate income units, 94 low income units, and 163 extremely and very low income units; and

WHEREAS, on September 8, 2025, the Planning Commission held a duly noticed public hearing and recommended City Council approval of the Moraga Canyon Specific Plan; and

WHEREAS, the Moraga Canyon Specific Plan includes Chapter 5, Site Design, Section 5.4, Multifamily Site Design Requirements, which establishes a development standard requiring a minimum 40-foot site frontage along Red Rock Road in the Moraga Canyon Specific Plan area; and

WHEREAS, the Moraga Canyon Specific Plan includes Chapter 6, Building Design, Section 6.3, Building Height, which establishes a development standard allowing a maximum 60-foot building height limit in the Moraga Canyon Specific Plan area; and

WHEREAS, amendments to the Piedmont City Code Division 17.22 are required to make the City Code Chapter 17 conform to Moraga Canyon Specific Plan development standards for lot frontage, building height, and conforming revisions; and
WHEREAS, an addendum has been prepared pursuant to the California Environmental Quality Act (CEQA) which studied the potential environmental impacts of changes to the 2023-2031 Housing Element Implementation project associated with development and operation pursuant to the MCSP, and determined that the potential environmental impacts

of development and operation pursuant to the MCSP would be no greater than, nor introduce new impacts nor new information not studied and disclosed in, the 2023-2031 Housing Element Implementation EIR.

WHEREAS, on September 8, 2025, the Piedmont Planning Commission held a duly noticed public hearing at which time it reviewed the proposed City Code amendments, the staff report and all attachments, a presentation on the proposed amendments, and oral and written public comments; and

WHEREAS, the September 8, 2025 public hearing met the requirements of Government Code sections 65090 et. seq., 65453 and 65353, and City Code division 17.62.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Piedmont does hereby resolve, declare, determine, and order, based on substantial evidence in the record, as follows:

SECTION 1. Findings.

A. That the above recitations are true and correct.

B. That an Addendum has been prepared pursuant to the California Environmental Quality Act (CEQA) which studied the potential environmental impacts of changes to the 2023-2031 Housing Element Implementation project associated with development and operation pursuant to the MCSP, and the potential environmental impacts of development and operation pursuant to the MCSP would be no greater than, nor introduce new impacts nor new information not studied and disclosed in, the 2023-2031 Housing Element Implementation EIR, and the Planning Commission has recommended that the Addendum be adopted.

C. That, pursuant to Piedmont City Code Section 17.72.040(C), the Planning Commission finds that the proposed amendments comply with the Piedmont General Plan and City Charter, the purposes of Chapter 17, and do not reclassify residential development. The proposed amendments implement the Moraga Canyon Specific Plan, in accordance and consistent with Piedmont Housing Element Program 1.L. Further, the zoning amendments do not change any zoning district boundary nor change any property from one zoning district to another.

D. That the Planning Commission recommends City Council approval of an Ordinance 78__N.S. amending City Code Chapter 17, Section 17.22.040.C, which shall amend Section 17.22.040.C to read as follows (with new language shown in bold underline):

“C. In Zone B, the development standards for the following uses are set forth below, **except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:
a. Wireless communications facility as provided in division 17.46.
b. Multi-family residential as provided in section 17.24.040.A.
c. Cemetery, public utility – no standards.
d. Building occupied by a public agency or other nonprofit entity – no standards, except as set forth in Section 17.22.040.A.
e. Parks and open space, including recreational uses and facilities – no standards.”

E. That the Planning Commission recommends City Council approval of an Ordinance 78__N.S. amending City Code Chapter 17, Section 17.24.040 which shall amend Section 17.24.040 to include the language shown in bold underline text as follows:

“17.24.040 Regulations.

A. In Zone C, for multi-family residential use, licensed residential care facility for 7 or more residents, co-housing and single room occupancy dwellings, the standards are as follows**, except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:

B. In Zone C, for uses other than those listed above, the development standards are as follows, **except to the extent such standards are not consistent with an adopted specific plan, in which case the adopted specific plan shall prevail**:"

SECTION 2. All portions of this resolution are severable. If an individual component of this Resolution is adjudged by a court to be invalid and unenforceable, then the remaining portions will continue in effect.

Moved by Yee and Seconded by Beuselinck
Ayes:, Beuselinck, Rowland, Yee and Zaroukian
Noes: None
Abstain: None
Absent: Ortiz
Recused: Jajodia

The meeting recessed at 8:10 p.m. and reconvened at 8:33 p.m.

Study Session Preliminary Draft Objective Design Standards for Accessory Dwelling Units, Multifamily and Mixed-use Development

Chair Jajodia rejoined the meeting.

Senior Planner Nair introduced Kevin Gardiner of Good City Company and Karen Murray from Van Meter Williams Pollock as presenters and noted receiving a late neighbor comment from California Housing Defense Fund (CalHDF) that staff has not yet reviewed but will address in the next draft.

Presentation slides were shared on the screen.

Kevin Gardiner explained that he and Karen Murray are assisting Piedmont with ADU, multifamily and mixed-use standards, as well as document design and layout. He recapped that the Objective Design Standards aim to streamline design review and set clear expectations for high-quality design. He outlined that Chapters 3 and 4 of the draft Objective Design Standards document cover applicability with the goal of supporting housing production.

Ms. Murray explained that updates were made to existing multifamily and mixed-use chapters of Piedmont Design Standards and Guidelines, including combining multifamily, commercial, and mixed-use into one chapter, converting some of the existing guidelines into standards, and updating/adding photos and diagrams for clarity.

Mr. Gardiner noted that in the draft Objective Design Standards document for ADUs attached to the staff report are an update to existing standards in Piedmont Design Standards and Guidelines and that the new standards are blue, and existing standards are black. Key updates to existing ADU standards include: ADUs must match the main residence if visible from the street but have more flexibility in backyards; new privacy standards; updated standards for ADUs above/below detached garages and two-story ADUs reflecting new State Law; and revised diagrams for clarity.

Ms. Murray stated they developed new standards for building massing, form and proportions, façade articulation, ground floor treatments, balconies and decks, parking garage design, blank wall mitigation, bird safety, open space and landscaping.

Mr. Gardiner thanked the Planning Commission Subcommittee for their role in collaborating with staff, reviewing each draft, providing written comments and sharing updates to the Commission. Next steps were shared with meeting dates on the slide, including releasing the public review draft of the Objective Design Standards document end of September or early October.

Commissioner Discussion
Commissioners asked questions and discussed. Commissioner Beuselinck asked about stress tests. Commissioner Yee asked if step backs for 3rd story or higher was a good standard for multifamily development.

Mr. Gardiner replied that test fits have been done on typical lots, considering possible configurations, and Subcommittee input helps guide these assessments. Steps backs are currently required in our City Code for multifamily projects abutting single family residential.

There was no **Public Testimony** received.

Variance and Design Review Permit, 78 Fairview Avenue, VAR2025-002, VAR2025-004 & DRPC2025-011

Commissioner Beuselinck recused himself due to his ownership interest in a property within 500 feet of the subject property.

The applications propose to construct an approximately 170-square-foot carport on the existing driveway. A variance is required to construct within the 5-foot side (south) yard setback and the 20-foot street (west) yard setback.

Public Testimony was received from:

Applicant David Arpi, property owner, presented a request for variance and design permit to construct an approximately 170-square-foot carport on the existing driveway. After a prior denial, he redesigned it with a flat roof matching the house slope, clad aluminum posts in wood painted to match the trim, and roof panels painted to match shingles and stucco. The carport slightly encroaches into the street yard setback, requiring a variance in addition to the side yard. He stated that the covered driveway will allow him to park there regularly, freeing up parking space on Fairview Avenue.

Following Mr. Arpi's presentation, the Commissioners asked questions regarding the eve, roof slope, aluminum versus wood, and the carport kit.

In response to the Commissioners' inquiries, Mr. Apri explained that the flat roof design made the carport kit slightly larger than the original proposal. He noted that the pre-engineered aluminum kit is more cost-effective than custom construction and is clad in wood for aesthetic purposes to match the style of the house.

There was no **Public Testimony** received.

Commissioner Discussion
Commissioners asked questions and held further discussions around the roof slope.

Resolutions 002-VAR-25, 004-VAR-25 and 011-DRPC-25
WHEREAS, the Property Owner is requesting variance and design review permit to construct an approximately170-square-foot carport on the existing driveway, which construction requires a design review permit; and,

WHEREAS, variances are required to construct within the 5-foot side (south) yard setback and the 20-foot street (west) yard setback; and

Date	Name	Moraga Canyon Specific Plan Comments
10/27/2023	Todd Sotkiewicz	If you really wanted survey input, you should have solicited all of the homeowners in Piedmont through the mail (you have all of our addresses after all; we all pay thousands of dollars in taxes to the city) rather than posting your survey availability on Piedmont Exedra. We all don't read that online newspaper regularly. This just seems to be another example of the City of Piedmont doing what they want to do rather than listening to the citizenry on this topic.
11/16/2023	Matt Derrigo	Dear Recreation Commission, First and foremost, I would like to extend my sincere gratitude for your commitment and dedication to advancing Piedmont's recreational opportunities. As a resident of Piedmont and a parent of a 10 yr old girl who actively participates in several PRD programs, I found last night's meeting both enlightening and inspiring. Your passion and engagement in these matters are commendable. On my way home, reflecting on your discussions, especially in relation to the Moraga Canyon Specific Plan (MCSP), I believe there is a crucial aspect that warrants further attention. This is the need to proportionally grow our recreational spaces in tandem with the entire densification plan of Piedmont, as defined in the Housing Element. The MCSP certainly brings new families and demands within the study area, but it is just a part of the broader mandate of densifying our entire community. The stated goal of the MCSP on the website is merely to maintain existing amenities. However, from the presentation, it appears this might actually result in reduction of facilities, notably by downsizing the skate park to a smaller "skate spot". To my knowledge, there is currently no mandate or expectation set for growing our recreational spaces in line with this overall growth. During the meeting, it was astutely noted that new housing will lead to increased demand, which was then translated into anticipated population growth within the Moraga Canyon. While considering facility capacity for this new demand is essential, I urge the Commission to advocate for expanding our recreational areas in response to the entire Housing Element. Without such proactive planning, we risk facing challenges in providing equitable and adequate recreational facilities for our growing population. The challenges of such planning are undoubtedly complex. However, given the imminent changes and the state's overarching densification plans, our strategies must be visionary and comprehensive. I am planning to attend the community workshop on Nov 30th and will convey these sentiments there as well. If there is more I can do, I'm very willing to provide further input or assist in any way that could be beneficial -- just let me know how. Thank you once again for your dedication to our community's well being. I am confident that, with collaborative efforts, we can ensure that Piedmont not only grows but thrives, with recreational spaces that meet the needs of all residents, both present and future.
11/28/2023	Charles Alexander	Hi Kevin, Just learned about the Moraga Canyon plan and I cannot stress that the sewage infrastructure, wildfire threat, and landfill structure are not fit for group housing. Let alone increased traffic/parking for an already limited primary escape route. Be very careful with construction agencies making a buck vs. building a stronger existing infrastructure. Concerned Maxwelton Rd resident. Turning all of Moraga Canyon into a premier sports complex for Oakland and Piedomt makes sense. Forcing housing seems like an attempt at social/civil duty mixed with construction margin grift. Best, Charles Alexander (P.S.) Thank you. Full disclosure I am an Oakland resident fwiw. Just took a hard long look at the slides, I love the initiative, but I beg you guys to quadruple-check the implications of infrastructure. Especially in regard to fire hazards. One should expect if there was a fire event, it would be 2x 1991 given the velocity of winds from the past half-decade of wind storms. Also, is there any website with more information or an opportunity to join the planning/execution team? Thanks.
12/1/2023	Susan Garbarino	I'd like to make some additional comments now that I have attended the Nov 30th community meeting. I live in Upper Rockridge near the site and use Moraga Way frequently. I think it is imperative that Piedmont work with the City of Oakland regarding these plans as they will affect the surrounding neighborhoods. I didn't hear that this was happening at the meeting last night. My two main concerns are traffic and environmental safety. This is a very tight spot that already receives more traffic than it can bear. It is dark, curvy, pron to flooding, and surrounded by fuel for fires in the midst of a thickly settled area that has a history of wildfires. I was impressed by the presentation and plans last night. Most of my concerns are being considered. However, the proposed light at Red Rock (that "will be green most of the time" according to the presenter) didn't sound adequate. We need a light at the intersection of Harbord and Moraga. I realize that this is actually in Oakland, but it cuts between Piedmont and Oakland and must be considered. It is already a very dangerous intersection. I have witnessed more than one accident there. I will write to my City Councilperson to let her know this suggestion as well. Regarding which plan I would prefer and why: I strongly prefer Option three because it would change the current look
12/1/2023	Adam Thacher	That was a great presentation last night. My clear favorite was I think Option 3 where the corporation yard moves across Moraga and there is no parking added under the soccer baseball field. This will make the home prices higher as the folks that will but these homes will be paying a lot and prices will be higher when they know they do not have to listen to the noise from the trucks going in and out, etc. I have a follow up question I wanted to ask the woman with dark hair who was the economics consultant who was doing the feasibility work/economic modeling etc. I did not get her card. Do you have an email for her? Thanks again for the work of you and your team. Cheers - Adam Thacher (P.S.) My question is as follows: Has she (Financing Consultant) met with or talked to experienced RE developers to see if what is being envisioned so far is economically viable from a developer's standpoint? If she has not I was going to suggest to her that there are at least 3-4 very experienced developers that live in town that she could meet with to get feedback throughout this process. I would guess that all of them care deeply about having a great end result and would be happy to meet with her informally simply as a public service. It seems like she has great experience to do the analysis but there is difference between being a consultant and having to invest in something as a business proposition as you are well aware. My wife, for one, said she would be happy to do so. And there are others who have similar experience. https://wilsonmeany.com/people/janice-thatcher/ If the consultant wants to get her input and that of others I would suggest they would be more likely to help in informal meetings not in a public setting. I can provide an introduction if needed.
12/8/2023	Lauren Tompkinns	I'm a Piedmont resident who is quite excited to see the development plans for Moraga Canyon! I would like to ask a question to see if I am interpreting the slides correctly and if so, have a followup. On slide 36: https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_13659739/File/Government/Projects/MCSP/2023-11-30-MCSP-Community-Workshop-Presentation.pdf - Are the affordable and market rate units in separate buildings (e.g. 4 total buildings) or in the same buildings (2 tota buildings)? I hope it is the later as we wouldn't want to isolate the lower income people in separate buildings. Also, is there justification somewhere of the inclusion of single family homes in the plan? Would townhomes not fit in the same space?

12/11/2023	Bruce Joffe	Dear Director Jackson, I attended the November 30 community workshop about the proposed Moraga Canyon housing project. You and I spoke about several issues, and you welcomed me to send you follow-up observations. I am concerned about the project's isolation, the low-income residents' separation, and the willingness of the project's managers to incorporate community feedback into the plans. The first part of the community meeting was a presentation by City staff and the project planning consultants to describe the project and its four options. Then, the assembled people were invited to speak one-on-one to various project team members at poster-board stations along the perimeter of the room. No opportunity was given for workshop attendees to question the project planners as a group. General questions about the overall nature of the project would not be answered by staff personnel who were designated to discuss specific options at individual poster-board stations. This gave me and several other people the feeling that the City isn't really interested in hearing and addressing our concerns. I am concerned about the isolation of the 132 new units planned for the Moraga area. There is no "urban fabric" connecting that location with the rest of Piedmont, except for the heavily-trafficked Moraga Ave. Walkers or bike riders would not see other Piedmont houses for over a quarter mile. Isolation may be a more severe problem for residents of the 60 subsidized units who may not have cars available for both going to work and for shopping or going to school. This problem could be mitigated if the City were to operate a shuttle bus, similar to the shuttles that Emeryville operates to and from the MacArthur BART station. A Piedmont shuttle could take residents down Moraga, along Piedmont Ave., across MacArthur to Grand Ave. up Grand to Oakland Ave., up Oakland to the City Center, and then along Highland back to Moraga. Connection to the BART station might even be included in the route. The City could operate the shuttle for the first five years, and then evaluate whether the amount of ridership justifies continuing, perhaps with support from passenger fees. This solution was mentioned when we spoke at the meeting, Mr. Jackson, so I am reminding you now and requesting that it be given serious consideration. A more serious problem is the planned separation of the below-market units from the market-rate units. This is a terrible idea that will have dangerous consequences. It would create a low-income "ghetto" in the midst of high-income housing. Low-income residents would be stigmatized whenever there was a problem like graffiti, or trash, or theft. The higher-income residents would instinctively blame any grime or crime on "those people" living in the separate, nearby buildings. Numerous studies have shown that when lower-income people are physically integrated into a higher-income housing project discrimination is minimized. Indeed, the lower-income residents become better integrated into the community, and their own economic circumstances improve faster than those living in separated housing. While you agreed that integration was a good idea, Mr. Jackson, you contended that separation was necessary because the subsidized housing had to be built as a separate project. This was not my experience when I developed housing for low and moderate income people, financed by both Federal and State programs, a few decades ago. Section 8's below-market rental housing units were part of a larger market-rate project financed through HUD (the U.S. Department of Housing and Urban Development). There was no physical difference between the rental units. A local non-profit corporation bought the project from a for-profit developer who gained the tax-shelter benefits from selling designated subsidized units at below-market rates. In Piedmont's project, some of the 132 units could be sold to individuals (72 at market rate, 60 at below-market rate), with unsold units being sold to a non-profit agency which would rent the market-rate units and the subsidized units together, with no physical distinction among the units. They would be seamlessly included within the 132-unit project. No ghetto. No separation. There are many different ways to finance such mixed-income projects - direct subsidies, tax credits, a combination of county, State and Federal funding, perhaps even some philanthropy. We discussed this possibility at the community meeting and you asserted that an integrated project was not feasible; there would have to be two separate projects. I implore you to go back and investigate State and Federal subsidy programs more thoroughly. Creating a new housing community that separates residents by their economic status creates a danger that will cost our City financially and socially in the decades to come. I hope you, the planning consultants, and the City Council act on these concerns productively, and demonstrate that you do respond to community residents' feedback.
12/15/2023	Vincent Fisher	Thanks so much for making time to meet with Liz and me. And I was great to bring the fire chief in as well. We really appreciate your view on this complicated process. Have a great weekend.
12/18/2023	John Cheney	Attachment - This is one more comment that is already on file with the City in 2017. I and others support "traffic calming alternatives". These are not fresh comments but rehashing comments made in 2017. We support "roundabouts" for calming traffic.
12/18/2023	John Cheney	DEIR Comments and attachments re educator housing: Attached are two separate comments on the Moraga Canyon EIR plan. I am open to meet anytime. Currently our groups have met with the PUSD to propose the general approach to the City.
12/23/2023	Roxanne Gault	Pala between Park and Moraga is basically wide enough for one car travel in one direction but is a 2 lane road . This road will see a huge increase in traffic for those going to a new 135 unit development. Waze already diverts traffic onto this road and cars in a rush trave
1/2/2024	Pam Hirtzer	Just letting you know that my neighbors a few doors down on Scenic Ave have just had their home owners insurance dropped due to severe wildfire hazard. Like myself they live above Moraga Canyon. I happen to have State Farm insuring my house, and I know that State Farm is no longer providing new policies to home owners in California deemed to be residing in high fire risk areas. Hopefully I will remain grandfathered in. This unwillingness to insure homes at risk of wildfire in California has been announced by many other
1/3/2024	Marj Blackwell	Attached are copies of 2 traffic reports from past and proposed Moraga Ave. developments: 1. 1985 LSA report regarding development of Coaches Field; 2. 2010 Emmett Creason report regarding the proposed sports field in Blair Park. I would appreciate your assurance that both of these reports have been — or will be— provided to the consultants preparing the Moraga Ave. Specific Plan. As you can see, these reports — from 38 years and 13 years ago — both reference high volume traffic on Moraga Ave. and the danger to pedestrians trying to cross the road. Since then, Moraga Ave. traffic, if anything, has increased in volume and speed. In my and many others' opinions, this is a primary issue that must be addressed before any development can occur in Moraga Canyon. Thank you for your consideration, and I look forward to your response..
1/8/2024	Deborah Leland	In reviewing the proposed changes to the Transportation Element in advance of the Planning Commission Study Session this evening, I would like to call two items to your attention: 1. Figure 4.2 of the Transportation Element shows Maxwelton Road in orange, indicating a road width of 20' - 25'. However, I believe Maxwelton Road should be depicted in red, indicating a road width of less than 20', per the description of Maxwelton Rd as 12' - 16' wide in the sidebar entitled "Narrow Streets" on the page following Figure 4.2. 2. Figure 4.4 and Table 4.4 omit Spring Path (from Moraga Ave just above Red Rock Rd to Abbott Way) from the City's inventory of pedestrian paths. Thank you for your attention to these items, and I hope there is opportunity to make the necessary corrections before adopting the amended Transportation Element.
1/8/2024	Ralph Catalano	Verbal comments at Planning Commission meeting
1/8/2024	Pam Hirtzer	Verbal comments at Planning Commission meeting
1/8/2024	Marj Blackwell	Verbal comments at Planning Commission meeting
1/8/2024	Andy Madeira	Verbal comments at Planning Commission meeting
1/8/2024	Liz Lummis O'Neil	We live in the neighborhood above Coaches Field and are writing in response to the Moraga Canyon Specific Plan. It was a surprise to us that all four Moraga Canyon options presented at the November 30, 2023 meeting included two market value houses on Abbott Wa and Maxwelton Road. We ask that you remove these from the Moraga Specific Plan. The two places are on extremely steep and difficult to get to locations. Accessing and building in these two locations would not be cost-effective. Surely there must be other options to
1/8/2024	Liz Lummi O'Neil	Verbal comments at Planning Commission meeting
1/8/2024	Kirk Peterson	Verbal comments at Planning Commission meeting
1/8/2024	Julie Waters	Verbal comments at Planning Commission meeting
1/8/2024	Irene Cheng	Verbal comments at Planning Commission meeting

1/15/2024	Liz Lummis O'Neil	Following the meeting last Monday, January 8, we'd like to update our letter. We request that you do not add a nature trail entrance where the current fire road gate is. We request that the fire road remains gated. •Last-minute notice: This was an absolute and outrageous curveball at the final hour. The January 8 meeting was the first time any of us learned about the nature trail proposal. As it is not even part of the housing element, we'd like it removed immediately. •Fire Safety: Maxwelton has limited access for fire trucks.
1/16/2024	Jennifer Marinelly	This is response to Moraga Canyon Park. If you put houses there, you are going to create such a traffic congestion that people will be fed up. The park has wildlife that you are disregarding. The people on Moraga are leaving because of this and more will leave. First of all, we do not have any open land for building, and you should fight this. We do not have ample land for parks in the city of Piedmont and you are supposed to have more parks by the law and that is not the case. You now want to take more and make a wrong situation worse? What on earth are you thinking. We do not want to be San Francisco if that is what you want then move there. The City of Piedmont used to be sweet and quiet and cozy a little slice of heaven you are now making a slice of hell. Who is this person in Piedmont that is doing this. They are just trying to make money. If you do this, you are bringing in more people, more crime and some very shady people. You are displacing wildlife and the beautiful park with more concrete. Think about this, more people more problems. More people more crime, which is what will happen we do not have a police department that is able to handle this. Complaints, load cars, loud music, and all the other problems we already have, dogs attacking people and getting bit without reporting them because they threaten us. This is the time to stop, put the brakes on and really think low income will bring people sleeping in their cars and campers and also the homeless. Everyone knows that people know people and they will say we are living here in Piedmont so come stay if will be smelly, dirty and look like an ugly place. Every person will have to do what they can to protect themselves and their property as the City of Piedmont Council sends it all to hell. You will not be alive long enough to see how bad it will get but all the children will suffer and young parents, but you do not care. You are as bad as Trump, with lies telling people what they want to hear, not the truth. I wouldn't be surprised if you ended up having side shows, it will happen. People who have guns will be coming, you do not pay attention, it's all around, open your eyes. People say they want to move here, I tell them no, you do not want to, it is not at all what it used to be. So, let's think, I know people that have left because their kids were bullied in Piedmont Schools. I know some lawyers and former city council that say this is not legal, with the parks and this is very stupid idea and should get rid of the city council people. You are really going to slam that many more people into the schools that have already suffered and fell down in the standing. You already lied to people of the cost of the pool and then you raise our taxes. WE DO NOT WANT THE HOUSES, PAY THE FINE. We would agree to pay the fine, not like you do not get enough money from, us be real. Piedmont is supposed to be an upscale place, you are making us be like East Oakland. So again, if you like that then then move there and good luck surviving. It is coming our way especially with this wrong, wrong plan. Thank you.
1/18/2024	Chris Read	Option 1 is the the superior plan for Moraga Canyon: -The current Blair Park, south of Moraga Ave is underutilized; if you must build housing in the canyon, build it there! Despite being a park for a long time, almost nobody uses it! -The open space above the skate park and corporation yard would make a superior park, with hiking trails through grand oak trees yielding majestic Bay Area views. This area is already a wildlife sanctuary for deer, fox, coyote, turkey, owl, etc. In the 1800's this land north of Moraga Ave was part of the historic 75 acre amusement park developed by the founder of Piedmont, Walter Blair https://www.historyofpiedmont.com and https://localwiki.org > Blair's_Park . -Please do not locate housing North of Moraga Ave. The area was historically an amusement park and should be a recreation park area again for the people of Piedmont. Thanks for your efforts on this!
3/1/2024	Ralph Catalano, Ph.D., Distinguished Emeritus Professor of Public Health, University of California,	Council Members, I am attaching the comments I had hoped to make at today's study session. Having heard the consultant's comments and your questions, I would add the following. Two entrances, not one (as the consultant graphic shows), will be required to serve 132 units of housing in Blair Park. These would have to meet minimum safety standards for spacing from each other as well as from Red Rock and Maxwelton. As the 2010 LSA analyses (attached) showed, such road segments could not meet Caltrans corner sight distance standards for safety if the 85th percentile traffic speed were 35 MPH. As your consultant acknowledged today, we know that the 85th percentile speed on Moraga is now close to, if not, 40 MPH. Your consultant stated, for reasons left unclear, that Piedmont should assume just one entrance/exit and use a lesser standard for safety than did LSA implying that LSA had made a mistake when using Caltrans corner sight distance standards. Your
3/1/2024	Patty Siskind	1). Yes, I agree with Conna McCarthy, the housing should be entirely integrated with high and low income units in the same building/location.(To prevent the feeling of a ghetto.) I also feel that the units should be 2 bedrooms or more in order to get families. A master developer should be used for all the projects (and more apt to negotiate cost of city amenities.). I also feel you should sell the land rather than lease so you have units which can be sold as condominiums. People are more likely to maintain the properties with skin in the game. 2). Yes, I think we should eliminate the skate park. 3). Please have them modify the nature trail to reflect a loop from the starting point near the corporate yard. As we discussed, there is no room for a trail head on Maxwelton (20' wide road) and the access point on Maxwelton is the gate owned by the cemetery. 4). Is the access to the two lots for sale on Maxwelton owned by Mt. View Cemetery? (There is a gate in place with signs saying this is private property) 5) The citizens of Piedmont have just approved taxes for the pool, and an increase in taxes to maintain services, such as security. The residents surrounding Moraga Canyon have a much greater impact as well. They will have to accept light pollution, noise pollution, traffic congestion, fire hazard and significant safety issues with line-of-site not meeting state standards. Do you really want to ask these people to pay more in taxes for this net effect? 6) I agree you should eliminate options 3 & 4. I'm in favor of Option #1 with the least additional costs. Negotiate with the developers to add a smaller field/dog park/playground next to the houses on the north side of Moraga Canyon and develop the skate park as an
3/1/2024	Tom Gandesbery	See attached written correspondence. Verbal comments made at the City Council meeting.
3/1/2024	Deborah Leland	Verbal comments at the City Council meeting.
3/1/2024	Ralph Catalano	Verbal comments at the City Council meeting.
3/1/2024	Marj Blackwell	Verbal comments at the City Council meeting.
3/1/2024	Andy Madeira	Verbal comments at the City Council meeting.
3/1/2024	Randy Wu	Verbal comments at the City Council meeting.
3/1/2024	Andy Hempeck	Verbal comments at the City Council meeting.
3/1/2024	Liz Lummis O'Neil	Verbal comments at the City Council meeting.
3/8/2024	Randy Wu, York Drive	Piedmont's role in the Bay Area's housing crisis and its reluctant compliance with RHNA.
3/11/2024	Irene Cheng and PREC: Andrea Ruiz-Esquide Elise Marie Collins Frances Fisher Randy Wu Deborah Leland Susy Struble Andy Madeira Alice Talcott Jessica Burke	See comment letter, attached.

3/12/2024	Deborah Leland	I am writing to provide additional input on the Moraga Canyon Specific Plan. I strongly believe that affordable housing is a key component of any vibrant community, and I am eager for its development in Piedmont. I attended the March 1 City Council workshop, however, and I was concerned that the City may be veering in the wrong direction to achieve this goal. First, I was alarmed by the lack of adherence to the key purpose of the Specific Plan, which is to enable housing construction in Moraga Canyon. Housing cannot be secondary, or contingent upon amenities. A group of us has submitted a letter emphasizing this point more thoroughly. Relatedly, the consulting team seems to have lost sight of the scope of services for preparation of the Specific Plan, which directs the consultants to provide: "Detailed guidance on phasing and subdivision that accommodates the 60 units of lower-income housing and 72 units of above moderate-income housing . . . and that prioritizes and expedites the identification of a site for the development of affordable housing that meets the criteria and timelines to secure Alameda County Measure A-1 funding" (emphasis added). This critical local subsidy allows an affordable housing development to be competitive in securing state and federal subsidies which in turn increase the capacity of the affordable housing development to cover the infrastructure costs related to that development. Given council members' keen focus on impacts to the City's General Fund, retaining Measure A-1 funding should be front of mind. The only chance that the City has to retain this valuable subsidy is to adopt a Specific Plan and promptly proceed with an RFQ to select a developer who can immediately obtain control of the designated affordable housing site. At the March 1 workshop, multiple council members seemed to favor Option 2. As an occupant of one of the 50 or so Piedmont homes on the north side of Moraga, I also appreciate the benefits of Option 2 from a land use and planning perspective. However, in its current form Option 2 does not meet either of the key criteria above, due to the $5 million funding gap and the proposed phasing. Therefore, I would like to offer some ideas that could facilitate the phasing for Option 2 being reversed (i.e., to provide the developer control of the site designated for affordable housing immediately upon the City's selection of its development partner). First, I would like to note that under Option 1 (or Options 3 or 4), if funds to improve Coaches Field were obtained and that project were to move forward, the existing softball and soccer fields would be out of service for the duration of that construction. Thus, there is nothing that mandates that replacement field space be completed (or even started) before housing construction could begin on the existing Coaches Field site. The Specific Plan could simply allow for each subsite of Option 2 to begin once funding for that subsite is secured. It will likely take about two years following site control for an affordable housing developer to be ready to start construction, and the City could work with the Piedmont community to raise funds for development of recreation facilities on the Blair Park site during that period. However, I recognize that turning over control of the existing fields before funding is secured for new fields could create fear among the community that those recreational facilities would be lost entirely. Therefore, I believe the City Council needs to be able to see its path forward to financial viability of the full plan if it is to proceed with this option. Here are some considerations to improve the financial feasibility of Option 2: ● Allow flexibility on the size of the playfield to be developed at Blair Park. The current Coaches Field has limited usefulness given its poor drainage, lack of lighting, and small soccer field, so creating a year-round playable turf field of comparable size at Blair Park would still be a huge benefit for the community. Furthermore, my recollection of the 2010 Blair Park proposal for a 300' x 150' playfield was that it seemed too big for the site, creating significant visual and grading impacts. (I think the same is likely true for a field of that size on the existing site, by the way.) The City could still hold on to the idea of a U14 field as a "wish list" item should additional funding become available. ● Allow flexibility in building types, density and height to increase the residual land value and maximize the value of land features on the north side of Moraga. Specifically, the skate park area offers spectacular views of the bay and easy pedestrian access to schools. The highest value use of this portion of the site could very well be lower density for-sale housing, and the Specific Plan should allow for this valuable area to be parceled off and sold for market rate homes at a density that maximizes the total land value. To offset that lower density housing, explore siting a taller structure where the site topography provides natural screening, such as the portion at the mouth of Red Rock Rd where Option 2 currently shows parking. ● Expand the developable land area at the mouth of Red Rock Road by slightly realigning Moraga Ave to the south, from where the steep hillside on the south side retreats to just below the driveway for 911 Moraga Ave. One commenter at the March 1 workshop introduced the idea of moving the entire Moraga Ave ROW to run along the southern edge of the Specific Plan area. While I don't think this is practical given the two or three homes whose driveway access is via the north side of Moraga Ave between Red Rock Rd and Maxwelton, it seems possible at the western edge of the plan area, and could create a desirable site for a taller apartment building. If some combination of all these modifications to Option 2 result in a financially feasible plan, then the City could choose this option and allow a developer immediate site control of the designated affordable housing site. This is the only way that Option 2 would meet the primary objective of the Specific Plan and preserve the availability of the valuable Measure A-1 subsidy (if the City moves quickly). Otherwise, the City must either pledge City funds to cover the gap (which it seems disinclined to do), or select Option 1. Failure to do so would be a failure to adhere to the Housing Element's purpose to enable housing. Thank you for your consideration,
3/18/2024	Ilene Sandler	Please listen to the people who live in Piedmont in the Moraga Canyon area. We do NOT want increased density in Moraga Canyon. And the idea of adding additional units in this area (from 132 to 199) is incredibly disrespectful to those of us who live in this area. There have been multiple requests from our neighbors to the city to not locate so much of the new housing in this narrow Moraga Canyon area. New housing should be spread throughout the city -- not just located in this corner of Piedmont. The density is dangerous and unwanted. And you are disregarding earlier city planners who provided parks for the city by considering the development of Blair Park. Please do not ignore us.
3/18/2024	Deborah Leland	Dear Mayor Cavenaugh, City Council members, staff and consultants, After reading the staff report, and seeing the direction the City seems to be heading, I need to provide further comment to amend the letter I submitted on March 12: •The ideas I had offered about Option 2 were intended to provide the City with flexibility to compromise on the secondary (i.e. non-housing) goals of the Specific Plan to enable that Option. Instead, the direction proposed in the staff report doubles down on the market rate housing in order to continue to insist on the most extensive recreational uses. I think this would lead to too intensive use, problematic siting and over-development in Moraga Canyon. I do not support Option 2 at this intensity of use. I believe that the concept of flexibility that the staff report is endorsing takes the City in the wrong direction. Failure to select a site plan option is a bad idea: that approach will lead to confusion and a drawn out Specific Planning process, along with additional staff/consultant time and cost. The approach outlined in the staff report is also in clear contradiction with the direction in the Housing Element to create a Specific Plan that "prioritizes and expedites the identification of a site for the development of affordable housing that meets the criteria and timelines to secure Alameda County Measure A-1 funding." (emphasis added) The City should select Option 1. Given the City's unwillingness to compromise on having a U-14 soccer field, Option 1 is the only feasible way to proceed. This Option allows de-coupling the recreation improvements from the improvements necessary for housing and safety, so that the City can continue to follow the dream of having its U-14 field without derailing the entire Specific Planning effort.
3/18/2024	Randy Wu	See attached.
3/18/2024	Pam Hertzer	Verbal comments made at the City Council meeting.
3/18/2024	Marj Blackwell	Verbal comments made at the City Council meeting.
3/18/2024	Ralph Catalano	Verbal comments made at the City Council meeting.
3/18/2024	Karen Harley	Verbal comments made at the City Council meeting.
3/18/2024	Elise Collins	Verbal comments made at the City Council meeting.
3/18/2024	Randy Wu	Verbal comments made at the City Council meeting.
3/18/2024	Jill Lindenbaum	Verbal comments made at the City Council meeting.
3/18/2024	Claire Parisa	Verbal comments made at the City Council meeting.
3/18/2024	Carol Galante	Verbal comments made at the City Council meeting.
3/18/2024	Rick Holliday	Verbal comments made at the City Council meeting.
3/18/2024	Irene Cheng	Verbal comments made at the City Council meeting.
3/18/2024	Sarah Karlinsky	Verbal comments made at the City Council meeting.
3/18/2024	Alice Talcott	Verbal comments made at the City Council meeting.
3/18/2024	Vincent Fisher	Verbal comments made at the City Council meeting.

3/18/2024	Deborah Leland	Verbal comments made at the City Council meeting.
3/18/2024	Andy Madeira	Verbal comments made at the City Council meeting.
5/17/2024	Irene Cheng	See attached.
8/12/2024	Garrett Keating	In tonight's discussion of building designs for Moraga Canyon I hope you will inquire about the "net zero" capability of these designs: can they accommodate solar panels on the roofs, are they suitable for micro-gridding and batteries, is one design better or worse for passive solar heating and cooling. The Housing Element adds 7000 MT GHG to the city's 32,000 MT annual emissions so the carbon footprint of these designs should be a factor in what design is chosen.
8/12/2024	Irene Cheng	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
8/12/2024	Marjorie Blackwell	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
8/12/2024	Chris Read	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
8/12/2024	Ralph Catalano	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Frank Nothaft	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Pam Hirzer	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Dimitri Maganis	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	George Hosgood	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Randy Wu	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Deborah Leland	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Marjorie Blackwell	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Claire Parisa	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
9/23/2024	Frances Fisher	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
10/7/2024	Ralph Catalano	Written comments submitted to City Council meeting.
10/13/2024	Jane Holland	Written comments submitted via email to the City Council.
10/14/2024	Dave Holland	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
10/14/2024	Randy Wu	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
10/14/2024	Liz Lummis O'Neil	Verbal comments made at Planning Commission meeting and reflected in meeting minutes.
10/14/2024	Ralph Catalano	Written comments submitted as late mail to the Planning Commission.
10/14/2024	Ralph Catalano	Verbal comments made during the open forum part of the Planning Commission meeting.
4/24/2025	(OpenGov.com)	This plan looks well thought out, and a good use of the open space in the area. Your neighbors just up the hill in Oakland are in full support of building more housing, and this project in particular.
4/24/2025	Monika McCaffrey	How do you vision the increased traffic, especially at the intersection of Harbord Drive? Already at times it is impossible to enter Moraga from either side of Harbord Drive. Will there be a traffic light, or what will be happening at that intersection?????
4/28/2025	Any Madeira	Verbal comments made at City Council study session.
4/28/2025	Ralp Catalano	Written materials submitted at the City Council study session.
4/28/2025	Anonymous	I join neighbors in the concern that adding urban density and congestion to Moraga Canyon is a threat to an already challenging emergency evacuation route out of the neighborhood. Our neighbor Ken Koretz penned the following comments I post in the hope it will
4/30/2025	Marjorie Blackwell	Verbal comments made at City Council study session.
4/30/2025	Pam Hirtzer	Verbal comments made at City Council study session.
4/30/2025	Kathleen Hurley	Verbal comments made at City Council study session.
4/30/2025	Dara Birnbaum	Verbal comments made at City Council study session.
4/30/2025	Liz Lummis O'Neil	Verbal comments made at City Council study session.
4/30/2025	Patty Siskind	Verbal comments made at City Council study session.
4/30/2025	Garrett Keating	Verbal comments made at City Council study session.
4/30/2025	Vivian Mather	Verbal comments made at City Council study session.
4/30/2025	Peggy Esposito	Verbal comments made at City Council study session.
5/5/2025	Marjorie Blackwell	Emailed letter to City Council regarding traffic analysis including stopping sight distance with attachments.
5/7/2025	(OpenGov.com)	I’m against the plan for these reasons: 1. It destroys our last open space & a wildlife habitat will be destroyed forever. 2. Safety reasons- in case of a disaster, fire or whatever, it will create a nightmare traffic problem.
5/8/2025	Lucy Gill	Email confirming consultation with Confederated Villages of Lisjan Nation and acceptance of measures to protect tribal cultural resources.
6/3/2025	Kathleen Hurley	Email with comments regarding development concerns, including traffic safety.
6/12/2025	M Marshall (OpenGov.com)	Has anyone considered the high risk added to potential wildfire evacuation that would be caused by adding multi tenant buildings to Moraga Ave? Seems irresponsible to even consider putting housing there. Not to mention the increased traffic when it’s already dangerous.. why haven’t other less dangerous and more public transit accessible spots been reviewed?
6/12/2025	Anonymous (OpenGov.com)	As a Piedmont resident that would be directly impacted by any construction on Moraga Canyon, I cannot in good conscience support this plan. I recognize that the City must add housing but these 2 proposed locations have so many more negatives than positives. Traffic will be ground to a standstill and unable to support the 200 units being considered. With adding dedicated bike lanes, it only reduces space for vehicles on the road. The plan to add bus stops on this road would only further drag traffic to a grind. With the planned Fire Drill this weekend, I can't imagine how damaging the construction of new apartment units on Moraga would be. The City moved on too fast from considerations of alternate locations such as Beach/Linda. There is existing access to transportation and bus lines in place there. Please don't ruin Moraga Canyon for all residents of Piedmont.

6/13/2025	Hari Titan (OPenGov.com)	California has several programs designed to support the development and accessibility of low-income, all-electric housing. These programs, like the Building Initiative for Low-Emissions Development (BUILD) and the California Electric Homes Program (CalEHP), offer financial incentives and technical assistance to developers and builders constructing new, all-electric homes for low-income residents. BUILD Program: This program, managed by the California Energy Commission (CEC), provides financial incentives and technical assistance to developers constructing new all-electric, low-income housing. https://www.energy.ca.gov/news/2024-10/new-federally-funded-residential-energy-rebate-programs-launching-california CalEHP: CalEHP, a sister program to BUILD, offers financial incentives and technical support to builders of new, all-electric homes for low-income residents. https://www.energy.ca.gov/news/2023-07/58-million-incentives-now-available-new-all-electric-climate-friendly-homes With an all-electric building, solar panels would have a very fast payback period. The building should include electric charging stations (Tesla and non-Tesla). These incentives would help mitigate the over 7000 Metric Tones of CO2 the project is projected to add to the city's GHG emissions as reported recently by Piedmont Connect. The City should also follow California building codes, particularly Chapter 7A and the Wildland Urban Interface (WUI) code, that mandate fire-resistant materials and construction methods for new buildings in wildfire-prone areas. Things like Class A fire rated composite shingle roofing. Non-combustible or Ignition-Resistant Siding: Materials like fiber cement siding or stucco painted with Class A fire-resistant paint. Dual-pane windows with at least one pane of tempered glass, which is more resistant to heat-induced breakage. Fire-rated doors to slow fire spread. Roof vents listed as approved by th California State Fire Marshal for use in Wildland Urban Interface (WUI). Non-combustible decks and fences. Hardscaping like gravel, stone, or concrete in a 5-foot ember-resistant zone immediately around the building. Wider buffer zones and defensible spaces.
6/13/2025	Kenneth and Joyce Polse	Email with comments regarding traffic, safety, environmental impacts, cost, legacy, and other sites for development
6/16/2025	Alice Talcott	Email received 6/16/2025 regarding future development design and responsibility to construct
6/18/2025	Gabrielle Castriotta (OpenGov.com)	As a new resident of Piedmont, I have not had the opportunity to weigh in on the Moraga Canyon Plan previously, so I have several things to say. I hope my voice is heard, especially as our home borders on the site. To start off, I think Option B, with the bulk of housing going next to Coach's field, makes more sense than trying to squeeze so much into Blair Park. Any oaks removed from Blair Plark will need to be replaced in kind, no matter what. Therefore, my comments are addressing Option B. While I support more housing in Piedmont, especially affordable, I think this plan has some major issues that need to be resolved. First, the size and style of the housing development proposed does not match the site. It is too large, and the visuals provided appear too urban/corporate for the location. This style and scale of development would make sense at the vacant lot on Pleasant Valley and Broadway in Oakland, for example, but not tucked into the landscape in the midst of SF homes. I do support densification, especially if it allows Piedmont to maintain its precious green spaces while adding housing stock, but it needs to be at the right scale. 2-4 story townhomes might make more sense at this location. Additionally, I saw just one driveway connecting to Moraga only on the plan. For emergencies especially, it's imperativ that any development maintains a second road out, ideally connecting to Harbord/Clarewood. If logistics must be worked out with the city of Oakland or even Mountain View Cemetery, please do so. This connection is also important for traffic mitigation on Moraga. On the topic of traffic on Moraga, if we are adding denser housing, we need the public transit to accompany it. Transit is mentioned in the plan but needs more study. This line should be implemented BEFORE the housing. Piedmont really needs a local bus route that connects to the Rockridge BART station as well as Montclair, Piedmont Ave, and Lakeshore Ave--essentially, connecting this town that is zoned almost exclusively residential to nearby goods and services. The 33 is not enough. A smaller electric shuttle (check out the Culver City Circulator in Southern California for a good example) could be a great and quieter option for navigating narrow and twisty Moraga Ave. Finally, while I love the idea of widening Moraga to create bike lanes and sidewalks, I would imagine these improvements to be extremely costly given the difficult topography of the site. I'd be all for them, but I do question their feasibility. It's so important for Piedmont to add housing where it makes sense, and I think this site (Option B, by Coach's Field) is a good choice given the right parameters. Just don't let overreach spoil the whole plan.
6/28/2025	Irene Cheng, Elise Collins Frances Fisher, Carol Galante, Sarah Karlinsky, Deborah Leland, Andy Madeira, Claire Parisa, Andrea Ruiz-Esquide, Alice Talcott , Randy Wu	Email received 6/28/2025, see attached.
7/7/2025	Ralph Catalano	City Council meeting July 7, 2025 comments and written submittal
8/7/2025	Marjorie Blackwell, Tim and Martha Holstlaw, Anita Stapen, Min Yang	Written letter, see attached.
8/8/2025	Jeffery Alpert	Email to Planning Commission regarding email received from Jane Pingatore sent August 8, 2025, forwarding Pingatore email.
8/9/2025	Winifred Walters	Email distributed at the dais. There are problems with this plan with regard to sidewalks and bike access for new and existing Piedmont residents, specifically in the section of street and sidewalk on Moraga Avenue just west of the Moraga Canyon Specific Plan area. Moraga Avenue is the only direct route between the proposed new housing development and schools in Piedmont, City Hall, etc. The narrow, curved section from Coaches Field, going west, to below Pala Avenue creates a bottleneck for realistic multi-modal access to the MCSP area. The video summary refers to "sidewalks on both sides" of Moraga Canyon. However, the main access from the rest of the City of Piedmont has a sidewalk on only one side, as it is today. See page 34, the section west of Coaches Field. The plan includes a "buffered bike lane uphill." This is misleading because the buffered bike lane does not exist in the approach from the west (near Pala Ave) to the MCSP area. What is shown in the plan (page 37) is a Class III Bike Lane. A "Class III Bikeway" simply means that bikes and vehicles need to share the road. This particular section of road is both narrow and curved, with very limited visibility. I can't imagine how this section, as proposed, can be safe for children and families travelling to and from Piedmont for school and recreation. The plan does not adequately address this issue with respect to the various considerations for Class III Bikeways. See: https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000-a11y.pdf P. 38 discusses adding bus transit along Moraga Ave. This would make bicycling along that route even more dangerous. Bikes and buses along the very narrow section of this route will not be safe. I don't believe the plan adequately addresses the possible combination o all of these modes of transportation. Winifred Walters
8/11/2025	Winifred Walters	Verbal comments at the Planning Commission meeting.
8/13/2025	David Petta	Written letter, see attached.
8/14/2025	Winifred Walters	Written letter, see attached.
8/21/2025	Evan Wong (OpenGov.com)	I do agree, the roads during commute hours are at capacity. The increase in traffic may seem "minor" but when you have 50 vehicles stopped on the road. You have to imagine the density this creates on a 1 lane, 2 way traffic road. A greater challenge is when/if a vehicl stops or stalls on Moraga Ave. First responders will not have access unless going through Pala Ave, and even this road has limitations. As Moraga Ave. is used primarily for commuters who utilize CA-13, not just city residents. It is not ideal nor realistic to have public transportation pass through here as the road narrows abruptly. As for public transportation specifically in the Moraga Canyon area, the system would not be heavily utilized as it would barely serve ~200 residents. Based on the design road plans it seems great in the canyon area, but this does not solve the future bottlenecking between Highland Ave, and Pala Ave. Eventually there will be bottlenecking at Red Rock rd. as well.

8/21/2025	Kathleen Hurley	I write in follow-up to the past council meeting where there was a noticeably large turnout for the presentation and topic of the Moraga Canyon development site specific plan. I am a resident of Harbord Drive, very close to and impacted by traffic and related policies o Moraga Avenue from Pleasant Valley Road up to the on-ramps of HWY 13 just two blocks north of my location and three to four blocks north of the proposed development plan. Because Moraga Ave serves as a major evacuation route from the area and crosses through the Piedmont/Oakland Border twice near this development proposal, a number of neighbors are inquiring how Moraga Avenue traffic will impact the surrounding community and intersections in regard to safe access, egress, emergency vehicles and response, pedestrian, bike and auto safety along the length of the corridor. As pointed out in the past, this plan is being developed in a box that doesn't take into account the immediate community surrounding it. Every map in the Site Specific Plan put forth by the consultants stops at the Piedmont border without thought of impacts or how various improvements may be gained through mutual community cooperation. Councilmembers asked several excellent questions of the consultant and staff at the last meeting that I hope will be able to be followed up upon meaningfully. For example, the question was raised how to put a hard cap on the number of units to be developed so a developer doesn't add more? The consultant answer to that question was that since Piedmont owns the property it will need to be placed into the developer agreement. If a vote were to be taken I believe this cap would be agreed as desirable yet there didn't seem a way to secure a commitment that a cap would be placed. Is that something that can be taken up at a future meeting and/or noted as a request from council? Another Councilmember mentioned the past nearby conflagration and asked what emergency planning and measures were under study or included related to the development proposal. Some of the speakers and other councilmembers raised similar and related concerns including asking if there might be a second exit drive added to development on the Coaches Field side to help prevent bottlenecks. Will there be more follow-up for these issues related to emergency escape routes plans for emergency vehicle staging and overall access? Are there specific guardrails that could be prepared and added to the development agreement without having to wait for the full agreement to be drafted? It makes sense to capture and act on issues deemed important so they are not lost to time or memory. If it is deemed premature or out of scope to work with the current contractors on important issues of community safety, is there a way to document and preserve those concerns to see them addressed for when the time seems appropriate. Even at one meeting two Councilmembers had a concern about a specific tree and were told it could not be taken care of in the plan. Yet, one might ask could that be part of the development agreement? It would be sad to see the talent and efforts of many thoughtful people lost due to asserted technicalities related to a consultant document. I hope the Council will continue to question and advocate for community safety, not just limited to the box on the site map, but to the greater good and safety of the surrounding population and community. In an area of earthquake faults, wildfire, challenging topography and a history of traffic difficulties, accidents and bottlenecks, thinking of and planning for what will happen when an area is under stress is incredibly important. I appreciate your continued thoughts in this direction.
8/21/2025	Anonymous (OpenGov.com)	Almost all of the people who live in the direct area that would be impacted by this addition of density are opposed to this plan. The roads are already at capacity and the density would put our lives at risk if there were a fire or other emergency. There were many deaths in the most recent wildfire in this area caused by traffic jams. Even on a normal day, the intersection at Maxwelton and Moraga is already very dangerous and difficult to navigate, as is our alternative intersection at Harbord and Moraga. Any additional traffic will cause more accidents and deaths. There is no public transportation in this neighborhood to mitigate any of the added traffic. It also would destroy beautiful open space and parks that house wildlife and make Piedmont the wonderful home that is it. Our family uses the park regularly and we observe numerous species of wildlife such as the bald eagles, coyotes, red tail hawks, mule deer, red foxes, and many species of smaller birds and rodents, turkeys, turkey vultures, opossums, and more. Their habitat would be destroyed as well as our ability to appreciate the beautiful natural setting of this public open space. Destroying public open space is really going in the wrong direction.
8/22/2025	Randy Wu	I have written and spoken before to the Planning Commission and City Council. For the new members of the Planning Commission, I am a longtime resident of Piedmont, and I believe the City must build more housing, both affordable and market rate. All other cities in Alameda County have built multifamily housing projects based upon their Housing Element plans. Piedmont should catch up and build its share as well in this housing cycle. I have some observations and recommendations on Circulation (Chapter 4). Observations - Moraga Ave. from the intersection at Highland Ave. to Estates Drive in Oakland has been for many drivers a quick freeway on-ramp to Highway 13 and a fast downhill ramp to Piedmont Ave. and downtown Oakland. For these drivers, the posted 25 MPH speed limit is not observed. Fehr & Peers has recorded speeds up to 40 MPH and a median speed of 35 MPH, both well above the speed limit. This section of Moraga Ave. (Highland to Estates) has about 100 lots. With the additio of 197 apartments the total number of homes and vehicles will increase. With this change Moraga Ave. no longer should be used as a drive-by getaway and instead should be designed as a residential street shared by drivers, pedestrians and cyclists. The proposed new signal light at Red Rock Road will slow traffic, but as drivers have been accustomed to driving at a high speed for decades it will take time to slow them down. (Note that Fehr & Peers believes that the new traffic light by itself will have a modest impact on high traffic speeds beyond the intersection.) Recommendations - The City should ensure that drivers comply with the posted speed limit through the following traffic safety measures: 1. The 25 MPH speed limit should be enforced by the Piedmont Police Dept. An officer should be stationed at times on Moraga Ave. to alert drivers that excessive speeding no longer will be tolerated. If necessary, traffic cameras and speed bumps could be installed to ensure that the median traffic speed is 25 MPH rather than 35 MPH. 2. The City should consider adding another crosswalk at the Red Rock Road intersection. This third "leg" of the intersection would slow traffic approaching the intersection in both directions as some drivers may try to "beat the light" if just a single crosswalk is installed on Moraga Ave. under the current design. The City also should consider, given the prospect of new families with children in the MCSP area, reducing the speed limit at this intersection to 15 MPH, the standard at ou schools. 3. Bike and pedestrian paths should be upgraded within the limits of the available road space. The current plan for an upgraded bike lane headed uphill or east on Moraga Ave. is a thoughtful addition that will improve traffic safety for cyclists pedaling at a much slower speed than drivers in cars. The shared single lane headed downhill or west on Moraga Ave. will be safe for cyclists only if the 25 MPH speed limit is enforced. Sharing a single lane with cars speeding at 40 MPH is simply too dangerous for a cyclist. In conclusion, the MCSP will transform this area from a lightly used park by a drive-by corridor into a dense residential neighborhood. "Traffic calming" measures appropriate for a lively residential neighborhood should be the primary objective for the Planning Commission. Finally, Implementation (Chapter 10) does not yet include analysis of the fiscal impact of 199 new homes on the Piedmont School District. If just half of the new homes have families w/ 1-2 school age children, then the District will gain 100-200 new students. This gain would reverse declining enrollment and provide additional revenue for each enrolled student. The new housing would give teachers and other City workers an opportunity to live in Piedmont rather than commute from afar. It also might help the District recruit qualified teachers for Piedmont's schools. Thank you very much for considering my comments and moving the MCSP forward in a thoughtful way. Randy Wu, York Drive
8/25/2025	Pam Hirtzer	Written letter, attached.
8/26/2025	David Petta	Written letter, attached.
8/27/2025	Alan Cohen (OpenGov.com)	In my opinion, the state legislature should not have viewed the solution to our housing shortage based on individual cities. A regional approach to this problem is for more rational. It is my understanding that no consideration was given to the available open space that each city has to accommodate new high density housing. In the case of our city Piedmont, the only available open sites are our very limited parks and recreational fields I think we should pursue having the state legislature have a carve out for cities, such as Piedmont ,where this is the case.we should not have to sacrifice our precious, open green space of which we have so little. Our city officials and the citizens of Piedmont need to contact our state legislators with regard to this issue. It's obvious that in recent years have seen a tremendous number of residential housing units built in Oakland and Berkeley, San Leandro and Hayward El Cerrito in Richmond, which have the open space needed to accommodate this high density housing. Some people prefer living in a high density housing situation, I am not one of them, and I don't think most people in Piedmont are either. Putting 160 units in Blair Park is an absolute abomination, this project will change the whole feel of the Morgen Canyon, it is an obscenity. This is a natural green corridor, should be preserved forever and not degraded in order to comply with a poorly thought out housing mandate from the state of California.This particular site gets very little natural sunlight. Moraga Avenue, of course is a major thoroughfare for emergency access and egress from the hills should there be another fire, this will be significantly will be significantly compromised . The coaches field location is at least a little bit more removed and we'll have less of an impact on Canyon because of this it is also more expensive project which would make it less likely to ever be built. Again I think we need our city officials to pursue the idea of the carve out for cities that have no open space ,parks and green belts should be off limits. Loss of the little green space we still have in Piedmont will detract from our health and well-being immeasurably. Alan Cohen, Maxwelton Rd
9/1/2025	Winifred Walters	Written letter, attached.

9/3/2025	Marjorie Blackwell and Tom Brohard	Written letter from Tom Brohard, attached. Email content: Can you please forward this email from Civil & Traffic Engineer Tom Brohard to the Planning Commission. At my request, Mr. Brohard watched a portion of the 8/11/25 Planning Commission meeting, starting at 2 hrs. I watched the meeting segment – about 7 minutes starting at 2:00 and ending when they took a break. If they returned to discuss further, please let me know what time that starts, and I will watch. The presentation purportedly summarized speed data but I have not seen any recent speed measurements or any memos by the City's consultant Fehr & Peers. Please provide those documents to me if you have them available. One of the slides showed an 85th% speed of 38-39 mph, and from that they used 40 mph as the design speed. The design speed should be at a higher speed since the goal is to design for traffic safety so that only 1 out of 20 drivers would be above the 95th%. Assuming 40 mph as the design speed puts 15% of the traffic above the design speed, which is not safe and not appropriate Incorrectly using 40 mph as the design speed puts 15% of the traffic above 40 mph, and 85% of the traffic at the design speed or less. Stopping sight distance is an appropriate consideration as is corner sight distance. The authority used by Caltrans and local jurisdictions in California is "A Policy on Geometric Design of Highways and Streets" published by the American Association of State Highway and Transportation Officials. Stopping sight distance is longer for downhill than for uphill. Here, 50 mph is the design speed as it represents the 95th% speed. From Table 3-1 enclosed, the stopping sight distance on level roadways for a design speed of 50 mph is 425 feet, and 305 feet for 40 mph. From Table 3-2 enclosed, the stopping sight distance on grades for a 6 % downgrade at 40 mph design speed is 333 feet and 474 feet for 50 mph. The downhill stopping sight distance for a design speed of 40 mph on Moraga Canyon Road is not adequate in advance of the proposed traffic signal at Red Rock Road. The associated stopping sight distance is less than adequate to provide safe conditions for a 50-mph design speed. From my review of Google Earth photographs, the horizontal curve to the right for downhill traffic is limited by embankments, trees, and foliage on the inside of this curve just north of Red Rock Road. The proposed measures to provide an advance flashing beacon with warning sign are incomplete by themselves. Total mitigation to provide adequate stopping sight distance will require regrading of the slope inside the horizontal curve to eliminate the stopping sight distance restriction and provide proper visibility of the traffic signal indications themselves. Please contact me with any questions regarding these comments. Respectfully submitted, Tom Brohard, Principal, Tom Brohard and Associates, 81905 Mountain View Lane, La Quinta, California 92253-7611, (760) 398-8885, Tbrohard0@gmail.com
9/3/2025	Justin Magana (OpenGov.com)	I have read the Specific Plan and the EIR addendum. No where in either of these documents do they take traffic seriously. There is no real study of the impact of either adding a stoplight nor 199 units along this road which I use everyday. The city is either unserious about this type of study or they do not want the public to see an actual study. Many of the comments here echo each other on the problems increase traffic would cause on Moraga Avenue and I agree with each one.
9/3/2025	Todd Williams, Fennemore Law Firm	Written letter, attached.
9/4/2025	Jeff Hoffman, Email and OpenGov.com	Written letter, attached. Email content: Please accept the attached comment letter for inclusion in the record for the September 8, 2025 Planning Commission hearing on the Moraga Canyon Specific Plan. I'm a Piedmont resident at Echo Lane. My letter conveys overall support for adding housing but opposes the Blair Park (south-side) option on traffic / safety, community integration, and open-space / livability grounds. Kindly confirm receipt and that this will be included in the packet / record. Thank you for your time and service.
9/4/2025	David Rehnstrom, EBMUD	Written letter, attached. Email content: East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Moraga Canyon Specific Plan (MCSP) and Addendum to the Draft Environmental Impact Report (EIR) for the Piedmont Housing Element (2023-2031) located in the City of Piedmont (City). EBMUD commented on the Notice of Availability of a Draft EIR for the Piedmont Housing Element (2023-2031) on December 12, 2023. EBMUD's original comments (see Attachment A of the response letter) still apply regarding water service, wastewater planning, and water conservation. Please see attached document for EBMUD's additional comments. If you have any questions concerning this response, please contact Sandra Mulhauser, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-7032.
9/4/2025	Anne Gritzer	I am writing to object to the city's apparent intention to install field lights on Coaches Field. The Moraga Canyon Specific Plan ("MCSP"), published on the city's website, provides a very thorough and well developed plan for proposed housing on ci property located in Moraga Canyon. The document includes a tacit reference to sports field lighting, and its definition of "Dark Sky Lighting" acknowledges that "light trespass" from the field is inevitable. (MCSP, p. 8.) Additionally, MCSP Section 10.5.7 LIGHTING COMPLIANCE suggests that lighting on Coaches Field is under consideration. It states: 10.5.7.1 LIGHTING COMPLIANCE To ensure consistency with Section 3.12 of the City of Piedmont Design Guidelines related to exterior light spillage, prior t the approval of any building or landscape design for the park, corporation yard, or residential, a photometric plan shall be submitted to the City of Piedmont Planning and Building Department for Review. Direct light rays shall be shielded as necessary to n spill over onto abutting properties. Also, the photometric plan shall demonstrate that any proposed lighting shall not exceed 0.1 foot-candle on the cemetery property or 0.3 foot-candle on any property outside of the Specific Plan area. Furthermore, ar sports field lighting shall not exceed 0.5 foot-candle at any residence within the Specific Plan area. (MCSP, p. 124.) Please be aware that during City Counsel discussions during the approval process for the the construction of Coaches Field, citizens residin on Scenic and Alta Avenues, situated above the field and led by former Mayor Al Peters, voiced strong objections to field lighting due to concerns regarding light pollution as well as noise during the evening hours. Each would constitute a nuisance ar trespass on the peaceful enjoyment of the homes situated on the Scenic/Alta parcels. At the time and as a condition of approval, the City Counsel promised in good faith that no lights would be installed on Coaches Field without time limitation. In fac the agreement reached with the citizens was that no lights would ever be placed on Coaches Field. Nothing related to the state mandate, which has led to the MCSP, materially alters the concerns of the Scenic/Alta residents regarding Coaches Fiel Additionally, nothing related to the improvements stemming from the state's mandate, provide any grounds that would excuse the city from honoring its agreement to never install field lights on Coaches Field. Thank you for your thoughtful attention t these concerns. It is important that the city honor its commitments to its citizens, particularly those that were made to overcome objections to the construction of the field in the first instance. Times have not changed, and the concerns of the Scenic/Alt residents are as valid today as they were when the field was built and promises were made. Best regards, Anne Gritzer, Scenic Avenue

9/4/2025	Todd Kaiser, Email and OpenGov.com	I support the City of Piedmont's commitment to increasing housing supply and expanding opportunities for low-income and working families in our community. These values are essential to creating a more inclusive, resilient city. However, I urge the Council and Planning Commission to reconsider Blair Park as a proposed development site under the Moraga Canyon Specific Plan (MCSP). The location poses serious safety, accessibility, environmental, and equity issues that directly conflict with the intent of our General Plan and the stated goals of the MCSP itself. 1. Unsafe Traffic Conditions at Maxwelton Road - Every day, residents exiting Maxwelton Road onto Moraga Avenue face hazardous conditions. There is no traffic signal or proposed improvement at this intersection, despite the MCSP's promise to use a "complete streets" approach. The sharp curvature of Moraga Avenue and the speed of vehicles severely limit visibility, making turns unsafe even under current traffic volumes. The plan acknowledges widening Moraga Avenue but explicitly says it will not add lanes, meaning congestion and dangerous turning movements will remain. Adding hundreds of new housing units will drastically worsen these risks. I invite every decision-maker to attempt this turn during peak commute hours before concluding Blair Park is a viable housing site. 2. Lack of Safe School Access - The MCSP envisions affordable housing that will welcome families with children, a goal I fully endorse. However, Piedmont does not provide school bus service. Children living at Blair Park would be forced to walk over a mile along Moraga Avenue, a high-speed arterial road, often in rain, fog, or glaring sun. Crossings are only proposed at Red Rock Road. People will jaywalk acros Moraga Avenue seeking desired paths. Meanwhile, pedestrian and trail system improvements described in the plan, such as hillside loops around Coaches Field, are recreational amenities rather than functional routes to schools or city services. 3. Inadequate Parking and Spillover into Neighborhoods - The plan underestimates vehicle demand. In a region with extremely high living costs, units will be occupied by more people than the design intends for, each with their own car. The MCSP allows reduced parking ratios under state density bonus law, but it provides no realistic solution for overflow. Already, the Maxwelton neighborhood struggles with illegal parking in fire lanes, restricting emergency vehicle access. Adding hundreds of units at either site without adequate parking guarantees worsening congestion, unsafe blockages, and further strain on surrounding neighborhoods. This is a serious blindspot of the MCSP. The plan assumes AC Transit could one day add stops along Moraga Avenue, but this is speculative and unfunded. Families may have to wait years before reliable transit serves the site and it will not lead to a meaningful reduction in the number of vehicles in the zone. 4. No Credible Wildfire Evacuation Strategy - The MCSP itself acknowledges wildfire risk with an evacuation routes diagram, but it provides no detailed traffic modeling or capacity analysis. During a wildfire, residents from the Oakland Hills and Upper Rockridge will also be funneled through Moraga Canyon. Traffic is already gridlocked during rush hour. Adding hundreds of residents at either site, with no secondary evacuation route, poses a grave risk to public safety. 5. Loss of One of Piedmont's Last Open Spaces - The General Plan emphasizes protection of environmentally sensitive open space as a defining feature of Piedmont's character. Yet the MCSP frames Blair Park as simply "developable," treating it like an interchangeable land bank. Natural open spaces like Blair Park provide ecosystem services that buildings cannot replace: they reduce stormwater runoff, improve air quality, and cool urban heat. Once developed, those benefits are permanently lost. This is also a public health and equity issue. Locating low-income housing on Blair Park removes residents' immediate access to the recreation and mental health benefits tied to greenery. Instead of enhancing Blair Park as an inclusive natural space for all, the plan would erase it for those who most need it. 6. A Better Path Forward - The City has set an ambitious housing target, and rightly so. But good planning means choosing sites that match the needs of future residents with the infrastructure and safety conditions to support them. Coaches Field and other sites north of Moraga Avenue already include plans for recreation upgrades and have safer, more direct connections into the city core. If the goal is equity, we should not place low-income families in a location that isolates them, exposes them to daily traffic dangers, and undermines emergency safety The Moraga Canyon Specific Plan represents an important step toward a more inclusive Piedmont. But Blair Park is the wrong site. It sacrifices safety, equity, and open space values for a plan that is not realistic about traffic, parking, or evacuation. I urge th Council to remove Blair Park from the development area, and instead focus new housing on sites where residents, especially children, can live safely, access schools and services fairly, and still benefit from the open space that makes Piedmont unique.
9/4/2025	Marj Blackwell, Vincent Fisher, Julie Watters, Daphne Albert, Peggy Esposito	This Opinion piece was partially printed in the Piedmont POST on 9/3/25. We thought you would like to read it in its entirety. On Sept. 8, 2025, Piedmont Planning Commission is scheduled to vote on a recommendation to the City Council on the Moraga Canyon Specifi Plan (MCSP). The MCSP calls for building 197 housing units on Moraga Ave. (either in Blair Park or on the steep hillside above and around Coaches Field) The housing would be 5-storyu structures with 60 low-income and up to 137 market rate units. Some of us who have followed the Plan's development for 3 years have questions and serious concerns for Piedmont's future if it becomes reality. Here are a few. Disaster Evacuation: Piedmont Fire Dept. cites Moraga Canyon as a "high risk wildfire" area and predicts a wildfire is "highly likely." The Canyon is also less than 1 mile from the Hayward Fault. Moraga Ave. is a designated emergency evacuation route and the only way out for the estimated 400 to 1,000 new Canyon residents, as well as for many existing nearby Oakland and Piedmont residents. The Plan expects people to walk or bicycle in a disaster. How likely is that? How will emergency crews reach the Canyon if Moraga Ave. is gridlocked as residents desperately try to leave? Remember the 1991 Oakland hills fire. Does Piedmont want to risk its residents' lives? Traffic/Pedestrian Safety: Moraga Ave. is a busy, 24-hour traffic arterial, with 11,000 cars per day traveling an average 40 mph. The MCSP proposes a traffic light with a pedestrian crossing at Red Rock Rd. The City's traffic consultants say the "safe stopping distance" required for cars traveling 40-mph meets Caltrans regulations for a traffic light. But a CA licensed civil & traffic engineer retained by Friends of Moraga Canyon says the safe stopping distance should be calculated for cars traveling 50 mph, meaning Moraga Ave. likely does not have the required stopping distance for a traffic light. If housing is built in Blair Park, the Plan specifies several driveways off of Moraga, creating even more risk and chaos for cars making left turns to enter or exit the project. Children would be tempted to dash across Moraga without waiting for a green light. Is Piedmont willing to risk serious accidents and children's lives? Financial Risks: The MCSP requires the market-rate developer to pay all infrastructure costs, including widening Moraga Ave., adding sidewalks and bike lanes, new stormwater drains and sewer lines, undergrounding all utilities – and expanding Coaches Field. What if the developer declines or defaults partway through development? Does this cost fall on the City and Piedmont taxpayers? Will new residents be able to get fire insurance? Developing the Coaches Field side also requires moving the Corporation Yard to Blair Park Community Connection: The MCSP creates an " island community" with no improvements on Moraga Ave. beyond the plan boundaries. No consideration of traffic backups to Hwy 13 or to the sharp curves on Moraga adjacent to Pala Ave., which are already dangerous for bicyclists. The Plan makes no mention of what happens to daily traffic on Moraga Ave. during years of construction? How will Piedmont residents get to Hwy 13 and Montclair? Public Transit: The MCSP calls for a bus line on Moraga Ave to serve MCSP residents. How likely is AC Transit to add new bus service when it has cut nearly all service in Piedmont? Where exactly would the bus go? State law requires affordable housing be within .5 mile of public transit. It's .7 mile from Red Rock Rd. to the closest bus stop on Highland Ave. School Children: Rather than let young children walk .7 mile to Havens School on busy Moraga Ave,. isn't it likely parents will drive them, creating more congestion during school drop-off and pick-up times? Known Obstacles: The Plan, itself, acknowledges constraints to the development, stating that hydrology "could cause dangerous road conditions on Moraga Ave. during significant rain and cause local flooding." Stormwater storage basins at both site options may have to be replaced. AND "due to the presence of steep slopes (above Coaches Field), much of this land is not conducive to development." The City wants to declare Blair Park -- a designated Piedmont City park -- "surplus land" in order to develop it. But CA State law says that declaring a city park surplus land can only be done for specific reasons. The las does not mention for market rate housing. What is Plan B? State housing law requires cities to look at alternate sites. What other sites is Piedmont examining? City planners say developers want at least 1/2 acre, which narrows the choices. But the law does allow smaller sites under certain conditions. Wouldn't it be better for current and future Piedmont residents to spread new housing to existing neighborhoods, closer to schools and transit? Newcomers would feel more a part of the community and need fewer cars. Other potential sites: The City's original plan was to build housing on the Corey Reich tennis courts and rebuild the courts on top. The Council rejected this plan, and the City switched to building 132 units Moraga Canyon. With no analysis of the capacity, the Council increased the number to 199, mainly to entice a developer to pay for expanding Coaches Field. Other potential smaller, neighborhood sites: Linda Beach Park; two tennis courts adjacent to the Community Center; the flat canyon area of Dracena Park; the empty EBMUD reservoir at the top of Blair Ave. Bottom Line: Adding State mandated 587 new housing units in Piedmont is a massive challenge, and our City officials have a monumental task in deciding what to do. They must weigh carefully how they think Piedmont should grow. Should new housing be on the outskirts of town or integrated into neighborhoods? Is Moraga Canyon a safe, buildable site for 197 housing units? Is the MCSP a financially viable choice for Piedmont? Signed: Friends of Moraga Canyon Board of Directors, Marj Blackwell, Vincent Fisher, Julie Watters, Daphne Albert, Peggy Esposito
9/5/2025	Ilene Sandler and Eric Loucks	Email regarding traffic and wildlife habitat, attached.

9/7/2025	Deepti Sethi (Open Gov)	The City is ignoring the very real risks of wildfire mitigation and evacuation that are unique to the Moraga Canyon landscape. State approval of housing projects does not eliminate the need to account for local conditions. Yet the proposed design standards make no mention of wildfire risk or mitigation. In a high-risk fire zone like Moraga Canyon, that omission is unacceptable. Residents reasonably expect that new development will include deliberate risk-reduction measures, not simply cosmetic standards such as fence height or façade style. Without these, new construction will contribute to the fire hazard rather than mitigate it. Examples of necessar measures include: • Greywater and rainwater harvesting to provide water for vegetation and firefighting. • Hydrated buffer strips and irrigation zones to slow fire spread, even in drought years. • Expanded hardscaping and fire-adapted construction practices proven to reduce risk. Wildfire safety demands a strategic, site-specific approach—not a one-size-fits-all checklist. Evacuation Capacity is already inadequate: The single evacuation route through Moraga Avenue is already insufficient. Adding hundreds of new units will make escape in a fire virtually impossible. • Fire trucks cannot navigate narrow streets like Abbott Way, Echo, or Scenic. • Residents—including children, elderly, and those with limited mobility—are told to evacuate by foot, which is unrealistic and unsafe. • Alternative routes only feed back into Moraga or lead directly into fire-prone vegetation. Insurance companies already recognize the severity of this risk by restricting or denying coverage. Ignoring it here places lives in danger. This is about safety, not housing opposition: Residents are not opposing affordable housing. We recognize the need for it. The issue is location and safety. Concentrating dense housing in a high-fire-risk canyon, while adopting standards that prioritize developer convenience and “processing speed” over safety, is negligence. This is the right project, but the wrong place—and the wrong approach. Standardized objective design standards ignore the realities of wildfire risk and evacuation in Moraga Canyon. The City must instead adopt site-specific, enforceable standards that protect lives, homes, and public safety. This includes finding alternatives if there is not a reasonable evacuation plan. To do otherwise is to knowingly create a dangerous condition of public property. Sincerely, Deepti Sethi
9/7/2025	Anonymous (Open Gov)	This housing plan needs to be entirely abandoned for glaring safety reasons -- fire, earthquake, and traffic. What follows is a real-life reminder of deadly fire danger the City of Piedmont is courting. My family survived the Oakland Firestorm solely because of walkways that traverse the hills throughout Upper Rockridge. Our home, destroyed by the fire, was on a long, narrow winding cul-de-sac. Early on, a neighbor's home, consumed by flames, fell burning into the street blocking exit for about 40 homes. We headed out on foot down the walkways, family dog in tow, with the flames remarkably close behind. Let us not invite future deadly experiences by approving this totally unacceptable housing plan. Piedmont does indeed need a carve-out from the State's housing "mandates". Call your legislator!
9/8/2025	Vincent Fisher	Email regarding lighting, attached.
9/8/2025	Peggy Esposito	Email regarding liability, attached.
9/8/2025	Deepti Sethi	Email regarding safety measures, attached.
9/8/2025	Rob Schenk	Email regarding safety, attached.
9/8/2025	Vivien Mabur	Verbal comments during the public hearing made at the podium. References to fatalities during Oakland Hills Fire.
9/8/2025	Kathleen Hurley	Verbal comments during the public hearing made at the podium. References to panic during fire evacuations.
9/8/2025	Ellen Greenberg	Verbal comments during the public hearing made at the podium. References discretionary design process after DA adoption.
9/8/2025	Todd Kaiser	Verbal comments during the public hearing made at the podium. References to parking standards ("2 spaces per units") and fit. Cars will park illegally causing obstructions to emergency response.
9/8/2025	Alice Talcott	Verbal comments during the public hearing made at the podium. References developer obligations in section 9, pages 94, 98, 10, and 104. "Developer will pay."
9/8/2025	Andy Madeira	Verbal comments during the public hearing made at the podium. Design standars and developer requirements that are feasible (legally required to be feasible).
9/8/2025	Jill Lindenbaum	Verbal comments during the public hearing made at the podium. References test fit and setbacks / stepbacks in development standards. Feasibility.
9/8/2025	Don Chandler	Verbal comments during the public hearing made at the podium. References need for new essential emergency services building and sufficient land to construct.
9/8/2025	Liz Lummis O'Neill	Verbal comments during the public hearing made at the podium.
9/8/2025	Gregory Ross	Verbal comments during the public hearing made at the podium. References to panic during fire evacuations.
9/8/2025	Irene Cheng	Verbal comments during the public hearing made at the podium. References to window recess, stepback above 4 stories.
9/8/2025	Randy Wu	Verbal comments during the public hearing made at the podium. References that vehicle speeds make Moraga Avenue unsafe and need to reduce vehicle speeds.
9/8/2025	Frances Fisher	Verbal comments during the public hearing made at the podium. References unsafe vehicle speeds, need to encourage law enforcement and safe design, and make MCSP financially feasible.
9/8/2025	Patricia Knudson	Verbal comments during the public hearing made at the podium. References impacts to aesthetics, property values, quality of life, traffic light delays.
9/8/2025	Xuemei Wang	Verbal comments during the public hearing made at the podium. References two car accidents.
9/8/2025	Andrea Stark	Verbal comments during the public hearing made at the podium. Opposes the MCSP.
9/8/2025	Deborah Leland	Verbal comments during the public hearing made at the podium. References to Maxwelton Road intersection. Need to create traffic breaks to let cars onto Maxwelton Road.
9/8/2025	Deepthi Sethi	Verbal comments during the public hearing made at the podium. References to wildfire evacuations, fire trucks can't turnaround on MEAN streets.
9/8/2025	Mike Kroltz	Verbal comments during the public hearing made at the podium. References to traffic and dangerous for kids.
9/8/2025	Claire Parisa	Verbal comments during the public hearing made at the podium. References need to reduce design standards, obligation on developers to provide infrastructure, create parking restrictions to protect existing residents, plan for Harbord Road intersection improvements
9/8/2025	Elise Collins	Verbal comments during the public hearing made at the podium. References benefits of more housing in Piedmont for schools, caregivers, etc.
9/8/2025	Justin Zucker	Verbal comments during the public hearing made at the podium. References to need to reduce vehicle speeds and that current Codes create safe environment.
9/8/2025	Marjorie Blackwell	Verbal comments during the public hearing made at the podium. References to construction-related traffic issues, setting discourages pedestrian travel, and accuracy of 2023 traffic study, congestion.
9/8/2025	Silver	Verbal comments during the public hearing made at the podium. References to Hayward fault line, coordination with City of Oakland, feasibility of 199 units on land in Moraga Canyon.
9/8/2025	Tom O'Neill	Verbal comments during the public hearing made at the podium. References to consider smaller scale development in Moraga Canyon and expense to current residents.
9/8/2025	Gabrielle Castriotta (Open Gov)	Having further reviewed the plan, I need to change my comments. I thought at first that the housing would be going ABOVE Coach's field, in the area that is already flat and has some remnants of paving. I see now that this area is not actually within the city of Piedmont and thus not where the housing is intended to go. I unfortunately must withdraw any support for the plan now that I see that the housing would be on such a steep, cramped parcel, and that the corp yard would be moved to Blair Park to accommodate it. This area seems just too dangerous and uninsurable to build on, and it lacks any second exit to a street other than Moraga. Perhaps the city could consider acquiring the above-mentioned flat area (from Oakland? from the cemetery?) and putting housing there. That might be crazy but no crazier than the current plan. As others have suggested, Linda Park would make more sense as a place to build dense housing closer to amenities and transit, at least in comparison to the current suggestions. If Blair Park were to be utilized, it would behoove the city to maintain at least some of this precious green space as a public park and not fill it entirely with housing. Piedmont can do better than this plan
9/8/2025	Michael Henn (Open Gov)	So far this has just been a giant bureaucratic exercise lasting 2 years and costing a million dollars or more. Nowhere in the mountain of verbiage do I find the two most important questions: 1. In the current adverse economic environment for multiple unit housing construction with high interest rates and construction costs, is there any reasonable probability that the market rate housing will be built. I note that fully entitled projects all over the BA are being delayed. 2. Given the requirements of Article 34 of the State Constitution a public vote is mandated for all city sponsored or city subsidized below market rental projects. How does the city think that it can evade this requirement?

9/8/2025	Anonymous (Open Gov)	When I read this plan I feel as if I'm listening to the current administration in DC. Saying something doesn't make it true. The reality: dangerous road, no sidewalks. Last open space in the city. Loss of green space and mature oaks. It's a much longer list. As a life long Moraga canyon resident who has decades of personal experience driving the road, (and I'm certainly not alone), I know the area and the changes on a day to day basis. To think this development will improve anything is an act of hubris. At times it can take up to 10 minutes to get onto Moraga from a side street. People speed. Bikes race down the hill. It is very very dangerous. Coming back up the hill after 3:00, cars are backed up as far as Monticello. Meaning you're waiting for the light at Highland and Moraga for 10-15 minutes. This plan will have the traffic down to Pleasant Valley. I was here during the firestorm. These roads are narrow. Panic does not increase the safety of trying to evacuate. This is a high fire risk area. I lived through it. It was terrifying. To think of adding hundreds of more people into the mix of evacuating is ill advised at best. I want to know what the city will do when the first traffic fatality, either in cars, involving bikes, children… I question the decision to have a fall back position of "design immunity" in the case of fatalities. Aren't the city planners supposed to have the safety of the citizens as a first priority? Note: • Cities often raise design immunity as a defense (i.e., planning/design decisions approved by the government are usually protected). • That immunity can be lost if changed physical conditions make the design dangerous and the city had notice and time to fix it (or created the danger). • The California Supreme Court has recently allowed a high-profile roadway case against a city to proceed (Whitehead v. City of Oakland), reinforcing that plaintiffs can sometimes move forward against municipalities. • There are real examples where plaintiffs recovered damages (or obtained large settlements/verdicts) in dangerous-road/public-property cases against cities or Caltrans. I urge you to acknowledge the real issues at stake regarding a dangerous road, potential fatalities with increased traffic and evacuation issues in a high risk fire area. There is a better planning to be created with considerations to all of the community.
9/10/2025	Anonymous (Open Gov)	From the public hearing, I gathered that at some point earlier in this process the commission chose to majorly expand the number of units for the Moraga Canyon development in order to fund improvements to recreational amenities (e.g. batting cages, astroturf field). For existing residents of the area who will bear the brunt of this massive new complex being shoehorned into Moraga Canyon, this is very frustrating. Also, I was struck by how much the traffic and safety concerns dominated the public comments in the hearing. That's a very salient issue, but I'd encourage the commission to not overlook the other major concerns that have been raised by the community. Lastly, I'd love to know whether the public will have an opportunity to stay informed and involved in later stages of this process, like when we're talking to developers. It sounds like that will be another critical period with major implications for what's built, so the public deserves transparency and participation.
9/15/2025	Anonymous (Open Gov)	The current housing mandate has been a challenge for every town in California, setting off firestorms and conflict. Our precious little City of Piedmont is no different. Although there are myriad issues with the Moraga Canyon Plan, I want to focus on safety, the streets and the quality of life for the hundreds of families and homes on the North side of Piedmont. I am specifically speaking of those that feed into Moraga Avenue above and below Highland Avenue, most immediately Pala, Monte, Mesa, and Bonita. The impact from this proposed development also extends well into Oakland above and the neighborhoods well below Bonita. These lovely neighborhood streets, a signature of the city of Piedmont, will become constantly congested & serve as the bypasses to avoid the wait at the Highland Avenue traffic light. This poses serious danger for our children and negatively impacts the quality of life & the value of the neighborhood homes. The plan proposed Monday evening, September 8th went into great depth with diagrams & explanations of the traffic & road changes. The plan covered only one quarter mile of Moraga. Where is the plan for the impact of these hundreds of additional cars a day on the immediate neighborhoods and entire city? This problem becomes unimaginable in a fire or earthquake emergency. I need not remind you of the life-threatening gridlock on Moraga in 1991. Moraga Avenue cannot and will not adequately absorb the huge volume of additional cars in an evacuation plan. A blinking light or officer attempting to direct traffic in a horrific emergency is not only magical thinking but poses a deadly safety issue. The Moraga Canyon Plan, though convenient to drop at the North edge of town, is not safe, does not protect quality of life for the residents and should not go forward in scale or design as proposed. I do support additional housing, however this proposal is too large, has not enough infrastructure for its residents and has not adequately studied the impact & safety on the neighborhood & the city, including abolishing the last open space in Piedmont, Blair Park.
9/16/2025	Anonymous (Open Gov)	I'm not opposed to adding housing in Piedmont, but I am opposed to the plan as it stands today. I believe other solutions (a smaller development and/or other locations) should be sought for three reasons: 1. Blair Park (and Moraga Canyon) is the last park we have in Piedmont. It's beautiful, it's habitat to many creatures (we had nesting bald eagles to the delight of the community), and it's rare. We don't get our natural spaces back once we destroy them. The fact that environmental concerns were surfaced and ignored per the CEQA law was jaw dropping to me. We live in a so-called green state, and we're supposed to lead the way, but apparently, being informed of hazards is good enough. We can do better in Piedmont. 2. Safety. It's simply too many cars and people concentrated in one place. Day to day is bad enough, but during an emergency, the consequences will be deadly. 3. Impact on the community at large. The studies done concerned a small piece of road, but did not consider the numerous residents above and below the development. Many don't even know about the development. To add to that, those on the committee who would be most affected were asked to recuse themselves. Those are the people we want to speak! The planning committee meeting felt like a formality to bulldoze over the community (literally and figuratively) rather than represent and listen to the community. Answers given to questions felt flippant, procedural, and incomplete. Some consultants couldn't even be bothered to be on camera. I get that you have every legal loophole on you side, but you should do the right thing anyway.
9/17/2025	Jane Holland	I am responding to today's article (09/17) in the Piedmont Post: Planning Commission moves forward with Moraga Canyon Housing recommendation. A comment made by Fire Captain Mike Carlisle that the Specific Plan makes it safer from fires because of the street widening and controlled intersections." It is RIDICULOUS to think that widening a small part of Moraga Av around Blair Park will make it SAFER; the road begins and ends in Oakland and it is 2 lanes on both ends! They have mentioned a "third lane", which would actually be the bike lane which bikers and pedestrians would use to flee! How is that SAFER?? Stopping Sight Distance (SSD) was determined by Caltrans in 2010 for the proposed soccer fields development to be unsafe to create a crosswalk; how is it safer now? Moraga Av is a very narrow, curving street with many chokepoints which make it impossible to clearly see pedestrians crossing the road; an emergency evacuation would be catastrophic as all emergency vehicles would be using the same 2 lanes as the fleeing cars from Oakland and Piedmont. We Oaklanders have been kept in the dark thruout the process and we are affected more than anyone. THIS IS NOT SAFE! Yours, Jane Holland
9/26/2025	Elinor Barron, Janet Chin	The City of Piedmont Planning Commission unanimously approved a proposed new housing development project on Moraga Avenue in Moraga Canyon. This development will have a major impact on the City of Oakland and its residents. We are opposed to this project as it puts Oakland hills residents at risk in emergencies. The development project will add approximately 199 units near Blair Park-Coaches' Field immediately west of Maxwelton Rd (Piedmont) and Harbord Ave (Oakland). The project will bring several hundred residents and their cars to Moraga Avenue and will entail infrastructure changes as well (such as traffic control, sidewalks). Moraga Avenue directly connects Oakland's north hills with its downtown, traversing through part of Piedmont in Moraga Canyon. Piedmont's portion bisects Moraga Avenue into two Oakland segments. It is a major thoroughfare to and from Highway 13 and is a busy corridor with 24-hour traffic and approximately 11,000 cars per day. The Piedmont Fire Department has deemed Moraga Ave. as an emergency evacuation route. The PFD cites Moraga Canyon as a "high risk wildfire" area and predicts a wildfire is "highly likely." The City of Piedmont is noticeably absent from the East Bay Wildfire Coalition of Governments (EBWCG). We trust that the City of Oakland's leadership is aware of the proposed project and in discussion with the City of Piedmont. The proposal goes to Piedmont City Council very soon. We strongly urge the City of Oakland to oppose Piedmont City Council's approval to proceed with this project. Elinor Barron, Janet Chin Snake Rd, Oakland, 94611 Sent to: Mayor Barbara Lee, cityclerk@oaklandca.gov; City Councilmember Janani Ramachandran, jramachandran@oaklandca.gov, JSmith@oaklandca.gov; Oakland Fire Chief, Chief Damon Covington, dcovington@oaklandca.gov; Oakland Emergency Services, Veronica Cole and Olga Crowe, OCrowe@oaklandca.gov, emergencyplanning@oaklandca.gov; East Bay Wildfire Coalition of Governments, John Gioia, John.Gioia@bos.cccounty.us; Piedmont City Council. Mayor Betsy Smegal Andersen, BAndersen@piedmont.ca.gov; Oakland Firesafe Council, outreach@oaklandfiresafecouncil.org; Elizabeth Stage, Chair OFSC, stage@berkeley.edu; Dr. Louise Comfort, lcomfort@berkeley.edu
9/27/2025	Charlotte Niel	Bad idea. With all the additional people it will create congestion and a hazard if there is ever a need to evacuate the area. Really, what are you people thinking. 200 units???!!! Charlotte Niel, ___Grisborne Ave, Oakland CA. 94611 - Sent from my iPhone

9/28/2025	Ali Goss	My name is Ali Goss, and I live at ____ Moraga Avenue, just down the street from the proposed development site. I am writing to express my strong opposition to the scale and location of the planned apartment complex under the Moraga Canyon Specific Plan. I want to be clear that I am not opposed to the development of affordable housing. However, placing such a dense project—nearly 200 units—on a narrow, high-risk, high-traffic corridor like Moraga Avenue is deeply concerning for several critical reasons: 1. Safety and Emergency Evacuation: Moraga Avenue is a designated emergency evacuation route for both Piedmont and Oakland. This route is already heavily congested during rush hour and even more so when Highway 13 is backed up. The idea of funneling hundreds of additional residents through this corridor during an emergency—especially in a fire-prone canyon—is irresponsible. As recent tragedies in Paradise and the Oakland Hills Firestorm of 1991 have taught us, seconds matter during evacuations. This project puts current and future residents at unnecessary risk. 2. Traffic and Infrastructure Strain: Even now, the Harbord/Moraga intersection struggles with capacity—traffic frequently backs up to Masonic Avenue. Adding hundreds of new units without a clear and effective traffic mitigation plan, including a dedicated left-turn lane and proper traffic flow management, will only worsen the situation. There are currently no safe pedestrian crossings and no continuous sidewalks, making this stretch unsafe for current residents, let alone future ones. At my address we have had quite a few car accidents over the years due to the current traffic / road conditions. 3. Fire Risk and Insurance Concerns: Moraga Canyon is officially designated a high fire-risk zone. Insurance companies already limit coverage or significantly raise premiums for homeowners in this area. Adding hundreds of units in this fire-prone canyon will not only increase risk but could also further jeopardize homeowners' access to affordable and comprehensive fire insurance coverage. I myself have been dropped and am already paying more than 2-3x for the California FAIR plan. 4. Site Unsuitability: Blair Park is a narrow strip of land unsuitable for high-density residential development. There is limited access, no existing residential infrastructure, and serious concerns about stability and environmental impact. This location is simply not appropriate for any type of housing, especially not high-density construction. 5. Unrealistic Growth Projections: The projection of 587 new units by 2031 raises serious questions. How does the city plan to responsibly and sustainably accommodate such growth—especially when the most basic safety and infrastructure needs for this initial 197-unit proposal have yet to be addressed? Alternative Solutions: Other potential housing sites should be explored more thoroughly. These include: Consolidating underutilized school properties to free up land, Acquiring and responsibly repurposing larger parcels such as Tyson Lake, Supporting infill development within already established urban areas rather than attempting to force dense development into a narrow, fire-prone canyon. In summary, while I support the goal of increasing affordable housing, this particular plan fails to take into account the basic safety, infrastructure, and environmental limitations of the proposed site. I urge the Planning Commission to reconsider this plan and explore more appropriate alternatives. Thank you for your attention and for taking the time to listen to residents who will be directly impacted by these decisions. Sincerely, Ali Goss, Moraga Avenue
9/29/2025	Alan Cohen	Written comments, see attached.
9/29/2025	Marj Blackwell	Written comments, see attached.
9/29/2025	Peter Kadison	Unsafe..too congested…surely there is somewhere else…flatlands in Oakland by West Oakland BART? Port? Embarcadero? Moratorium is a vital artery this will be terrible congestion… Sent from my iPad
9/29/2025	Michell Cox	Please do not go forward with housing in Moraga Canyon. Pick a Park in your fine City instead.You will hear "NIMBY" and they can "get over it" or relocate. I used Moraga Avenue as my Escape Route during 1991 Oakland Hills Fire. That thoroughfare "Saves Lives". It is a recommended exit route per the OFD. Let your conscience be your guide. Will this City decision be the one responsible for "the loss of lives", as was a lesson learned in the "one road out of Hiller Highlands". Housing and the ramifications of more cars and people fleeing for Safety is not a solution for the State Mandate. Let your conscience be your guide on this action. Step out of your comfort zone and ask for an exemption to the "mandated number" number of housing units. Pick a Park (or two) and build less units. Thank you in advance. Best, Michelle Cox Resident/Homeowner Upper Rockridge District of Oakland, CA
9/30/2025	Ralph Catalano	Written comments, see attached.
10/1/2025	Anne Berkey	I am a survivor of the '91 Oakland firestorm and our family used Moraga Ave to escape the conflagration. We lived then and have subsequently rebuilt our home on Proctor Ave between Moraga and Broadway Terrace. On Oct 20, 1991, Broadway Terrace was blocked off with fire equipment, the Warren Freeway was gridlock with traffic and the fire was active on #24. My husband and I loaded our 2 small children into our cars and decided our only direct way out was down Moraga Ave. We were able to escape before the fire expanded to and destroyed our home and most of the houses on our street. This month our homeowners insurance company has rated our zip code as "extreme wild fire danger" and has raised our premiums accordingly. Moraga Ave in Oakland is part of that same extreme fire danger rating. If you authorize the construction of dense housing in the Blair Park area, you are potentially threatening the lives of all of us who live above Blair Park. God forbid we should have another firestorm like that in Oct '91. It could be a major earthquake, given recent rumblings on the Hayward Fault. Please do not create additional dense housing along Moraga canyon that could add to the likely gridlock that would ensue in a disaster. I recognize that housing is needed and a priority everywhere, but this proposal would result in an unsafe area that could pose a significant danger to untold numbers of people. Traffic on Moraga on a "normal" day is already high; additional housing would exacerbate the problem, especially if Moraga is needed as an emergency evacuation route. Thank you for your consideration of our concerns. Ann Richardson Berkey, Proctor Ave, Oakland CA
10/1/2025	Gail Wilkinson	As a long-term resident of Montclair, I use Moraga Avenue frequently. We don't need additional cars added to an already busy street. It is a lifeline for us in Montclair as it was during the 1991 fire. It's unfortunate that Piedmont has no other land on which to build the required new apartments, which is a bad idea in my opinion. We are already overcrowded. Perhaps you can get an exemption? I oppose the Blair Park development! Sincerely, Gail Wilkinson
10/1/2025	David Boatwright	Please reconsider the subject housing project. Not only would this project increase fire risk in a difficult area to access for firefighters, but Moraga Rd in this area is already a bottleneck in this narrow & winding section of road. Finding an alternative area for this project will be to the advantage of both Oakland AND Piedmont. David
10/1/2025	Sha Coleman	I am 100% in support for housing at Blair Park. We desperately need more housing. Young people have nowhere to live. Don't cave into the NIMBYs. Best Regards, Sha Coleman, Board Member, Junior Center of Art and Science, Oakland CA
10/1/2025	Lawrence Siskind (Open Gov)	The problems with the Moraga Canyon Specific plan -- including traffic safety, fire evacuation, noise and light pollution, and many others -- have been ably described by other commentators, and I will not take up the Council's time by repeating them. Instead, I would like to mention that the decision before the City Council is not either/or. To fulfill the state mandate of constructing 587 additional housing units in Piedmont, some construction in Moraga Canyon is probably unavoidable. The crucial failing in the Planning Commission's proposal is its wildly disproportionate approach. The Planning Commission would locate 199 of the 587 units, or 34%, in one small, confined and congested area. If approved, this plan will not only create a host of safety and pollution problems, it would also conflict with the policies underlying the Regional Housing Needs Allocation process. The RHNA mandates a fair distribution of new housing, and requires planners to avoid segregating and concentrating the new residents. Unfortunately, that is exactly what the Moraga Canyon Specific plan, in its current form, does. Reducing the safety and pollution problems described by other commentators, and complying with the dictates of the RHNA, do not require eliminating new construction in the Moraga Canyon altogether. But they do require a more sensible distribution. There are many others areas in Piedmont, particularly in the City center, that have somehow avoided their fair share of the new housing. There is no magic formula for determining with precision how many new units should be built in any particular neighborhood. But imposing more than a third of the new units in one small area is an egregious misallocation. The City Council should remand the issue back to the Planning Commission with instructions to draft a new plan that better comports with the policies of the RHNA. Instead of locating more than a third of the new units in Moraga Canyon, the new plan should allow for somewhere between a tenth (59) and a fifth (117) of them.
10/1/2025	Anonymous (Open Gov)	Three questions about the proposed plan for Moraga Canyon - has a soil report been done given the large slide on the left side of the canyon as your drive toward Highway 13? Secondly, who is going to pay for this projected construction of 197 homes in the canyon and all the landscape and road work? How will the committee estimate cost given the recent changes in cost of building materials being imported?
10/2/2025	Lisa Kaplan	Written comments, see attached.

10/2/2025	Jane Pingatore Holland	I am Jane Holland and I live in Oakland. I am opposed to the sheer scale of 197 units being installed in our steep-sided high fire zone Moraga Canyon. Moraga is a 2 lane road and always will be no matter how you doctor up the diagrams. It is a very heavily travelled roadway (11,000+ cars daily) which begins and ends in Oakland and this project affects us Oaklanders profoundly. It is a major evacuation route for both Piedmont and Oakland. We are extremely concerned about the safety aspects of disaster evacuation with hundreds of added cars thrown into the mix with the existing hundreds trying to escape on a 2 lane road, with bikers and pedestrians using the bike lane to also escape. Your fire Captain suggested that a “third lane” for cars could somehow be created in the bike lane which defies imagination. Those using the bike lane would be sitting ducks. A retired Oakland Fireman told us that you would depend on OFD heavily to help your small fire dept but how on earth would they get into Piedmont on that narrow 2 lane road with everyone fleeing in a panic? This is not safe. Please rethink your locations for this housing which we realize is much needed. At least scale back down to 133 units, your original number (how did that get increased?). And where on earth will you put that many parking spaces (400 not including visitor parking?) And your driveways did not pass the 2010 CalTrans LOS (Line of Sight) test for the proposed but defeated soccer fields plan, why would they now??? This plan is beset with problems and it is hard to imagine new residents getting insurance as many in the area have had their insurance dropped b/c of fire/earthquake hazards and being next to the Hayward fault. Also children crossing Moraga Ave to go to school, or Coaches Athletic field are endangered by the hi volume speeding (40 MPH average in 25 MPH zone) traffic with poor LOS for the stoplight you are proposing. A traffic island has been described by some experts as more dangerous than not having one because people get over confident when caught on one; it is also very small in your design, very close to the whizzing cars. Also Blair Park is a wildlife corridor. This is not a safe project. Please reconsider. Sincerely Jane Pingatore Holland PS We have places some yard signs reflecting what the proposed units might look like and they are being stolen from Oakland private property which does not reflect well on our “opponents” from a free speech standpoint. A sensitive topic these days.
10/2/2025	Liz Lummis O'Neil, Mary and Arnie Levine, Laura and Keith Dierks	Written comments, see attached.
10/2/2025	David Petta	Having worked for 50 years in the East Bay as an architect and planner I am sure that very few of you understand very much at all of the technical analysis in the Specific Plan; I know that I still do not. To get a more intuitive, even visceral understanding of what is being proposed I would like to suggest that you take a 30-minute stroll up and down Moraga Avenue. You don’t even have to go at rush hour, just mid-morning would be good enough. It is scary to experience the breeze of the cars zipping past; how narrow the Blair Park strip really is and how the 6-story buildings will be jammed between the south canyon wall and the street; and what the “choke point” at Red Rock and the rest of the tarp-covered landslides on the canyon’s north wall feel like close-up. If you have more time, you might also be interested in a full scale mock-up of traffic congestion along Lincoln Avenue at Head Royce School. The drop-off population there is more or less equivalent to what the 197 new units will generate on Moraga. There, another 2-lane road is jammed with two brand new short left turn lanes, three stop lights in quick succession, and a host of about 12 yellow-vested traffic marshals waving arms to direct the traffic on Lincoln and keep them from finding alternative routes through the neighborhoods. It seems to have gone fairly smoothly so far, but in an emergency on Moraga we won’t have those yellow vests; what we will have is emergency vehicles, a free-for-all and sheer terror. David Petta, Architect____ Harbord Drive, Oakland
10/2/2025	Sandy Chang Edgar and Steven Edgar	Written comments, see attached. Two versions emailed together.
10/2/2025	Patty Siskind (Open Gov and Email)	Written comments, see attached.
10/2/2025	Vivien Mather	I, as are my neighbors, extremely worried about the proposal to build 197+ homes along a short, narrow, winding section of Moraga Avenue at Blair Park and/or across the street by Coaches Field. Let me be clear, we are not opposed to lower income (your term at the moment) housing. There’s a desperate need. But, this is the wrong place to build. This is a terrifying prospect if and when we have an emergency such as a fire or earthquake. The road is a designated emergency evacuation route for all the residents in the area, both in Piedmont and Oakland. As much as your nice fire chief video tries to assuage the residents that everything will be just fine in an emergency, we all know that this text book response does not bear any resemblance to the panic and ensuing chaos that will occur when people realize they cannot exit via the canyon. The police and firefighters will not be able to access the area and the potential loss of life is seriously real. And you know that the insurance companies will be aware of the devastating effects this development will have. A whole neighborhood could loose insurance coverage or the premiums will be so high that residents will move and the whole neighborhood fabric will fall apart. And, the people, if they buy these new residences, will struggle to get insurance too. Aside from the potentia for a catastrophic disaster, the traffic on Moraga Avenue is already at capacity and beyond and for anyone trying to access the road from side streets will, in frustration, take unnecessary risks to get out on to the street. Pedestrians already have a massive challenge crossing the road. I, for one, have almost been hit several times, even though where I cross, the line of sight is good. They’re in such a hurry, and speeding, and routinely ignore pedestrians on crosswalks. The line of sight at Red Rock is dangerously short and there’s no doubt as a pedestrian there will accidents, and, god forbid, fatalities. The whole project is irresponsible, dangerous and potentially catastrophic. And with no consideration for the people who live in the surrounding neighborhoods. Vivien Mather, Masonic Avenue, Oakland. Sent from my iPhone
10/2/2025	Andrea Stark, Richard Stark, Ysella Stark	To: Piedmont Planning Commission, Re: Moraga Canyon Specific Site Plan, Date: October 1,2025, My name is Andrea Stark and I live at ___Moraga Ave with my parents Richard and Ysella Stark. We have lived here for about 50 years. I am writing to communicate our very strong opposition to the 197 living units that are proposed for Blair Park. Safety is of top concern. To put about 591 adults and children in danger by building in a known critical fire zone and earthquake fault line is inconceivable. The 591 does not even include all the residents that live in the surrounding area that will have increased danger. Moraga Ave is the way in and the way out. On regular days the traffic is quite heavy and any delay can cause a backup. If the power goes out on Moraga Ave there pretty much is no cell service so communicating is difficult. When panic sets in and many people are trying to evacuate at the same time it is not smooth like a planned protocol on a sheet of paper. This is not just evacuation for the development. It is for everyone. There just is not enough space to get everyone out. Aside from the very important emergency faults of this development plan there are other issues. This development will cause increased traffic on Moraga Ave. The study that was done was in 2020 (per the video that was sent out). This is 5 years later when commuting has increased. I travel on this road everyday. I am encountering back ups on my way home that start at the Highland/ Moraga stoplight. This back up sometimes goes past the cross street Ramona down towards Pleasant Valley. All these idling cars bring more noise and air pollution to the area. Blair Park provides cooling for the area especially on hot days. With climate change this should be something that is important. Yes, housing is something that is needed but putting so many people’s lives in danger is not the solution. Sincerely, Andrea Stark, Richard Stark, Ysella Stark
10/2/2025	Deepthi Sethi	Written comments, see attached.
10/2/2025	Ray Maldonaldo, East Bay YIMBY	Written comments, see attached.
10/2/2025	Kristin Johnson (Open Gov)	I applaud the City for its thoughtful, inclusive and transparent approach. California is way underbuilt for the demand, thus leading to greater homelessness and unstable families, all of which threaten our long term security and prosperity. So, the State has stepped in to mandate that each community does its part. I believe that building in Piedmont is necessary, including for people who are currently facing extremely expensive housing relative to their income. I am encouraged by the studies that say the roads may be safer, adding stoplights and actually reducing the speeding which is currently so prevalent. This is rarely used space, not a valuable nature preserve. We all live on land that has been subdivided over years and building density is key to creating the amount of units we all need.

10/2/2025	Anonymous (Open Gov)	I have lived near Templar Place & Harbord Drive around the corner from the proposed development site for the past 30years. While I applaud the commission's desire to deliver affordable housing, I strongly object to the location and density of the planned apartment complex under the Moraga Canyon Specific Plan. My major concerns are general traffic safety, pedestrian safety, and emergency evacuation routes. Thanks to WAZE, during commute hours, there has been a considerable increase in the number of people who now leave the traffic jam on Hwy 24 East drive down Broadway, come up Broadway Terrace, turn right on Clarewood Drive which becomes Harbord Drive and then exit onto Moraga to go South on Hwy 13. The backed-up traffic on to Harbord during commute times because of all the cars trying to make a left on Moraga can extend as far as Maxwelton Drive. Placing nearly 200 units on this narrow, high-risk, high-traffic corridor would not only incease this problem but also completely block the exit of all the people who live past the end of Clarewood Drive in the event of a fire. After the Palisades Fire, one thinks more of their planned exit to safety. Moraga Avenue is a designated emergency evacuation route for both Piedmont and Oakland. Directing hundreds of additional residents through this corridor during a fire which could easily ignite in that canyon is reckless and irresponsible and puts us all at unnecessary risk. It's my understanding, from information given after the 1991 Oakland Hills Fire, Moraga Canyon was designated a high fire-risk zone. Adding hundreds of units in this fire-prone canyon will increase this risk considerably. Additionally, it is very likely to make obtaining insurance coverage worse than it already is as many of my neighbors have had their policies dropped in the past two years. How does the city plan to pay for and implement the infrastructure needs for this 197-unit proposal? Considering the exorbitant costs likely to unfold, other options need to be more urgently explored. Namely: • Freeing up excess land from the Piedmont schools which are not currently effectively utilized. • Supporting infill development closer to Grand Avenue and Lakeshore Avenue better supporting low-income residents rather than attempting to force dense development into a narrow, fire-prone canyon with no sidewalks or crosswalks for these residents. I hope you will reconsider this plan and explore alternatives that make more sense for the residents for whom you are trying to accommodate. Many thanks for your consideration!
10/2/2025	Peggy Esposito	I strongly urge you to vote NO on this Moraga Canyon Specific Plan. The liability to you and the City of Piedmont is high. Those of us who live on Moraga Avenue in the vicinity of Blair Park have pointed out the many reasons why it is pure folly to jam this dense housing project into this tiny strip of land known as Blair Park. Surely you can see how the plan glosses over the risks. The planners say that the actual roadway's issues can be mitigated. They can't be! Moraga Avenue is a narrow, winding road - one lane down and one lane up - plus a bike lane in the uphill direction. The road is too narrow and cannot be widened. No pretty pictures and plans on paper can change the geography of the canyon! Traffic safety was the primary reason that the Piedmont Soccer Club's planned soccer complex was never built. Nothing has changed since 2010. The same problems exist and are only worse as there are more cars which travel much faster than the posted speed limits. And the Specific Plan will add 197 units and approx 300 more cars and many, many more people. Moraga Avenue is the primary emergency evacuation route for Moraga Avenue residents and everyone else who live on the adjacent streets. There are fire zone maps which clearly show that the Moraga Canyon is in a HIGH RISK fire zone. I have been told by the Oakland Fire Department that in the case of a fire, it's every man for himself. As we know from the The Oakland Hill Firestorm, the Paradise Fire, and the Pacific Palisades fire, people died in their cars or on foot as they desperately tried to escape the flames. Surely you don't want to be responsible for putting Oakland and Piedmont residents at such high risk in case of a fire. Already fire insurance in many parts of California is getting more and more difficult to acquire. The Homeowners Insurance market is in freefall. I am not opposed to affordable housing and I realize that you have a difficult challenge with the state's mandate but please don't make you challenge our problem. There are other locations in Piedmont which make much more sense. Please think very carefully before you vote to go ahead with the Moraga Canyon Specific Plan. Think about how you would feel if it was your mother and father who lived on Moraga Avenue! Peggy Esposito, ____Harbord Drive/corner Moraga Avenue

From: John Cheney
To: Kevin Jackson; Pierce Macdonald
Subject: EIR Comments from John Cheney -- Moraga Canyon Plan
Date: Monday, December 18, 2023 4:51:38 PM
Attachments: Piedmont_send EIR_ Moraga Canyan_Thought_Piece_12182023.pdf
Moraga Canyon EIR- Piedmont Res#2 Comments 121823_1.pdf

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

HI Kevin and Pierce,

Attached are two separate comments on the Moraga Canyon EIR plan.

I am open to meet anytime. Currently our groups have met with the PUSD to propose the general approach to the City.

Thanks,

John

Pathway to Piedmont Parks & Affordable Housing Joint Development

To: Piedmont Planning EIR Comments

Date: December 18, 2023

FM: John Cheney

Re: EIR Moraga Canyon Comments: REZONING PIEMONT RESERVOIR #2 for Housing, Parks and Fields of Play

Opportunity: The existing EBMUD Reservoir #2 has been mothballed for 30 years.

The Reservoir #2 could easily support affordable housing for over two hundred (200) units for Teachers, City Employees and general affordable housing.

Piedmont residents support the fast track integration of RHNA housing goals and 3 acres public park with dual access is from an industrial driveway above from Blair Avenue and ROW to Moraga below.

Ask:

#1 Sports and Housing groups request that the City of Piedmont lead with EBMUD by rezoning the Blair Reservoir for high density housing and open public space for parks and playing fields, ahead of permission to sell from EBMUD.

#2 That Piedmont Reservoir #2 be integrated with the Moraga Canyon plan for long term public development, linking from the top of open space to Moraga Canyon via ROW owned by EMBUD, for a long term Open Space and Housing Element integrated Master Plan.

Location: Mothballed EBMUD's Piedmont Reservoir #2

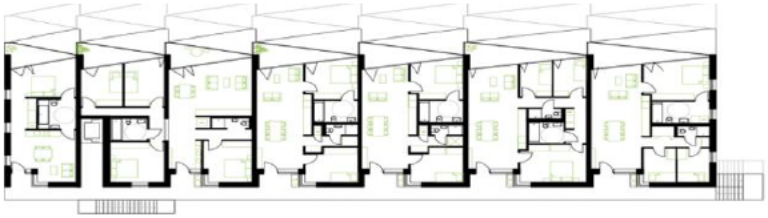
Provides an opportunity to fast track RHNA and quality of life goals for all citizens

Unique RHNA housing and park expansion

Connecting EBMUD's mothballed Reservoir to Piedmont's Blair Park

Placement support for 224 units

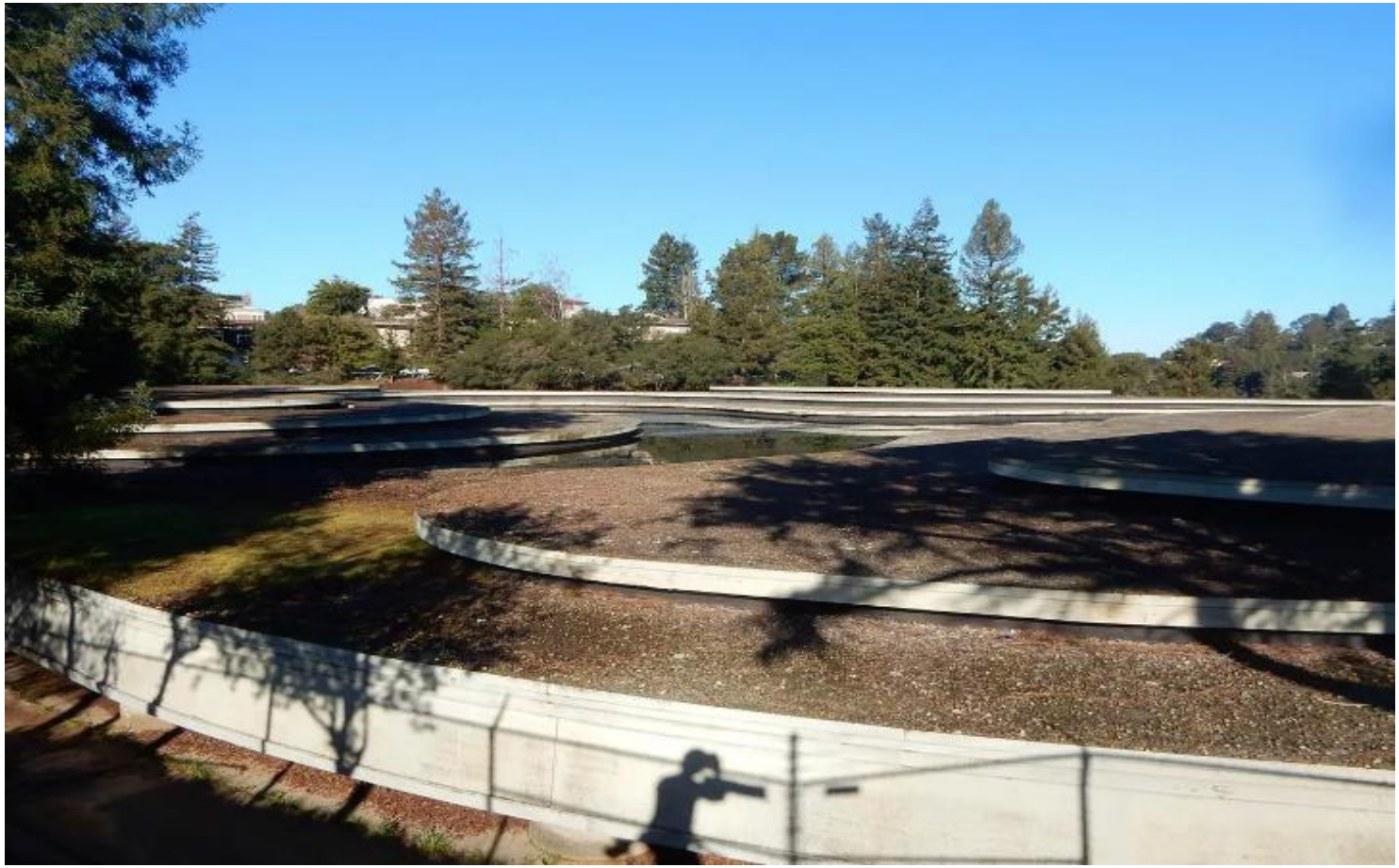
Example 28 Units @ 150ft x 45ft award winning modular housing



Satellite map shows the Reservoir is primed for continued open space use at the top of Blair Avenue, with housing up to 200 Units below Blair with primary access from Moraga Avenue

The field use atop the location can provide easy access to water tanks if needed in the future.

Mothballed restricted open space can become the new accessible commons…



Integrated fields of play, parks and housing increase quality of life in Piedmont and region

Restricted space can become common public use

With Par Course fitness stations and much more…

Mature vegetation helps integrate housing and park to the exiting neighborhood

Explore the possibility of the new affordable Teachers Housing and Commons

A new Piedmont Master Plan can help guide our community's search for quality.

EIR Moraga Canyon Educator Housing and Strategic Options for Piedmont PUSD

Moraga Canyon Educator Housing

Q4 2023

CONFIDENTIAL

Current Conditions Impacting PUSD Educator Housing in Piedmont

Current market conditions are placing downward pressure on school quality and PUSD financial resources

Market Condition	Explanation
Accelerating Unaffordable Housing	• *Increasing housing costs = teacher turnover, uncompetitive offers with fewer strategic solutions for PUSD*
Competing Districts are Creating Solutions	• *Top Tier School Districts are building educator housing & growing = more competitive offerings than PUSD* • *PUSD's shrinking student body = systemic risk*
Fewer PUSD Options Drive New Playbook	• *Traditional tools used by PUSD are at their limit. Several market conditions have combined to force strategic change at PUSD or face long term deterioration*

One Time Strategic Opportunity to Transform Piedmont

The City of Piedmont, Tax Payers and PUSD are aligned in fundamental community goals

Market Condition	Explanation
Assembly Bill 2295 is Law in 2024	• *AB 2295 establishes the right of districts to build housing up to 3 stories on School property under local review but exempt from State Architect rules.*
The City is Allowed to Trade or Sell Land to PUSD	• *Affordable housing built by PUSD for educators qualifies for RHNA requirements* • *PUSD can drive lower housing costs, design, earmark housing for educators, work with Public-private partnerships*
New Options Drive New Playbook	• *PUSD can act without risking credit ratings or financial damage to the City or PUSD* • *PUSD can move faster than the City or private developers*

Opportunity: Educator Housing as a Core Strategy for Piedmont

Current Piedmont and PUSD can housing to transform Piedmont and community culture

Market Condition	Explanation
Piedmont sell/trades land to PUSD	• *PUSD can buy or trade land & build housing matching City's plans in Moraga Canyon. PUSD (& City) can control design esthetics, public commons using PUSD's exempt status to speed building time to market.*
Public-private partnership	• *PPPs allow PUSD to stay in control. Funding and risk management drives affordable housing quality while reducing headwinds of rising interest rates and educator's affordable housing costs.*
Risk Mitigation & Public Values	• *PUSD/PPP housing can retain educators, first responders and civic employees to live and work In Piedmont, making a positive impact on community culture, the public commons of parks, playing fields and open space.*

Opportunity: The Real Value of Public-private partnerships

Current PUSD can capitalize on risk- management capabilities of the private sector

Market Condition	Explanation
Public-private partnerships (PPPs)	• *PPPs can boost the efficiency and effectiveness of projects from development to end of operation.* • *PPPs should not be seen as magic instruments for public sector financing gaps*
Public-private partnerships	• *PPPs can spread financing costs over a more extended period and thus free up public funds where privates sector cannot (e.g. PUSD operating budget shortfalls).*
Risk Mitigation & Public Values	• *Transferring specific risks of a project from PUSD to PPPs - including development, construction, operation to private sector investors (and lenders) - leverages risk-management capabilities of the private sector and markets*

Contact

John Cheney

[redacted]

Pierce Macdonald

From: Marjorie Blackwell
Sent: Wednesday, January 03, 2024 2:47 PM
To: Pierce Macdonald
Subject: Re: Moraga Ave. traffic reports

Follow Up Flag: Follow up
Flag Status: Flagged

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Yes, definitely! Thank you for asking.

-Marj

On Jan 3, 2024, at 9:44 AM, Pierce Macdonald <pmacdonald@piedmont.ca.gov> wrote:

Hello Marj Blackwell,

Would you like these materials to be distributed to the Planning Commission?

Sincerely,

Pierce Macdonald
Senior Planner
(510) 420-3063

Effective February 28, 2022, the Piedmont Planning & Building and Public Works Departments will be open for counter service, including unscheduled inquiries via walk-in, telephone and email, during the following hours:

- Monday through Thursday: 8:30 a.m. to 5 p.m. (open including the lunch hour)
- Friday: Closed to members of the public.

Receive Planning & Building Department news emails by subscribing at:

https://lp.constantcontactpages.com/su/rMGm1oM/PiedmontPlanBuild

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From: Marjorie Blackwell
Sent: Tuesday, January 02, 2024 12:02 PM

To: Kevin Jackson <kjackson@piedmont.ca.gov>; Pierce Macdonald <pmacdonald@piedmont.ca.gov>
Subject: Moraga Ave. traffic reports

Hello Kevin & Pierce,

Attached are copies of 2 traffic reports from past and proposed Moraga Ave. developments:

1. 1985 LSA report regarding development of Coaches Field
2. 2010 Emmett Creason report regarding the proposed sports field in Blair Park.

I would appreciate your assurance that both of these reports have been — or will be— provided to the consultants preparing the Moraga Ave. Specific Plan.

As you can see, these reports — from 38 years and 13 years ago — both reference high volume traffic on Moraga Ave. and the danger to pedestrians trying to cross the road. Since then, Moraga Ave. traffic, if anything, has increased in volume and speed. In my and many others' opinions, this is a primary issue that must be addressed before any development can occur in Moraga Canyon.

Thank you for your consideration, and I look forward to your response..

Regards,
Marj Blackwell

EMMETT CREASON Traffic Engineering Technical Services
P.O. Box 1386 Novato CA 94948 (415) 892-3918

June 30, 2010

Randolph Wedding
911 Moraga Avenue
Piedmont, CA 94611-3443

Thank you for inviting me to review and briefly comment on the LSA Traffic Impact Analysis for the Moraga Canyon Sports Fields. Please remember that this report constitutes a only a cursory review of the document you provided and that there may be other significant traffic issues for the project which are not included in my review.

SIGHT DISTANCE

As the report mentions, there will be a significant lack of sight distance for the current driveway placement. There is no mention of "safe stopping distance" for the existing speeds for the worst case scenario, this should be determined in the report. Any sight distance analysis should include potential pedestrians preparing to enter the roadway.

The report describes a mitigation measure, TRAFF-2A, for inadequate sight distance, "The City shall provide additional enforcement of the speed limit using enforcement methods…to reduce the 85th percentile speed to below 35 MPH". While admirable in intent, this possible mitigation does not state the level to which speeds are to be reduced (important to know this to see if the sight distance provided is adequate). Traffic enforcement alone would require a large full time commitment from the agency responsible for enforcing traffic laws and would have to continue into the future. I should mention that if the intent is to use radar speed enforcement to reduce existing prevailing speeds, the enforcement effort would be limited, if not excluded, by section 40801 (speed trap) of the California Vehicle Code. Lacking radar enforcement or extensive "traffic calming" improvements instituted with the project to physically reduce speed on Moraga Avenue, it is unlikely that speeds will be successfully reduced without additional measures.

GAP ANALYSIS

While the report notes that there are many 7.5 second gaps in existing traffic flow, it does not address the duration of the gaps which will be present during the times when peak flow into and out of the new driveways be occurring. The presence of right and left turns to and from the driveways and particularly pedestrians crossing the roadway at or near the driveways would certainly negatively impact the availability of available gaps and 7.5 second gaps may not be sufficient for pedestrian crossings or for vehicular traffic exiting the proposed new driveway locations. The report indicates LOS E & F for vehicles exiting the proposed driveways. This raises some concerns as motorists not easily able to enter the traffic flow on Moraga Avenue in a timely manner may well result in some

drivers making bad decisions on what constitutes a safe gap in traffic (i.e. forcing their way into traffic) which over time will have the potential for an increase in traffic collisions or near collisions. LOS E & F at a recreation site are typically considered inadequate particularly when there may well be additional pedestrians and / or bicyclists present in close proximity.

PEDESTRIAN BRIDGE

There are certainly financial and operational concerns with the pedestrian bridge concept. For example the bridge may be a substantial percentage of the project cost and there is every possibility that some users of the Sport Fields may still choose to cross Moraga Avenue at grade. The report lists the installation of an "illuminated crosswalk with an activated pedestrian signal" as an alternate to the pedestrian bridge. Normally I would recommend against any "mid-block" pedestrian crosswalks but a "full pedestrian traffic signal" should take care of pedestrian safety. However if the cost of a traffic signal is to be included in the project, I would recommend that the geometry of the project driveways be revised to create a four legged intersection (driveways on either side of Moraga Avenue directly opposite each other) where the traffic signal can handle both the vehicular and pedestrian traffic generated by the project.

The wording of this section of the LSA report may need some clarification, if the crosswalk proposed by the project is in fact only flashing lights in the pavement and possibly some flashing yellow lights with some signing then what is proposed is not a pedestrian signal. If this is the case, I would recommend against the installation. The "activated pedestrian" language may only mean that the pedestrians will activate the flashing yellow lights. If this is the case then "more than adequate" sight distance is a must and the possibility of the flashing yellow lights causing a false sense of security to the pedestrians could result in very unsafe conditions and increased collision rates.

PEAK and OFF-PEAK HOUR LINK ANALYSIS

While the project may not reduce LOS on Moraga Avenue to an unacceptable level, the additional driveways and all forms of traffic associated with them will have a slightly negative impact on LOS.

SIGNAL WARANT ANALYSIS

I will not comment on the off site signal analysis. However the lack of discussion of the "illuminated crosswalk with an activated pedestrian signal" at the project site further concerns me that the proposed "pedestrian signal" mentioned in the Pedestrian Bridge section of the report is not a traffic signal at all but instead is really a simple mid-block crosswalk with some sort of enhancement. I find the language present in the report unclear (perhaps misleading?) and would like to see further details before finalizing any action on the Traffic Impact Analysis.

PARKING

It appears that the report identifies a short fall in parking which will be addressed on only one side of Moraga Avenue. This raises the possibility that this solution will result in additional pedestrians crossing Moraga Avenue. All of the concerns for the pedestrian

and vehicular safety will be exacerbated by not being able to supply the parking at the site where it is needed.

ACCIDENT DATA

Existing area collision history does not appear to be a severe problem. However the report's conclusion that the project will not increase the "accident" rate and that most of the collision history in the area involves "driver behavior" seems to not address the facts raised in the report. I believe it is reasonable to expect that if driver behavior in the area is the cause for most of the "accidents" then the new Sports Fields facility with increased traffic including vehicles, bicycles and pedestrian will present additional traffic conflicts which will certainly increase the potential for incidents. Even if the new users of the sports facility have excellent "driver behavior" there is still a demonstrated possibility of increased collisions related to the new facility.

General notes on the remainder of the Traffic Impact Analysis

Sidewalks – The report indicates the lack of sidewalks in the area. Even if Piedmont does not have a policy designed to increase walking and bicycling, a recreational project of this type should at least provide sidewalk access to the immediately adjacent neighborhoods. Also bicycle lanes or paths should be considered.

LOS concerns – While it appears that the surface streets will not have significant reductions in LOS, there should still be consideration given to left turn storage lanes for the driveways to the facility. If at all possible the driveways for the project should be located opposite from each other instead of offset for safety as well as future LOS considerations.

Sight Distance - This is the single most critical issue associated with this project in my opinion. Given the nature of the facility, generous, i.e. greater than the minimum, sight distance should be provided. This is because of the mix of parents / children which the facility will attract combined with the existing area motorists (a portion of which the report identifies as having "driver behavior" problems) would clearly benefit from extra sight distance. Unfortunately, the analysis concludes that sight distance provided is more than 100 feet below recommended minimums. As this is a new facility, now is the time to address the sight distance issues fully, including more efficient roadway design and maintenance in perpetuity for such things as plant trimming. I see this as the biggest potential issue which could result in incidents and due to the wording of the report may well result in increased liability for the City of Piedmont.

Parameters – I noted some measurements (such as 4 ft. per second pedestrian speed and 3.5 / 4.25 object heights) which, while not in violation of standard practices, don't incorporate a margin of safety and may present problems, particularly when combined with less than adequate sight distance or drivers with "driver behavior" issues. It seems to me that at the very least, a neighborhood park/recreation facility deserves to be designed with generous parameters used where safety is concerned.

Overall I feel that as proposed this project has some very important issues which appear to be not addressed adequately in regards to safety issues. I would recommend additional design work or at least effective mitigation of the problems raised in the LSA document.

Thanks for allowing me to discuss this with you,

Emmett Creason, Principal Technician

lsa

ENVIRONMENTAL STUDY
HAMPTON/LA SALLE SPORTS FIELD
INITIAL STUDY

CITY OF PIEDMONT

NOVEMBER 1985

PREPARED BY
Larry Seeman Associates, Inc.
2606 Eighth Street
Berkeley, CA 94710
(415) 841-6840

Left turn INTO site from Moraga Avenue	LOS "A"
Left turn OUT of site onto Moraga Avenue	LOS "D"
Right turn OUT of site onto Moraga Avenue	LOS "A"

This indicates that the service levels would be excellent, except for the relatively few vehicles making the left turn out of the site at the end of events. Right-turning vehicles will be able to pass around those vehicles waiting to make their left turn onto Moraga Avenue.

Parking requirements for the Moraga Sports Field have been determined from the total number of people expected on the site and the average vehicle occupancy of those vehicles. An occupancy factor of 2.0 persons per car was used.

Parking requirements have been calculated by dividing the total number of people on the site at any given time by two. If a total of 80 attend or participate in an event (see Table 1) the parking requirement will be 40 spaces. If this many spaces cannot be provided, in no case should the number of people on site exceed twice the number of parking spaces, at least until actual experience with the parking demand vs. events is determined. Christmas tree lot parking requirements have been based upon the City's estimate of 55 trees per hour sold during the highest daytime hours. 27 parking spaces are necessary to supply the needs of the lot, assuming the average buyer spends a half hour on the lot and allowing for a 15 percent reserve.

Due to the limited sight distance, moderately heavy traffic volumes, and the average speed of vehicles (34 MPH in the downhill direction) on Moraga Avenue, DKS Associates recommends locating all parking for the Sports Field on-site. The site plan proposes an overflow lot of 20 parking spaces across the street on Moraga Avenue. This overflow parking lot would require pedestrians to cross Moraga Avenue in order to reach the Moraga Sports Field creating a potential safety hazard. Given the topography, sight lines, and grades involved, all parking should be provided adjacent to the sports field, with no overflow parking across the street.

Mitigation Measures. The following mitigation measures are suggested in order to minimize traffic safety impacts:

1. The current site plan should be redesigned to accommodate all parking on-site. This would require approximately 4,000 square feet of additional parking area.

From: Rosanna Bayon Moore
To: Kevin Jackson; Pierce Macdonald; Sam Tabibnia; Andrew Watkins
Subject: FW: Sight Distances on Moraga
Date: Friday, March 01, 2024 5:19:09 PM
Attachments: Caltrans handbook sight distances.pdf
LSA Analysis of Sightlines.pdf
March 1 Satement to City Council.pdf
image001.png
image002.png

Sharing...

Rosanna Bayon Moore
City Administrator
Email: rbayonmoore@piedmont.ca.gov
Phone: 510-420-3040
120 Vista Ave., Piedmont, CA 94611

From: Ralph Catalano <>
Sent: Friday, March 1, 2024 4:48 PM
To: City Council <CityCouncil@piedmont.ca.gov>
Subject: Sight Distances on Moraga

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Council Members,

I am attaching the comments I had hoped to make at today's study session. Having heard the consultant's comments and your questions, I would add the following.

Two entrances, not one (as the consultant graphic shows), will be required to serve 132 units of housing in Blair Park. These would have to meet minimum safety standards for spacing from each other as well as from Red Rock and Maxwelton. As the 2010 LSA analyses (attached) showed, such road segments could not meet Caltrans corner sight distance standards for safety if the 85th percentile traffic speed were 35 MPH. As your consultant acknowledged today, we know that the 85th percentile speed on Moraga is now close to, if not, 40 MPH. Your consultant stated, for reasons left unclear, that Piedmont should assume just one entrance/exit and use a lesser standard for safety

than did LSA implying that LSA had made a mistake when using Caltrans corner sight distance standards. Your consultant suggested applying a private driveway standard instead. I have attached the Caltrans Handbook pages regarding sight distances. I hope that, after reading those pages, you might join me in questioning whether two road segments providing 250 to 300 vehicular entrances to, and exits from, an arterial carrying 15,000 trips a day (with 15% exceeding 40 MPH) should be considered equivalent to private driveways. Remember as well that these two segments will also be used by bicyclists and pedestrians.

I believe that Piedmonters who use Moraga Avenue are entitled to an explanation from you as why you would even consider a lower standard of safety today than your predecessors choose in 2010. They adopted the LSA EIR only after it had been extensively vetted by city staff, traffic consultants hired by private citizens, and several attorneys representing both the city and private citizens. That document unlikely included mistaken safety standards. At the very least, you should invite LSA to defend their work.

Ralph Catalano, Ph.D.
Distinguished Emeritus Professor of Public Health
University of California, Berkeley
Berkeley, Ca. 94720

CHAPTER 400 – INTERSECTIONS AT GRADE

Intersections are planned points of conflict where two or more roadways join or cross. At-grade intersections are among the most complicated elements on the highway system, and control the efficiency, capacity, and safety for motorized and non-motorized users of the facility. The type and operation of an intersection is important to the adjacent property owners, motorists, bicyclists, pedestrians, transit operators, the trucking industry, and the local community.

There are two basic types of at grade intersections: crossing and circular. It is not recommended that intersections have more than four legs. Occasionally, local development and land uses create the need for a more complex intersection design. Such intersections may require a specialized intersection design to handle the specify traffic demands at that location. In addition to the guidance in this manual, see Traffic Operations Policy Directive (TOPD) Number 13-02: Intersection Control Evaluation (ICE) for direction and procedures on the evaluation, comparison and selection of the intersection types and control strategies identified in Index 401.5. Also refer to the publication Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians for further information.

Topic 401 – Factors Affecting Design

Index 401.1 – General

At-grade intersections must handle a variety of conflicts among users, which includes truck, transit, pedestrians, and bicycles. These recurring conflicts play a major role in the preparation of design standards and guidelines. Arriving, departing, merging, turning, and crossing paths of moving pedestrians, bicycles, truck, and vehicular traffic have to be accommodated within a relatively small area. The objective of designing an intersection is to effectively balance the convenience, ease, and comfort of the users, as well as the human factors, with moving traffic (automobiles, trucks, motorcycles, transit vehicles, bicycles, pedestrians, etc.).The safety and mobility needs of motorist, bicyclist and pedestrians as well as their movement patterns in intersections must be analyzed early in the planning phase and then followed through appropriately during the design phase of all intersections on the State highway. It is Departmental policy to develop integrated multimodal projects in balance with community goals, plans, and values.

The Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians contains a primer on the factors to consider when designing intersections. It is published by the California Division of Traffic Operations.

401.2 Human Factors

(1) The Driver. An appreciation of driver performance is essential to proper highway design and operation. The suitability of a design rests as much on how safely and efficiently drivers are able to use the highway as on any other criterion.

Motorist's perception and reaction time set the standards for sight distance and length of transitions. The driver's ability to understand and interpret the movements and crossing

times of the other vehicle drivers, bicyclists, and pedestrians using the intersection is equally important when making decisions and their associated reactions. The designer needs to keep in mind the user's limitations and therefore design intersections so that they meet user expectation.

(2) *The Bicyclist.* Bicyclist experience, skills and physical capabilities are factors in intersection design. Intersections are to be designed to help bicyclists understand how to traverse the intersection. Chapter 1000 provides intersection guidance for Class I and Class III bikeways that intersect the State highway system. The guidance in this chapter specifically relates to bicyclists that operate within intersections on the State highway system.

(3) *The Pedestrian.* Understanding how pedestrians will use an intersection is critical because pedestrian volumes, their age ranges, physical ability, etc. all factor in to their startup time and the time it takes them to cross an intersection and thus, dictates how to design the intersection to avoid potential conflicts with bicyclists and motor vehicles. The guidance in this chapter specifically relates to pedestrian travel within intersections on the State highway system. See Topic 105, Pedestrian Facilities, Design Information Bulletin 82 - "Pedestrian Accessibility Guidelines for Highway Projects," the AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, and the California Manual on Uniform Traffic Control Devices (California MUTCD) for additional guidance.

401.3 Traffic Considerations

Good intersection design clearly indicates to bicyclists and motorists how to traverse the intersection (see Figure 403.6A). Designs that encourage merging traffic to yield to through bicycle and motor vehicle traffic are desirable.

The size, maneuverability, and other characteristics of bicycles and motorized vehicles (automobiles, trucks, transit vehicles, farm equipment, etc.) are all factors that influence the design of an intersection. The differences in operating characteristics between bicycles and motor vehicles should be considered early in design.

Table 401.3 compares vehicle characteristics to intersection design elements.

A design vehicle is a convenient means of representing a particular segment of the vehicle population. See Topic 404 for a further discussion of the uses of design vehicles.

Transit vehicles and how their stops interrelate with an intersection, pedestrian desired walking patterns and potential transfers to other transit facilities are another critical factor to understand when designing an intersection. Transit stops and their placement needs to take into account the required maintenance operations that will be needed and usually supplied by the Transit Operator.

401.4 The Physical Environment

In highly developed urban areas, where right of way is usually limited, the volume of vehicular traffic, pedestrians, and bicyclists may be large, street parking exists, and transit stops (for both buses and light rail) are available. All interact in a variety of movements that contribute to and add to the complexity of a State highway and can result in busy intersections.

Industrial development may require special attention to the movement of large trucks.

Rural areas where farming occurs may require special attention for specialized farm equipment. In addition, rural cities or town centers (rural main streets) also require special attention.

Rural intersections in farm areas with low traffic volumes may have special visibility problems or require shadowing of left-turn vehicles from high speed approach traffic.

Table 401.3

Vehicle Characteristics	Intersection Design Element Affected
Length	Length of storage lane
Width	Lane width
Height	Clearance to overhead signs and signals
Wheel base	Corner radius and width of turning lanes
Acceleration	Tapers and length of acceleration lane
Deceleration	Tapers and length of deceleration lane

There are many factors to be considered in the design of intersections, with the goal to achieve a functional, safe and efficient intersection for all users of the facility. The location and level of use by various modes will have an impact on intersection design, and therefore should be considered early in the design process. In addition to current levels of use, it is important to consider future travel patterns for vehicles, including trucks; pedestrian and bicycle demand and the future expansion of transit.

401.5 Intersection Type

Intersection types are characterized by their basic geometric configuration, and the form of intersection traffic control that is employed:

(1) Geometric Configurations

(a) Crossing-Type Intersections - “Tee” and 4-legged intersections

(b) Circular Intersections –roundabouts, traffic circles, rotaries; however, only roundabouts are acceptable for State highways.

(c) Alternative Intersection Designs – various effective geometric alternatives to traditional designs that can reduce crashes and their severity, improve operations, reduce congestion and delay typically by reducing or altering the number of conflict points; these alternatives include geometric design features such as intersections with displaced left-turns or variations on U-turns. For more information on alternative intersection designs see FHWA’s Intersection Safety webpage: https://safety.fhwa.dot.gov/intersection/.

(2) Intersection Control Strategies. See California MUTCD and Traffic Operations Policy Directive (TOPD) Number 13-02, Intersection Control Evaluation for procedures and guidance on how to evaluate, compare and select from among the following intersection control strategies:

(a) Two-Way Stop Controlled - for minor road traffic

(b) All-Way Stop Control

(c) Signal Control

(d) Yield Control (Roundabout)

Historically, crossing-type intersections with signal or “STOP”-control have been used on the State highway system. However, other intersection types, given the appropriate circumstances may enhance intersection performance through fewer or less severe crashes and improve operations by reducing overall delay. Alternative intersection geometric designs should be considered and evaluated early in the project scoping, planning and decision-making stages, as they may be more efficient, economical and safer solutions than traditional designs. Alternative intersection designs can effectively balance the safety and mobility needs of the motor vehicle drivers, transit riders, bicyclists and pedestrians using the intersection.

401.6 Transit

Transit use may range from periodic buses, handled as part of the normal mix of vehicular traffic, to Bus Rapid Transit (BRT) or light rail facilities which can have a large impact on other users of the intersection. Consideration of these modes should be part of the early planning and design of intersections.

Topic 402 – Operational Features Affecting Design

402.1 Capacity

Adequate capacity to handle peak period traffic demands is a basic goal of intersection design.

(1) Unsignalized Intersections. The “Highway Capacity Manual”, provides methodology for capacity analysis of unsignalized intersections controlled by “STOP” or “YIELD” signs. The assumption is made that major street traffic is not affected by the minor street movement. Unsignalized intersections generally become candidates for signalization when traffic backups begin to develop on the cross street or when gaps in traffic are insufficient for drivers to yield to crossing pedestrians. See the California MUTCD, for signal warrants. Changes to intersection controls must be coordinated with District Traffic Branch.

(2) Signalized Intersections. See Topic 406 for analysis of simple signalized intersections, including ramps. The analysis of complex and alternative intersections should be referred to the District Traffic Branch; also see Traffic Operations Policy Directive (TOPD) Number 13-02.

(3) Roundabout Intersections. See TOPD Number 13-02 for screening process and the Intersection Control Evaluation(ICE) Process Informational Guide for operational analysis methods and tools.

402.2 Collisions

(1) General. Intersections have a higher potential for conflict compared to other sections of the highway because travel is interrupted, traffic streams cross, and many types of turning movements occur.

The type of traffic control affects the type of collisions. Signalized intersections tend to have more rear end and same-direction sideswipes than intersections with “STOP”-control on minor legs. Roundabouts experience few angle or crossing collisions. Roundabouts reduce the frequency and severity of collisions, especially when compared to the performance of signalized intersections in high speed environments. Other alternative intersection types are configurations to consider for minimizing the number of conflict points.

(2) Undesirable Geometric Features.

- Inadequate approach sight distance.
- Inadequate corner sight distance.
- Steep grades.
- Five or more approaches.
- Presence of curves within intersections(unless at roundabouts).
- Inappropriately large curb radii.
- Long pedestrian crossing distances.
- Intersection Angle <75 degrees (see Topic 403).

402.3 On-Street Parking

On-street parking generally decreases through-traffic capacity, impedes traffic flow, and increases crash potential. Where the primary service of the arterial is the movement of vehicles, it may be desirable to prohibit on-street parking on State highways in urban and suburban expressways and rural arterial sections. However, within urban and suburban areas and in rural communities located on State highways, on-street parking should be considered in order to accommodate existing land uses. Where adequate off-street parking facilities are not available, the designer should consider on-street parking, so that the proposed highway improvement will be compatible with the land use. On-street parking as well as off-street parking needs to comply with DIB82. See AASHTO, A Policy on Geometric Design of Highways and Streets for additional guidance related to on-street parking.

402.4 Consider All Users

Intersections should accommodate all users of the facility, including vehicles, bicyclists, pedestrians and transit. Bicycles have all the rights and responsibilities as motorist per the California Vehicle Code, but should have separate consideration of their needs, even separate facilities if volumes warrant. Pedestrians should not be prohibited from crossing one or more legs of an intersection, unless no other safe alternative exists. Pedestrians can be prohibited from crossing one or more legs of an intersection if a reasonable alternate route exists and there is a demonstrated need to do so. All pedestrian facilities shall be ADA compliant as outlined in DIB 82. Transit needs should be determined early in the planning and design phase as their needs can have a large impact on the performance of an intersection. Transit stops in the vicinity of intersections should be evaluated for their effect on the safety and operation of the intersection(s) under study. See Topic 108 for additional information.

402.5 Speed-Change Areas

Speed-change areas for vehicles entering or leaving main streams of traffic are beneficial to the safety and efficiency of an intersection. Entering traffic merges most efficiently with through traffic when the merging angle is less than 15 degrees and when speed differentials are at a minimum.

Topic 403 – Principles of Channelization

403.1 Preference to Major Movements

The provision of direct free-flowing high-standard alignment to give preference to major movements is good channelization practice. This may require some degree of control of the minor movements such as stopping, funneling, or even eliminating them. These controlling measures should conform to natural paths of movement and should be introduced gradually to promote smooth and efficient operation.

403.2 Areas of Conflict

Large multilane undivided intersection areas are undesirable. The hazards of conflicting movements are magnified when motorists, bicyclists, and pedestrians are unable to anticipate movements of other users within these areas. Channelization reduces areas of conflict by separating or regulating traffic movements into definite paths of travel by the use of pavement markings or traffic islands.

Multilane undivided intersections, even with signalization, are more difficult for pedestrians to cross. Providing pedestrian refuge islands enable pedestrians to cross fewer lanes at a time.

See Index 403.7 for traffic island guidance when used as pedestrian refuge. Curb extensions shorten crossing distance and increase visibility. See Index 303.4 for curb extensions.

403.3 Angle of Intersection

A right angle (90°) intersection provides the most favorable conditions for intersecting and turning traffic movements. Specifically, a right angle provides:

- The shortest crossing distance for motor vehicles, bicycles, and pedestrians.
- Sight lines which optimize corner sight distance and the ability of motorists to judge the relative position and speed of approach traffic.
- Intersection geometry that can reduce vehicle turning speeds so collisions are more easily avoided and the severity of collisions are minimized.
- Intersection geometry that sends a message to turning bicyclists and motorists that they are making a turning movement and should yield as appropriate to through traffic on the roadway they are leaving, to traffic on the receiving roadway, and to pedestrians crossing the intersection.

Minor deviations from right angles are generally acceptable provided that the potentially detrimental impact on visibility and turning movements for large trucks (see Topic 404) can be mitigated. However, large deviations from right angles may decrease visibility, hamper certain turning operations, and will increase the size of the intersection and therefore crossing distances for bicyclists and pedestrians, may encourage high speed turns, and may reduce yielding by turning traffic. When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features. (See Figure 403.3A). A 75 degree angle does not unreasonably increase the crossing distance or generally decrease visibility. Class II bikeway crossings at railroads follow similar guidance to Class I bikeway crossings at railroads, see Index 1003.5(3), and Figure 403.3B.

A characteristic of skewed intersection angles is that they result in larger intersections.

When existing intersection angles are less than 75 degrees, the following retrofit improvement strategies should be considered:

- Realign the subordinate intersection legs if the new alignment and intersection location(s) can be designed without introducing new geometric or operational deficiencies.
- Provide acceleration lanes for difficult turning movements due to radius or limited visibility.
- Restrict problematic turning movements; e.g. for minor road left turns with potentially limited visibility.
- Provide refuge areas for pedestrians at very long crossings.

For additional guidance on the above and other improvement strategies, consult with the District Design Liaison.

Particular attention should be given to skewed angles on curved alignment with regards to sight distance and visibility. Crossroads skewed to the left have more restricted visibility for drivers of vans and trucks than crossroads skewed to the right. In addition, severely skewed intersection angles, coupled with steep downgrades (generally over 4 percent) can increase the potential for high centered vehicles to overturn where the vehicle is on a downgrade and must make a turn greater than 90 degrees onto a crossroad. These factors should be considered in the design of skewed intersections.

403.4 Points of Conflict

Channelization separates and clearly defines points of conflict within the intersection. Bicyclists, pedestrians and motorists should be exposed to only one conflict or confronted with one decision at a time.

Speed-change areas for diverging traffic should provide adequate length clear of the through lanes to permit vehicles to decelerate after leaving the through lanes.

See AASHTO, A Policy on Geometric Design of Highways and Streets for additional guidance on speed-change lanes.

Figure 403.3A

Angle of Intersection (Minor Leg Skewed to the Right)

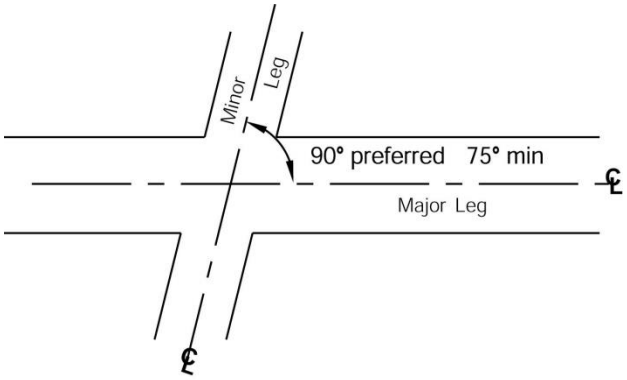
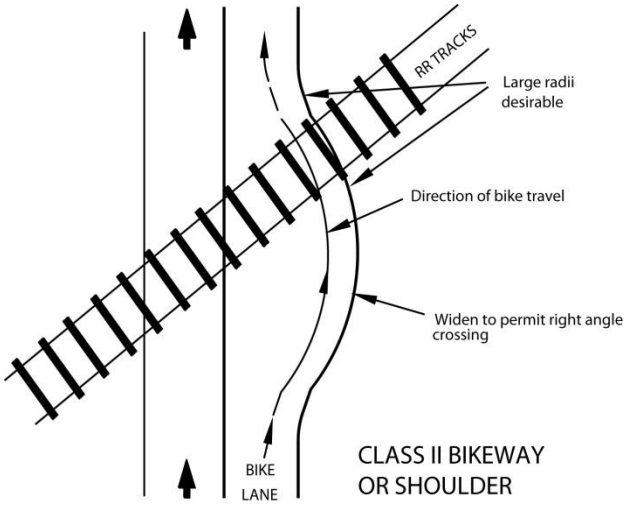


Figure 403.3.B

Class II Bikeway Crossing Railroad



403.5 (Currently Not In Use)

403.6 Turning Traffic

A separate turning lane removes turning movements from the intersection area. Abrupt changes in alignment or sight distance should be avoided, particularly where traffic turns into a separate turning lane from a high-standard through facility.

For wide medians, consider the use of offset left-turn lanes at both signalized and unsignalized intersections. Opposing left-turn lanes are offset or shifted as far to the left as practical by reducing the width of separation immediately before the intersection. Rather than aligning the left-turn lane exactly parallel with and adjacent to the through lane, the offset left-turn lane is separated from the adjacent through lane. Offset left-turn lanes provide improved visibility of opposing through traffic. For further guidance on offset left-turn lanes, see AASHTO, A Policy on Geometric Design of Highways and Streets.

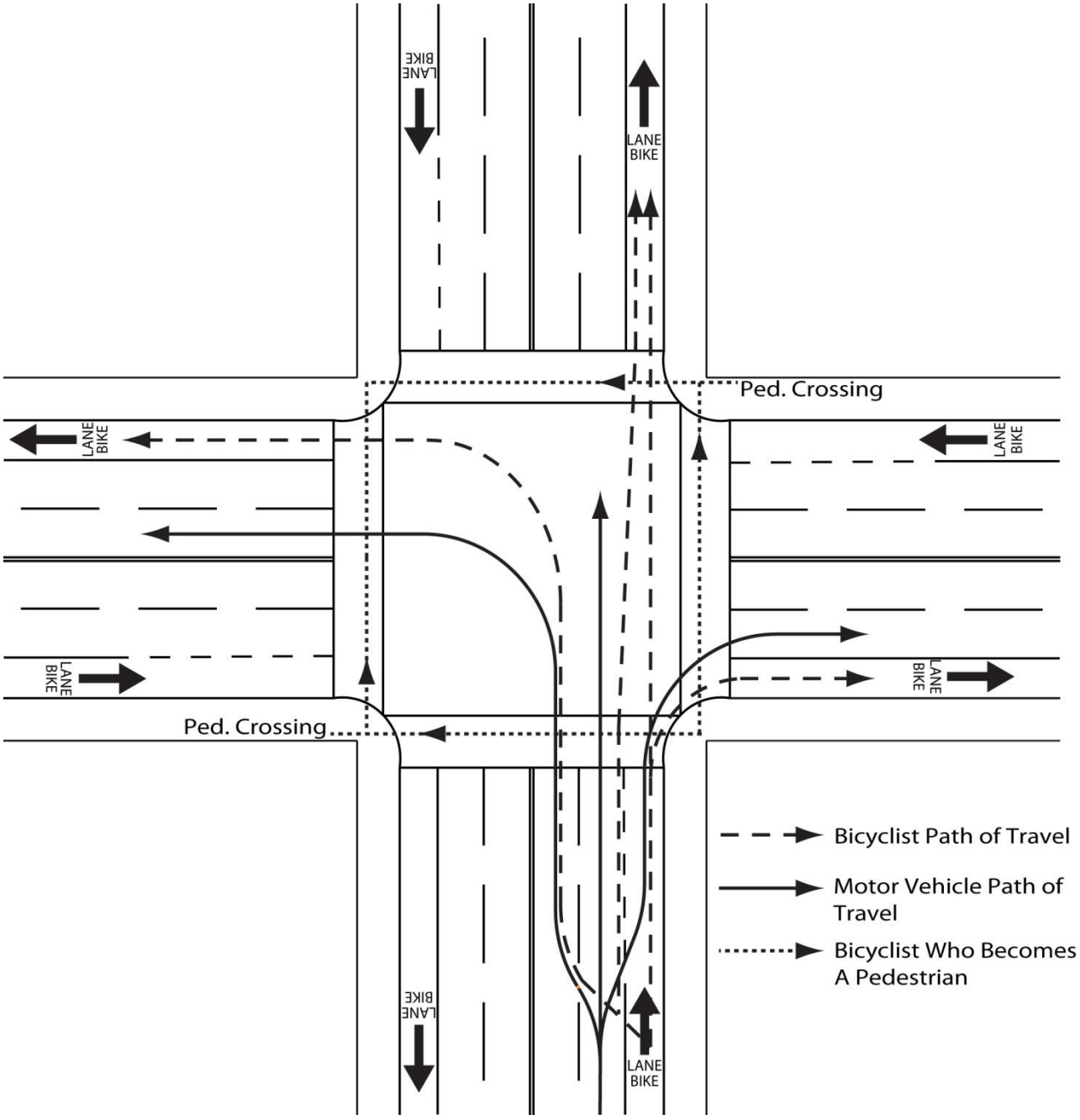
(1) Treatment of Intersections with Right-Turn-Only Lanes. Most motor vehicle/bicycle collisions occur at intersections. For this reason, intersection design should be accomplished in a manner that will minimize confusion by motorists and bicyclists, eliminate ambiguity and induce all road users to operate in accordance with the statutory rules of the road in the California Vehicle Code. Right-turn-only lanes should be designed to meet user expectations and reduce conflicts between vehicles and bicyclists.

Figure 403.6A illustrates a typical at-grade intersection of multilane streets without right-turn-only lanes. Bike lanes or shoulders are included on all approaches. Some common movements of motor vehicles and bicycles are shown. A prevalent crash type is between straight-through bicyclists and right-turning motorists, who do not yield to through bicyclists.

Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted. The use of optional right-turn lanes in combination with right-turn-only lanes is not recommended in any case where a Class II bike lane is present. This may increase the need for dual or triple right-turn-only lanes, which have

Figure 403.6A

Typical Bicycle and Motor Vehicle Movements at Intersections of Multilane Streets without Right-Turn-Only Lanes



NOTE:

Only one direction is shown for clarity.

challenges with visibility between turning vehicles and pedestrians. Multiple right-turn-only lanes should not be free right-turns when there is a pedestrian crossing. If there is a pedestrian crossing on the receiving leg of multiple right-turn-only lanes, the intersection should be controlled by a pedestrian signal head, or geometrically designed such that pedestrians cross only one turning lane at a time.

Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted, except where posted speed is greater than 40 miles per hour, the minimum width should be 6 feet. Configurations that create a weaving area without defined lanes should not be used.

For signing and delineation of bicycle lanes at intersections, consult District Traffic Operations.

Figure 403.6B depicts an intersection with a left-turn-only bicycle lane, which should be considered when bicycle left-turns are common. A left-turn-only bicycle lane may be considered at any intersection and should always be considered as a tool to provide mobility for bicyclists. Signing and delineation options for bicycle left-turn-only lanes are shown in the California MUTCD.

(2) *Design of Intersections at Interchanges.* The design of at-grade intersections at interchanges should be accomplished in a manner that will minimize confusion of motorists, bicyclists, and pedestrians. Higher speed, uncontrolled entries and exits from freeway ramps should not be used at the intersection of the ramps with the local road. The smallest curb return radius should be used that accommodates the design vehicle. Intersections with interior angles close to 90 degrees reduce speeds at conflict points between motorists, bicyclists, and pedestrians. The intersection skew guidance in Index 403.3 applies to all ramp termini at the local road.

403.7 Refuge Areas

Traffic islands should be used to provide refuge areas for bicyclists and pedestrians. See Index 405.4 for further guidance.

403.8 Prohibited Turns

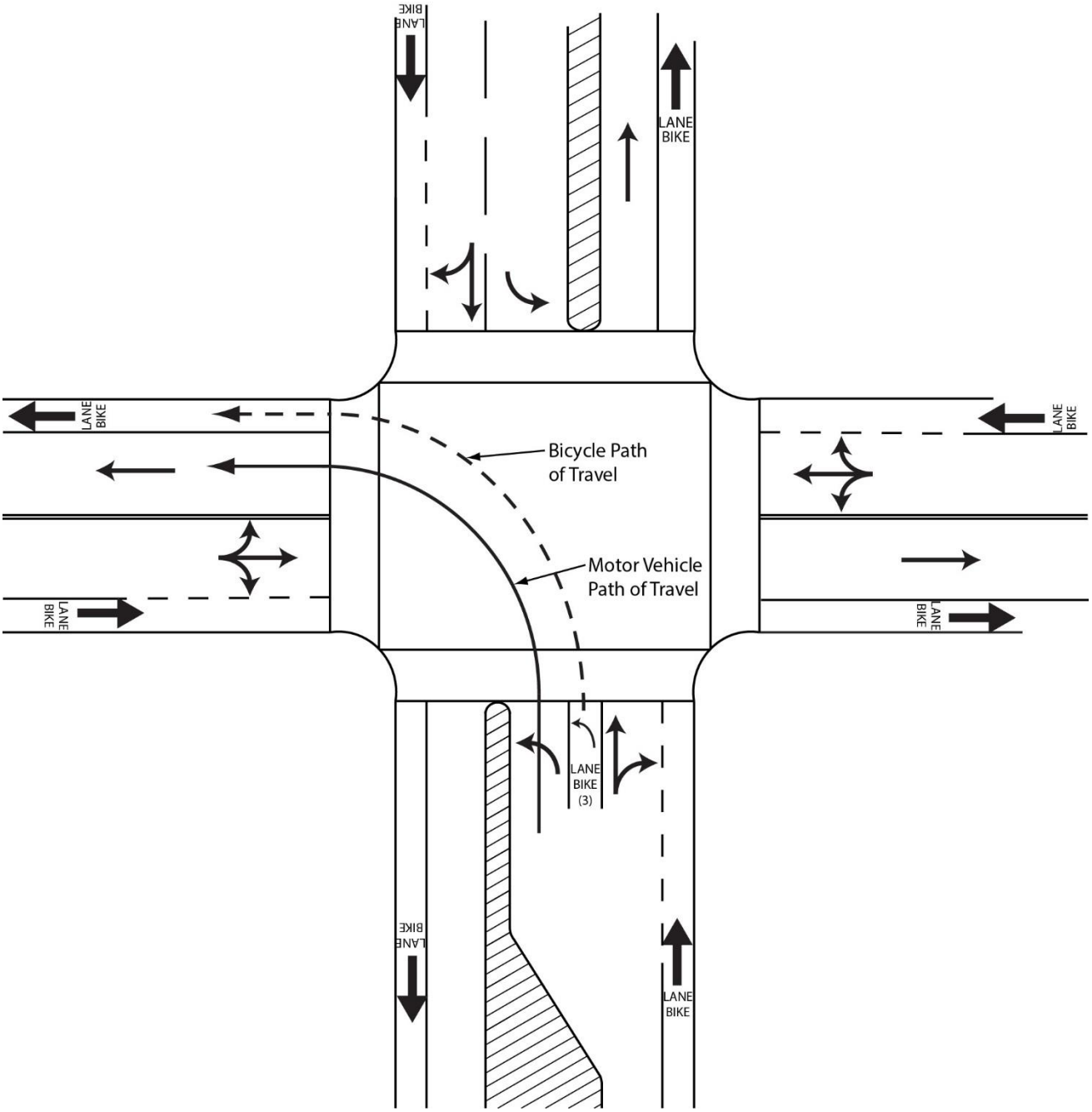
Traffic islands may be used to direct bicycle and motorized vehicle traffic streams in desired directions and prevent undesirable movements. Care should be taken so that islands used for this purpose accommodate convenient and safe pedestrian and bicycle crossings, drainage, and striping options. See Topic 303.

403.9 Effective Signal Control

At intersections with complex turning movements, channelization is required for effective signal control. Channelization permits the sorting of approaching bicycles and motorized vehicles which may move through the intersection during separate signal phases. Pedestrians may also have their own signal phase. This requirement is of particular importance when traffic-actuated signal controls are employed.

Figure 403.6B

Bicycle Left-Turn-Only Lane



NOTES:

(1) For bicycle lane markings, see the California MUTCD.

(2) Bicycle detectors are necessary for signalized intersections.

(3) Left-turn bicycle lane should have receiving bike lane or shoulder.

The California MUTCD has warrants for the placement of signals to control vehicular, bicycle and pedestrian traffic. Pedestrian activated devices, signals or beacons are not required, but must be evaluated where directional, multilane, pedestrian crossings occur. These locations may include:

- Mid-block street crossings;
- Channelized turn lanes;
- Ramp entries and exits; and
- Roundabouts.

The evaluation, selection, programming and use of a chosen device should be done with guidance from District Traffic Operations.

403.10 Installation of Traffic Control Devices

Channelization may provide locations for the installation of essential traffic control devices, such as “STOP” and directional signs. See Index 405.4 for information about the design of traffic islands.

403.11 Summary

- Give preference to the major move(s).
- Reduce areas of conflict.
- Reduce the duration of conflicts.
- Cross traffic at right angles or skew no more than 75 degrees. (90 degrees preferred.)
- Separate points of conflict.
- Provide speed-change areas and separate turning lanes where appropriate.
- Provide adequate width to shadow turning traffic.
- Restrict undesirable moves with traffic islands.
- Coordinate channelization with effective signal control.
- Install signs in traffic islands when necessary but avoid building conflicts one or more modes of travel.
- Consider all users.

403.12 Other Considerations

- An advantage of curbed islands is they can serve as pedestrian refuge. Where curbing is appropriate, consideration should be given to mountable curbs. See Topic 303 for more guidance.
- Avoid complex intersections that present multiple choices of movement to the motorist and bicyclist.
- Traffic safety should be considered. Collision records provide a valuable guide to the type of channelization needed.

Topic 404 – Design Vehicles

404.1 General

Any vehicle, whether car, bus, truck, or recreational vehicle, while turning a curve, covers a wider path than the width of the vehicle. The outer front tire can generally follow a circular curve, but the inner rear tire will swing in toward the center of the curve.

Some terminology is vital to understanding the engineering concepts related to design vehicles. See Index 62.4 Interchanges and Intersection at Grade for terminology.

404.2 Design Considerations

It may not be necessary to provide for design vehicle turning movements at all intersections along the State route if the design vehicle's route is restricted or it is not expected to use the cross street frequently. Discuss with Traffic Operations and the local agency before a turning movement is not provided. The goal is to minimize possible conflicts between vehicles, bicycles, pedestrians, and other users of the roadway, while providing the minimum curb radii appropriate for the given situation.

Both the tracking width and swept width should be considered in the design of roadways for use of the roadway by design vehicles.

Tracking width lines delineate the path of the vehicle tires as the vehicle moves through the turn.

Swept width lines delineate the path of the vehicle body as the vehicle moves through the turn and will therefore always exceed the tracking width. The following list of criteria is to be used to determine whether the roadway can accommodate the design vehicle.

(1) Traveled way.

(a) To accommodate turn movements(e.g., at intersections, driveways, alleys, etc.),the travel way width and intersection design should be such that tracking width and swept width lines for the design vehicle do not cross into any portion of the lane for opposing traffic. Encroachment into the shoulder and bike lane is permitted.

(b) Along the portion of roadway where there are no turning options, vehicles are required to stay within the lane lines. **The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3.** This includes no encroachment into Class II bike lanes.

(2) Shoulders. Both tracking width and swept width lines may encroach onto paved shoulders to accommodate turning. For design projects where the tracking width lines are shown to encroach onto paved shoulders, the shoulder pavement structure should be engineered to sustain the weight of the design vehicle. See Index 613 for general traffic loading considerations and Index 626 for tied rigid shoulder guidance. At corners where no sidewalks are provided and pedestrians are using the shoulder, a paved refuge area may be provided outside the swept width of turning vehicle.

(3) Curbs and Gutters. Tires may not mount curbs. If curb and gutter are present and any portion of the gutter pan is likewise encroached, the gutter pan must be engineered to match the adjacent shoulder pavement structure. See Index 613.4(2)(h) for gutter pan design guidance.

(4) Edge of Pavement. To accommodate a turn, the swept width lines may cross the edge of pavement provided there are no obstructions. The tracking width lines must remain on the pavement structure, including the shoulder, provided that the shoulder is designed to support vehicular traffic. If truck volumes are high, consideration of a wider shoulder is encouraged in order to preserve the pavement edge.

(5) Bicycle Lanes. Where bicycle lanes are considered, the design guidance noted above applies. Vehicles are permitted to cross a bicycle lane to initiate or complete a turning movement or for emergency parking on the shoulder. See the California MUTCD for Class II bike lane markings.

To accommodate turn movements (e.g., intersections, driveways, alleys, etc. are present), both tracking width and swept width lines may cross the broken white painted bicycle lane striping in advance of the right-turn, entering the bicycle lane when clear to do so.

(6) Sidewalks. Tracking width and swept width lines must not encroach onto sidewalks or pedestrian refuge areas, without exception.

(7) Obstacles. Swept width lines may not encroach upon obstacles including, but not limited to, curbs, islands, sign structures, traffic delineators/channelizers, traffic signals, lighting poles, guardrails, trees, cut slopes, and rock outcrops.

(8) Appurtenances. Swept width lines do not include side mirrors or other appurtenances allowed by the California Vehicle Code, thus, accommodation to non-motorized users of the facility and appurtenances should be considered.

If both the tracking width and swept width lines meet the design guidance listed above, then the geometry is adequate for that design vehicle. Consideration should be given to pedestrian crossing distance, motor vehicle speeds, truck volumes, alignment, bicycle lane width, sight distance, and the presence of on-street parking.

Note that the STAA Design Vehicle has a template with a 56-foot (minimum) and a 67-foot (longer) radius and the California Legal Design Vehicle has a template with 50-foot (minimum) and 60-foot (longer) radii. These templates are shown in Figures 404.5A through 404.5D. The longer radius templates are more conservative. The longer radius templates develop less swept width and leave a margin of error for the truck driver. The longer radius templates should be used for conditions where the vehicle may not be required to stop before entering the intersection.

The minimum radius template can be used if the longer radius template does not clear all obstacles. The minimum radius templates demonstrate the tightest turn that the vehicles can navigate, assuming a speed of less than 10 miles per hour.

For offtracking lane width requirements on freeway ramps, see Topic 504.

The Caltrans Truck Network Maps should be consulted for the appropriate design vehicle. See the link at https://dot.ca.gov/programs/traffic-operations/legal-truck-access/truck-network-map.

404.3 Design Tools

District Truck Managers should be consulted early in the project to ensure compliance with the design vehicle guidance contained in Topic 404. Consult local agencies to verify the location of local truck routes. Essentially, two options are available – templates or computer software.

- The turning templates in Figures 404.5A through G are a design aid for determining the swept width and/or tracking width of large vehicles as they maneuver through a turn. The templates can be used as overlays to evaluate the adequacy of the geometric layout of a curve or intersection when reproduced on clear film and scaled to match the highway drawings. These templates assume a vehicle speed of less than 10 miles per hour.
- Computer software such as AutoTURN or AutoTrak can draw the swept width and/or tracking width along any design curve within a CADD drawing program such as MicroStation or AutoCAD. Dimensions taken from the vehicle diagrams in Figures 404.5A through G may be inputted into the computer program by creating a custom vehicle if the vehicle is not already included in the software library. The software can also create a vehicle turn template that conforms to any degree curve desired.

404.4 Design Vehicles and Related Definitions

(1) The Surface Transportation Assistance Act of 1982 (STAA).

(a) STAA Routes. STAA allows certain longer trucks called STAA trucks to operate on the National Network. After STAA was enacted, the Department evaluated State routes for STAA truck access and created Terminal Access and Service Access routes which, together with the National Network, are called the STAA Network. Terminal Access routes allow STAA access to terminals and facilities. Service Access routes allow STAA trucks one-mile access off the National Network, but only at identified exits and only for designated services. Service Access routes are primarily local roads. A “Truck Route Map,” indicating the National Network routes and the Terminal Access routes is posted on the Department’s Office of Commercial Vehicle Operations website and is also available in printed form.

(b) STAA Design Vehicle. The STAA design vehicle is a truck tractor-semitrailer combination with a 48-foot semitrailer, a 43-foot kingpin-to-rear-axle (KPRA) distance, an 8.5-foot body and axle width, and a 23-foot truck tractor wheelbase. Note, a truck tractor is a non-load-carrying vehicle. There is also a STAA double (truck tractor-semitrailer-trailer); however, the double is not used as the design vehicle due to its shorter turning radius. The STAA Design Vehicle is shown in Figures 404.5A and B.

The STAA Design Vehicle in Figures 404.5A or B should be used on the National Network, Terminal Access, California Legal, and Advisory routes.

(c) STAA Vehicle – 53-Foot Trailer. Another category of vehicle allowed only on STAA routes has a maximum 53-foot trailer, a maximum 40-foot KPRA for two or more axles, a maximum 38-foot KPRA for a single axle, and unlimited overall length. This vehicle is not to be used as the design vehicle as it is not the worst case for offtracking due to its shorter KPRA. The STAA Design Vehicle should be used instead.

(2) California Legal.

(a) California Legal Routes. Virtually all State routes off the STAA Network are California Legal routes. There are two types of California Legal routes, the regular California Legal routes and the KPRA Advisory Routes. Advisory routes have signs posted that state the maximum KPRA length that the route can accommodate without the vehicle offtracking outside the lane. KPRA advisories range from 30 feet to 38 feet, in 2-foot increments. California Legal vehicles are allowed to use both types of California Legal routes. California Legal vehicles can also use the STAA Network. However, STAA trucks are not allowed on any California Legal routes. The Truck Route Map indicating the California Legal routes is posted on the Department’s Office of Commercial Vehicle Operations website.

(b) California Legal Design Vehicle. The California Legal vehicle is a truck tractor-semitrailer with the following dimensions: the maximum overall length is 65 feet; the maximum KPRA distance is 40 feet for semitrailers with two or more axles, and 38 feet for semitrailers with a single axle; the maximum width is 8.5 feet. There are also two categories of California Legal doubles (truck tractor-semitrailer-trailer); however, the doubles are not used as the design vehicle due to their shorter turning radii. The California Legal Design Vehicle is shown in Figures 404.5C and D.

The California Legal Design Vehicle in Figures 404.5C and D should only be used when the STAA design vehicle is not feasible and with concurrence from the District Truck Manager.

(3) 40-Foot Bus.

(a) 40-Foot Bus Routes. All single-unit vehicles, including buses and motor trucks up to 40 feet in length, are allowed on virtually every route in California.

(b) 40-Foot Bus Design Vehicle. The 40-Foot Bus Design Vehicle shown in Figure 404.5E is an AASHTO standard. Its 25-foot wheelbase and 40-foot length are typical of city transit buses and some intercity buses. At intersections where truck volumes are light or where the predominate truck traffic consists of mostly 3-axle units, the 40-foot bus may be used. Its wheel path sweeps a greater width than 3-axle delivery trucks, as well as smaller buses such as school buses.

(4) 45-Foot Bus & Motorhome.

(a) 45-Foot Bus & Motorhome Routes. The “45-foot bus and motorhome” refers to bus and motorhomes over 40 feet in length, up to and including 45 feet in length. These longer buses and motorhomes are allowed in California, but only on certain routes.

The 45-foot tour bus became legal on the National Network in 1991 and later allowed on some State routes in 1995. The 45-foot motorhome became legal in California in 2001, but only on those routes where the 45-foot bus was already allowed. A Bus and Motorhome Map indicating where these longer buses and motorhomes are allowed and where they are not allowed is posted on the Department’s Office of Commercial Vehicle Operations website.

(b) 45-Foot Bus and Motorhome Design Vehicle. The 45-Foot Bus & Motorhome Design Vehicle shown in Figure 404.5F is used by Caltrans for the longest allowable bus and motorhome. Its wheelbase is 28.5 feet. It is also similar to the AASHTO standard 45-foot bus. Typically this should be the smallest design vehicle used on a State highway. It may be used where the State highway intersects local streets without commercial or industrial traffic.

The 45-Foot Bus and Motorhome Design Vehicle shown in Figure 404.5F should be used in the design of all interchanges and intersections on all green routes indicated on the Bus and Motorhome Map for both new construction and rehabilitation projects. Check also the longer standard design vehicles on these routes as required – the STAA Design Vehicle and the California Legal Design Vehicle in Indexes 404.4(1) and (2).

(5) 60-Foot Articulated Bus.

(a) 60-Foot Articulated Bus Routes. The articulated bus is allowed a length of up to 60 feet per CVC 35400(b)(3)(A). This bus is used primarily by local transit agencies for public transportation. There is no master listing of such routes. Local transit agencies should be contacted to determine possible routes within the proposed project.

(b) 60-Foot Articulated Bus Design Vehicle. The 60-Foot Articulated Bus Design Vehicle shown in Figure 404.5G is an AASHTO standard. The routes served by these buses should be designed to accommodate the 60-Foot Articulated Bus Design Vehicle.

404.5 Turning Templates & Vehicle Diagrams

Figures 404.5A through G are computer-generated turning templates at an approximate scale of 1"=50' and their associated vehicle diagrams for the design vehicles described in Index 404.3. The radius of the template is measured to the outside front wheel path at the beginning of the curve. Figures 404.5A through G contain the terms defined as follows:

(1) Tractor Width - Width of tractor body.

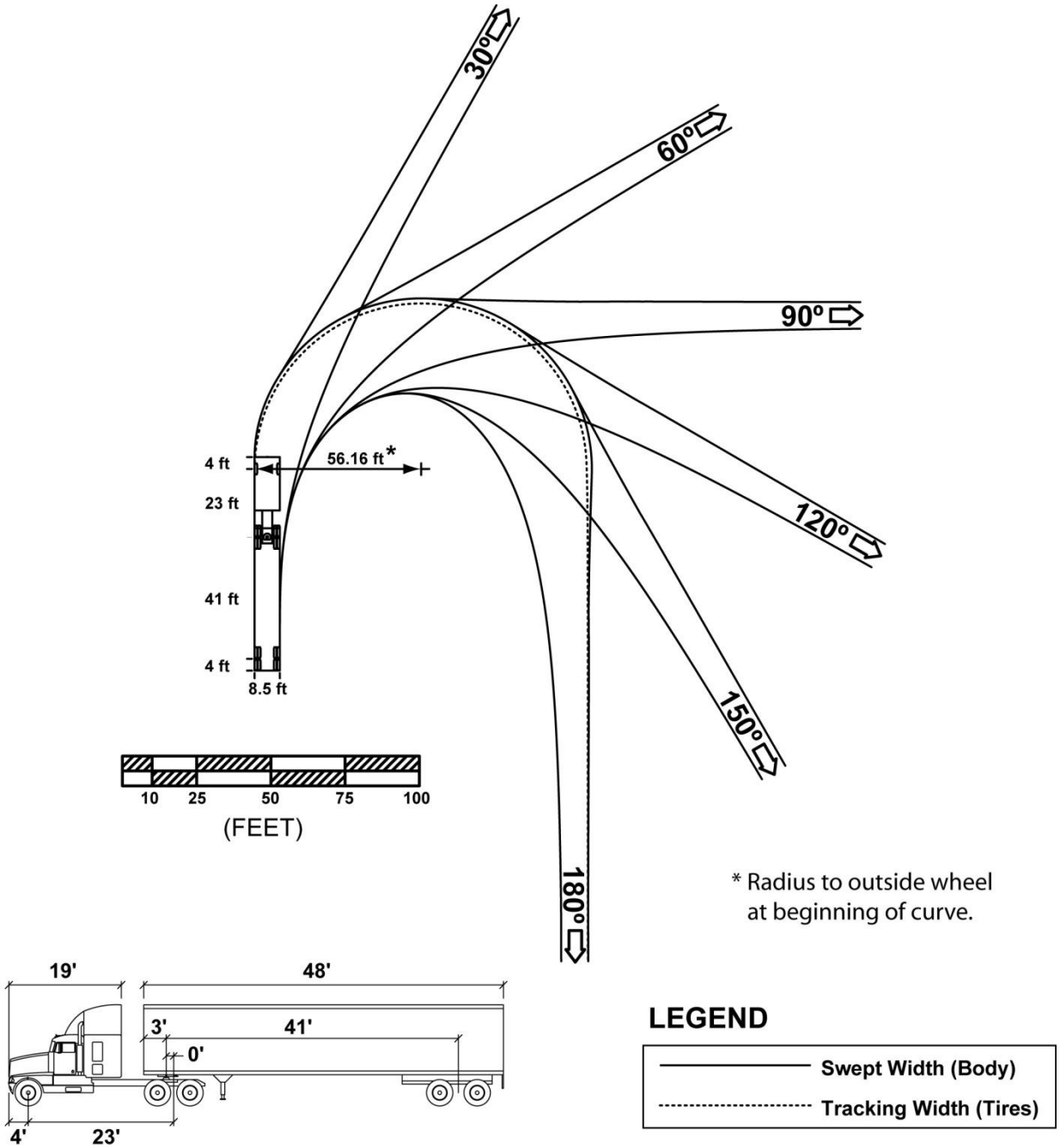
(2) Trailer Width - Width of semitrailer body.

(3) Tractor Track - Tractor axle width, measured from outside face of tires.

(4) Trailer Track - Semitrailer axle width, measured from outside face of tires.

Figure 404.5A

STAA Design Vehicle 56-Foot Radius



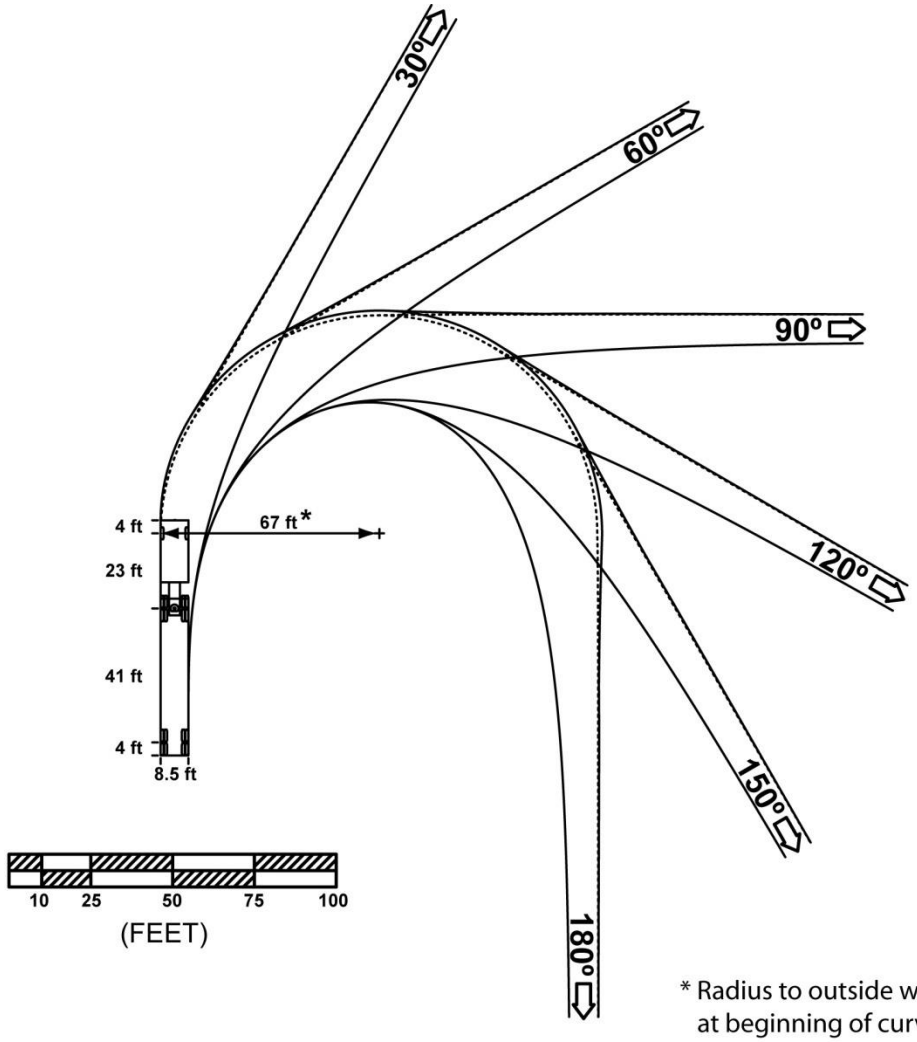
STAA - STANDARD

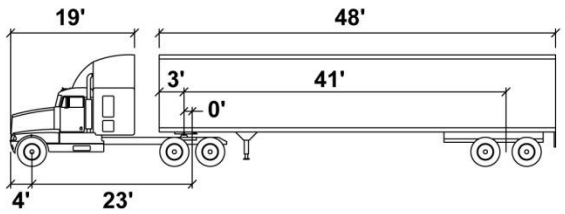
Tractor Width	: 8.5'	Lock to Lock Time	: 6 seconds
Trailer Width	: 8.5'	Steering Lock Angle	: 26.3 degrees
Tractor Track	: 8.5'	Articulating Angle	: 70 degrees
Trailer Track	: 8.5'		

Note: For definitions, see Indexes 404.1 and 404.5.

Figure 404.5B

STAA Design Vehicle 67-Foot Radius





LEGEND

Swept Width (Body)

Tracking Width (Tires)

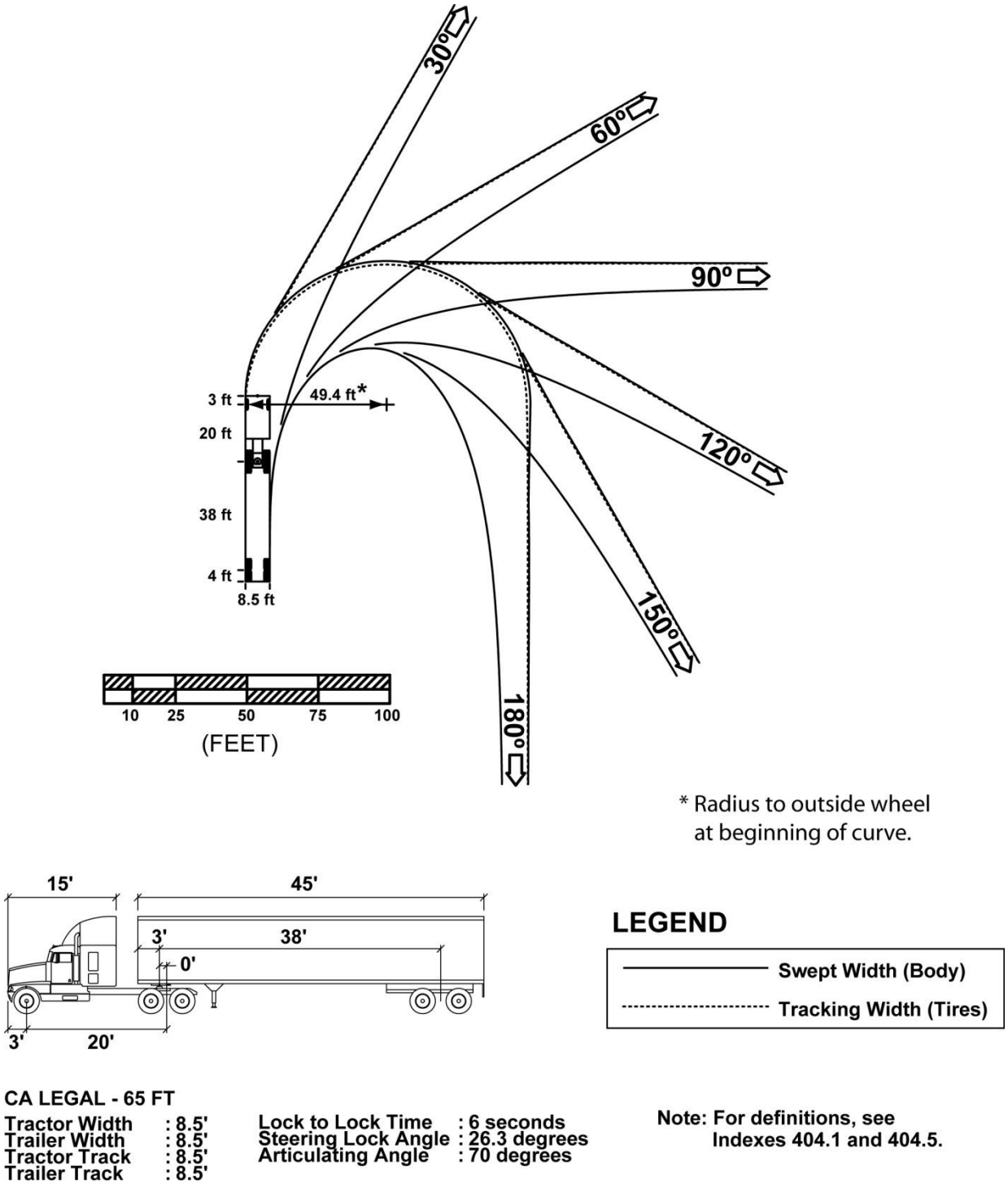
STAA - STANDARD

Tractor Width	: 8.5'	Lock to Lock Time	: 6 seconds
Trailer Width	: 8.5'	Steering Lock Angle	: 26.3 degrees
Tractor Track	: 8.5'	Articulating Angle	: 70 degrees
Trailer Track	: 8.5'		

Note: For definitions, see Indexes 404.1 and 404.5.

Figure 404.5C

California Legal Design Vehicle 50-Foot Radius



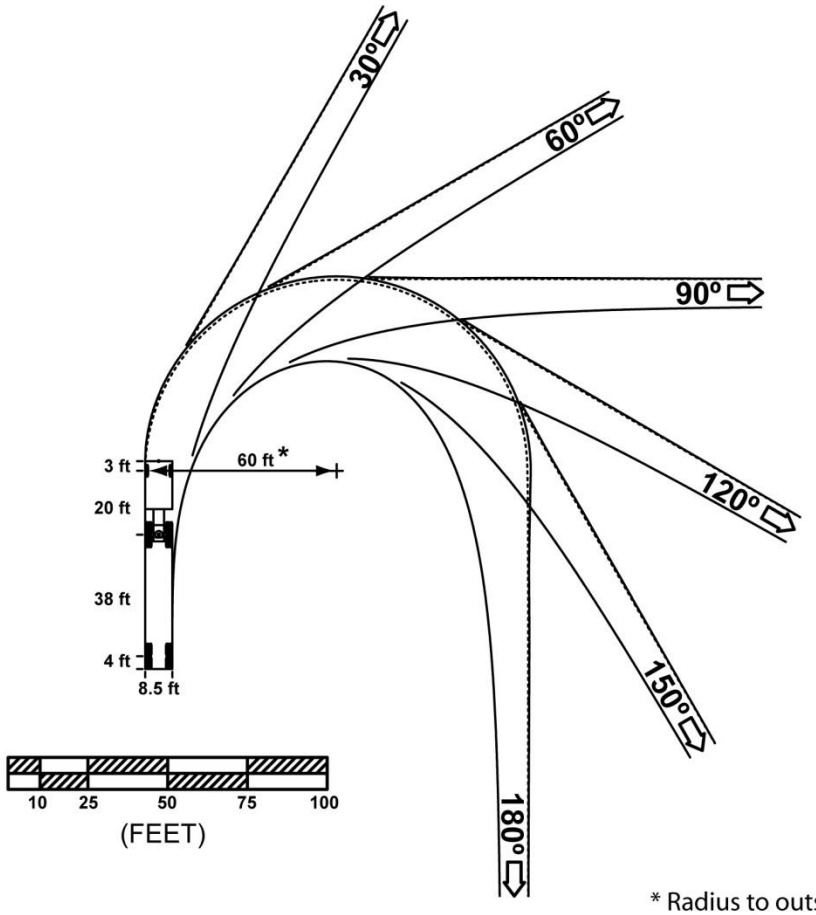
CA LEGAL - 65 FT

Tractor Width	: 8.5'	Lock to Lock Time	: 6 seconds
Trailer Width	: 8.5'	Steering Lock Angle	: 26.3 degrees
Tractor Track	: 8.5'	Articulating Angle	: 70 degrees
Trailer Track	: 8.5'		

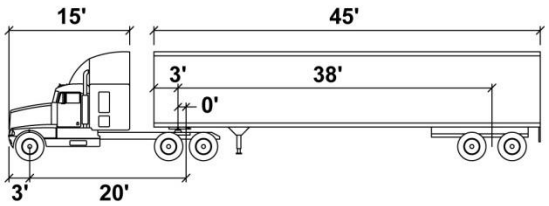
Note: For definitions, see Indexes 404.1 and 404.5.

Figure 404.5D

California Legal Design Vehicle 60-Foot Radius



* Radius to outside wheel at beginning of curve.



LEGEND

Swept Width (Body)

Tracking Width (Tires)

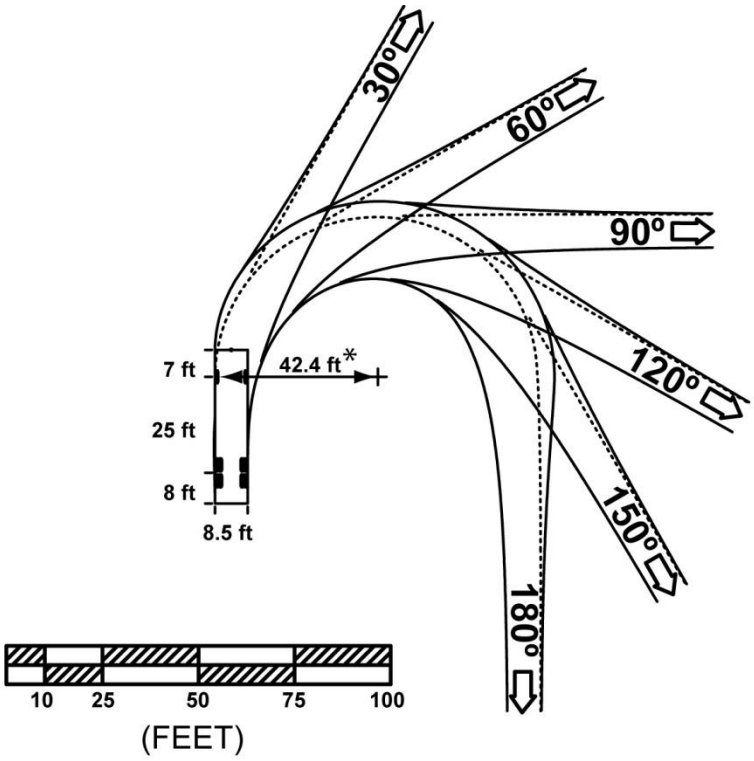
CA LEGAL - 65 FT

Tractor Width	: 8.5'	Lock to Lock Time	: 6 seconds
Trailer Width	: 8.5'	Steering Lock Angle	: 26.3 degrees
Tractor Track	: 8.5'	Articulating Angle	: 70 degrees
Trailer Track	: 8.5'		

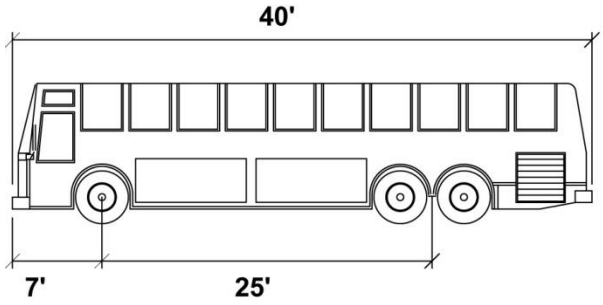
Note: For definitions, see Indexes 404.1 and 404.5.

Figure 404.5E

40-Foot Bus Design Vehicle



* Radius to outside wheel at beginning of curve.



LEGEND

———	Swept Width (Body)
- - - - - - - - - -	Tracking Width (Tires)

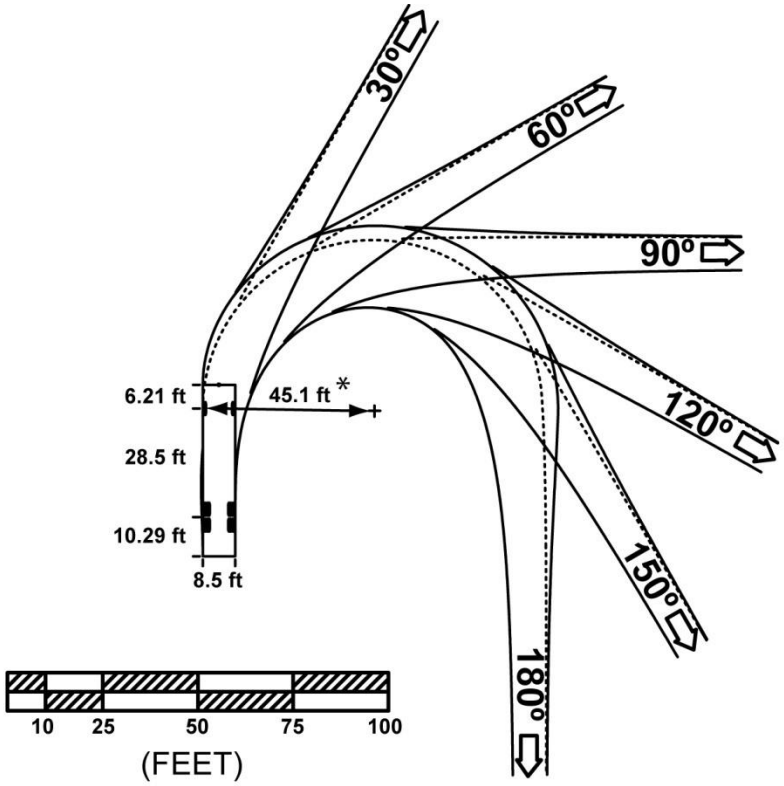
40' BUS

Width	: 8.5'
Track	: 8.5'
Lock to Lock Time	: 6 seconds
Steering Lock Angle	: 41.0 degrees

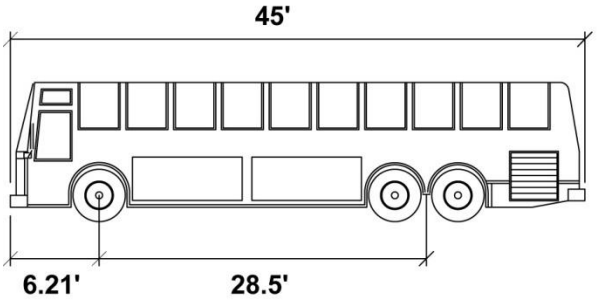
Note: For definitions, see Indexes 404.1 and 404.5.

Figure 404.5F

45-Foot Bus & Motorhome Design Vehicle



* Radius to outside wheel at beginning of curve.



LEGEND

———	Swept Width (Body)
- - - - - - - - - -	Tracking Width (Tires)

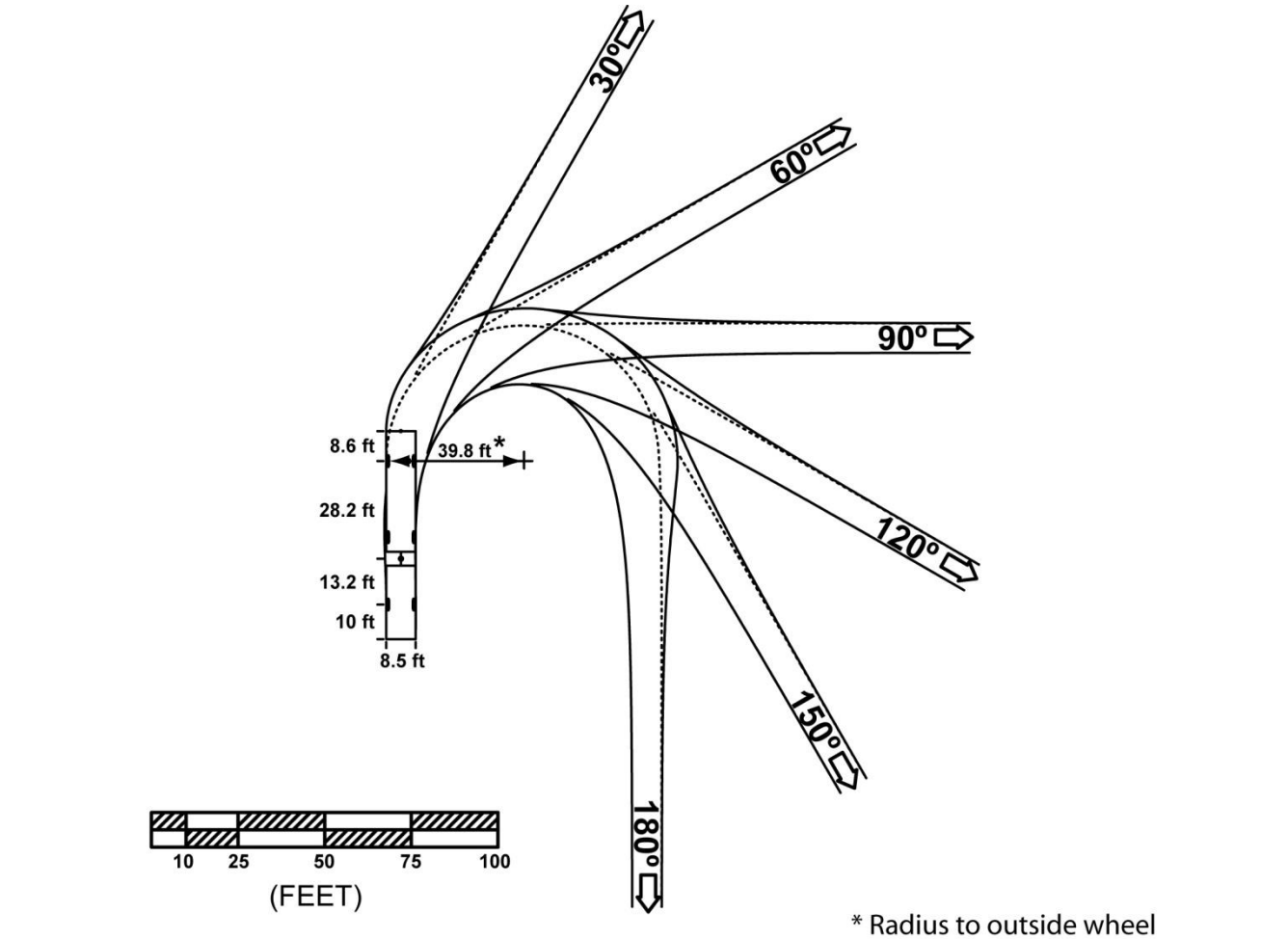
45' BUS

Width	:	8.5'
Track	:	8.5'
Lock to Lock Time	:	6 seconds
Steering Lock Angle	:	44.3 degrees

Note: For definitions, see Indexes 404.1, and 404.5.

Figure 404.5G

60-Foot Articulated Bus Design Vehicle



ARTICULATED BUS

Width	: 8.5'
Track	: 8.5'
Lock to Lock Time	: 6 seconds
Steering Lock Angle	: 38.3 degrees
Articulating Angle	: 50.0 degrees

Note: For definitions, see Indexes 404.1 and 404.5.

(5) Lock To Lock Time - The time in seconds that an average driver would take under normal driving conditions to turn the steering wheel of a vehicle from the lock position on one side to the lock position on the other side. The default in AutoTurn software is 6 seconds.

(6) Steering Lock Angle - The maximum angle that the steering wheels can be turned. It is further defined as the average of the maximum angles made by the left and right steering wheels with the longitudinal axis of the vehicle.

(7) Articulating Angle - The maximum angle between the tractor and semitrailer.

Topic 405 – Intersection Design Standards

405.1 Sight Distance

(1) Stopping Sight Distance. See Index 201.1 for minimum stopping sight distance requirements.

(2) Corner Sight Distance.

(a) General. At unsignalized intersections a substantially clear line of sight should be maintained between the driver of a vehicle, bicyclist or pedestrian stopped on the minor road and the driver of an approaching vehicle on the major road that has no stop. Line of sight for all users should be included in right of way, in order to preserve sight lines.

See DIB 79 for 2R, 3R, certain storm damage, protective betterment, operational, and safety projects on two-lane and three-lane conventional highways.

Adequate time should be provided for the stopped vehicle on the minor road to either cross all lanes of through traffic, cross the near lanes and turn left, or turn right, without requiring through traffic to radically alter their speed. The visibility required for these maneuvers form a clear sight triangle with the corner sight distance b and the crossing distance a_1 or a_2 (see Figure 405.1 as an example of corner sight distance at a two-lane, two-way highway). Dimensions a_1 and a_2 are measured from the decision point to the center of the lane. The actual number of lanes will vary on the major and minor roads. There should be no sight obstruction within the clear sight triangle.

The methodology used for the driver on the minor road that is stopped to complete the necessary maneuver while the approaching vehicle travels at the design speed of the major road is based on gap-acceptance behavior. A 7-1/2 second criterion is applied to a passenger car (including pickup trucks) for a left turn from a stop on the minor road. However, this time gap does not account for a single-unit truck (no semitrailer), a combination truck (see Index 404.4 for truck tractor-semitrailer guidance), a right-turn from a stop, or for a crossing maneuver. See Table 405.1A for the time gap that addresses these situations for the assumed design vehicle making these maneuvers from the minor road.

In determining corner sight distance, a set back distance for the vehicle waiting on the minor road must be assumed as measured from the edge of traveled way of the major road. Set back for the driver of the vehicle on the minor road should be a minimum of 10 feet plus the shoulder width of the major road but not less than 15 feet. The location of the driver's eye for the set back is the decision point per Figure 405.1. Corner sight distance and the driver's eye set back are also illustrated in Figures 405.7 and 504.3I. Line of sight for corner sight distance for passenger cars is to be determined from a 3 and 1/2-foot height at the location of the driver of the vehicle in the center of the minor road lane to a 3 and 1/2-foot object height in the center of the approaching outside lane of the major road. This provides for reciprocal sight by both vehicles. The passenger

car driver's eye height should be applied to all minor roads. In addition, a truck driver's eye height of 7.6 feet should be applied to the minor road where applicable. Additionally, if the major road has a median barrier, a 2-foot object height should be used to determine the median barrier set back. A median that is wide enough to accommodate a stopped vehicle should also provide a clear sight triangle.

The minimum corner sight distance (feet) should be determined by the equation: $1.47V_mT_g$, where V_m is the design speed (mph) of the major road and T_g is the time gap (seconds) for the minor road vehicle to enter the major road. The values given in Table 405.1A should be used to determine T_g based on the design vehicle, the type of maneuver, and whether the stopped vehicle's rear wheels are on an upgrade exceeding 3 percent. The distance from the edge of traveled way to the rear wheels at the minor road stop location should be assumed as: 20 feet for a passenger car, 30 feet for a single-unit truck, and 72 feet for a combination truck.

(b) Public Road Intersections (Refer to Topic 205 and Index 405.7); corner sight distance applies, see Table 405.1A.

At signalized intersections the corner sight distances should also be applied whenever possible. Even though traffic flows are designed to move at separate times, unanticipated conflicts can occur due to violation of signal, right turns on red, malfunction of the signal, or use of flashing red/yellow mode.

The minimum value for corner sight distance at signalized intersections should be equal to the stopping sight distance as given in Table 201.1, measured as previously described. This includes an urban driveway that forms a leg of the signalized intersection.

(c) Private Road Intersections (Refer to Index 205.2) and Rural Driveways (Refer to Index 205.4); corner sight distance applies, see Table 405.1A. If signalized, the minimum corner sight distance should be equal to the stopping sight distance as given in Table 201.1, measured as previously described.

(d) Urban Driveways (Refer to Index 205.3); corner sight distance requirements as described above are not applied to urban driveways unless signalized. See Index 405.1(2)(b) underlined standard. If parking is allowed on the major road, parking should be prohibited on both sides of the driveway per the California MUTCD, 3B.19.

(3) Decision Sight Distance. At intersections where the State route turns or crosses another State route, the decision sight distance values given in Table 201.7 should be used. In computing and measuring decision sight distance, the 3.5-foot eye height and the 0.5-foot object height should be used, the object being located on the side of the intersection nearest the approaching driver.

The application of the various sight distance requirements for the different types of intersections is summarized in Table 405.1B

Table 405.1B

Application of Sight Distance Requirements

Intersection Types	Sight Distance		
	Stopping	Corner	Decision
Private Roads	X	X(1)	
Public Streets and Roads	X	X	
Signalized Intersections	X	X(2)	
State Route Intersections & Route Direction Changes, with or without Signals	X	X	X

NOTES:

(1) Per Index 405.1(2)(c), if signalized, the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.

(2) Apply corner sight distance requirements at signalized intersections whenever possible due to unanticipated violations of the signals or malfunctions of the signals. See Index 405.1(2)(b).

(4) Acceleration Lanes for Turning Moves onto State Highways. At rural intersections, with "STOP" control on the local cross road, acceleration lanes for left and right turns onto the State facility should be considered. At a minimum, the following features should be evaluated for both the major highway and the cross road:

- divided versus undivided
- number of lanes
- design speed
- gradient
- lane, shoulder and median width
- traffic volume and composition of highway users, including trucks and transit vehicles

Figure 405.1
Corner Sight Distance (b)

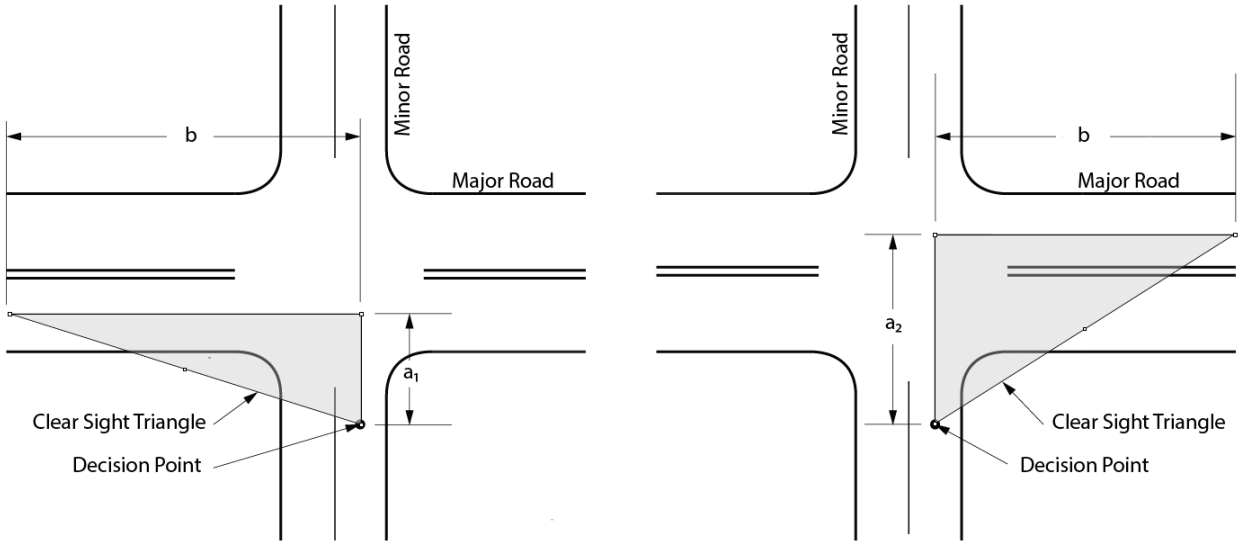


Table 405.1A
Corner Sight Distance Time Gap (T_g) for Unsignalized Intersections

Design Vehicle	Left-turn from Stop (s) [4]	Right-turn from Stop and Crossing Maneuver (s)
Passenger Car	7½	6½
Private Road Intersection		
Rural Driveway		
Single-Unit Truck	9½	8½
Public Road Intersection		
Combination Truck	11½	10½
Major and Minor Roads on Routes:		
National Network		
Terminal or Service Access		
California Legal		
KPRA Advisory		

Notes: Time gaps are for a stopped vehicle to turn left, right or cross a two-lane highway with no median and with minor road grades of 3 percent or less. The table values should be adjusted as follows:

[1]For multilane highways—When crossing or making a left-turn onto a two-way major road with more than two lanes, add 0.5 s for passenger cars or 0.7 s for trucks for each additional lane to be crossed. Median widths should be converted to an equivalent number of lanes in applying the 0.5 s and 0.7 s criteria. For example, an 18-foot wide median is equivalent to 1.5 lanes; this requires an additional 0.75 s for a passenger car to cross or an additional 1.05 s for a truck to cross.

[2]For minor road approach grades—If the minor road approach grade is an upgrade that exceeds 3 percent and the rear wheels of the design vehicle are on the grade exceeding 3 percent, add 0.2 s for each percent grade for left-turns and crossing maneuvers; or add 0.1 s for each percent grade for right-turns. For example, a passenger car is turning right from a minor road and at the stop location its rear wheels are on a 4 percent upgrade; this requires an additional 0.4 s for the right-turn.

[3]Unique situations may necessitate a different design vehicle for a particular minor road than those listed here (e.g., predominant combination trucks out of a rural driveway). Additionally, for intersections at skewed angles less than 60 degrees, a further adjustment is needed. See the AASHTO “A Policy on Geometric Design of Highways and Streets” for guidance.

[4]Time gap for vehicles approaching from the left can be the same as the right-turn from stop maneuver.

- turning volumes
- horizontal curve radii
- sight distance
- proximity of adjacent intersections
- types of adjacent intersections

For additional information and guidance, refer to AASHTO, A Policy on Geometric Design of Highways and Streets, the District Traffic Engineer or designee, the District Design Liaison, and the Project Delivery Coordinator.

405.2 Left-turn Channelization

(1) General. The purpose of a left-turn lane is to expedite the movement of through traffic by, controlling the movement of turning traffic, increasing the capacity of the intersection, and improving safety characteristics.

The District Traffic Branch normally establishes the need for left-turn lanes.

(2) Design Elements.

(a) Lane Width – **The lane width for both single and double left-turn lanes on State highways shall be 12 feet.**

For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.

When considering lane width reductions adjacent to curbed medians, refer to Index 303.5 for guidance on effective roadway width, which may vary depending on drivers' lateral positioning and shy distance from raised curbs.

(b) Approach Taper – On conventional highways without a median, an approach taper provides space for a left-turn lane by moving traffic laterally to the right. The approach taper is unnecessary where a median is available for the full width of the left-turn lane. Length of the approach taper is given by the formula on Figures 405.2A, B and C.

Figure 405.2A shows a standard left-turn channelization design in which all widening is to the right of approaching traffic and the deceleration lane (see below) begins at the end of the approach taper. This design should be used in all situations where space is available, usually in rural and semi-rural areas or in urban areas with high traffic speeds and/or volumes.

Figures 405.2B and 405.2C show alternate designs foreshortened with the deceleration lane beginning at the 2/3 point of the approach taper so that part of the deceleration takes place in the through traffic lane. Figure 405.2C is shortened further by widening half (or other appropriate fraction) on each side. These designs may be used in urban areas where constraints exist, speeds are moderate and traffic volumes are relatively low.

Figure 405.2A

Standard Left-turn Channelization

EQUATION: L = Use WV, for $V \geq 45$mph ④
Or $WV^2/60$, for $V < 45$mph

Where L = Length of Approach Taper - feet
V = Design Speed - mph
W = Width of Median Lane - feet

NOTES:

① Where width is restricted, shoulder width may be reduced and parking restricted with an approved design exception pursuant to Index 82.2.
For bicycle use, a minimum 4-foot shoulder is required (5-foot if gutter is present).

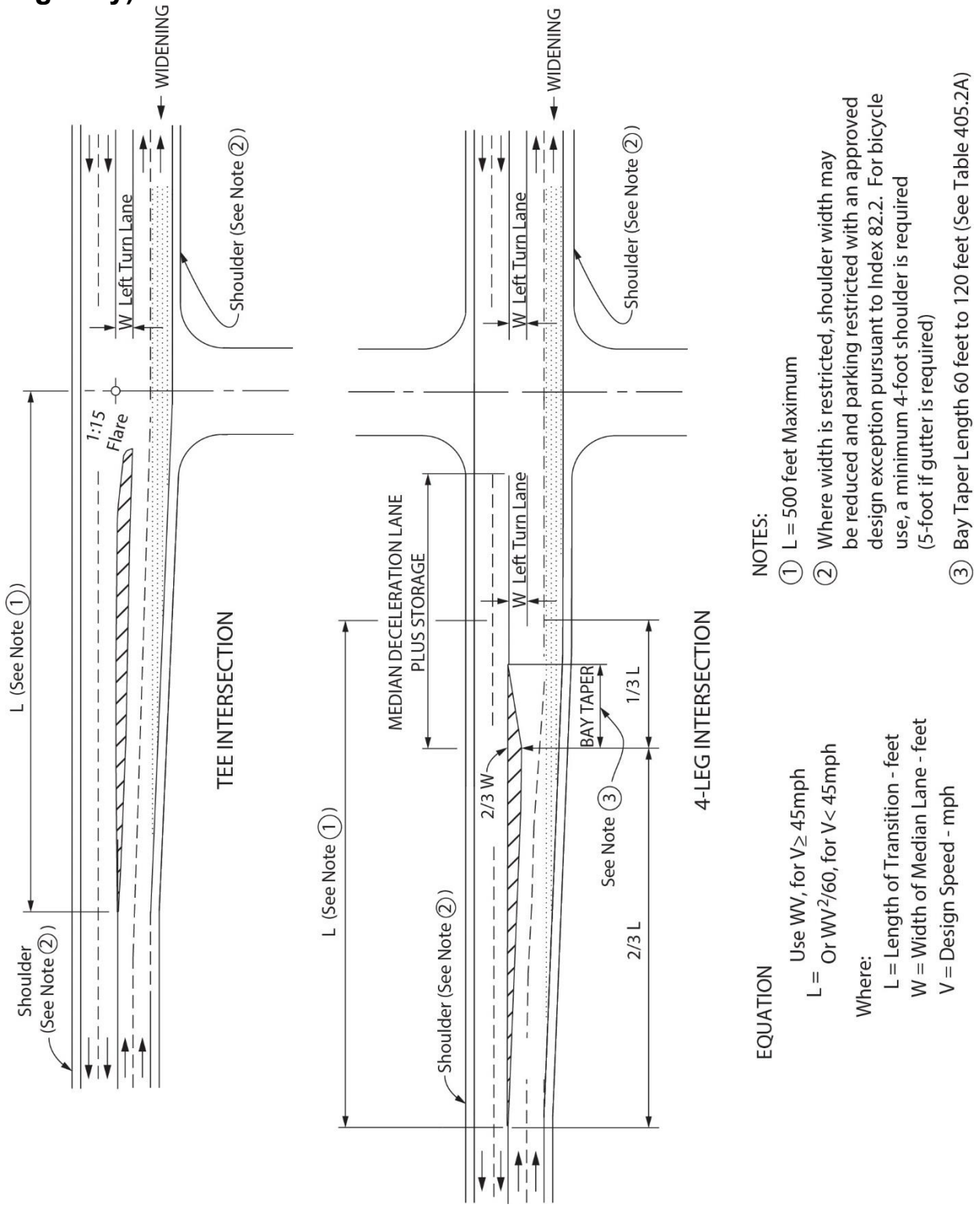
② Bay taper length = 60 feet to 120 feet. (See Table 405.2A)

③ For deceleration lane length see Table 405.2B.

④ Where both sides of roadway are widened, use a fraction of "W" that is proportional to widening on each side.

Figure 405.2B

Minimum Median Left-turn Channelization (Widening on one Side of Highway)



NOTES:

① L = 500 feet Maximum

② Where width is restricted, shoulder width may be reduced and parking restricted with an approved design exception pursuant to Index 82.2. For bicycle use, a minimum 4-foot shoulder is required (5-foot if gutter is required)

③ Bay Taper Length 60 feet to 120 feet (See Table 405.2A)

EQUATION

$L = \begin{matrix} \text{Use } WV, \text{ for } V \geq 45\text{mph} \\ \text{Or } WV^2/60, \text{ for } V < 45\text{mph} \end{matrix}$

Where:

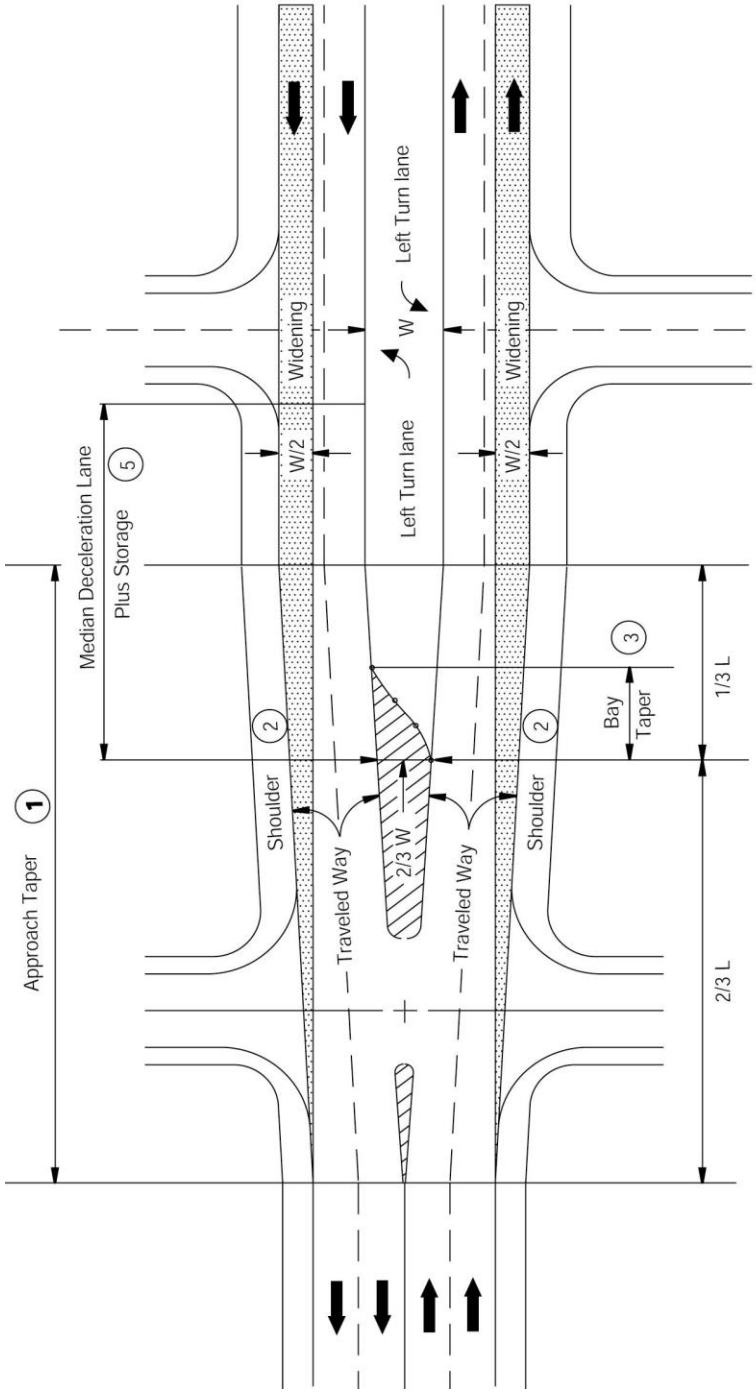
L = Length of Transition - feet

W = Width of Median Lane - feet

V = Design Speed - mph

Figure 405.2C

Minimum Median Left-turn Channelization (Widening on Both Sides in Urban Areas with Short Blocks)



NOTES:

① L = 500 feet Maximum

② Where width is restricted, shoulder width may be reduced and parking restricted with an approved design exception pursuant to Index 82.2. For bicycle use, a minimum 4 feet shoulder is required (5 feet if gutter is present).

③ Bay taper length = 60 feet to 120 feet. (See Table 405.2A)

④ Assumes equal widening each side. Where widening is unequal, use a fraction that is proportional to widening on each side.

⑤ For deceleration lane length see Table 405.2B.

EQUATION: ④

$L = \begin{cases} \text{Use } (1/2)WV, \text{ for } V \geq 45\text{mph} \\ \text{Or } WV^2/120, \text{ for } V < 45\text{mph} \end{cases}$

Where L = Length of Approach Taper - feet
W = Width of Median Lane - feet
V = Design Speed - mph

(c) Bay Taper – A reversing curve along the left edge of the traveled way directs traffic into the left-turn lane. The length of this bay taper should be short to clearly delineate the left-turn move and to discourage through traffic from drifting into the left-turn lane. Table 405.2A gives offset data for design of bay tapers. In urban areas, lengths of 60 feet and 90 feet are normally used. Where space is restricted and speeds are low, a 60-foot bay taper is appropriate. On rural high-speed highways, a 120-foot length is considered appropriate.

(d) Deceleration Lane Length – Design speed of the roadway approaching the intersection should be the basis for determining deceleration lane length. It is desirable that deceleration take place entirely off the through traffic lanes. Deceleration lane lengths are given in Table 405.2B; the bay taper length is included. Where partial deceleration is permitted on the through lanes, as in Figures 405.2B and 405.2C, design speeds in Table 405.2B may be reduced 10 miles per hour to 20 miles per hour for a lower entry speed. In urban areas where cross streets are closely spaced and deceleration lengths cannot be achieved, the District Traffic branch should be consulted for guidance.

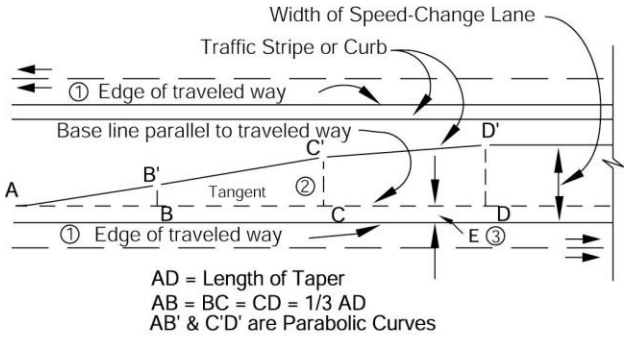
(e) Storage Length – At unsignalized inter-sections, storage length may be based on the number of turning vehicles likely to arrive in an average 2-minute period during the peak hour. At a minimum, space for 2 vehicles should be provided at 25 feet per vehicle. If the peak hour truck traffic is 10 percent or more, space for at least one passenger car and one truck should be provided. Bus usage may require a longer storage length and should be evaluated if their use is anticipated.

At signalized intersections, the storage length may be based on one and one-half to two times the average number of vehicles that would store per signal cycle depending on cycle length, signal phasing, and arrival and departure rates. At a minimum, storage length should be calculated in the same manner as unsignalized intersection. The District Traffic Branch should be consulted for this information.

When determining storage length, the end of the left-turn lane is typically placed at least 3 feet, but not more than 30 feet, from the nearest edge of shoulder of the intersecting roadway. Although often set by the placement of a crosswalk line or limit line, the end of the storage lane should always be located so that the appropriate turning template can be accommodated.

Table 405.2A

Bay Taper for Median Speed-change Lanes



LENGTH OF TAPER - feet			OFFSET DISTANCE			
60	90	120	DD' = 10'	DD' = 11'	DD' = 12'	
Distance From Point "A"						
-	-	-	0.00	0.00	0.00	
5	7.5	10.0	0.16	0.17	0.19	
10	15.0	20.0	0.62	0.69	0.75	
15	22.5	30.0	1.41	1.55	1.69	
20	30.0	40.0	2.50	2.75	3.00	B'
30	45.0	60.0	5.00	5.50	6.00	
40	60.0	80.0	7.50	8.25	9.00	C'
45	67.5	90.0	8.59	9.45	10.31	
50	75.0	100.0	9.38	10.31	11.25	
55	82.5	110.0	9.84	10.83	11.81	
60	90.0	120.0	10.00	11.00	12.00	

NOTES:

(1) The table gives offsets from a base line parallel to the edge of traveled way at intervals measured from point "A". Add "E" for measurements from edge of traveled way.

(2) Where edge of traveled way is a curve, neither base line nor taper between B & C will be a tangent. Use proportional offsets from B to C.

(3) The offset "E" is usually 2 ft along edge of traveled way for curbed medians; Use "E" = 0 ft. for striped medians.

Table 405.2B

Deceleration Lane Length

Design Speed (mph)	Length to Stop (ft)
30	235
40	315
50	435
60	530

(3) Double Left-turn Lanes. At signalized intersections on multilane conventional highways and on multilane ramp terminals, double left-turn lanes should be considered if the left-turn demand is 300 vehicles per hour or more. The lane widths and other design elements of left-turn lanes given under Index 405.2(2) applies to double as well as single left-turn lanes.

The design of double left-turn lanes can be accomplished by adding one or two lanes in the median. See "Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians", published by Headquarters, Division of Traffic Operations, for the various treatments of double left-turn lanes.

(4) Two-way Left-turn Lane (TWLTL). The TWLTL consists of a striped lane in the median of an arterial and is devised to address the special capacity and safety problems associated with high-density strip development. It can be used on 2-lane highways as well as multilane highways. Normally, the District Traffic Operations Branch should determine the need for a TWLTL.

The minimum width for a TWLTL shall be 12 feet (see Index 301.1). The preferred width is 14 feet. Wider TWLTL's are occasionally provided to conform with local agency standards. However, TWLTL's wider than 14 feet are not recommended, and in no case should the width of a TWLTL exceed 16 feet. Additional width may encourage drivers in opposite directions to use the TWLTL simultaneously.

405.3 Right-turn Channelization

(1) General. For right-turning traffic, delays are less critical and conflicts less severe than for left-turning traffic. Nevertheless, right-turn lanes can be justified on the basis of capacity, analysis, and crash experience.

In rural areas a history of high speed rear-end collisions may warrant the addition of a right-turn lane.

In urban areas other factors may contribute to the need such as:

- High volumes of right-turning traffic causing backup and delay on the through lanes.
- Conflicts between crossing pedestrians and right-turning vehicles and bicycles.
- Frequent rear-end and sideswipe collisions involving right-turning vehicles.

Where right-turn channelization is proposed, lower speed right-turn lanes should be provided to reduce the likelihood of conflicts between vehicles, pedestrians, and bicyclists.

(2) Design Elements.

(a) Lane and Shoulder Width – **Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet.** Although not desirable, lane and shoulder widths less than those given above can be considered for right-turn lanes under the following conditions pursuant to Index 82.2:

- In urban, city or town centers (rural main streets) with posted speeds less than 40 miles per hour in severely constrained situations, if truck or bus use is low, consideration may be given to reducing the right-turn lane width to 10 feet.
- Shoulder widths may also be considered for reduction under constricted situations. Whenever possible, at least a 2-foot shoulder should be provided where the right-turn lane is adjacent to a curb. Entire omission of the shoulder should only be considered in constrained situations and where an 11-foot lane can be constructed.

Gutter pans can be included within a shoulder, but cannot be included as part of the travel lane width. Additional right of way for a future right-turn lane should be considered when an intersection is being designed.

(b) Curve Radius--Where pedestrians are allowed to cross a free right-turning roadway, the curve radius should be such that the operating speed of vehicular traffic is no more than 20 miles per hour at the pedestrian crossing. See NCHRP Report 672, "Roundabouts: An Informational Guide" for guidance on the determination of design speed (fastest path) for turning vehicles. See Index 504.3(3) for additional information.

(c) Tapers--Approach tapers are usually unnecessary since main line traffic need not be shifted laterally to provide space for the right-turn lane. If, in some rare instances, a lateral shift were needed, the approach taper would use the same formula as for a left-turn lane.

Bay tapers are treated as a mirror image of the left-turn bay taper.

(d) Deceleration Lane Length--The conditions and principles of left-turn lane deceleration apply to right-turn deceleration. Where full deceleration is desired off the high-speed through lanes, the lengths in Table 405.2B should be used. Where partial deceleration is permitted on the through lanes because of limited right of way or other constraints, average running speeds in Table 405.2B may be reduced 10 miles per hour to 20 miles per hour for a lower entry speed. For example, if the main line speed is 50 miles per hour and a 10 miles per hour deceleration is permitted on the through lanes, the deceleration length may be that required for 40 miles per hour.

(e) Storage Length--Right-turn storage length is determined in the same manner as left-turn storage length. See Index 405.2(2)(e).

(3) Right-turn Lanes at Off-ramp Intersections. Diamond off-ramps with a free right-turn at the local street and separate right-turn off-ramps around the outside of a loop will likely cause conflict as traffic volumes increase. Serious conflicts occur when the right-turning vehicle must weave across multiple lanes on the local street in order to turn left at a major cross street close to the ramp terminal. Furthermore, free right-turns create sight distance issues for pedestrians and bicyclists crossing the off-ramp, or pedestrians crossing the local road. Also, rear-end collisions can occur as right-turning drivers slow down or stop waiting for a gap in local street traffic. Free right-turns usually end up with "YIELD", "STOP", or signal controls thus defeating their purpose of increasing intersection capacity.

405.4 Traffic Islands

A traffic island is an area between traffic lanes for channelization of bicycle and vehicle movements or for pedestrian refuge. An island may be defined by paint, raised pavement markers, curbs, pavement edge, or other devices. The California MUTCD should be referenced when considering the placement of traffic islands at signalized and unsignalized locations. For splitter island guidance at roundabouts, see Index 405.10(13).

Traffic islands usually serve more than one function. These functions may be:

(a) Channelization to confine specific traffic movements into definite channels;

(b) Divisional to separate traffic moving in the same or opposite direction; and

(c) Refuge, to aid users crossing the roadway.

Generally, islands should present the least potential conflict to approaching or crossing bicycles and vehicles, and yet perform their intended function.

(1) Design of Traffic Islands. Island sizes and shapes vary from one intersection to another. They should be large enough to command attention. Channelizing islands should not be less than 50 square feet in area, preferably 75 square feet. Curbed, elongated divisional median islands should not be less than 4 feet wide and 20 feet long. All traffic islands placed in the path of a pedestrian crossing must comply with DIB 82. See the Standard Plans for typical island passageway details.

The approach end of each island should be offset 3 feet to the left and 5 feet to the right of approaching traffic, using standard 1:15 parabolic flares, and clearly delineated so that it does not surprise the motorist or bicyclist. These offsets are in addition to the shoulder widths shown in Table 302.1. Table 405.4 gives standard parabolic flares to be used in island design. On curved alignment, parabolic flares may be omitted for small triangular traffic islands whose sides are less than 25 feet long.

The approach nose of a divisional island should be highly visible day and night with appropriate use of signs (reflectorized or illuminated) and object markers. The approach nose should be offset 3 feet from the through traffic to minimize accidental impacts.

(2) Delineation of Traffic Islands. Generally, islands should present the least potential conflict to approaching traffic and yet perform their intended function. See Index 303.2 for appropriate curb type. Islands may be designated as follows:

(a) Raised paved areas outlined by curbs.

(b) Flush paved areas outlined by pavement markings.

(c) Unpaved areas (small unpaved areas should be avoided).

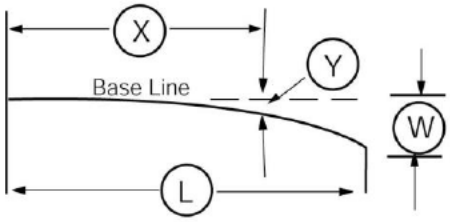
On facilities with posted speeds over 40 miles per hour, the use of any type of curb is discouraged. Where curbs are to be used, they should be located at or outside of the shoulder edge, as discussed in Index 303.5.

In rural areas, painted channelization supplemented with raised pavement markers may be more appropriate than a raised curbed channelization. This design is as forgiving as possible and decreases the consequence of a driver's or bicyclist’s failure to detect or recognize the curbed island. Consideration for snow removal operations should be determined where appropriate.

In urban areas, posted speeds less than or equal to 40 miles per hour allow more frequent use of curbed islands. Local agency requirements and matching existing conditions are factors to consider.

Table 405.4

Parabolic Curb Flares Commonly Used



$$Y = \frac{W X^2}{L^2}$$

(L) = Length of flare in feet
(W) = Maximum offset in feet
(X) = Distance along base line in feet
(Y) = Offset from base line in feet

(W) is shown in table thus

OFFSET IN FEET FOR GIVEN "X" DISTANCE																
o	10	15	20	25	30	40	45	50	60	70	75	80	90	100	110	120
1:5 FLARES																
25	0.8	1.8	3.2	5.0												
50	0.4		1.6		3.6	6.4		10.								
1:10 FLARES																
50	0.2		0.8		1.8	3.2		5.0								
100	0.1		0.4		0.9	1.6		2.5	3.6	4.9		6.4	8.1	10.		
1:15 FLARES																
45	0.1		0.5		1.3	2.3	3.0									
75	0.0		0.3		0.8	1.4		2.2	3.2	4.3	5.0					
90	0.0		0.3		0.6	1.1		1.8	2.6	3.6		4.7	6.0			
120	0.0		0.2		0.5	0.8		1.3	2.0	2.7		3.5	4.5	5.5	6.7	8.0

(3) Pedestrian Refuge. Pedestrian refuge islands allow pedestrians to cross fewer lanes at a time while judging conflicts separately. They also provide a refuge so slower pedestrians can wait for a gap in traffic while reducing total crossing distance.

At unsignalized intersections in rural city/town centers (rural main streets), suburban, or urban areas, a pedestrian refuge should be provided between opposing traffic where pedestrians are allowed to cross 2 or more through traffic lanes in one direction of travel, at marked or unmarked crosswalks. Pedestrian islands at signalized crosswalks should be considered, taking into account crossing distance and pedestrian activity. Note that signalized pedestrian crossings must be timed to allow for pedestrians to cross. See the California MUTCD, Chapter 4E, for further guidance.

Traffic islands used as pedestrian refuge are to be large enough to provide a minimum of 6 feet in the direction of pedestrian travel, without exception.

All traffic islands placed in the path of a pedestrian crossing must be accessible, refer to DIB 82 and the Standard Plans for further guidance. An example of a traffic island that serves as a pedestrian refuge is shown on Figure 405.4.

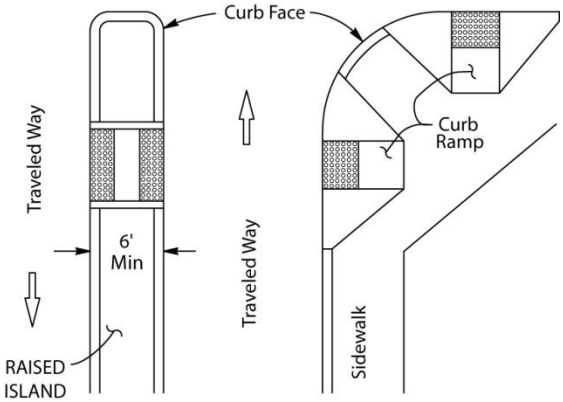
405.5 Median Openings

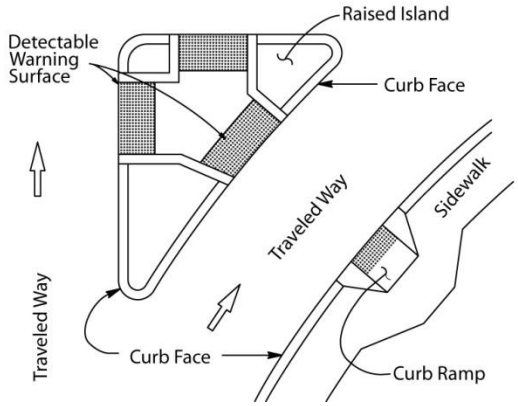
(1) General. Median openings, sometimes called crossovers, provide for crossings of the median at designated locations. Except for emergency passageways in a median barrier, median openings are not allowed on urban freeways.

(2) Spacing and Location. By a combination of interchange ramps and emergency passageways, provisions for access to the opposite side of a freeway may be provided for law enforcement, emergency, and maintenance vehicles to avoid extreme out-of-direction travel. Access should not be more frequent

Figure 405.4

Pedestrian Refuge Island





than at three-mile intervals. See Traffic Safety Systems Guidance for additional information on the design of emergency passageways.

Emergency passageways should be located only where decision sight distance is available (see Table 201.7).

Median openings at close intervals on other types of highways create conflicts with high speed through traffic. Median openings should be spaced at intervals no closer than 1600 feet. If a median opening falls within 300 feet of an access opening, it should be placed opposite the access opening.

(3) Length of Median Opening. For any three or four-leg intersection on a divided highway, the length of the median opening should be at least as great as the width of the crossroads pavement, median width, and shoulders. An important factor in designing median openings is the path of the design vehicle making a minimum left turn at 5 miles per hour to 10 miles per hour. The length of median opening varies with width of median and angle of intersecting road.

Usually a median opening of 60 feet is adequate for 90 degree intersections with median widths of 22 feet or greater. When the median width is less than 22 feet, a median opening of 70 feet is needed. When the intersection angle is other than 90 degrees, the length of median opening should be established by using truck turn templates (see Index 404.3).

(4) Cross Slope. The cross slope in the median opening should be limited to 5 percent. Crossovers on curves with super elevation exceeding 5 percent should be avoided. This cross slope may be exceeded when an existing 2-lane roadbed is converted to a 4-lane divided highway. The elevation of the new construction should be based on the 5 percent cross slope requirement when the existing roadbed is raised to its ultimate elevation.

(5) References. For information related to the design of intersections and median openings, "A Policy on Geometric Design of Highways and Streets," AASHTO, should be consulted.

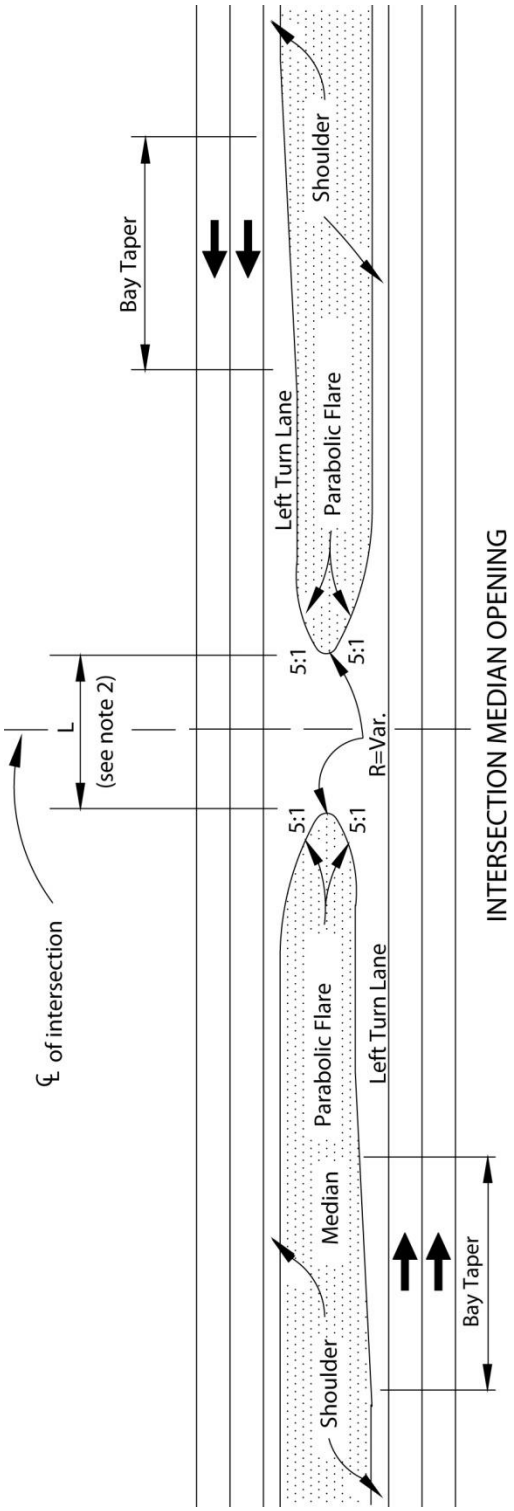
405.6 Access Control

The basic guidance which govern the extent to which access rights are to be acquired at interchanges (see Topic 104, Index 205.1 and 504.8 and the PDPM) also apply to intersections at grade on expressways. Cases of access control which frequently occur at intersections are shown in Figure 405.7. This illustration does not presume to cover all situations. Where required by traffic conditions, access should be extended in order to ensure proper operation of the expressway lanes. Reasonable variations which observe the basic principles referred to above are acceptable.

However, negative impacts on the mobility needs of pedestrians, bicyclists, equestrians, and transit users need to be assessed. Pedestrians and bicyclists are sensitive to additional out of direction travel.

Figure 405.5

Typical Design for Median Openings



NOTES:

① For length of bay taper, see Table 405.2A.

② L = Length of median opening: varies with width of median and angle of intersecting road. Usually for 90° intersection, L = 60 feet for median of 22 feet and wider. L = 70 feet for medians narrower than 22 feet.

③ See Index 405.2.

④ Pedeistrain and bicycle features are not shown on figure.

405.7 Public Road Intersections

The basic design to be used at right-angle public road intersections on the State Highway System is shown in Figure 405.7. The essential elements are sight distance (see Index 405.1) and the treatment of the right-turn on and off the main highway. Encroachment into opposing traffic lanes by the turning vehicle should be avoided or minimized.

(1) Right-turn Onto the Main Highway. The combination of a circular curve joined by a 2:1 taper on the crossroads and a 75-foot taper on the main highway is designed to fit the wheel paths of the appropriate turning template chosen by the designer.

It is desirable to keep the right-turn as tight as practical, so the “STOP” or “YIELD” sign on the minor leg can be placed close to the intersection.

(2) Right-turn Off the Main Highway. The combination of a circular curve joined by a 150-foot taper on the main highway and a 4:1 taper on the crossroads is designed to fit the wheel paths of the appropriate turning template and to move the rear of the vehicle off the main highway. Deceleration and storage lanes may be provided when necessary (see Index 405.3).

(3) Alternate Designs. Offsets are given in Figure 405.7 for right angle intersections. For skew angles, roadway curvature, and possibly other reasons, variations to the right-angle design are permitted, but the basic rule is still to approximate the wheel paths of the design vehicle.

A three-center curve is an alternate treatment that may be used at the discretion of the designer.

Intersections are major consideration in bicycle path design as well. See Indexes 403.6 and 1003.1(5) for general bicycle path intersection design guidance. Also see Section 5.3 of the AASHTO Guide for the Planning, Design, and Operation of Bicycle Facilities.

405.8 City Street Returns and Corner Radii

The pavement width and corner radius at city street intersections is determined by the type of vehicle to be accommodated and the mobility needs of pedestrians and bicyclists, taking into consideration the amount of available right of way, the types of adjoining land uses, the place types, the roadway width, and the number of lanes on the intersecting street.

At urban intersections, the California truck or the Bus Design Vehicle template may be used to determine the corner radius. Where STAA truck access is allowed, the STAA Design Vehicle template should be used giving consideration to factors mentioned above. See Index 404.3.

Smaller radii of 15 feet to 25 feet are appropriate at minor cross streets where few trucks or buses are turning. Local agency standards may be appropriate in urban and suburban areas.

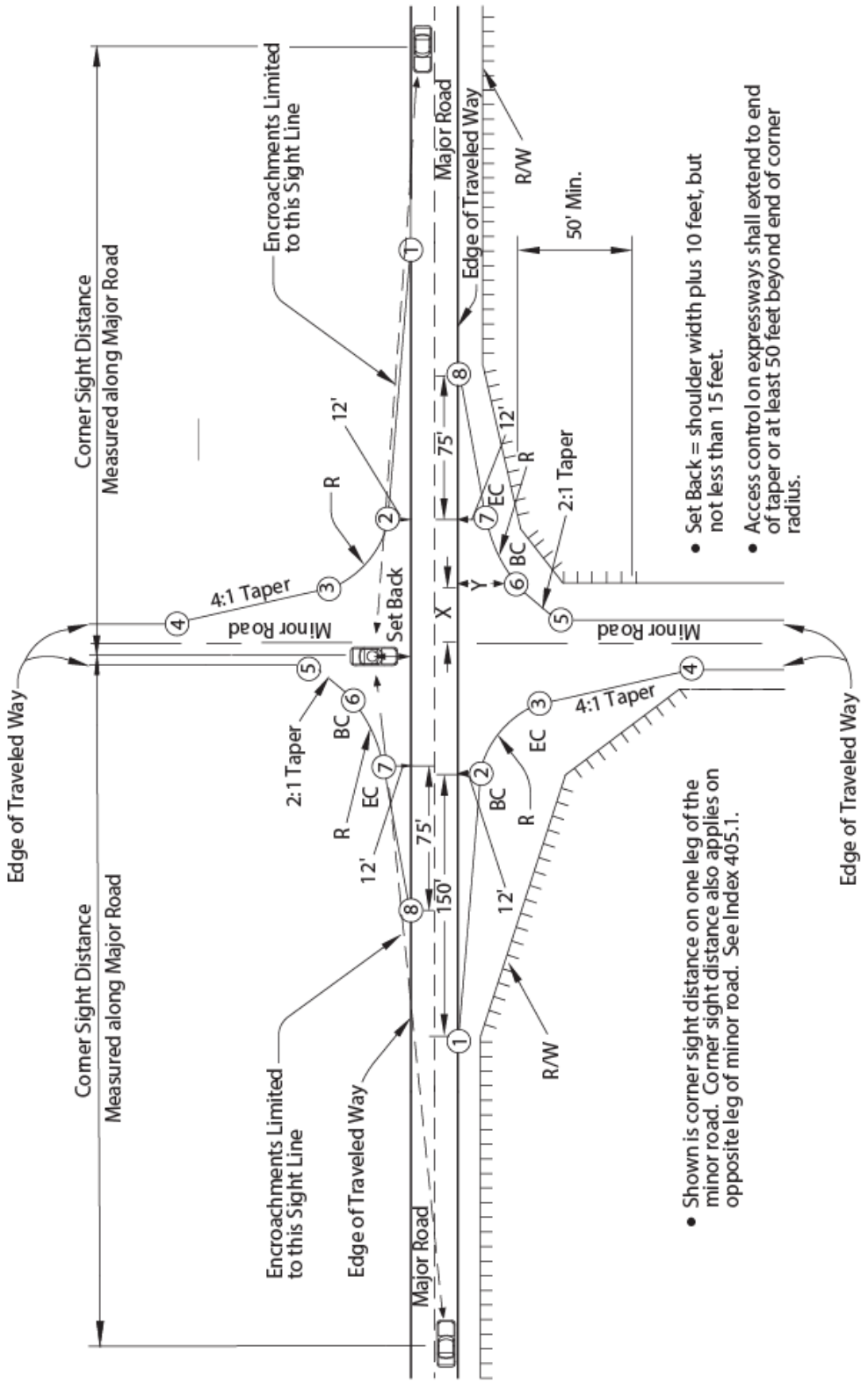
Encroachment into opposing traffic lanes must be avoided.

405.9 Widening of 2-lane Roads at Signalized Intersections

Two-lane State highways may be widened at intersections to 4-lanes whenever signals are installed. Sometimes it may be necessary to widen the intersecting road. The minimum design is shown in Figure 405.9. More elaborate treatment may be warranted by the volume and

Figure 405.7

Public Road Intersections

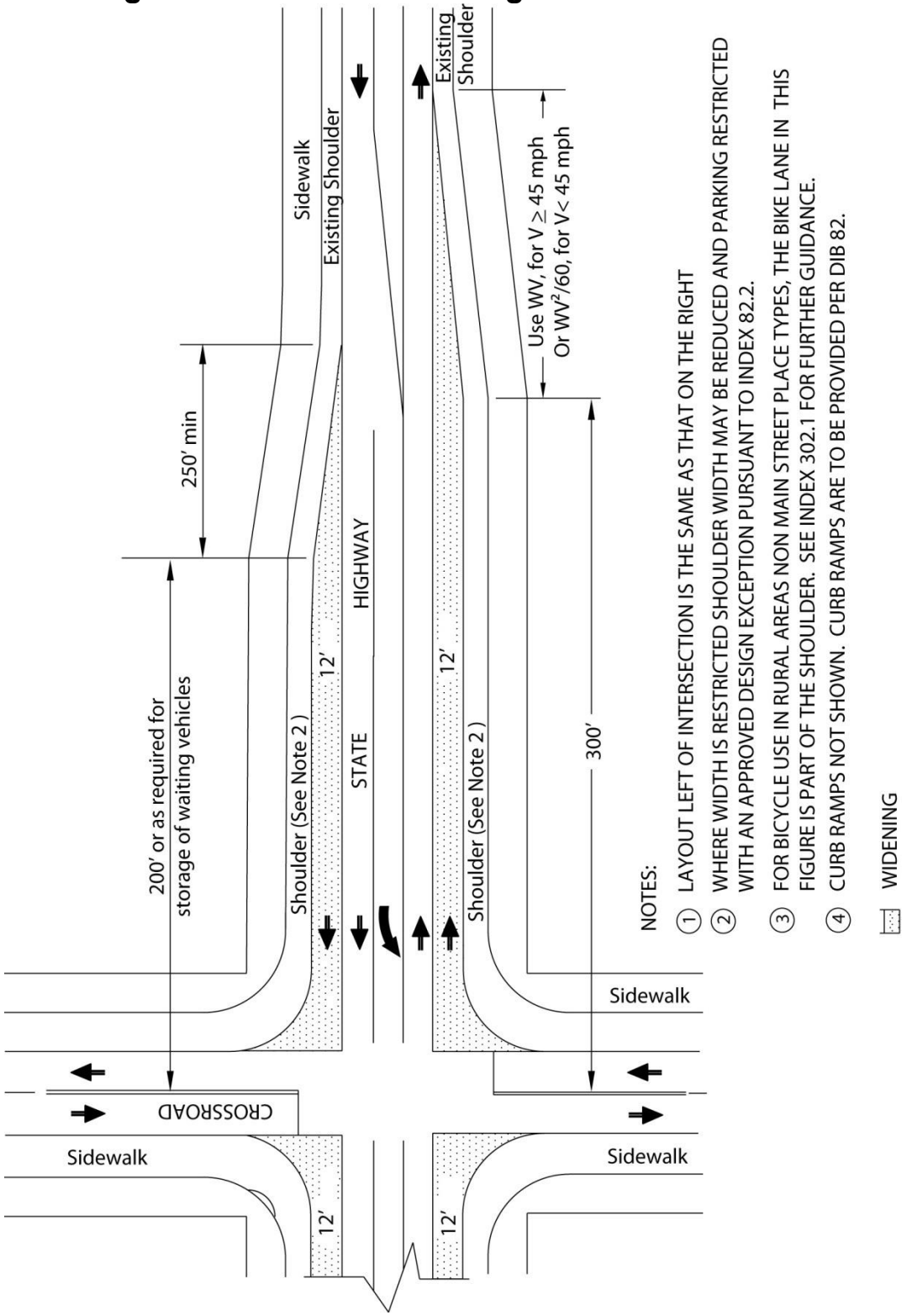


X - Distance measured from centerline of minor road along major road - feet.
Y - Offset distance measured from edge of traveled way of major road to any given point - feet.

Radius of Curve	Design Vehicle	Pt ①		Pt ②		Pt ③		Pt ④		Pt ⑤		Pt ⑥		Pt ⑦		Pt ⑧	
		X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
30'	Bus	204.20	0.0	54.20	12.0	27.49	34.63	12.0	96.58	12.0	40.66	18.23	28.21	40.32	12.0	115.32	0.0
40'	California	215.08	0.0	65.08	12.0	29.46	42.17	12.0	112.03	12.0	53.35	21.87	33.61	51.33	12.0	126.33	0.0
50'	STAA	226.09	0.0	76.09	12.0	31.57	49.71	12.0	127.98	12.0	75.63	30.31	39.01	67.13	12.0	142.13	0.0

Figure 405.9

Widening of Two-lane Roads at Signalized Intersections



pattern of traffic movements. Unusual turning movement patterns may possibly call for a different shape of widening.

The impact on pedestrian and bicycle traffic mobility of larger intersections should be assessed before a decision is made to widen an intersection.

405.10 Roundabouts

Roundabout intersections on the State highway system must be developed and evaluated in accordance with National Cooperative Highway Research Program (NCHRP) Report 672 entitled "Roundabouts: An Informational Guide, Second Edition" dated October 2010 and Traffic Operations Policy Directive (TOPD) Number 13-02. Also see Index 401.5 for general information and guidance. See Figure 405.10A Roundabout Geometric Elements for nomenclature associated with roundabouts. Signs, striping and markings at roundabouts are to comply with the California MUTCD.

A roundabout is a form of circular intersection in which traffic travels counterclockwise around a central island and entering traffic must yield to the circulating traffic. Roundabouts feature, among other things, a central island, a circulatory roadway, and splitter islands on each approach. Roundabouts rely upon two basic and important operating principles:

(a) Geometric design that reduce speeds at the entry and through the intersection, and

(b) The yield-at-entry rule, which requires traffic entering the intersection to yield to traffic that is traveling in the circulatory roadway.

Some benefits of roundabouts include:

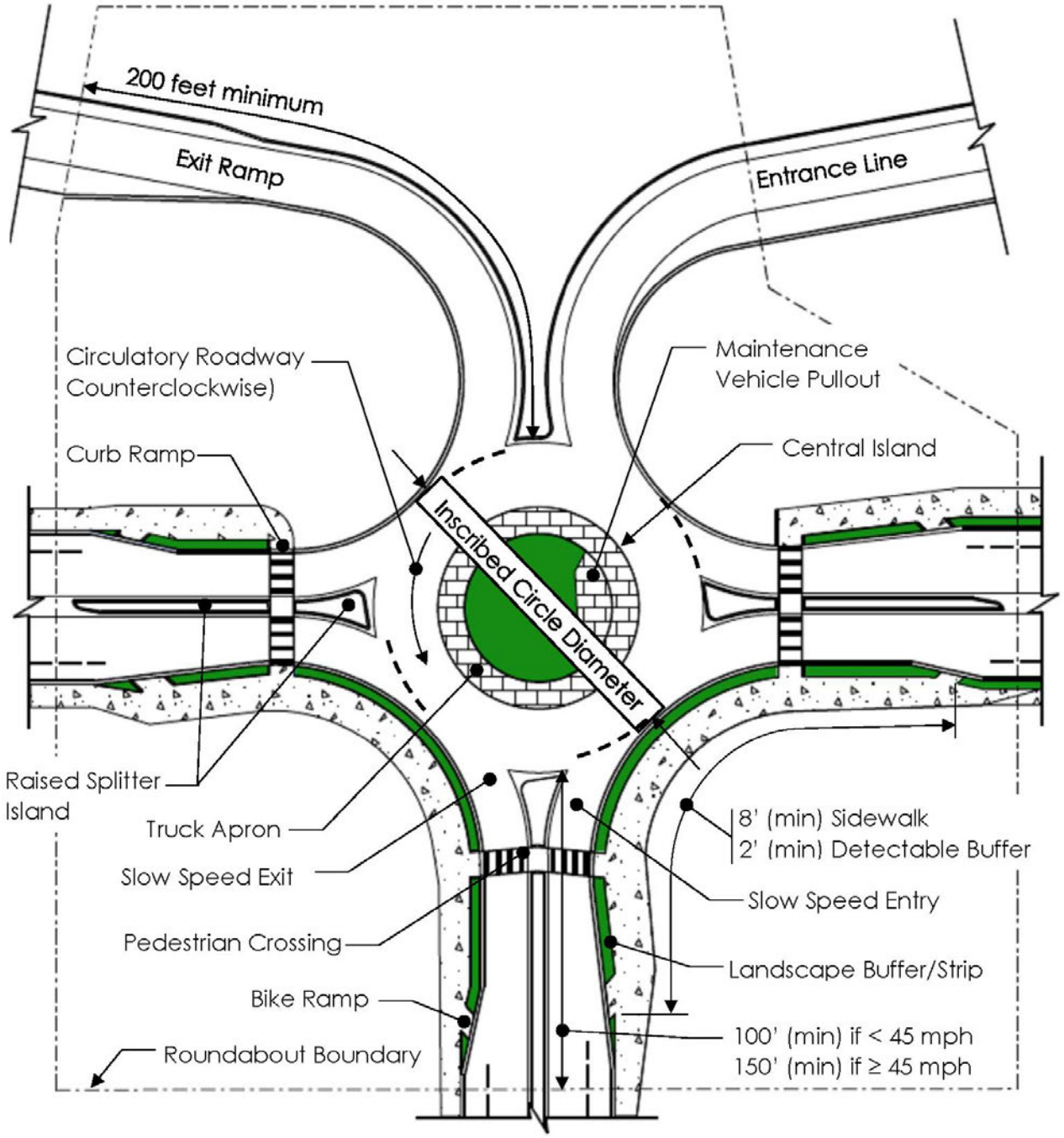
- Fewer conflict points, especially the high angle conflict points, which results in less severe crashes when compared to the stop-controlled or signal-controlled intersections. Over half of vehicle to vehicle conflict points associated with stop- and signal-controlled intersections are eliminated with the use of a roundabout. Additionally, a roundabout separates the conflict points which eases the ability of the driver, pedestrian, or bicyclist to identify a conflict and helps prevent conflicts from becoming crashes.
- Roundabouts are designed to reduce the vehicular speeds at intersections. Lower speeds lessen the vehicular crash severity. Likewise, studies indicate that when motorized vehicles are traveling at slower speeds, crash severity with pedestrian and bicyclist is significantly reduced; hence, roundabouts are proven safety countermeasures for traffic calming for complete street designs.
- Roundabouts are yield-controlled intersections, which allow continuous free flow of vehicles, pedestrians, and bicycles when no conflicts exist. This results in less noise and air pollution and reduces overall delays at roundabout intersections. Additionally, since there is no traffic signal, the operations are not affected by power outages.
- Roundabouts tend to have less delay and reduce greenhouse gases when compared to stop-controlled or signal controlled intersections.

Except as indicated in this Index, the design standards elsewhere in this manual do not apply within the boundaries of roundabouts. The boundary of a roundabout intersection is defined as follows:

- If the roadway is undivided, use the approach ends of the splitter islands.

Figure 405.10A

Roundabout Geometric Elements



NOTE:
This figure is provided to show only nomenclature and a roundabout boundary example. This figure is not to be used for design details.

- If the roadway is physically divided (such as a raised median), use 100 feet from the inscribed circle diameter (ICD) for roadways with posted speeds less than 45 miles per hour or 150 feet from the ICD for roadways with posted speeds equal to or greater than 45 miles per hour.
- For freeway exit ramps, a minimum of 200 feet from the ICD.
- For freeway entrance ramps, a minimum of 50 feet from the ICD or 20 feet past the crosswalk, whichever is further from the ICD.
- If successive curves are used, also known as a chicane (NCHRP Report 672, Exhibit 6-70), use the beginning of the chicane as the boundary.

See Figure 405.10A for a typical roundabout boundary example.

(1) Design Period. The 20-year design period required by Index 103.2 applies to roundabouts. Within the required design period, a single lane roundabout may provide operational benefits for 10 or more years before a multilane configuration is necessary, depending on traffic demand. In these situations, consideration should be given to build a single lane roundabout as an initial phase of a multilane roundabout. The multilane roundabout is designed, first, and needs to meet the performance checks for a multilane roundabout configuration. The single lane roundabout is designed from the multilane design by curbing out portions of the multilane roundabout to meet all the performance checks for a single lane configuration. This approach will maximize the safety and operational benefits during the initial and final phases of the improvements. In order to comply with the design period requirement, the initial project must provide the right of way needed for utility relocations, a shared-use path designed for a Class I Bikeway, and all other features other than pavement, lighting, and striping in their ultimate locations.

Another method to meet the 20-year design period is to determine if metering one or more of the legs would allow a single lane roundabout to function for the life of the project.

In some locations, it may not be practical to build a single lane roundabout that will operate for 10 years. Geometric constraints and other conflicts may preclude widening to the ultimate configuration. In such cases, other intersection configurations or control strategies addressed in Index 401.5 may need to be considered.

When intersection improvements are to be phased, see NCHRP Report 672, Section 6.12.

(2) Design Vehicles. See Topic 404. Each roundabout has three design vehicles that need to be considered. 1) The largest vehicle to pass through the roundabout without using the truck apron. These would include, but not limited to, large vehicles transporting passengers with injuries, physical disabilities, the elderly, and transit vehicles. Other large vehicles included with this consideration are those where shifting of vehicle contents would be undesirable, such as fire engines and single-unit delivery vehicles. 2) California Legal or STAA trucks. These are discussed below in more detail. 3) Permit vehicles (oversize/overweight) that need to be able to pass through the roundabout. Accommodations for permit vehicles are further discussed below.

The turning path for the design vehicle, dictates many of the roundabout dimensions, see Index 404.5. The design vehicle wheel tracking and swept width are to be used when designing all entries, exits, and the circulatory roadway (see Index 404.2). To maximize the safety benefits and preserve operations, roundabouts should be designed to be as small as possible and incorporate truck aprons to facilitate truck movements rather than increasing the size of the roundabout. Accommodations for trucks includes the use of truck aprons where necessary, while balancing other factors such as pedestrian accommodation.

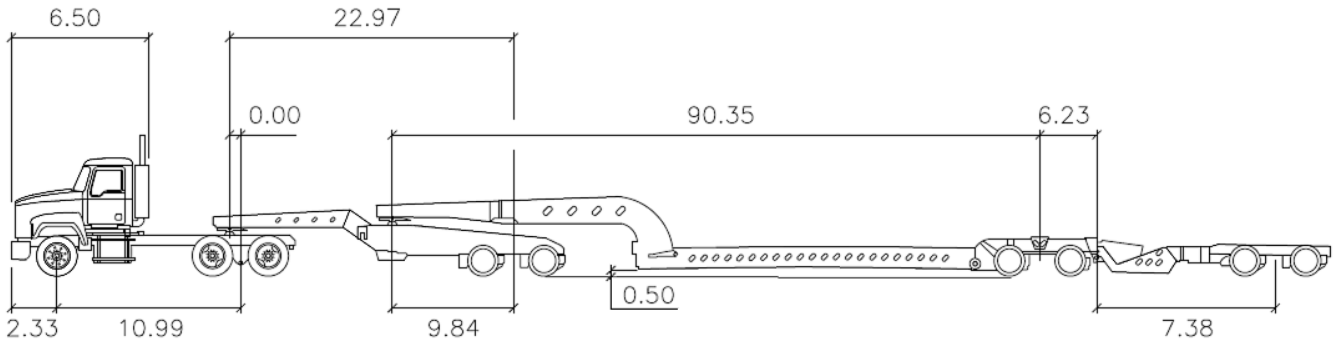
When more than one entry lane or circulating lane is available, truck drivers prefer to take control of the intersection by: 1) taking both lanes on entry to prevent a vehicle from entering their blind spots or overtaking during entry (as they would with a turn at any other intersection configuration); and 2) encroaching into adjacent lanes while circulating to protect their blind spots and prevent overtaking. During a turning movement, a truck's entire outside of the trailer (passenger side for left turns) becomes a large blind spot. To protect this blind spot and reduce the risk of colliding with an unseen vehicle, truck drivers may even prefer to stay in the outside lane while circulating to make through, left turn, and u-turn movements. Roundabouts with multilane entries or circulating lanes should be designed with the understanding that most truck drivers will not stay within the lane lines.

Oversize/Overweight permit vehicles are oftentimes larger than other design vehicles, but are essential to move goods throughout the state. Due to the critical nature of goods and services, which these vehicle transport, permit vehicles must also be considered in the design of intersections. Traditional signal or stop controlled intersections are typically not an issue for most of the oversize/overweight vehicles to pass through, but the circulatory roadway and central island of roundabouts can be an obstruction to get around. Roundabouts should not be overdesigned, nor should complete street elements be eliminated, for the occasional permit vehicle. Instead, truck aprons should be used to accommodate oversize/overweight vehicles, while preserving the speed control design of the roundabout. In addition to truck aprons, removable signs or other removable features in the central island or around the circular path can help ensure that these trucks can navigate the roundabout.

When designing for the oversize/overweight permit vehicle passing through the roundabout and staying on the state highway, a larger design vehicle is needed to design the roundabout entries, circulating roadway, and exits. The minimum design permit vehicle to be used is a "CALTRANS OS OW HEAVY HAUL" as designated in AutoTURN. See Figure 405.10B for this design vehicle. In addition to accommodating truck off-tracking, truck aprons at central and splitter islands, the design should accommodate an oversize/overweight vehicle with 6 inches of vertical clearance to pass through the intersection as shown in Figure 405.10B. A curb at the back of the central island truck apron, if needed, should not impede the oversize/overweight vehicle's movements. Oversize/overweight vehicles are not required to stay in their own lane.

Figure 405.10B

Oversize/Overweight Design Vehicle-CALTRANS OS OW HEAVY HAUL



The design permit vehicle as discussed may not be the appropriate permit vehicle for design purposes. For example, local situations such as farm areas where wide farm equipment or long components for windmills near a windmill power facility may necessitate a special vehicle design to pass through the roundabout. Therefore, the designer must coordinate with the District Truck Access Manager to ascertain the oversize/overweight vehicles that are to be accommodated and any additional vehicle requirements. Designers should also work with the District Truck Access Manager to determine if the permit vehicles will have an alternative route to bypass the roundabout or if they have to pass through this intersection.

To accurately simulate the design vehicle swept width traveling through a roundabout, the minimum speed of the design vehicle used in computer simulation software (e.g., Auto TURN) should be less than 5 miles per hour through the roundabout. Tracking and swept width must not encroach onto sidewalks or pedestrian refuge areas.

(3) Inscribed Circle Diameter. At single lane roundabouts, the size of the inscribed circle is largely dependent upon the turning requirements of the design vehicles. The inscribed circle diameter (ICD) must be large enough to accommodate: (a) the STAA design vehicle for all roundabouts on the National Network and on Terminal Access routes; and, (b) the California Legal design vehicle on all non-STAA route intersections on California Legal routes and California Legal KPRA Advisory routes, while maintaining adequate deflection curvature to ensure appropriate travel speeds for smaller vehicles. The non-permit design vehicle is to navigate the roundabout with the front tractor's wheels staying off the truck apron. The ICD for a single lane roundabout generally ranges between 105 feet to 150 feet to accommodate the California Legal design vehicle and 130 feet to 180 feet to accommodate the STAA design vehicle.

At multilane roundabouts, the ICD is to achieve adequate alignment of the natural vehicle path while maintaining deflection curvature to ensure appropriate travel speeds. To achieve both of these design objectives requires a slightly larger diameter than used for a single lane roundabout. The ICD for a multilane (2-lane) roundabout generally ranges between 150 feet to 220 feet to accommodate the California Legal design vehicle for non-STAA route intersections on California Legal routes and California Legal KPRA Advisory routes, and 165 feet to 220 feet to accommodate the STAA design vehicle for roundabouts on the National Network and on Terminal Access routes. Similar to a single lane roundabout, the non-permit design vehicle is to be able to navigate a multilane roundabout with the front tractor wheels staying off the truck apron.

A mini-roundabout may be an acceptable roundabout design on low volume routes or ramp terminals. With an inscribed circle diameter of less than 90 feet, the central island will need to be fully traversable to accommodate the design vehicles movements.

The ICD ranges given above are typical values; the design may be larger or smaller. Site location constraints and performance checks will determine if the diameter is appropriate for the location.

(4) Entry Speeds. Lowering the speed of vehicles entering and traveling through the roundabout is a primary design objective that is achieved by approach alignment and entry geometry.

The following entry speeds should not be exceeded:

- Single lane entry, 25 miles per hour.
- Multilane entry, 30 miles per hour.

A bypass lane is not included in the number of entry lanes. Although, a bypass lane prohibits entry into the circulatory roadway, the bypass lane should also meet the speed requirements to ensure that diverge and merge speeds are within 10 mile per hour of each other and

vehicle speeds are not more than 20 mile per hours at pedestrian crossings. See Index 405.3(2)(b).

Entry speeds are to be determined through fastest path analysis. The fastest path is the smoothest, flattest path possible for a single vehicle in the absence of other traffic and ignoring all lane markings. The fastest path analysis should begin at least 165 feet from the ICD and should not bring the path closer than 3 feet from the edge of traveled way prior to the splitter island nor 5 feet from the face of a curb. These distances are minimums and the fastest path may occur further away from the curbs and striping depending on the roundabout configuration. For fastest path evaluation, see NCHRP Report 672, Section 6.7.1.

(5) *Exit Design.* Similar to entry design, exit design flexibility is required to achieve the optimal balance between competing design variables and project objectives to provide adequate capacity and safety while minimizing excessive property impacts and costs. Thus, the selection of a curved versus tangential design is to be based upon the balance of each of these criteria. Exit design is influenced by the place type, pedestrian demand, bicyclist needs, the design vehicle and physical constraints. The exit curb curve radii are usually larger than the entry curb curve radii in order to minimize the likelihood of congestion and crashes at the exits. Larger exit curb curve radii may also be needed to develop adequate deflection on the adjacent entry. However, the desire to minimize congestion at the exits needs to be balanced with the need to maintain an appropriate operating speed through the pedestrian crossing.

(6) *Number of Legs Serving the Roundabout.* Intersections with more than four legs are often difficult to manage operationally. Roundabouts are a proven traffic control device in such situations. However, it is necessary to ensure that the design vehicle can maneuver through all unrestricted legs of the roundabout. A public or private driveway as a leg to an intersection is not uncommon nor inappropriate and can be acceptable at non-interchange roundabouts as well. Driveways in and near proposed roundabouts should be included in the performance checks where applicable, including truck turning movements. For access control guidance at interchange ramp intersections, see Index 405.10 (13).

(7) *Sidewalk and shared use path.* The sidewalk should be designed as a shared use path, since the path will serve both pedestrians and those bicyclists who are not comfortable taking the lane to proceed though the roundabout. Although the sidewalk is considered a shared use path, it does not need to meet the design standards in Index 1003, but it should meet the design standards within Index 405.10.

(a) *Pedestrian Use.* Sidewalks around the circular roadway are to be designed in accordance with guidance in Design Information Bulletin (DIB) 82 Pedestrian Accessibility Guidelines for Highway Projects but must also be designed to allow low-speed bicycles to circulate around the roundabout. In addition to the guidance in DIB 82, the following applies:

i. The detectable warning surface (truncated domes) alert a pedestrian that they are about to enter cross traffic and is required on curb ramps. They are not to be used on a bike ramp.

ii. Truck aprons and mountable curbs are not to be placed in or adjacent to pedestrian crossing areas to avoid confusing pedestrians on where the crossing begins.

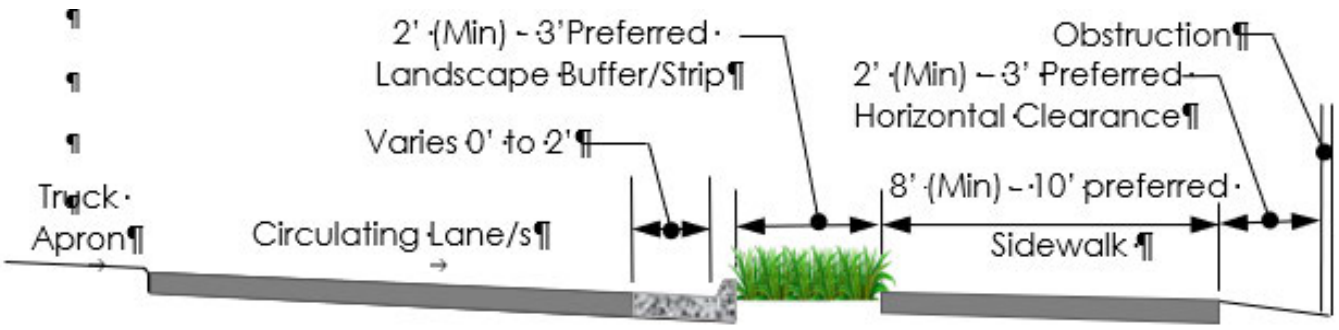
iii. See the California MUTCD for the signs and markings used at roundabouts.

iv. At pedestrian crossing locations the accessibility design will be treated as a midblock pedestrian street crossing. See DIB 82 for more information. Pedestrian crossings may also be used by bicyclists; thus, these crossings need to be designed for both bicyclist and pedestrian needs and should be a minimum of 8 feet wide, 10 feet is preferred.

v. A landscape buffer/strip, detectable by cane and under foot, between the sidewalk and the back of curb for the circular roadway of the roundabout should be a minimum of 2 feet wide, 3 feet is preferred. For more information see NCHRP Report 834, entitled "Crossing Solutions at Roundabout and Channelized Turn Lanes for Pedestrians with Vision Disabilities." See Figure 405.10C.

Figure 405.10C

Typical Cross Section of Buffer Between Sidewalk and Roundabout



(b) Bicyclist Use. Bicyclists may choose to travel in the circular roadway of a roundabout by taking a lane, while others may decide to travel using the sidewalk to bypass the circular roadway. Therefore, the approach and circular roadways, as well as the sidewalk, need to be designed for the mobility needs of bicyclists.

i. General. Bicycle ramps at roundabouts have the potential to be confused as pedestrian ramps, particularly for pedestrians who are visually impaired. The detectable warning surface (truncated domes) are not to be used on bike ramps.

ii. Bicyclist Use of the Circular Roadway. A bicyclist approaching from the roadway shoulder needs to be provided a choice of merging left into the lane to traverse the roundabout in the circulating lane with the vehicles or using the bicycle ramp to use the sidewalk. Single lane roundabouts tend to be comfortable for most bicyclists to travel through. Even, multilane roundabouts, that require bicyclists to change lanes at the entry to the circular roadway to select the appropriate lane for their direction of travel, appear to be comfortable for bicyclists who prefer to travel in the traveled way.

iii. Bicyclists Use of the Sidewalk. At roundabouts, bicyclists may ride around the roundabout using the sidewalk along with the pedestrians. This multi-modal situation introduces additional design considerations. The sidewalk is to be designed using the guidance in NCHRP Report 672 Section 6.8.2.2, the accessibility guidance in DIB 82, and the following:

- To accommodate mounted cyclists and pedestrians, a sidewalk should be included and have a minimum paved width of 8 feet, 10 feet is preferred.
- A minimum 2-foot horizontal clearance from the outside paved edge of the sidewalk to obstructions should be provided, 3 feet is preferred. Although not considered a shoulder, the surface should be flush with the edge of the sidewalk to allow bicyclists to recover. The surface material only needs to support the sidewalk pavement and minimize edge drop-off.

- Bicycle ramps are to be located to avoid being confused with curb ramps for pedestrians.
- The design details of the bicycle ramp are also important to the bicyclist. Bicycle ramps should be placed at a 35 to 45 degree angle to the departure roadway to enable the bicyclists to use the ramp while discouraging bicyclists from entering the sidewalk at a high speed.
- If there is a difference in the standards, the accessibility guidance in DIB 82 is to be followed to ensure the facility is accessible to pedestrians with disabilities.

(8) Transit Use. Transit vehicles and buses will not have difficulty negotiating a roundabout when it has been designed using the California Legal design vehicle or the STAA design vehicle. However, to minimize passenger discomfort, a roundabout should be designed such that the transit vehicle or bus does not use the truck apron.

(9) Stopping Sight Distance and Visibility. See NCHRP Report 672 Section 6.7.3 for stopping sight distance guidance at roundabouts.

A domed or mounded central island, between 3.5 to 6 feet high, is needed to focus attention on the approach and through roundabout alignment. A domed central island provides a visual screen to the downstream alignment and other distractions, and provides a visual cue for vehicles approaching the roundabout.

In high speed environments, additional lighting of, and vertical elements in the central island (i.e., landscaping and aesthetic features) may be needed.

(10) Speed Consistency. Consistency in operating speeds between the various movements within the roundabout can minimize collisions between traffic streams. The operating speeds between competing traffic streams and between consecutive geometric elements should be minimized such that the maximum speed differential between them is no more than 10 miles per hour.

(11) Path Alignment (Natural Path). As two traffic streams approach a multilane entry roundabout in adjacent lanes, drivers and bicyclists will be guided by lane markings up to the entrance line. At the yield point, they will continue along their natural trajectory into the circulatory roadway. The speed and orientation of the vehicle at the entrance line determines what can be described as its natural path. The geometry of the exits also affects the natural path that the vehicle travels. The natural path of two adjacent entering vehicles are not to overlap, see NCHRP Report 672, Section 6.7.2.

(12) Splitter Islands. Splitter islands (also called separator islands, divisional islands, or median islands) will be provided on all roundabouts. The purpose is to provide refuge for pedestrians, assist in controlling speeds, guide traffic into the roundabout, physically separate entering and exiting traffic streams, and deter wrong-way movements.

The total length of the raised island should be at least 50 feet although 100 feet is desirable. Additionally, the splitter island should extend beyond the end of the exit curve to prevent exiting traffic from crossing into the path of approaching traffic. The splitter island width should be a minimum of 6 feet at the pedestrian crossing to adequately provide refuge for pedestrians.

Roadways with posted speeds greater than or equal to 45 miles per hour, or at freeway exit ramps, require the splitter island lengths, as measured from the ICD, to be 200 feet. In some instances, a longer splitter island may be desirable. Concrete curb is to be provided on the right side of the approach roadway equal to the length of the splitter island.

At a low volume driveway leg of a roundabout, the splitter island may be eliminated if there would be no disruption to traffic flow.

(13)Access Control. The access control standards in Index 504.3(3) and 504.8 apply to roundabouts at interchange ramp intersections. The dimensions shown in Index 504.8 are to be measured from the ICD.

Driveways can occur within the roundabout or outside the access control. Driveways on approach and egress legs should not be placed within 50 feet from the ICD. Regarding crosswalk placement, consider the direction a driver exiting the driveway is looking for approaching traffic. Driveways should not be within 50 feet of a downstream crosswalk. At non-interchange roundabouts, a driveway may be added as a leg to a roundabout if supported operationally. Also consider if a driveway would be appropriate at that location if the intersection were eventually to become a signalized intersection.

(14)Lighting. Lighting is required at all roundabouts. See NCHRP Report 672 Chapter 8, the Traffic Manual Chapter 9 as well as consult with the District Traffic Safety Engineer.

(15)Landscaping. Landscaping should be designed such that drivers and bicyclists can observe the signing and shape of the roundabout as they approach, allowing adequate visibility for making decisions prior to and within the roundabout. The landscaping of the central island can enhance the intersection by making it a focal point, by promoting lower speeds and by breaking the headlight glare of oncoming vehicles or bicycles. It is desirable to create a domed or mounded central island, between 3.5 to 6 feet high, to increase the visibility of the intersection on the approach. Central island landscaping should provide elements that absorb kinetic energy of errant vehicles or redirect the vehicle, and not include features that may lead to the vehicle becoming airborne. Contact the District Landscape Architecture Unit to provide technical assistance in designing the roundabout landscaping. See Chapter 900 for additional Landscape Architecture requirements.

(16)Vertical Clearance. The vertical clearance guidance provided in Index 309.2 applies to roundabouts.

(17)Drainage Design. See Chapters 800 to 890 for further guidance.

(18)Maintenance. Contact the District Maintenance Engineer and appropriate Regional Manager for maintenance strategies and practices, including seasonal operations, maintenance resources, and specialized equipment. Maintenance responsibilities may also include multiple state, county, and city agencies where coordination of maintenance efforts and funding is needed.

Consider maintenance of the central island. Provide a maintenance vehicle pullout within the central island beyond the truck apron, so maintenance vehicles will not conflict with circulating trucks, see Figure 405.10A.

(19)Snow Areas. In climate regions where snowfall requires the use of snow removal equipment, consider the equipment to be used. Design ICD's as well as entrance and exit geometry to accommodate snow removal equipment and plow limitations. Check with District Maintenance for their requirements and limitations. Geometric elements to consider that facilitate snow removal are; mountable curb, tapering the ends of curbs down to allow plows to ride over curbs, plowing accommodation in both directions, providing snow storage space within the central island, and providing minimum entry/exit widths to accommodate the plow blade. Mountable curb may be used if the sidewalk/shared use path is not contiguous to the curb. Provide a planter or textured pavement between the path and the roadway. Snow storage areas must be designed to prevent snow melt from entering the circulating lanes where it can freeze. Snow storage areas must not block pedestrian paths.

(20)Utilities. Utility access openings (manholes) should not be located within the traveled way within the boundary of the roundabout. Roundabouts do not have shoulders to accommodate traffic while manholes are accessed. Manholes should not be allowed within the circulating roadway to avoid closing down the intersection during access. If a manhole is absolutely necessary within the boundary of the ICD, place it in the central island and off of the truck apron. Provide a maintenance vehicle pullout to allow access to the manhole without blocking truck traffic, see Figure 405.10A.

(21)Performance Checks. Roundabout design is not standard-based; it is a performance-based design method, which uses an iterative design process. As the design progresses through performance checks, as outlined in NCHRP Report 672, the geometrics of the design is refined. Any roundabout design submitted for geometric review without completed performance checks is an incomplete design. A roundabout design submitted for review during the Project Approval or Plan, Specification and Estimate phases must be accompanied by completed performance checks. However, a roundabout design submitted for review during the Project Initiation phase does not require completed performance checks.

*(22)*Turbo Roundabouts. Some multilane roundabouts experience higher than expected frequencies of sideswipe collisions. To prevent this, some countries have implemented a modified version of a multilane roundabout called the turbo roundabout. The significant differences between turbo roundabouts and modern roundabout are that a physical separation is included to prevent lane changes within the circulating lanes of the turbo roundabout. This separation results in a larger roundabout footprint with little to no deflection on entry and with all vehicles staying completely within their lane. To date there are only a few hundred worldwide and less than five in the US and Canada combined; consequently, there is limited information regarding the design of turbo roundabouts, especially regarding North American driver and vehicles. The traditional capacity analysis tools for roundabouts do not apply to turbo roundabouts. Due to the limited experience in the U.S. and lack of analysis tools, caution should be used before selecting a turbo roundabout for an intersection alternative on the State highway system.

Turbo roundabout intersections on the State highway system should be developed and evaluated in accordance with the following: The FHWA Safety Program Informational Primer entitled “Turbo Roundabouts;” NCHRP Report 672 “Roundabouts: An Informational Guide;” “Roundabouts-Application and Design, A Practical Manual,” from the Dutch Ministry of Transport, Public Works and Water Management, Partners for Roads; and, TOPD Number 13-02 “Intersection Control Evaluation.” Per FHWA’s recommendation for capacity analysis of turbo roundabouts, refer to Transportation Research Record (TRR) Issue Number 2517-08 entitled “Capacity Estimation on Turbo roundabouts with Gap Acceptance and Flow Level Methods.” Also see Index 401.5 for general information and guidance.

Topic 406 – Ramp Intersection Capacity Analysis

The following procedure for ramp intersection analysis may be used to estimate the capacity of any signalized intersection where the phasing is relatively simple. It is useful in analyzing the need for additional turning and through traffic lanes. For a more complete analysis refer to the Highway Capacity Manual.

(a) Ramp Intersection Analysis--For the typical local street interchange there is usually a critical intersection of a ramp and the crossroads that establishes the capacity of the interchange. The capacity of a point where lanes of traffic intersect is 1500 vehicles per hour. This is

expressed as intersecting lane vehicles per hour (ILV/hr). Table 406 gives values of ILV/hr for various traffic flow conditions.

If a single-lane approach at a normal intersection has a demand volume of 1000 vph, for example, then the intersecting single-lane approach volume cannot exceed 500 vph without delay.

The three examples that follow illustrate the simplicity of analyzing ramp intersections using this 1500 ILV/hr concept.

(b) Diamond Interchange--The critical intersection of a diamond type interchange must accommodate demands of three conflicting travel paths. As traffic volumes approach capacity, signalization will be needed. For the spread diamond (Figure 406A), basic capacity analysis is made on the assumption that 3-phase signalization is employed. For the tight diamond (Figure 406B), it is assumed that 4-phase signal timing is used.

(c) 2 Quadrant Cloverleaf--Because this interchange design (Figure 406C) permits 2-phase signalization, it will have higher capacities on the approach roadways. The critical intersection is shared two ways instead of three ways as in the diamond case.

Table 406

Vehicle Traffic Flow Conditions at Intersections at Various Levels of Operation

ILV/hr	Description
< 1200:	Stable flow with slight, but acceptable delay. Occasional signal loading may develop. Free midblock operations.
1200-1500:	Unstable flow with considerable delays possible. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs on some approaches.
1500 (Capacity):	Stop-and-go operation with severe delay and heavy congestion(1). Traffic volume is limited by maximum discharge rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

NOTE:

The amount of congestion depends on how much the ILV/hr value exceeds 1500. Observed flow rates will normally not exceed 1500 ILV/hr, and the excess will be delayed in a queue.

Figure 406A

Spread Diamond

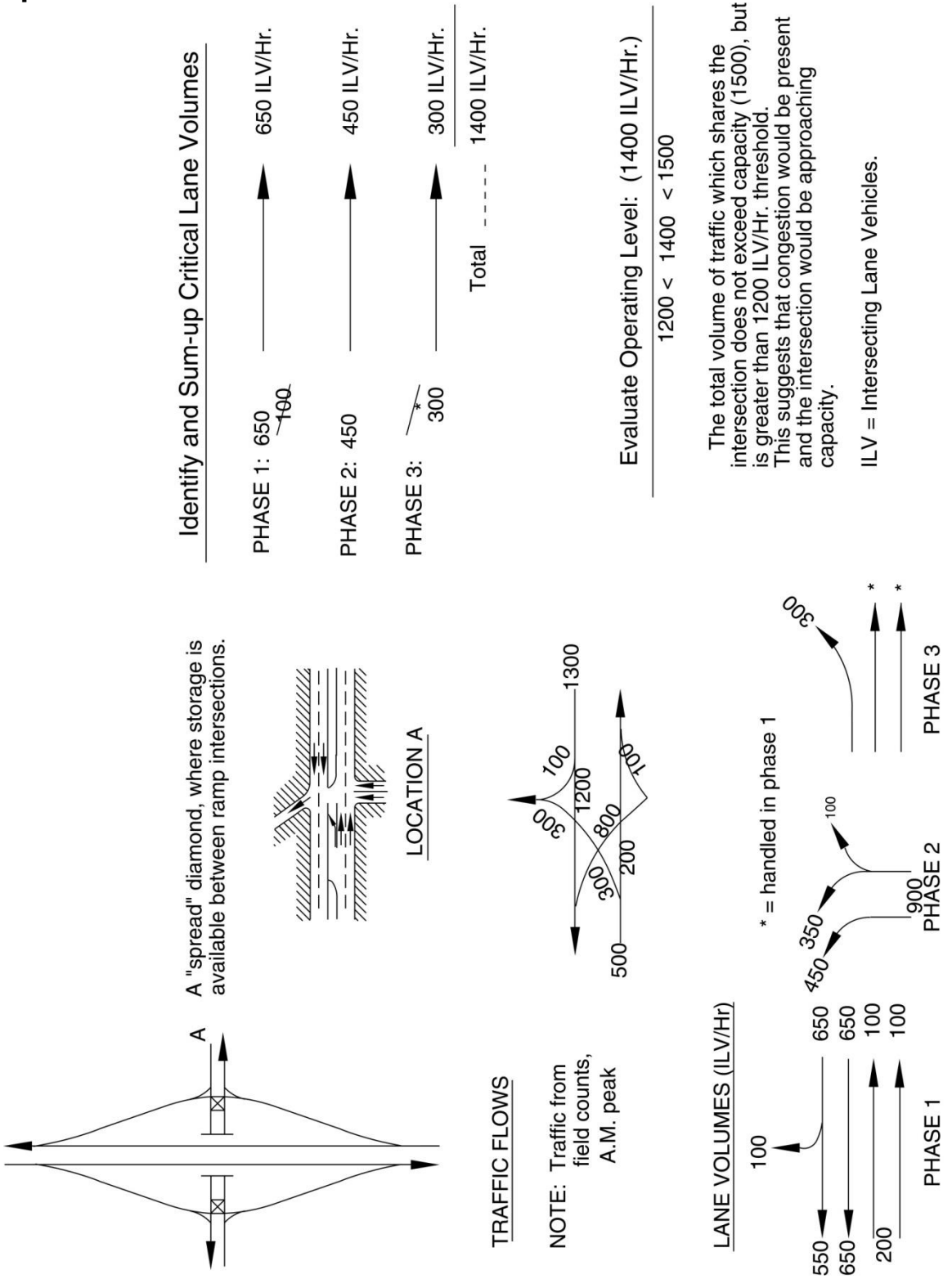
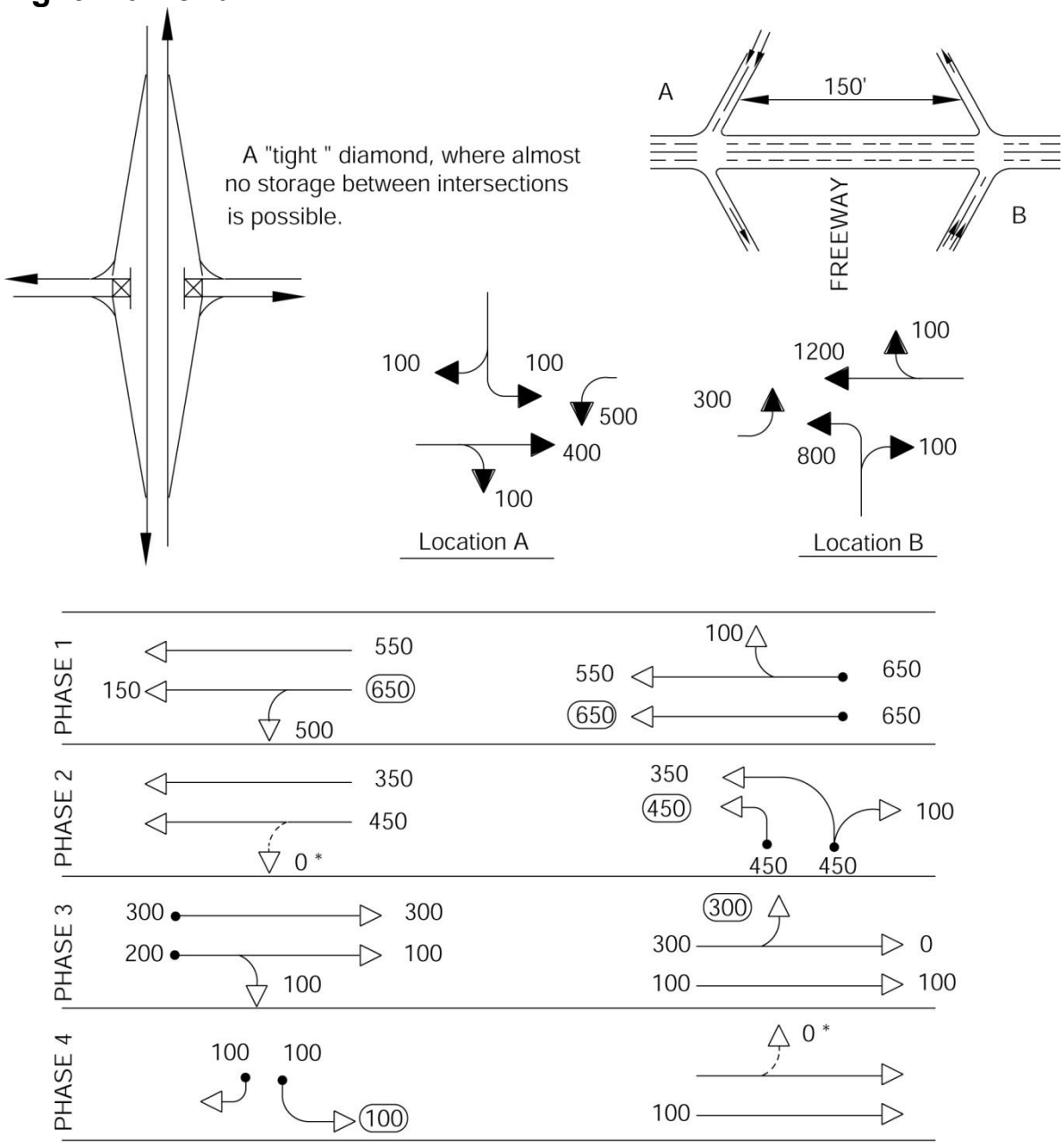


Figure 406B

Tight Diamond

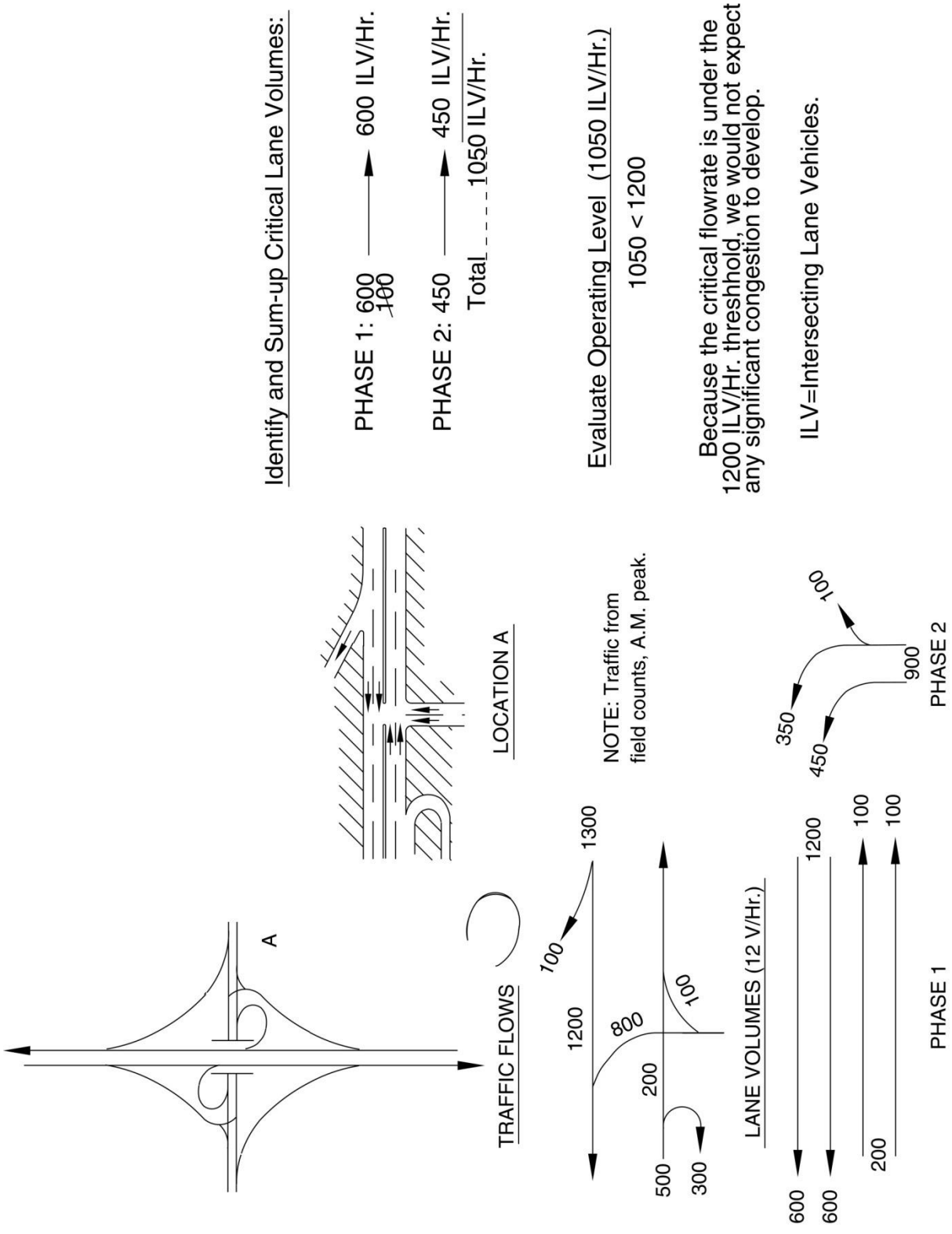


*NOTE: When no storage at all is permitted, left-turn movement is cleared during this phase.

Critical Lane Volumes:	650
	450
	300
ILV=Intersecting Lane Vehicles.	100
	1500 ILV/Hr.

Figure 406C

Two-quadrant Cloverleaf



to 4:10 p.m. survey time is estimated to be a typical time when parents would drop off children for practice and leave the Blair Park driveways. The results show that there were approximately 50 opportunities (i.e., gaps greater than 7.5 seconds)[188] within the 30-minute interval where future traffic can safely make a left turn out of the Blair Park driveways. The highest left-turn volume out of each driveway is 44 p.m. peak-hour vehicles. Based on the gap survey data, it was concluded that there are enough gaps to accommodate the future outbound volume of the proposed Blair Park sports fields. It should be noted, however, that the outbound traffic volume at the project site would be concentrated within a peak 15-minute period as children are dropped off and picked up.

Queuing of vehicles waiting to turn left out of the Blair Park driveways was examined to ensure that excessive stacking of vehicles within the parking areas would not occur. According to the queues calculated during the LOS analysis, the maximum queue would be two vehicles at the west driveway and 3 vehicles at the east driveway. The site plan provides adequate distance for two vehicles to queue at the west driveway and 3 vehicles to queue at the east driveway without significantly affecting on-site traffic operations.

The LOS analysis conducted for the Blair Park driveways assumes the same arrival pattern as observed at Coaches Field. The arrival pattern is accounted for through the peak-hour factor, which adjusts the traffic volume so that the trips observed during the peak 15 minutes are reflected in the hourly traffic volume. One way to improve the operation of the driveways is to reduce the number of vehicles dropping off or picking up children at the same time. Although this measure would not reduce the worst-case LOS to an acceptable LOS D, it would result in less delay experienced by vehicles leaving the site and improved traffic operations on site and along Moraga Avenue.

> **Mitigation Measure TRAFF-1:** To mitigate the operational deficiency anticipated at the outbound Blair Park driveways, the City shall require that practice and game activities on each field are staggered by at least 30 minutes and drop-off and pick-up operations occur throughout the hours that the fields are utilized, rather than in a single 15-minute period each hour. Implementation of this measure would improve the delay for the outbound driveway movements and mitigate the level of service (LOS) from LOS F during the p.m. peak hour to LOS E. Although this measure would not reduce the worst-case LOS to an acceptable LOS D, it would result in less delay experienced by vehicles leaving the site and improved traffic operations on site and along Moraga Avenue. (SU)

(2) Hazards due to Design Features. Implementation of the proposed project could result in potentially significant hazards related to the design features of existing roadways in the project area, including limited sight distance at West Driveway Exit/Moraga Avenue, parking lot deficiencies, and operational deficiencies at the Blair Park Driveways.

Impact TRAFF-2A: Implementation of the proposed project has the potential to cause sight distance traffic hazards due to design features. (S)

Sight Distance and Driveway Operations at Project Access Points. Adequate sight distance at the proposed Blair Park project driveways is necessary to ensure safe egress from the parking lots. A clear line of sight should be provided for a driver exiting the driveway so that the driver can judge the

[188] Caltrans HDM Section 405.1 states that a driver turning out of the site requires 7.5 seconds to complete the necessary maneuver, while the approaching vehicle travels at the assumed design speed of the main highway.

speed and distance of oncoming vehicles and determine whether it is safe to enter the roadway. Likewise, adequate sight distance allows an oncoming driver to see a vehicle entering the roadway from the project and either slow down or stop, if necessary, to avoid the other vehicle.

The speed limit on Moraga Avenue is 25 mph. A spot speed survey was conducted for Moraga Avenue in 2008 and provided by the City. Based on the survey, the 85th percentile speed was 35 mph. The 85th percentile is the speed at which 85 percent of the traffic is traveling. Approximately 79 percent of the traffic travels between 25 and 35 mph. Highway Design Manual Section 405.1 recommends that, on a roadway with a design speed of 25 mph, a corner sight distance of 275 feet (ft) be provided. For roadways with a design speed of 35 mph, a corner sight distance of 385 ft is required. The recommended corner sight distance ensures that adequate time is provided for the waiting vehicle to either cross all lanes of through traffic or cross the near lanes and turn left or right without requiring through traffic to radically alter speed.

More than 275 ft of sight distance is provided at the departing driveways (Intersections 6 and 8, Figure 4.7.1), which would be adequate if the prevailing speed on Moraga Avenue was 25 mph. However, the speed surveys indicate that the prevailing speed is actually 35 mph. The observed existing speed of 35 mph along Moraga Avenue would require a sight distance of 385 ft at the proposed driveways. This distance is not provided at the intersection of West Driveway Exit/Moraga Avenue. The maximum sight distance was measured to be 300 ft from the driveway exit toward the west and 320 ft from the driveway exit toward the east. The maximum sight distance at Maxwelton Road/Moraga Avenue is satisfied since the sight distance was measured to be 405 ft from the driveway exit toward the west and 420 ft from the driveway exit toward the east. There would not be adequate sight distance at West Driveway Exit/Moraga Avenue if the speed along Moraga Avenue continues to be 35 mph. However, an analysis of vehicle speeds conducted by Harris and Associates in August 2008 recommends that enforcement be increased to reduce the 85th percentile speed. The 85th percentile is the speed at which 85 percent of the traffic is traveling. If the 85th percentile speed were reduced to below 35 mph, there would be adequate sight distance at the West Driveway Exit at Blair Park.

LSA analyzed the distance between Red Rock Road at Coaches Field and the intersection of West Driveway Entrance/Moraga Avenue at Blair Park to determine whether inbound or outbound left-turn movements at each location would conflict. Approximately 100 ft separates Red Rock Road and West Driveway Entrance/Moraga Avenue. Although these two access points are offset, the respective inbound left-turn movements can both be safely accommodated, as vehicles turning left into either location can do so without conflict. Outbound left-turn movements would not conflict because outbound left turns from Blair Park would be made at the outbound driveway, located more than 375 ft east of Red Rock Road.

Implementation of the following mitigation measure would reduce impacts related to design hazards to a less than significant level.

> **Mitigation Measure TRAFF-2A:** Consistent with the recommendation in the City's speed survey, the City shall provide additional enforcement of the speed limit using enforcement methods such as speed trailers or additional officer presence to reduce the 85th percentile speed to below 35 miles per hour (mph) to improve operations and safety and provide greater sight distance in the vicinity of the project. The 85th percentile is the

speed at which 85 percent of the traffic is traveling. The proposed Blair Park landscape plan also shows a row of landscaping along Moraga Avenue fronting the site. Landscaping shall be selected so that the sight distance at the outbound driveways is not blocked. The landscaping shall not exceed 3.5 feet in height and should be regularly maintained to ensure that adequate sight distance is maintained.

It should be noted that the effect of increased enforcement on the 85th percentile speed can not be accurately forecast, and therefore it is not known whether the mitigation measure will effectively mitigate the sight distance deficiency at the project driveways. For this reason, the project impact on sight distance is significant and unavoidable. (SU)

Impact TRAFF-2B: Implementation of the proposed project has the potential to cause parking traffic hazards due to design features. (S)

Parking Demand. Parking utilization surveys completed on Saturday, November 9, 2009, during scheduled soccer games show 33 vehicles parked at Coaches Field. It should be noted that the parking situation during the day that was surveyed was sufficient to accommodate all parked vehicles. The current parking lot adjacent to the existing Coaches Field is limited to approximately 13 spaces. There are three parking spaces immediately located outside the parking lot gate. There is a parking lot located walking distance towards the northeast of Coaches Field that can accommodate additional parking. The lot consists of 12 marked parking spaces. There are also two parking spaces along the curb on the right side of the entry drive. In addition, during weekends, the City of Piedmont Corporation Yard is accessible for overflow parking of approximately 14 parking spaces. The total number of parking spaces at Coaches field is 30 during the weekdays, and 44 during the weekends. The parking demand at Coaches Field is not anticipated to change as a result of the turf replacement or lighting. The same number of spaces would be utilized; however, they would be utilized later into the evening when the lights are in use. Because the Blair Park component of the project would provide two fields, the parking demand at Blair Park is estimated to be double the number of vehicles currently parked at Coaches Field, or 66 vehicles. The Blair Park sports fields would provide 40 total parking spaces. A total of 14 parking stalls would be located in the west lot and 26 parking stalls would be located in the east lot. This represents a deficit of 26 parking spaces.

Implementation of the following mitigation measure would reduce impacts related to design hazards to a less than significant level.

> **Mitigation Measure TRAFF-2B:** Prior to operation of the project, the City shall provide 66 parking spaces on the Blair Park site to accommodate the forecast parking demand for the two proposed sports fields. (LTS)

Impact TRAFF-3: Implementation of the proposed pedestrian bridge spanning Moraga Avenue has the potential to increase safety hazards for pedestrians that may not choose to use the bridge. (S)

The project proposes to construct a pedestrian bridge spanning Moraga Avenue to connect the Coaches Field and Blair Park sites. Implementation of the proposed bridge could result in potentially significant safety hazards for pedestrians that choose to not use the bridge to cross Moraga Avenue. Research has been conducted to determine the suitability of a pedestrian bridge at the project site.

March 1, 2024 Statement to Piedmont City Council

Ralph Catalano

Today's staff report implies that you can consider the Moraga Canyon Sports Field EIR (State Clearinghouse Number 2009112054) when formulating the Moraga Canyon Specific Plan. That EIR found that new entrances and exits to Blair Park would create a significant and unavoidable safety hazard for motorists, pedestrians and bicyclists on Moraga Avenue. How did LSA consultants, the authors of the EIR, come to such a conclusion? Caltrans has adopted US DOT equations that use road alignment, slope, and sight distances to calculate maximum speeds for safe stopping at intersections. As described on pages 253 to 255 of the EIR, LSA engineers assumed two entrances/exists to Blair Park positioned at Caltrans recommended distances from each other and from Red Rock and Maxwelton. They measured the shortest sight line to these intersections at 385 feet. Using the Caltrans equations, they estimated the maximum safe speed to be 35 MPH. 15% of trips on Moraga exceeded that speed.

Today, your consultants tell you that they have found locations for entrances to Blair Park that provide a longer minimum sight line than assumed by LSA. With this longer sight line, they calculate the fastest safe speed at 40 MPH. **They than claim, without documentation, that no one on Moraga travels at speeds greater than 40 MPH**.

I am surprised to learn that your consultants have found two entrance/exits with a minimum sight line that, when added to the DOT/Caltrans equations, produces a 40 MPH safe speed. But let's stipulate, for the sake of the conversation, that this is true. The simple fact remains, however, that the distribution of speeds observed on Moraga shows that at least 10% of trips ***exceed*** 40 MPH. This distribution was found before the preparation of the LSA EIR and was found again in subsequent studies including that for the City of Piedmont Bicycle and Pedestrian Safety Plan (I have attached that distribution and accompanying crash analysis).

So, how big is the problem? Assuming conservative trip generation of 4 per household, 132 families in Blair Park would generate more than 500 entrances from and exits to Moraga Avenue per day. How many of these will be at a time when they encounter a vehicle traveling faster than 40 MPH? Moraga Avenue will, according to the Housing Element EIR, carry about 15,000 trips a day. About 10%, or 1,500, of these will exceed 40 MPH. That implies more than 1 per minute. So, virtually every one of the 500 entrances or exits from Blair Park will likely encounter a safety hazard as defined by Caltrans. And this circumstance assumes your consultants' yet to be verified locations for entrances/exits. The risk will be even greater should the LSA locations prove correct. And remember, it remains city policy that projects will not be approved in Piedmont unless they provide safe sightlines. Indeed, the Housing Element EIR you have adopted states you will enforce that policy.

SPOT-SPEED ANALYSIS

The KAI team obtained speed data through a data collection vendor. The speed data were collected on the off-peak (i.e., free-flow) hours of Monday, December 22, 2014 using a calibrated radar gun mounted on an inconspicuous vehicle as to not affect drivers' behavior. The data includes one hundred vehicles in each direction of travel on Moraga Avenue. Appendix B contains the speed data for individual vehicles.

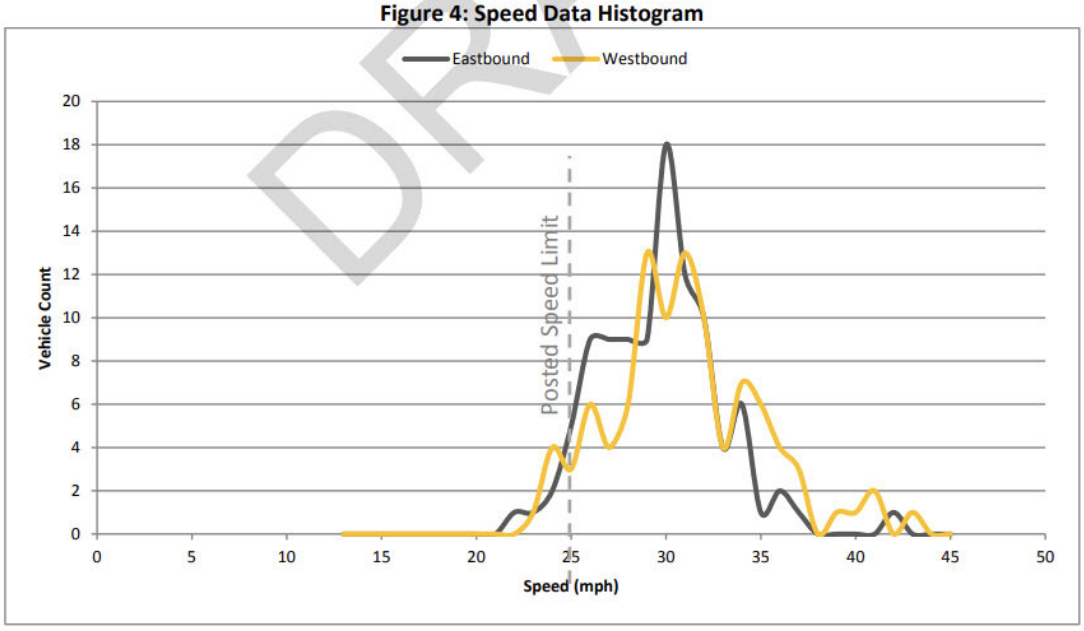
In the vicinity of the study intersection, the observations indicate that 84 percent of the surveyed motorists travelled in the range of 25 to 34 mph. Table 1 and Figure 4summarize the speed data.

Table 1: Speed Data Summary

Speed Study Metrics	Moraga Avenue, at Ramona Avenue
Speed Limit	25 mph
Median (50th Percentile) Speed	30 mph
85th Percentile Speed	34 mph
10 mph Pace, (% of daily traffic in pace)	25-34 mph, (83.9%)

DRAFT

Figure 4: Speed Data Histogram



HISTORICAL CRASH ANALYSIS

KAI reviewed crash data for the intersection and adjacent roadway segments (within 200 feet of the intersection). KAI used data from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the crash data review. The crash data covered the period from 2009 through November 2013.

Table 2 summarizes the crashes recorded at each study intersection during the January 1, 2009-November 30, 2013 study period.

The KAI team also received information of recent unreported crashes and spin-outs on Moraga Avenue, just east of the study intersection. The information was supplied by Coastland Civil Engineering on behalf of City of Piedmont staff and residents. It appears that the unreported crashes and community-observed spin-outs are due to vehicles losing control at the S-curve. Incidents of lost control that do not result in an injury or property damage are likely not captured in the crash data.

Table 2. Historical Crash Data Summary January 1, 2009- November 30, 2013

Year	Kingston Avenue/Linda Avenue/Rose Avenue Intersection
2009	No collisions recorded.
2010	• On **August 14, 2010,** a Property Damage Only (PDO) crash occurred approximately 150 feet east of the study intersection. A vehicle struck a fixed object. Crash data indicates the weather was clear and pavement dry. The crash occurred during day time.
2011	No collisions recorded.
2012	• On **May 30, 2012**, a PDO crash occurred between two vehicles. One vehicle was reported as traveling at unsafe speeds. The crash occurred immediately east of the intersection. Crash data indicates clear weather, dry pavement, and daylight at the time of the crash. • On **December 9, 2012,** a PDO crash occurred approximately 200 feet east of the study intersection. A motorist turned and sideswiped a parked car under clear weather and dry pavement. The crash occurred during day time.
2013	• On **July 3, 2013**, a PDO crash occurred between a vehicle backing out of a parked position and another parked vehicle. The crash occurred under clear weather, dry pavement, and daylight. • On **October 5, 2013**, a PDO crash occurred at the study intersection. A vehicle struck a fixed object; the crash occurred at daytime and with dry pavement. • On **October 12, 2013,** a PDO crash occurred at the study intersection between a turning vehicle and a vehicle traveling on Moraga Avenue. The crash occurred under clear weather, dry pavement, and daylight. • On **October 27, 2013,** a nighttime DUI-related crash occurred at the study intersection. A vehicle hit a fixed object under foggy weather and dry pavement. The crash was a PDO crash.

Source: California Highway Patrol Statewide Integrated Traffic Records System (SWITRS)

DRAFT

March 1, 2024

Piedmont City Council and Staff

RE: **Comments on Moraga Canyon Specific Plan**

Thank you Mayor Cavanaugh and council members for listening to my comments this morning at your session on the above matter. I support the City's effort to make affordable housing available and believe that Moraga Canyon is a suitable place for such development.

I applaud the City of Piedmont, staff, and council, for taking the State's affordable housing requirement seriously.

I can see that housing could be 'made to fit' in the allotted space but careful planning and weighting of options can *make a good plan a great plan*. To that end, the planning is at an early enough stage and has the flexibility to re-imagine the space and not just work around existing infrastructure.

My main question: Can Moraga Avenue be moved to the south? (see sketch below)

Regardless of whether housing or recreational facilities are placed in the current "park" (I use that term loosely) the simple act of scooting the road to the south would mean that virtually *nobody*, no adults, no kids, no dogs, would need to cross this very busy road to access facilities.

On the other hand, crossing roads is a deadly risk; it's just a matter of time before there is a serious accident. Especially at the average speeds we see on the road and I don't see that changing much.

Having the road "out of the way" would mean that no pedestrian crossing (or overpass as shown in the previous EIR) would be necessary to access the facilities and walkway toward town. It would also mean a far more tranquil experience for those using these spaces. I encourage you all to think about realigning the road and don't just look at maps but go out and walk the site and *imagine* it!

Other comments:

Corp Yard: The existing corporation yard is featured in all four scenarios in pretty much the same size. I have a pretty good idea what we need to hold a soccer game but I am not familiar with the needs and constraints of the existing corporation yard. Did the City ask the public works staff what their minimum space requirements are or should be? Can a smaller yard be built elsewhere within the Canyon, or must it remain at the current size? Or could the City acquire space elsewhere for a Corporation yard which would free up space within the study area? For instance can some of the vehicle storage be shifted to another parking area, such as a gas station or could the city acquire other (more urban) lot? I understand the City needs space

to support city vehicles, principally DPW trucks, but the question is: does it need to sit on this highly desirable property and how much space is really needed?

Storm Drain: The study area is [obviously] a canyon which has been filled with soil. I have seen some storm drain manholes in the middle of the property so I wonder about the specifications of this drainage (how big; how deep?) It appears that the watershed is substantial and discharges to a storage pond on cemetery property. My question is whether the apartment buildings shown in Option 1 or other facilities shown in Options 2 and 3 can be built atop the pipeline as-is? Or whether there would need to be extensive (and expensive) work to the drain to allow construction?

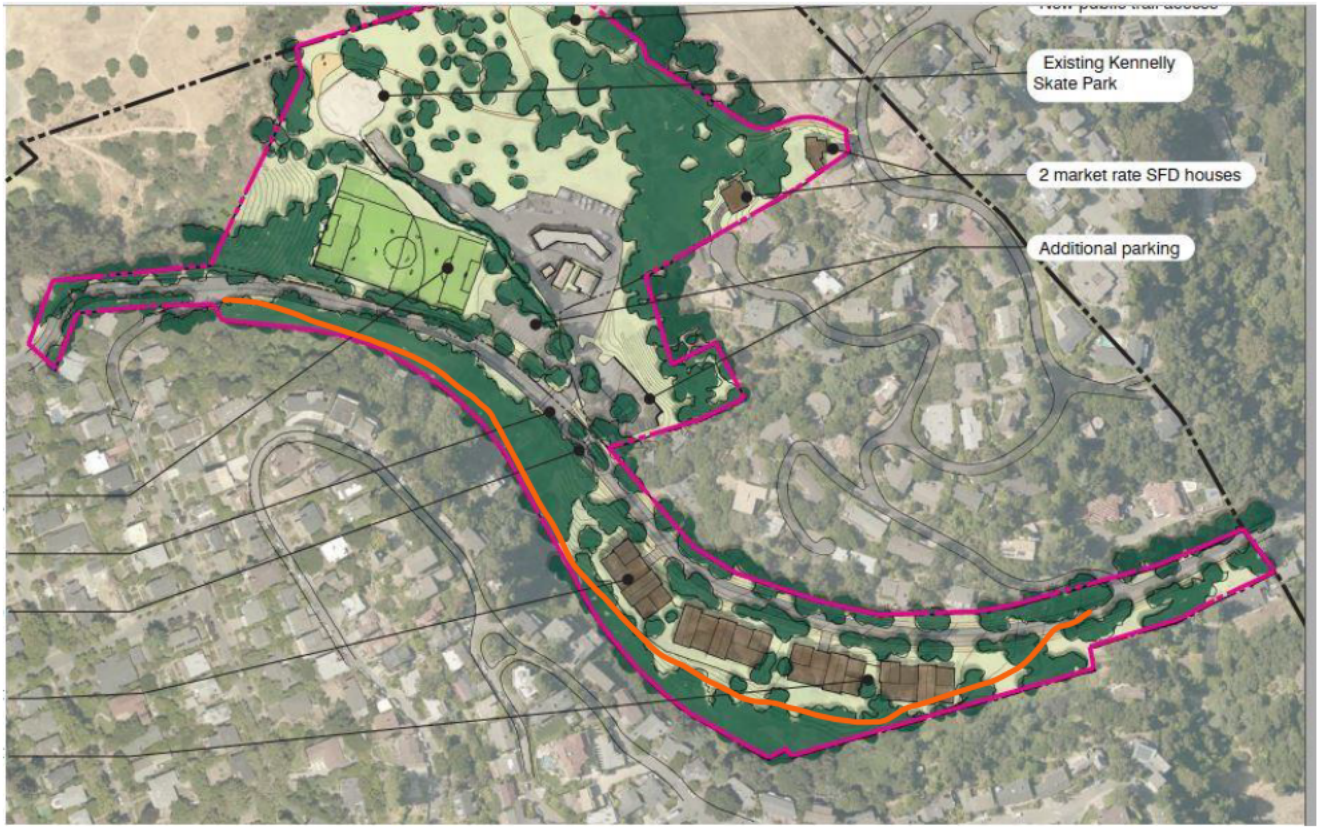
Skate Park: It should be relocated to a more central space within the city. The current location always felt forced and I know most skaters are too young to drive as it is not close enough to home for most kids to ride or skate to. I am a big supporter of skate, BMX and pump tracks (I helped build one in Joaquin Miller Park) but think they need to centrally located and within walking or biking distance of users. They typically have a small footprint (like 3 pickle ball courts!) and though space is at a premium, I'm sure we can find room at an existing park to build a new skate facility.

Housing Mix: I think most of us have been thinking that we need to build the bare minimum of units required by the state. But it sounds as if the City allows more than the minimum of 72 units of market rate housing, the development could generate more profit and hence more money coming back to the City. How many more units could be added without the development becoming something completely out of scale with the area? I would encourage you to leave the door open to more units and run some scenarios once an option is selected.

Thank you for your consideration.

Sincerely,

Tom Gandesbery



Note: New alignment is in orange. New buildings shown here would shift north. A small portion of Moraga Ave. would be retained as a driveway for the two existing residences that are adjacent to rock hill parking lot.

March 11, 2024

Dear Members of the City Council:

We are writing to provide input on the Moraga Canyon Specific Plan. We are a group of Piedmont residents eager to see the city move forward with its legal and moral obligation to create affordable housing in our community, as other East Bay cities already have done.

We are grateful to Piedmont's leaders, city staff, and consultants for the robust analysis and informative study sessions that you have hosted. As the City Council moves towards recommending a path forward at Moraga Canyon, we urge you to keep one principle foremost: **The purpose of the Specific Plan is to enable housing to be built.** Program 1.L of the City's Housing Element states: "The first goal [of the specific plan] is to enable construction of housing at a minimum of 132 units,... [including] a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI)." The Housing Element goes on to list other secondary goals, including improved safety, updating of public works and recreational facilities, pedestrian and vehicular circulation improvements, and landscaping.

Any plan that does not lead with housing, and instead prioritizes building an expanded soccer field, a new corporation yard, or other amenity, misses the mark and potentially puts the City in violation of state Housing Element law. Using this criterion, we believe that of the options presented by the City's Specific Plan consultants, Options 2, 3 and 4 should be removed from consideration, since they all require the city to come up with millions of dollars for non-housing amenities and infrastructure, such as a new soccer field or a new corporation yard, before any housing is built. These plans would postpone the construction of housing for a decade or more, if not forever.

Option 1 (building on the vacant lot on the south side of Moraga Canyon) is the only viable plan that puts housing first, and that realistically will accomplish the goal of creating housing in this housing cycle. (Option 2 might be acceptable if the City is willing to reverse the two phases–that is, by beginning to develop housing on Coaches Field before the completion of a new replacement soccer field. The current Option 2 schedule would postpone housing construction until a multi-year soccer field development has been completed.)

It would be a tragicomedy–and all too predictable–for a town like Piedmont to set out with the intention to build affordable housing, and end up with a plan in which we build ourselves a new deluxe soccer field, and then run out of steam (as well as the collective will to pass new bond measures and parcel taxes) to construct housing. A central goal of state law is to break the century-long pattern of enclave communities such as ours erecting invisible barriers to

building housing, as well as hoarding resources and tax dollars that only serve ourselves and not the wider public interest. There are many ways for affluent communities to kill affordable housing. Zoning is one. Saying "we want housing" but not if it increases traffic, noise, or costs anything is another. Saddling a development with unrealistic required amenities is yet another.

State law requires cities to maintain their Housing Element site inventories. Specifically, the law requires that sites on the inventory have "realistic and demonstrated potential for redevelopment during the planning period."[1] If a site on the site inventory is found to be incapable of allowing for the number of units anticipated, or is made unviable by City action (such as placing unrealistic requirements on the plan), then the City will be obligated to find a replacement site to meet the required capacity. While the City does not have control over sites owned by private owners, it does have control over City-owned sites, and failure to develop a City-owned site may invite additional scrutiny by HCD. In fact, during its review of the draft Housing Element, HCD urged the City to discuss "the extent existing uses impede additional development [at the Moraga Canyon site], including timing of potential relocation or similar activity, *any known conditions that preclude or affect the timing or feasibility of development in the planning period* and potential schedule for development." HCD then required that based on this analysis, the City add or modify policies in the draft element "with a schedule of actions to *facilitate development in the planning period.*"[2]

Likewise, state law mandates jurisdictions to remove governmental constraints to housing development.[3] If the City were to impose new constraints on the development of housing in Moraga Canyon by requiring expensive recreational and institutional facilities that have no relationship with the proposed housing and are not intended to address any of the impacts that the housing may cause (whether fiscal or environmental), HCD will likely regard this unfavorably, as a potential violation of the City's commitments under the adopted Housing Element and its obligations to affirmatively further fair housing. As you know, "HCD has authority to review any action or failure to act by a local government that it determines is inconsistent with an adopted housing element or Housing Element Law. This includes failure to implement program actions included in the housing element."[4]

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[1] The site inventory must have "realistic and demonstrated potential for redevelopment during the planning period to meet the locality's housing need for a designated income level, and an analysis of the relationship of zoning and public facilities and services to these sites, and an analysis of the relationship of the sites identified in the land inventory to the jurisdiction's duty to affirmatively further fair housing." (Gov't Code Section 65583(a)(3).)

[2] Letter from Paul McDougall, Senior Program Manager at the California Department of Housing and Community Development, to Kevin Jackson, Director of Planning & Building Departments, City of Piedmont, dated February 16, 2023, Appendix, pages 4-5 [emphasis added].

[3] Gov't Code Section 65583(a)(5) and (c)(3); see also HCD's *Building Blocks, A Comprehensive Housing-Element Guide to assist jurisdictions in creating comprehensive housing elements*, available at www.hcd.ca.gov.

[4] HCD accountability and enforcement page, citing Government Code sections 65580-65589.11 available at www.hcd.ca.gov.

In conclusion, we urge the City to be clear as it deliberates that **housing is the priority.** To realize this goal, street improvements and traffic calming measures that ensure pedestrian, bicycling and vehicular safety, as well as emergency egress, are absolutely essential. Recreational amenities that serve existing and new residents, such as a playground and walking paths, can and should be part of the plan. Getting a new soccer field and/or a modern corporation yard would be nice, but they are not the reason for the plan, and we must be careful not to get sidetracked and let our desire for these add-ons prevent us from building housing.

Thank you for your consideration.

Yours truly,

Irene Cheng
Andrea Ruiz-Esquide
Elise Marie Collins
Frances Fisher
Randy Wu
Deborah Leland
Susy Struble
Andy Madeira
Alice Talcott
Jessica Burke
Sarah Karlinsky
Carol Galante
Jill Lindenbaum

From: Randolph Wu
To: Jen Cavenaugh; Betsy Andersen; Conna McCarthy; Jennifer Long; Tom Ramsey
Cc: Kevin Jackson; Pierce Macdonald; City Clerk
Subject: Comments on Second Study Session for Moraga Canyon
Date: Friday, March 08, 2024 10:02:08 AM

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Mayor Cavenaugh, Vice-Mayor Andersen and Council members McCarthy, Long and Ramsey,

Thank you for sponsoring the second study session ably presented by the City's expert team. I learned a lot (and know that the time was best spent for discussion among council members). Here are some thoughts based on my observations over the last three years of Piedmont's role in the Bay Area's housing crisis and its reluctant compliance with RHNA.

1. Piedmont can and should be part of the solution to the housing shortage rather than relying on other East Bay cities stepping forward to build more affordable housing. The City has permitted plenty of ADUs suitable for single occupants and as a complement now needs to build larger homes especially for family households limited to affordable incomes.

2. The desire for mixed income or "integrated" housing may be best met by building affordable multi-family housing (MF) not only in Moraga Canyon but also in other areas of the City. The City Council should focus on getting this first MF project done. In my opinion the only **feasible** affordable housing site in this sixth cycle is in the Moraga Canyon area. Piedmont is well behind other cities in its adoption of MF programs; for this reason developers have more attractive opportunities in other cities with proven track records supporting MF development.

3. The Moraga Canyon specific area study identifies the key variables and trade-offs. The City has a thorough comparison of the four primary options and can with confidence pick the best path forward. While your choice may not be "something for everyone", you can reach a sound decision for the community based upon urban planning, schedule, financing and environmental impacts. Based on this study, you should issue a RFP as soon as possible and solicit proposals from developers for housing development.

4. You undoubtedly would like to have a broad consensus based upon a win-win-win. If there was a realistic option for timely construction of a MF project, an expanded soccer field and a modernized Corp Yard then that would be an easy choice. Unsurprisingly there are schedule trade-offs and significant financial costs for the MF project if other desired community projects are attached. **In particular Piedmont's A-1 bond allocation may be jeopardized.** This should be avoided. The MF project must be the first priority unencumbered by unrelated improvements.

5. Piedmont is an economically segregated community. While some believe that location of a MF project in Moraga Canyon would be wrong, to me that is a "through the looking glass" perspective. The residents in affordable housing will be a small minority in Piedmont. The communal support from living in the same building will be highly preferable to a scattering of low income households among different neighborhoods. A single family living in subsidized housing among more affluent neighbors likely would feel isolated. We all know the history of school integration in the U.S. and the brave children that enrolled, bused and then were jeered as they walked though the doors of segregated schools. That will not happen in Piedmont. But 60 families living together in the first MF project is a very good outcome that will create a strong family community and break down a century of housing barriers in the City.

6. The Piedmont community wants to help its schools which have significant financial and recruitment challenges. The benefit of adding another 30 market rate units to the Moraga Canyon specific plan should be considered not only for improved economics, but also for the possibility to add **moderate**

income housing for PUSD employees that make more than the low income limit. In other words 10 of the 70-100 market units could be reserved for teachers on moderate incomes ***if*** PUSD and its philanthropic partners can contribute the lost margin (RLV) from converting 10 market units to moderate income units. There may be no better opportunity for PUSD to reserve housing for teachers. This potential inclusion of moderate income housing need not be decided now and should be explored through a RFP from developers. But if the City decides to add 30 dwelling units to the Moraga Canyon area because it is likely to enable a break-even outcome, then PUSD should be given an opportunity to step in and subsidize moderate income housing for its teachers.

7. The Fehr & Peers transportation report definitively lays to rest **all** concerns that have been raised about increased traffic. As someone who has biked up Moraga Ave. at 5-6 MPH, I applaud the road improvements that will ensure traffic safety for pedestrians, cyclists and cars. While some may prefer an up to 40 MPH speed for a quicker commute, I support "traffic calming" measures that will ensure safety for those that live, work and play in the Moraga Canyon neighborhood.

Summary

This is a momentous decision for Piedmont. As you deliberate I expect you will try to reach a consensus that meets the desires of everyone in the community. In my opinion a consensus is not possible in Moraga Canyon as those that insist upon preservation of all open space at Blair Park will not yield any ground for housing. Some open space can easily be preserved in Blair Park **with** housing development, but that concession will not be enough for them. If there is a strong desire in the community for more recreational space, the City should look to the large. undeveloped area below the Piedmont Reservoir. This secluded area is a much better recreational prospect when compared to Blair Park, a narrow, lightly used park adjoining an arterial road.

Last, after weighing the competing interests in new housing, enhanced recreation, modern city facilities and the status quo, if your vote upsets one or more constituencies, then you will have done the right thing. I respect the opinions of others that favor the status quo lifestyle, but I urge you to move forward with MF Option 1, with an additional 30 dwelling units, as the best overall choice for Piedmont and the broader community we all must live in together.

Randy Wu
[redacted] York Drive

From: irene cheng
To: City Council
Cc: Piedmont Is Home; Kevin Jackson; Pierce Macdonald; Rosanna Bayon Moore; Carol Galante; Ellen Greenberg; Andy Madeira; Sarah Karlinsky; Randy Wu; Jill Lindenbaum; Elise Marie; Deborah Leland; Andrea Ruiz-Esquide
Subject: Comments on Moraga Canyon Specific Plan
Date: Friday, May 17, 2024 12:45:51 PM

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Dear Members of the City Council:

We are writing in response to the actions taken by the City Council at its meeting on March 18, 2024, during which the Council gave direction to City staff and consultants on the Moraga Canyon Specific plan. We are residents of Piedmont and advocates for affordable housing who are eager to see the city move forward on a feasible plan for the site, as it has committed to doing in its recently adopted Housing Element. Several of us are housing policy and development professionals with many decades of experience in the field.

As part of its 6th cycle Housing Element, the City of Piedmont identified Moraga Canyon as its main opportunity site to build affordable housing. The City committed to creating a specific plan for Moraga Canyon and taking steps to issue an RFP.

After several months of meetings and analysis, at its January 22, 2024, study session on Moraga Canyon, members of the City Council reviewed four options for siting housing in Moraga Canyon, prepared by the city's consultants. The Council members narrowed the choices to two options: Option 1, which would build housing on the existing open space on the south side of Moraga Canyon, and Option 2, which would entail constructing a new sports field on the open space on the south side and building housing on the existing soccer field site on the north side. At the same meeting, Council ruled out two other options that would have been unreasonably expensive, since they entailed moving the existing Corporation Yard or rebuilding the existing soccer field with parking underneath.

As we have stated in our public comments and previous correspondence, we believe **Option 1 is the only viable plan that will realistically lead to housing construction during the current housing cycle.** Even Option 2 would require first fundraising for and building a new sports field (a controversial project that the community attempted and failed to carry out a decade ago, and that ended in a lawsuit) before building any housing. Option 2 would increase the project costs and delay the project by at least several years if not indefinitely.

To our surprise, at its March 18, 2024, meeting, the City Council, after previously narrowing the options to Options 1 and 2, voted to take Option 2 off the table, because it was discovered that the resulting sports field would not be large enough to fit a full baseball field. The Council then put back on the table Option 3 (which requires the City to move its

Corporation Yard from the north to the south side of Moraga Canyon)--an even more expensive project than the ball field, according to analyses prepared by the city's consultants. In addition, Council instructed staff to seek the development of community facilities, specifically an "under-14 soccer field, youth baseball/softball field, batting cages, artificial turf field, and ballfield seating" as well as a "dog park, playground, or pickleball court." (Piedmont City Council Meeting Minutes, March 18, 2024) This decision seems to illustrate the extent to which the City is not prioritizing housing production in its decision making around Moraga Canyon, but instead is allowing the development to be saddled with unrealistic requirements that will pose barriers and inevitably make the project infeasible.

As we have stated in our public comments and in previous correspondence, t**he purpose of the Specific Plan is to enable housing to be built.** Program 1.L of the City's Housing Element states: "The first goal [of the specific plan] is to enable construction of housing at a minimum of 132 units,... [including] a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI)."

Any plan that does not lead with housing, and instead prioritizes building an expanded sports field, a new corporation yard, or other amenities, misses the mark and potentially puts the City in violation of state Housing Element law. During its review of the draft Housing Element, the California Department of Housing and Community Development (HCD) raised this very concern, urging the City to analyze "the extent existing uses impede additional development [at the Moraga Canyon site], including timing of potential relocation or similar activity, *any known conditions that preclude or affect the timing or feasibility of development in the planning period* and potential schedule for development." HCD required that, based on this analysis, the City add or modify policies in the draft element "with a schedule of actions to *facilitate development in the planning period."*

State law requires cities to remove governmental constraints to housing development. This is especially imperative in a city like Piedmont that has historically created numerous visible and invisible barriers to affordable housing. That history has resulted in the status quo: a city with exactly ZERO income-restricted, multifamily affordable housing units, and one of the most segregated in the region. Moraga Canyon represents a wonderful opportunity to begin to redress this history, consistent with the Housing Element and the City's past commitments to anti-racism and housing and equity.

In conclusion, we ask that as the City moves forward to finalize the specific plan for Moraga Canyon and issues a request for proposals to prospective developers, that it follows its legal and ethical obligations to smooth the way to construct affordable housing in Piedmont rather than creating further obstacles and roadblocks. We urge you to *prioritize housing*, and to select a final plan that will maximize the likelihood that our city will see affordable housing constructed in the next decade. This will put us on a path to becoming the more diverse and inclusive community that we have all expressed we want to be.

Thank you for your consideration.

Yours truly,

Irene Cheng
Carol Galante
Ellen Greenberg
Andy Madeira
Sarah Karlinsky
Randy Wu
Jill Lindenbaum
Elise Marie Collins
Deborah Leland
Andrea Ruiz-Esquide

From: Kevin Jackson
To: Aradhana Jajodia; Julie Ortiz; Wayne Rowland; Raffi Zaroukian; batra.rani@gmail.com
Cc: Pierce Macdonald; Timothy Haagen; Andrew Watkins; Joshua Muller
Subject: Fwd: Please make these comments and attachment available to Planning Commission
Date: Monday, September 23, 2024 2:51:48 PM
Attachments: LSA Analysis of Sightlines.pdf

Planning Commissioners,

I'm forwarding you a comment on the MCSP received this afternoon. We'll provide a printed copy at the dais.

Kevin

Get Outlook for iOS

From: Ralph Catalano [redacted]>
Sent: Monday, September 23, 2024 2:25:56 PM
To: Kevin Jackson <kjackson@piedmont.ca.gov>
Cc: Jennifer Long <jlong@Piedmont.ca.gov>
Subject: Please make these comments and attachment available to Planning Commission

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Mr. Jackson,

I am hoping that you will make the following comments and the attachment available to the Planning Commission before tonight's meeting.

> *Tonight's staff report asserts that 200 families housed in Blair Park could safely access Moraga Avenue as motorists, bicyclists, and pedestrians. This assertion is at odds with an EIR prepared for the 2010 proposal to add playfields in Blair Park. The relevant pages of that EIR are attached. As you will see, the consultants who prepared that report concluded that access to Moraga Avenue from much of Blair Park would not meet State of California Corner Sight Distance (CSD) standards for safety. That inference assumed that the 85th percentile of speed among the then 10,000 or so daily vehicular trips on Moraga would be 35 MPH and that motorists, bicyclists and pedestrians accessing and leaving play fields in Blair Park would be few. Your staff report, however, shows presumably safe access for the entire length of Blair Park despite the facts that the 85th speed percentile is now 39 MPH, that current daily trips exceed 11,000, that 15,000 trips are expected under the new Housing Element, and that the 200 homes planned for Blair Park will generate more than 800 daily vehicular entrances and exits – many more than were anticipated under the 2010 playfield analyses.*
>
> *You should also be aware that the staff report applies a Stopping Sight Distance (SSD) standard to assess safety hazards. This standard assumes that hazards arise only from the behavior of drivers intending to pass Blair Park and not from that of drivers exiting or entering the Park. The CSD standard accounts for both and should also be applied*

to fully inform the Commission of the safety hazards that will arise from housing 200 families in Blair Park.

Also note that the staff report does not show the proposed Blair Park sidewalk as fenced, as is the existing Coaches Field sidewalk, to prevent children from "dashing" across Moraga where 15% of 15,000 vehicles will travel at speeds greater than 40 MPH making stopping sight distance too short to avoid pedestrian and bicyclist injury and death. I assume that this is an oversight, but correcting the plan to show the fence will better convey to constituents that you have been asked to endorse a Blair Park neighborhood sealed off from the remainder of Piedmont by impassable terrain, high fences, and a dangerous arterial.

Thank you,

Ralph Catalano, Ph.D.
Distinguished Emeritus Professor of Public Health
University of California, Berkeley
Berkeley, Ca. 94720

[redacted]

to 4:10 p.m. survey time is estimated to be a typical time when parents would drop off children for practice and leave the Blair Park driveways. The results show that there were approximately 50 opportunities (i.e., gaps greater than 7.5 seconds)[188] within the 30-minute interval where future traffic can safely make a left turn out of the Blair Park driveways. The highest left-turn volume out of each driveway is 44 p.m. peak-hour vehicles. Based on the gap survey data, it was concluded that there are enough gaps to accommodate the future outbound volume of the proposed Blair Park sports fields. It should be noted, however, that the outbound traffic volume at the project site would be concentrated within a peak 15-minute period as children are dropped off and picked up.

Queuing of vehicles waiting to turn left out of the Blair Park driveways was examined to ensure that excessive stacking of vehicles within the parking areas would not occur. According to the queues calculated during the LOS analysis, the maximum queue would be two vehicles at the west driveway and 3 vehicles at the east driveway. The site plan provides adequate distance for two vehicles to queue at the west driveway and 3 vehicles to queue at the east driveway without significantly affecting on-site traffic operations.

The LOS analysis conducted for the Blair Park driveways assumes the same arrival pattern as observed at Coaches Field. The arrival pattern is accounted for through the peak-hour factor, which adjusts the traffic volume so that the trips observed during the peak 15 minutes are reflected in the hourly traffic volume. One way to improve the operation of the driveways is to reduce the number of vehicles dropping off or picking up children at the same time. Although this measure would not reduce the worst-case LOS to an acceptable LOS D, it would result in less delay experienced by vehicles leaving the site and improved traffic operations on site and along Moraga Avenue.

> **Mitigation Measure TRAFF-1:** To mitigate the operational deficiency anticipated at the outbound Blair Park driveways, the City shall require that practice and game activities on each field are staggered by at least 30 minutes and drop-off and pick-up operations occur throughout the hours that the fields are utilized, rather than in a single 15-minute period each hour. Implementation of this measure would improve the delay for the outbound driveway movements and mitigate the level of service (LOS) from LOS F during the p.m. peak hour to LOS E. Although this measure would not reduce the worst-case LOS to an acceptable LOS D, it would result in less delay experienced by vehicles leaving the site and improved traffic operations on site and along Moraga Avenue. (SU)

(2) Hazards due to Design Features. Implementation of the proposed project could result in potentially significant hazards related to the design features of existing roadways in the project area, including limited sight distance at West Driveway Exit/Moraga Avenue, parking lot deficiencies, and operational deficiencies at the Blair Park Driveways.

Impact TRAFF-2A: Implementation of the proposed project has the potential to cause sight distance traffic hazards due to design features. (S)

Sight Distance and Driveway Operations at Project Access Points. Adequate sight distance at the proposed Blair Park project driveways is necessary to ensure safe egress from the parking lots. A clear line of sight should be provided for a driver exiting the driveway so that the driver can judge the

[188] Caltrans HDM Section 405.1 states that a driver turning out of the site requires 7.5 seconds to complete the necessary maneuver, while the approaching vehicle travels at the assumed design speed of the main highway.

speed and distance of oncoming vehicles and determine whether it is safe to enter the roadway. Likewise, adequate sight distance allows an oncoming driver to see a vehicle entering the roadway from the project and either slow down or stop, if necessary, to avoid the other vehicle.

The speed limit on Moraga Avenue is 25 mph. A spot speed survey was conducted for Moraga Avenue in 2008 and provided by the City. Based on the survey, the 85th percentile speed was 35 mph. The 85th percentile is the speed at which 85 percent of the traffic is traveling. Approximately 79 percent of the traffic travels between 25 and 35 mph. Highway Design Manual Section 405.1 recommends that, on a roadway with a design speed of 25 mph, a corner sight distance of 275 feet (ft) be provided. For roadways with a design speed of 35 mph, a corner sight distance of 385 ft is required. The recommended corner sight distance ensures that adequate time is provided for the waiting vehicle to either cross all lanes of through traffic or cross the near lanes and turn left or right without requiring through traffic to radically alter speed.

More than 275 ft of sight distance is provided at the departing driveways (Intersections 6 and 8, Figure 4.7.1), which would be adequate if the prevailing speed on Moraga Avenue was 25 mph. However, the speed surveys indicate that the prevailing speed is actually 35 mph. The observed existing speed of 35 mph along Moraga Avenue would require a sight distance of 385 ft at the proposed driveways. This distance is not provided at the intersection of West Driveway Exit/Moraga Avenue. The maximum sight distance was measured to be 300 ft from the driveway exit toward the west and 320 ft from the driveway exit toward the east. The maximum sight distance at Maxwelton Road/Moraga Avenue is satisfied since the sight distance was measured to be 405 ft from the driveway exit toward the west and 420 ft from the driveway exit toward the east. There would not be adequate sight distance at West Driveway Exit/Moraga Avenue if the speed along Moraga Avenue continues to be 35 mph. However, an analysis of vehicle speeds conducted by Harris and Associates in August 2008 recommends that enforcement be increased to reduce the 85th percentile speed. The 85th percentile is the speed at which 85 percent of the traffic is traveling. If the 85th percentile speed were reduced to below 35 mph, there would be adequate sight distance at the West Driveway Exit at Blair Park.

LSA analyzed the distance between Red Rock Road at Coaches Field and the intersection of West Driveway Entrance/Moraga Avenue at Blair Park to determine whether inbound or outbound left-turn movements at each location would conflict. Approximately 100 ft separates Red Rock Road and West Driveway Entrance/Moraga Avenue. Although these two access points are offset, the respective inbound left-turn movements can both be safely accommodated, as vehicles turning left into either location can do so without conflict. Outbound left-turn movements would not conflict because outbound left turns from Blair Park would be made at the outbound driveway, located more than 375 ft east of Red Rock Road.

Implementation of the following mitigation measure would reduce impacts related to design hazards to a less than significant level.

> **Mitigation Measure TRAFF-2A:** Consistent with the recommendation in the City's speed survey, the City shall provide additional enforcement of the speed limit using enforcement methods such as speed trailers or additional officer presence to reduce the 85th percentile speed to below 35 miles per hour (mph) to improve operations and safety and provide greater sight distance in the vicinity of the project. The 85th percentile is the

speed at which 85 percent of the traffic is traveling. The proposed Blair Park landscape plan also shows a row of landscaping along Moraga Avenue fronting the site. Landscaping shall be selected so that the sight distance at the outbound driveways is not blocked. The landscaping shall not exceed 3.5 feet in height and should be regularly maintained to ensure that adequate sight distance is maintained.

It should be noted that the effect of increased enforcement on the 85th percentile speed can not be accurately forecast, and therefore it is not known whether the mitigation measure will effectively mitigate the sight distance deficiency at the project driveways. For this reason, the project impact on sight distance is significant and unavoidable. (SU)

Impact TRAFF-2B: Implementation of the proposed project has the potential to cause parking traffic hazards due to design features. (S)

Parking Demand. Parking utilization surveys completed on Saturday, November 9, 2009, during scheduled soccer games show 33 vehicles parked at Coaches Field. It should be noted that the parking situation during the day that was surveyed was sufficient to accommodate all parked vehicles. The current parking lot adjacent to the existing Coaches Field is limited to approximately 13 spaces. There are three parking spaces immediately located outside the parking lot gate. There is a parking lot located walking distance towards the northeast of Coaches Field that can accommodate additional parking. The lot consists of 12 marked parking spaces. There are also two parking spaces along the curb on the right side of the entry drive. In addition, during weekends, the City of Piedmont Corporation Yard is accessible for overflow parking of approximately 14 parking spaces. The total number of parking spaces at Coaches field is 30 during the weekdays, and 44 during the weekends. The parking demand at Coaches Field is not anticipated to change as a result of the turf replacement or lighting. The same number of spaces would be utilized; however, they would be utilized later into the evening when the lights are in use. Because the Blair Park component of the project would provide two fields, the parking demand at Blair Park is estimated to be double the number of vehicles currently parked at Coaches Field, or 66 vehicles. The Blair Park sports fields would provide 40 total parking spaces. A total of 14 parking stalls would be located in the west lot and 26 parking stalls would be located in the east lot. This represents a deficit of 26 parking spaces.

Implementation of the following mitigation measure would reduce impacts related to design hazards to a less than significant level.

Mitigation Measure TRAFF-2B: Prior to operation of the project, the City shall provide 66 parking spaces on the Blair Park site to accommodate the forecast parking demand for the two proposed sports fields. (LTS)

Impact TRAFF-3: Implementation of the proposed pedestrian bridge spanning Moraga Avenue has the potential to increase safety hazards for pedestrians that may not choose to use the bridge. (S)

The project proposes to construct a pedestrian bridge spanning Moraga Avenue to connect the Coaches Field and Blair Park sites. Implementation of the proposed bridge could result in potentially significant safety hazards for pedestrians that choose to not use the bridge to cross Moraga Avenue. Research has been conducted to determine the suitability of a pedestrian bridge at the project site.

Statement of Ralph Catalano at the Piedmont Planning Commission Meeting of October 14, 2024

Our City Council will soon choose either the north or south side of Moraga Avenue as the site for a new 200-household neighborhood envisioned to comply with state law. That choice will reflect how safely pedestrians and bicyclists can cross Moraga Avenue at Red Rock. This is true because the south side option presumes that children residing in Blair Park will cross Moraga at the Red Rock intersection when leaving for, or returning from, school, Coaches Field, or visits with friends. As is now the case on the existing sidewalk west of Red Rock, a fence on the proposed sidewalk along Blair Park would likely be built to keep children from "dashing" across Moraga where about 2,200 of the 15,000 cars expected to use the road each day will travel at speeds exceeding 40 MPH. The Blair Park fence would funnel pedestrians and bicyclists from Blair Park to the Red Rock intersection where they could activate a planned "stop light" presumably visible for a sufficient distance to allow motorists on Moraga to stop safely.

At the Planning Commission meeting of September 25, the city's traffic consultant opined that stopping sight distances for drivers approaching the proposed Red Rock stop light from either direction on Moraga Avenue would be safe. He reported basing his opinion on Caltrans guidelines.

Several of us who live in Moraga Canyon found the consultant's opinion surprising because a 2010 EIR prepared for proposed playfields in Blair Park found that sight distances on the segment of Moraga that includes the intersection at Red Rock did *not* meet Caltrans stopping sight distance standards. Hoping to understand this concerning contradiction, I applied the Caltrans guidelines to the proposed Red Rock intersection. Results, described below, were the same as reported in the earlier EIR -- stopping sight distances were less than Caltrans deems safe. I hasten to add that I am not a traffic engineer. The city's consultant may judge the following analyses incorrect. If so, he should explain, to your satisfaction, how I am wrong.

The Caltrans Highway Design Manual is large and technical but includes two tables (attached) that summarize the calculation of stopping sight distances. The first table (i.e., 405.1B) lists the appropriate guidelines for various types of roads and intersections. For signalized intersections such as that proposed at Red Rock and Moraga, a footnote to the table refers the reader to a second table (i.e., 201.1) showing stopping sight distances for various "design speeds."

Design speed for existing roads equals the "operational speed" adjusted for circumstances specific to the analyzed road segment. Operational speed equals the 85th percentile of vehicle

speeds observed on the road segment in question. The September 25 Planning Commission staff report cited an operational speed of 39 MPH and a design speed of 40 MPH for Moraga Avenue at Red Rock and Blair Park.

Table 201.1 in the Caltrans Highway Design Manual shows a stopping sight distance of **300 feet** for a signalized intersection on a roadway with a "design speed" of 40 MPH**.**

I have attached two Google maps showing sight distances on the segment of Moraga Avenue that includes the Red Rock intersection. Figure A shows about 190 feet between the point at which drivers traveling east on Moraga first see the Red Rock intersection and the intersection itself. Figure B shows about 380 feet between the point at which vehicles traveling west first see the intersection and the intersection itself. If correct, these graphs imply no safe location for a signalized intersection near the current Red Rock Road. Even if the city took private property on Moraga Avenue and moved the intersection 110 feet to the east to provide a 300-foot sight distance for vehicles traveling east, vehicles traveling west would encounter an unsafe 270-foot sight distance.

As noted above, design speed can be modified to reflect local circumstances. Caltrans, for example, modifies design speeds shown in Table 201.1 to reflect the grade of roads. Downhill grades increase design speed whereas uphill grades decrease them. The staff report did not describe the grade of the road segment in question, but Moraga Avenue is not flat. The downhill, or westerly, grade decreases at Red Rock but for the purposes of this analysis, I assumed the grade was constant. If so, grade adjusting my analyses would not affect my conclusion that a pedestrian crossing at Red Rock would not be safe. Any shortening of the 300-foot stopping sight distance for drivers approaching Red Rock from the west (i.e., traveling east) would be canceled by lengthening of that for drivers approaching from the east (i.e., traveling west). There would be no safe location for a pedestrian crossing at Red Rock.

Also note that 200 households would likely generate over 1,000 vehicular entrances and exits from Blair Park each day. The analyses described above imply that no connecting road between Blair Park and Moraga Avenue could be safely located between the current Red Rock intersection and the "first sight" point shown on Figure B for vehicles traveling west. A connector in this segment would cause dangerous stacking of vehicles making left turns into Blair Park from a point within 300 feet of first sight by drivers traveling west on Moraga. More than a 1,000 daily trips out of and into Blair Park would, therefore, occur on a single connector east of the first sight point on Figure B. AM stacking in Blair Park and PM stacking on Moraga at such a single

connector would be considerable with the latter causing stacking on the Moraga/Thornhill exit of Route 13 which has a dangerously short stopping sight distance for vehicles traveling east.

The above analyses assume a design speed of 40 MPH. About 2,200 vehicles a day will, however, *exceed* 40 MPH when traveling on Moraga Avenue. The Caltrans Highway Design Manual, in fact, recommends (Page 100-2) a 45 MPH Design Speed for local roads, like Moraga Avenue, that connect to State highways like Route 13. If we assume a 45 MPH design speed, housing 200 families in Blair Park would appear even more dangerous than implied by my conservative analyses described above.

Staff and consultants noted at the Planning Commission meeting of September 25 that strategies such as narrowing the roadway could lower the design speed for Moraga Avenue. This, of course, assumes that the resulting “stacking” of vehicles on Route 13 at the Moraga/Thornhill exit during peak traffic hours would be safe. Stopping sight distance to that exit on Route 13 for vehicles traveling east is, however, far below safe levels given the speeds traveled on that highway.

Assuming the above analyses are correct, protecting pedestrians and bicyclists would favor planning Piedmont’s new neighborhood for the north side of Moraga Avenue. This is true because residents would have no reason to cross Moraga where the only land use would be a relocated Corporation Yard.

Table 405.1B

Application of Sight Distance Requirements

Intersection Types	Sight Distance		
	Stopping	Corner	Decision
Private Roads	X	X[(1)]	
Public Streets and Roads	X	X	
Signalized Intersections	X	X[(2)]	
State Route Intersections & Route Direction Changes, with or without Signals	X	X	X

NOTES:

(1) Per Index 405.1(2)(c), if signalized, the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.

(2) Apply corner sight distance requirements at signalized intersections whenever possible due to unanticipated violations of the signals or malfunctions of the signals. See Index 405.1(2)(b).

Table 201.1

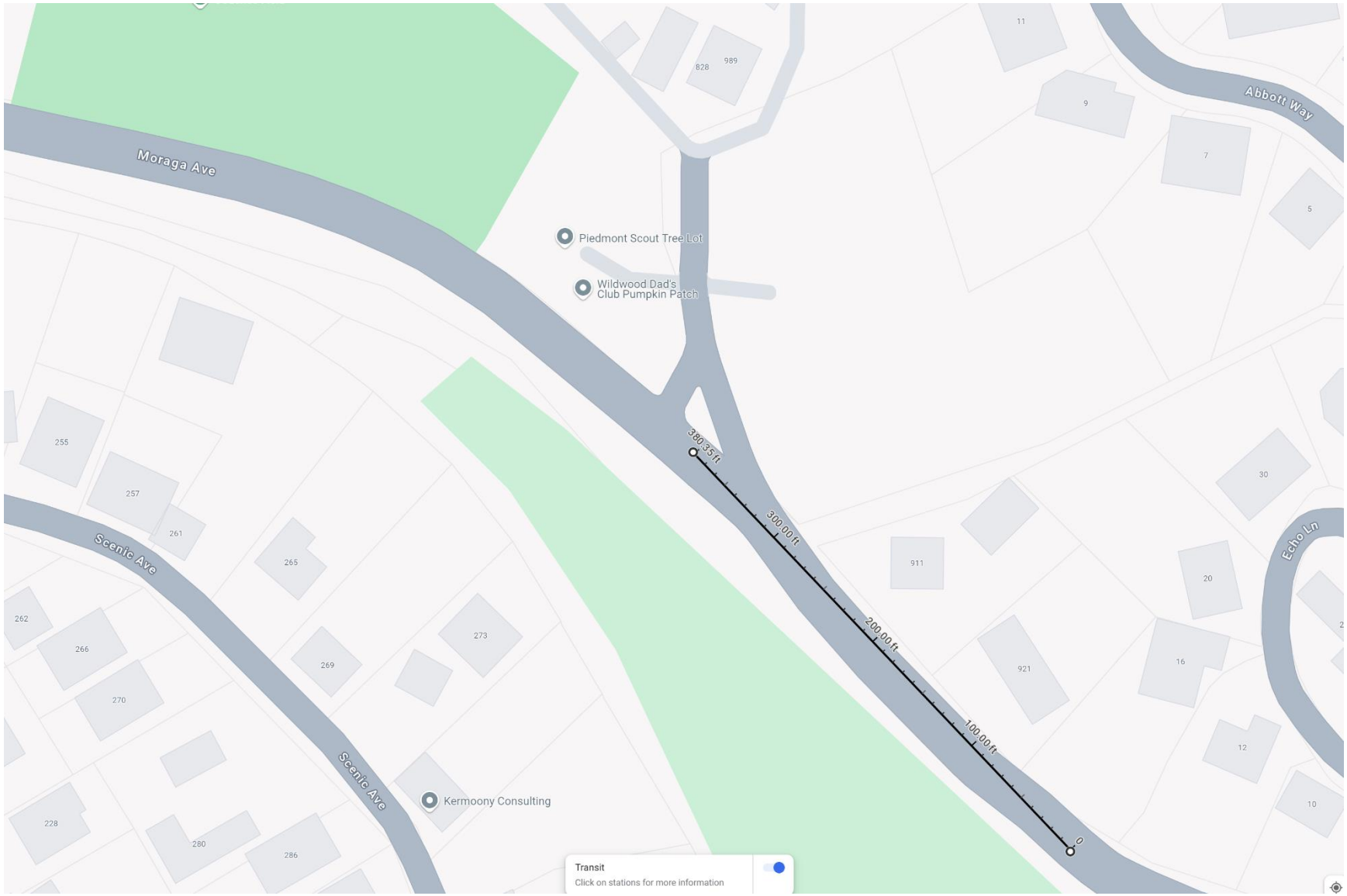
Sight Distance Standards

Design Speed[1] (mph)	Stopping[2] (ft)	Passing (ft)
10	50	---
15	100	---
20	125	800
25	150	950
30	200	1,100
35	250	1,300
40	300	1,500
45	360	1,650
50	430	1,800
55	500	1,950
60	580	2,100
65	660	2,300
70	750	2,500
75	840	2,600
80	930	2,700

Figure A

Moraga Ave
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
190.94ft
100.00ft
0
Abbott Way
Scenic Ave
Echo Ln
828
989
11
9
7
5
17
34
30
20
23
911
921
16
12
55
257
261
265
266
269
270
273

Figure B


Moraga Ave
Abbott Way
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
Scenic Ave
Scenic Ave
Kermoony Consulting
Echo Ln
380.35 ft
300.00 ft
200.00 ft
100.00 ft
0
Transit
Click on stations for more information

From: Rosanna Bayon Moore
To: City Clerk; Kevin Jackson; Pierce Macdonald
Subject: Fw: proposed housing units in Moraga Canyon...please forward this message to the planning commission members
Date: Sunday, October 13, 2024 9:34:18 PM

Fyi

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From: jane pingatore [redacted]
Sent: Sunday, October 13, 2024 9:22 PM
To: City Council <CityCouncil@piedmont.ca.gov>
Subject: Fwd: proposed housing units in Moraga Canyon...please forward this message to the planning commission members

Some people who received this message don't often get email from janepingatore@gmail.com. Learn why this is important

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Hello City Council Members:
My name is Jane Holland; my husband David and I live on Harbord Dr just above Moraga Av. in Oakland. We are firmly opposed to this housing development because of the traffic and safety issues involved on Moraga Av. With the addition of 800 more cars entering/exiting Moraga Av, it is impossible to imagine the traffic backup entering and exiting Hwy 13, and also moving thru the Highland/Moraga intersection Current daily trips exceed 11,000 which would increase to 15,000 if you build; this is many more than the 2010 soccer playfield analyses anticipated.
Moraga ave is a major evacuation route for Piedmont and Oakland. It is also "landfill", with an old river channeled underneath it, thru a crack in the Hayward fault. This is a dangerous situation.
Harbord Dr is now designated as a major cut thru on GoogleMaps for some reason for construction trucks, cement mixers etc. heading for Piedmont and it is difficult some mornings to even pull out of my driveway. I cannot imagine what your project will bring in terms of construction traffic, noise and environmental ramifications.
Please reconsider other locs for your project; I know that Piedmont residents don't want this project in "central Piedmont" but I do believe you need to take a closer look at what you have that would work better for everyone.
Thank you,
Jane Holland

From: Ralph Catalano
To: City Council
Subject: Draft Moraga Canyon Specific Plan
Date: Monday, April 28, 2025 4:39:19 PM

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Dear Councilmember,

The draft plan before you this evening (i.e., 4/28/25) implies that land developers, not the City Council, will decide whether a mixed income neighborhood of 199 homes will be built in Blair Park or around Coaches Field. Keeping in mind that you have the authority and obligation to protect the public's health and safety, ask yourself this question: do you really believe that housing 199 families in Blair Park would produce as safe a neighborhood as housing them around Coaches Field? When answering this question please consider several facts we know from city-led studies and debates. We know that Blair Park includes an un-engineered landfill with unknown contents. We know that entrances and exits from Blair Park will not meet Caltrans' safety standards. We know that we will have to build a fence, like that now east of Red Rock, along the entire length of Blair Park to keep children from dashing across Moraga Avenue while attempting to reach recreational facilities at Coaches Field. That fence will funnel pedestrians to a crossing at Red Rock, but will also "cage" the city's only mixed-income neighborhood.

On the other hand, we know that building the neighborhood around Coaches Field would allow families to walk safely to existing and planned recreation facilities. We know that pedestrian access to and from schools would be, as it now is, by protected walkways from Coaches Field to the Highland/Moraga intersection. We know that safe vehicular access to a new Coaches Field neighborhood could be provided via connections to Clarewood Drive.

Given the above, why did we ever consider housing 200 families in Blair Park? Two answers appear in the public record. The first is that making the flat portion of Blair Park available for high-density housing was thought the fastest and surest way for developers to secure subsidized financing. The second was that building the neighborhood around Coaches Field would require the city to incur the cost of moving the corporation yard to Blair Park. My response to these concerns would be that, first, your obligation is to protect the health and safety of your constituents – not the financial interests of land developers. And second, attributing the cost of improving the corporation yard to the new neighborhood is a logical error. We will soon incur that cost regardless of whether or where the new neighborhood is built. As Councilmembers and staff have publicly stated, the city must soon upgrade its public safety infrastructure including the police and fire stations as well as the corporation yard where much emergency response equipment is stored and maintained.

Thank you for your service to the community and for your continued attention to my concerns regarding Moraga Canyon,

Ralph Catalano, Ph.D.
Distinguished Emeritus Professor of Public Health
University of California, Berkeley
Berkeley, Ca. 94720

[redacted]

From: Kevin Jackson
To: Pierce Macdonald
Subject: FW: Moraga Canyon Specific Plan Traffic Analysis
Date: Monday, May 05, 2025 3:13:59 PM
Attachments: Brohard letter-4282025.pdf
Tom Brohard letter- 10022024.docx
R.Catalano- MCSP lletter 022024.docx

Forwarding,

Kevin Jackson, AICP Planning & Building Director
City of Piedmont, 120 Vista Avenue, Piedmont, CA 94611
Tel: (510) 420-3039 Fax: (510) 658-3167

Receive Planning & Building Department news emails by subscribing at:
https://lp.constantcontactpages.com/su/rMGm1oM/PiedmontPlanBuild "

From: Marjorie Blackwell <marjb0839@gmail.com>
Sent: Monday, May 05, 2025 3:10 PM
To: City Council <CityCouncil@piedmont.ca.gov>
Cc: Kevin Jackson <kjackson@piedmont.ca.gov>
Subject: Moraga Canyon Specific Plan Traffic Analysis

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[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

To: Piedmont City Council

From: Friends of Moraga Canyon, Board of Directors members

Re: Moraga Canyon Specific Plan, Traffic Plan

Cc: Piedmont Planning Commission, Piedmont Planning Department

Date: May 5, 2025

Dear City Council Members,

Friends of Moraga Canyon (registered 501-C3 nonprofit) has retained

the services of Tom Brohard, a licensed California traffic engineer, to review the proposed traffic plan in the Moraga Avenue Specific Plan. Please see his attached letter (#1), dated April 28, 2025.

As you can see, Mr. Brohard does not agree with the Plan's traffic analysis of existing speeds, stopping sight distances required for a traffic signal and pedestrian crossing at Red Rock Road, or driveway placements on the south side of Moraga Ave. Mr. Brohard refers to an earlier analysis (Oct. 1, 2024) which he did of the traffic plan in the MCSP Administrative Draft (Attach #2).

Piedmont resident Ralph Catalano further spelled out the traffic and pedestrian safety issues in a statement to City Council on Oct. 7, 2024. His statement refers to a 2010 EIR for a proposed Blair Park sports field that also found that stopping sight distances at Red Rock Road do not meet Caltrans standards (Attach #3).

We realize you have many issues to consider with this extremely challenging Plan, and we appreciate the careful, thoughtful and deliberative analysis you are giving it. Traffic and pedestrian safety surely are at the top of the list. Please keep asking the tough questions.

Thank you for your consideration, and let us know if you have any questions or need further information.

Friends of Moraga Canyon Board of Directors

Marj Blackwell, President

Daphne Albert, Treasurer

Julie Watters, Secretary

Peggy Esposito, Oakland representative

Attach. 1

Attach. 2

Attach. 3.

Tom Brohard and Associates

May 1, 2025

Board of Directors
Friends of Moraga Canyon
451 Pala Avenue
Piedmont, California 94611

SUBJECT: Review of the Moraga Canyon Specific Plan Public Review Draft in the City of Piedmont – Traffic and Transportation Issues

Dear Board Members:

As requested and as authorized, I, Tom Brohard, P.E., have reviewed the Moraga Canyon Specific Plan Public Review Draft. As you know, I also reviewed the Administrative Draft of this document and advised of my findings on October 1, 2024. In both of these reviews, I found these significant issues:

1) Traffic Speeds - The documents continue to incorrectly rely on the 85th percentile speed rather than the "Design Speed" which is typically 10 mph above the 85th percentile speed. For Moraga Avenue, the design speed should be at least 50 mph and could be as high as 55 mph depending on current speed measurements. The vehicle speeds relied upon by the Public Review Draft were likely influenced by the speed feedback signing which apparently was in place and operating when vehicle speeds were measured in September 2023 (See Page 29). The speed measurements also do not necessarily reflect current conditions and traffic speeds.

2) Stopping Sight Distance – Use of the proper design speed which is 10 mph higher than the 85th percentile speed will result in longer distances for stopping, particularly in the downhill eastbound direction. It is critically important for motorists to see and react properly to the traffic signal indications at Red Rock Road with pedestrians crossing Moraga Avenue, even with advance flashing beacons for the traffic signal. The proposed signing with the flashing beacons should refer to the traffic signal rather than the pedestrian crossing which would be a part of the traffic signal. In addition, the proposed pedestrian refuge island should be deleted as its placement would actually encourage pedestrians to wait in the middle of Moraga Avenue rather than to walk entirely across and clear the roadway out of traffic. Traffic signal equipment and signing should not be installed within the roadway.

3) Residential Development – If located on the south side of Moraga Avenue, at least two and probably three access driveways to serve the apartments will be needed. The driveways introduce many additional points of conflict with Moraga Avenue traffic and also create the possibility of random midblock pedestrian and bicycle crossings. These potential safety issues can be eliminated before they can occur by building the residential units on the north side of Moraga Avenue where vehicle access will occur with the protection of the proposed traffic signal.

Respectfully submitted,

Tom Brohard

Tom Brohard, Principal
Enclosure - Resume

81905 Mountain View Lane, La Quinta, California 92253-7611
Phone (760) 398-8885 Email tbrohard0@gmail.com

Tom Brohard, PE

Licenses: 1975 / Professional Engineer / California – Civil, No. 24577
1977 / Professional Engineer / California – Traffic, No. 724
2006 / Professional Engineer / Hawaii – Civil, No. 12321

Education: 1969 / BSE / Civil Engineering / Duke University

Experience: 55+ Years

Memberships: 1977 / Institute of Transportation Engineers – Fellow, Life
1978 / Orange County Traffic Engineers Council - Chair 1982-1983
1981 / American Public Works Association – Life Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Big Bear Lake..... 2006 - 2015
- Indio..... 2005 - 2019
- Huntington Beach ..... 1998 - 2004
- Lawndale..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Fernando..... 2004 - Present
- San Marcos..... 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $10 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

In his 14 years of service to the City of Indio, Tom accomplished the following:

- Oversaw preparation and adoption of the 2008 Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain conditions.

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Jackson Street and on Monroe Street over I-10 as well as justifications for protected-permissive left turn phasing at I-10 on-ramps, the first such installations in Caltrans District 8 in Riverside County; reviewed plans and provided assistance during construction of both $2 million projects to install traffic signals and widen three of four ramps at these two interchanges under Caltrans encroachment permits.

- Reviewed traffic signal, signing, striping, and work area traffic control plans for the County's $45 million I-10 Interchange Improvement Project at Jefferson Street.

- Reviewed traffic impact analyses for Project Study Reports evaluating different alternatives for buildout improvements of the I-10 Interchanges at Jefferson Street, Monroe Street, Jackson Street and Golf Center Parkway.

- Oversaw preparation of plans, specifications, and contract documents and provided construction assistance for over 70 traffic signal installations and modifications.

- Reviewed and approved over 2,000 work area traffic control plans as well as signing and striping plans for all City and developer funded roadway improvement projects.

- Oversaw preparation of a City-wide traffic safety study of conditions at all schools.

- Obtained $47,000 grant from the California Office of Traffic Safety and implemented the City's Traffic Collision Database System. Annually reviews "Top 25" collision locations and provides traffic engineering recommendations to reduce collisions.

- Prepared over 1,500 work orders directing City forces to install, modify, and/or remove traffic signs, pavement and curb markings, and roadway striping.

- Oversaw preparation of engineering and traffic surveys to establish enforceable speed limits on over 500 street segments.

- Reviewed and approved traffic impact studies for more than 35 major projects and special events including the annual Coachella and Stagecoach Music Festivals.

- Developed and implemented the City's Golf Cart Transportation Program.

Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

Statement of Ralph Catalano at the Piedmont City Council of October 7, 2024

Our City Council will soon choose either the north or south side of Moraga Avenue as the site for a new 200-household neighborhood required by State law. That choice will reflect how safely pedestrians and bicyclists can cross Moraga Avenue at Red Rock. This is true because the south side option presumes that children residing in Blair Park will cross Moraga at the Red Rock intersection when leaving for, or returning from, either school or Coaches Field. As is now the case on the existing sidewalk west of Red Rock, a fence on the proposed sidewalk along Blair Park would likely be built to keep children from "dashing" across Moraga where about 2,200 of the 15,000 cars using the road each day will travel at speeds exceeding 40 MPH. The Blair Park fence would "funnel" pedestrians to the Red Rock intersection where they could activate a planned "stop light" presumably visible for a sufficient distance to allow motorists on Moraga to stop safely.

At the Planning Commission meeting of September 25, the city's traffic consultant opined that stopping sight distances for drivers approaching the Red Rock intersection from either direction on Moraga Avenue would be safe. He reported basing his opinion on Caltrans guidelines.

Several of us who live in Moraga Canyon found the consultant's report surprising because a 2010 EIR prepared for proposed playfields in Blair Park found that sight distances on the segment of Moraga that includes the intersection at Red Rock did *not* meet Caltrans stopping sight distance standards. Hoping to understand this important contradiction, I applied the Caltrans guidelines to the proposed Red Rock intersection. Results were the same as reported in the earlier EIR -- stopping sight distances were less than Caltrans deems safe.

The Caltrans Highway Design Manual is very technical but includes two tables (attached) that succinctly provide the information regarding stopping sight distances. The first table (i.e., 405.1B) lists the appropriate guidelines for various types of roads and intersections. For signalized intersections such as that proposed at Red Rock and Moraga, a footnote to the table refers the reader to a second table (i.e., 201.1) showing stopping sight distances for various "design speeds."

Design speed for existing roads equals the "operational speed" adjusted for circumstances specific to the analyzed road segment. Operational speed equals the 85^{th} percentile of vehicle speeds observed traveling on the road segment in question. The September 25 Planning Commission staff report cited an operational speed of 39 MPH and a design speed of 40 MPH for Moraga Avenue at Red Rock and Blair Park.

Table 201.1 in the Caltrans Highway Design Manual shows a stopping sight distance of **300 feet** for a signalized intersection on a roadway with a "design speed" of 40 MPH**.**

I have attached two Google maps showing my results. Each shows the segment of Moraga Avenue that includes the Red Rock intersection. Figure A shows about 190

feet between the the point at which drivers traveling east on Moraga first see the Red Rock intersection and the intersection itself. Figure B shows about 380 feet between the point at which vehicles traveling west first see the intersection and the intersection itself. If correct, these graphs imply no safe location for a signalized intersection near the current Red Rock Road. Even if the city took private property on Moraga Avenue and moved the intersection 110 feet to the east to provide a 300 foot sight distance for vehicles traveling east, vehicles traveling west would encounter an unsafe 270-foot sight distance.

Also note that 200 households would likely generate over 1,200 vehicular entrances and exits from Blair Park each day. The guidelines described above imply no connecting road between Blair Park and Moraga Avenue could be safely located between the current Red Rock intersection and the “first sight” point shown on Figure B for vehicles traveling west. A connector in this segment would cause dangerous stacking of vehicles making left turns into Blair Park from a point within 300 feet of first sight by drivers traveling west on Moraga. All 1200 or so daily trips out of and into Blair Park would, therefore, occur on a single connector east of the first sight point on Figure B. AM stacking in Blair Park and PM stacking on Moraga at such a single connector would be considerable with the latter causing stacking on the Moraga/Thornhill exit of Route 13 which has a dangerously short stopping sight distance.

Assuming the above is correct, it would seem that any scheme to house 200 families in Moraga Canyon will be dangerous by Caltrans standards. Pedestrian and bicyclist safety, however, favors planning Piedmont’s new neighborhood for the north side of Moraga. This is true because residents would have no reason to cross Moraga where the only land use would be the relocated Corporation Yard.

As noted above, design speed can be modified to reflect local circumstances. Caltrans, for example, modifies design speed shown in Table 201.1 to reflect the grade of roads. Downhill grades increase design speed whereas uphill grades decrease them. The staff report did not describe the grade of the road segment in question, but Moraga Avenue is not flat. The downhill, or westerly, grade decreases at Red Rock but for the purposes of this analysis, I assumed the grade was constant. If so, grade adjusting my analyses would not affect my conclusion that a pedestrian crossing at Red Rock would not be safe. Any shortening of the 300 foot stopping sight distance for drivers approaching Red Rock from the west (i.e., traveling east) would be canceled by lengthening of that for drivers approaching from the east (i.e., traveling west). There would be no safe location for a pedestrian crossing at Red Rock.

The above result assumes a design speed of 40 MPH. As noted above, however, about 2,200 vehicles a day will *exceed* 40 MPH when traveling on Moraga Avenue. Indeed, the Highway Design Manual recommends (Page 100-2) that the Design Speed for local roads connecting to a State highway like Route 13 be 45 MPH or higher. If we assume this design speed (i.e., 45 MPH), housing 200 families in Blair Park would appear even more dangerous than implied by my conservative analyses described above. The

argument entertained at the Planning Commission meeting, moreover, that narrowing Moraga Avenue could yield safer speeds assumes that the resulting “stacking” of vehicles on Route 13 at the Moraga/Thornhill exit during peak traffic hours would be safe. Stopping sight distance to that exit on Route 13 while traveling east is, however, far below safe levels given the speeds traveled on that highway.

Table 405.1B

Application of Sight Distance Requirements

Intersection Types	Sight Distance		
	Stopping	Corner	Decision
Private Roads	X	X[(1)]	
Public Streets and Roads	X	X	
Signalized Intersections	X	X[(2)]	
State Route Intersections & Route Direction Changes, with or without Signals	X	X	X

NOTES:

(1) Per Index 405.1(2)(c), if signalized, the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.

(2) Apply corner sight distance requirements at signalized intersections whenever possible due to unanticipated violations of the signals or malfunctions of the signals. See Index 405.1(2)(b).

Table 201.1

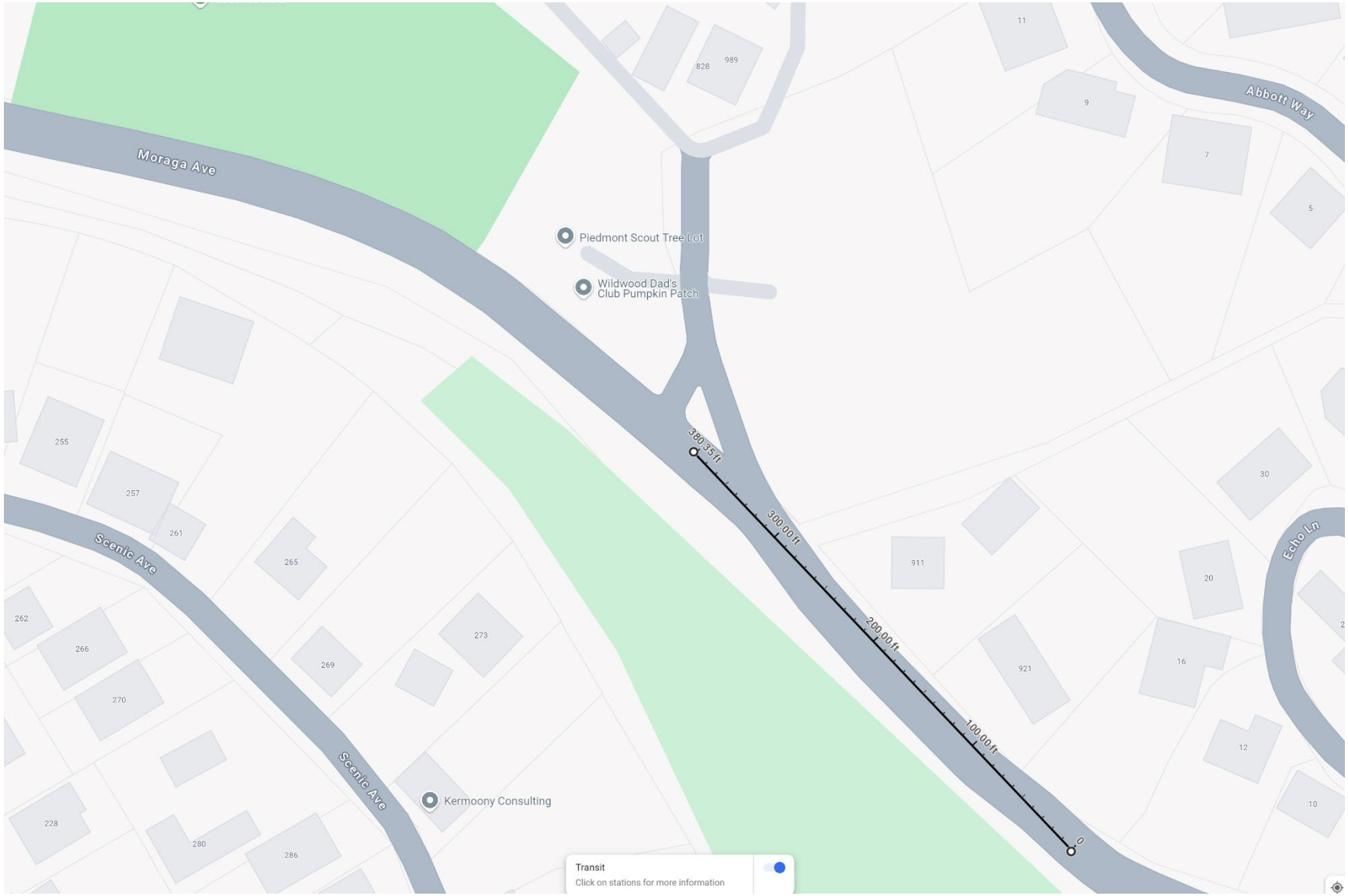
Sight Distance Standards

Design Speed[1] (mph)	Stopping[2] (ft)	Passing (ft)
10	50	---
15	100	---
20	125	800
25	150	950
30	200	1,100
35	250	1,300
40	300	1,500
45	360	1,650
50	430	1,800
55	500	1,950
60	580	2,100
65	660	2,300
70	750	2,500
75	840	2,600
80	930	2,700

Figure A

Moraga Ave
Abbott Way
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
190.94 ft
100.00 ft
0
Scenic Ave
Echo Ln
828
989
11
12
9
7
5
3
34
30
20
23
16
12
911
921
55
257
261
265
266
269
270
273

Figure B


Moraga Ave
Abbott Way
Piedmont Scout Tree Lot
Wildwood Dad's
Club Pumpkin Patch
Scenic Ave
Scenic Ave
Kermoony Consulting
Echo Ln
380.35 ft
300.00 ft
200.00 ft
100.00 ft
0
Transit
Click on stations for more information

To Friends of Moraga Canyon Board:

October 2, 2024

As requested, I have now reviewed the Moraga Canyon Specific Plan Administrative Draft and the Staff Report that were discussed by the City Council at their September 23, 2024, meeting. I have several comments for consideration as follows:

1. Traffic Speeds and Critical Speeds – In 2011, my reports questioned the 25 MPH speed limit and the data that was collected at that time. Speed limits are established at about the 85th percentile speed as measured in an engineering and traffic survey. Establishing an enforceable speed limit requires starting at the 5 MPH increment closest to that speed. The 85th percentile speed (or critical speed), is the speed at which 85 percent of the vehicles travel at or less under light, free-flowing conditions in good weather. Current speeds need to be measured in both directions on Moraga Avenue in the vicinity of Red Rock Road, with at least 100 vehicles measured in each direction. The speeds uphill and downhill should be averaged together and the critical speed calculated.

2. Design Speeds – When selecting a design speed from the measured speeds, typically a speed of 10 MPH above the critical speed is chosen. At the design speed, about 95 percent of the traffic would be travelling at or below that speed. If the critical speed was found to be 43 or 44 MPH, then a design speed of 55 MPH should be utilized. If the critical speed was found to be 42 or 41 MPH, then a design speed of 50 MPH should be utilized.

3. Stopping Sight Distance – The chart from the Caltrans Design Manual attached to Ralph's draft letter does not account for the roadway profile grade. Downhill grades require additional stopping distance and uphill roadway grades require less stopping distance. For Moraga Avenue, the roadway grade at Red Rock Road should be considered. The stopping sight distance on a flat road would be 500' as shown in the chart for 55 MPH and 430' for 50 MPH. In each case, the impact of the roadway grade should be added for downhill traffic and subtracted for uphill traffic.

4. Residential Development – Section 3.11 of the Administrative Draft indicates that up to 197 multi-family units and 2 single family homes could be constructed in the area available. From the 11th Edition of Trip Generation Manual published by the Institute of Transportation Engineers (ITE), each affordable housing unit would be expected to generate about 5 weekday daily trips and each multi-family housing unit would generate about 7 weekday daily trips. I understand that the City Council is continuing to consider the location of the housing, but all housing will either be on the north side of Moraga Road or all on the south side. With residential development north of Moraga Avenue, all vehicle access would occur from Red Rock Road, a proposed signalized intersection that would also serve the Corporate Yard and Coaches Field. With residential development on the south side of Moraga Avenue, multiple driveways would be constructed to serve the new housing and parking along the side of Moraga Avenue at Blair Field. Page 99 of the Administrative Draft illustrates that at least 3

driveways would be provided, with each creating uncontrolled vehicle access to and from Moraga Avenue. These three vehicle access driveways would create numerous additional conflict points with Moraga Avenue traffic compared to providing a single access point for residential development on the north side at Red Rock Road controlled by a traffic signal.

5. Moraga Avenue/Red Rock Road Configuration – Page 70 of the Administrative Draft illustrates a traffic signal with pedestrian facilities and advance flashing beacons for this intersection. With the housing development that is proposed and if it is located on the north side of Moraga Avenue, a traffic signal would be warranted and should be installed. I do not believe that a traffic signal would be warranted if the housing is built on the south side of the roadway. Furthermore, traffic safety would be compromised with several driveways that would create additional conflict points on Moraga Avenue. Based on this finding alone regarding traffic safety, the housing should be constructed on the north side of Moraga Avenue. Several suggestions should also be considered as follows:

    a. Traffic Signal Operation – With only one through lane in each direction, separate left turn phasing (arrows) would not be needed on Moraga Avenue. When constructing the traffic signal, provisions such as wiring and larger pole foundations should be included that would easily and economically accommodate left turn phasing in the future should it be desired.

    b. Moraga Avenue – The roadway should include a separate eastbound left turn lane with a 150’ reverse taper and adequate length to accommodate 10 MPH slowing in the through lane and slowing to 15 MPH for left turns from the downhill design speed. Moraga Avenue should also include an eastbound acceleration lane that mirrors the eastbound left turn lane and allows smooth acceleration and merging into the single lane for eastbound traffic.

    c. Red Rock Road – The roadway should intersect Moraga Avenue at a 90-degree angle (squared off) and there should not be a free right turn into Red Rock Road from the east – all traffic should be controlled by the traffic signal.

    d. Pedestrian Crosswalks – One should be across Red Rock Drive and only on one side across Moraga Avenue with accessible ramps (probably the east side for Blair Park). “Walk” “Don’t Walk” pedestrian indications should be provided for the crosswalks, together with sufficient time for pedestrians to cross Moraga Avenue. Raised islands for pedestrians to stand on in the middle of Moraga Avenue would not be safe and should not be provided. Pedestrian crossings of the west leg should be prohibited with signs and pedestrian barricades.

e. Advance Flashing Beacons – Advance flashing beacons should be installed on Moraga Avenue with traffic signal warning signs, not a Pedestrian warning sign as illustrated. “Signal Ahead” pavement markings adjacent to the flashing beacons should also be painted.

f. Public Transit – Drop Off/Pick Up Zones – The location of public transit stops on the far side of the signalized intersection on Moraga Avenue and Red Rock Road is appropriate. These bus zones could also be used for drop off/pick up zones for the new housing and for Coaches Field so that users would not be required to enter the site.

g. Sidewalks and Bicycle Facilities – I agree with the proposed sidewalks shown in Chapter 4.8. Existing bicycle facilities are shown on Chapter 4.10, with the proposed bicycle facilities shown on Chapter 4.11. Based on the counts cited from September 2023 in Chapter 4.10 of “up to 5 bicyclists per hour were observed in both directions”, I do not believe that the bicycle lane network proposed in Chapter 4.11 is needed. Today’s low bike volume together with the profile grades facing additional bike riders with the required professional quality of the riders would not seem to justify the expense. Constructing the proposed facilities for the few bicyclists would require significant cutting, filling, grading, and drainage structures.

6. Provide Stopping Sight Distances – Trees, bushes, and side slopes should be cut back to provide stopping sight distances for downhill and for uphill traffic on Moraga Avenue of the traffic signal indications and the flashing beacons. It may be necessary to provide an additional traffic signal indication on the far-left approach at 18’ high to obtain the needed stopping sight distance for the design speed.

Thank you for the opportunity to provide these comments for consideration. Please call me or email if there are questions.

Respectfully submitted,

Tom Brohard, Principal

Tom Brohard and Associates

81905 Mountain View Lane

La Quinta, California 92253-7611

(760) 398-8885

Tbrohard0@gmail.com

Statement of Ralph Catalano at the Piedmont City Council of October 7, 2024

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Several of us who live in Moraga Canyon found the consultant's report surprising because a 2010 EIR prepared for proposed playfields in Blair Park found that sight distances on the segment of Moraga that includes the intersection at Red Rock did *not* meet Caltrans stopping sight distance standards. Hoping to understand this important contradiction, I applied the Caltrans guidelines to the proposed Red Rock intersection. Results were the same as reported in the earlier EIR -- stopping sight distances were less than Caltrans deems safe.

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Application of Sight Distance Requirements

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NOTES:

(1) Per Index 405.1(2)(c), if signalized, the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.

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Table 201.1

Sight Distance Standards

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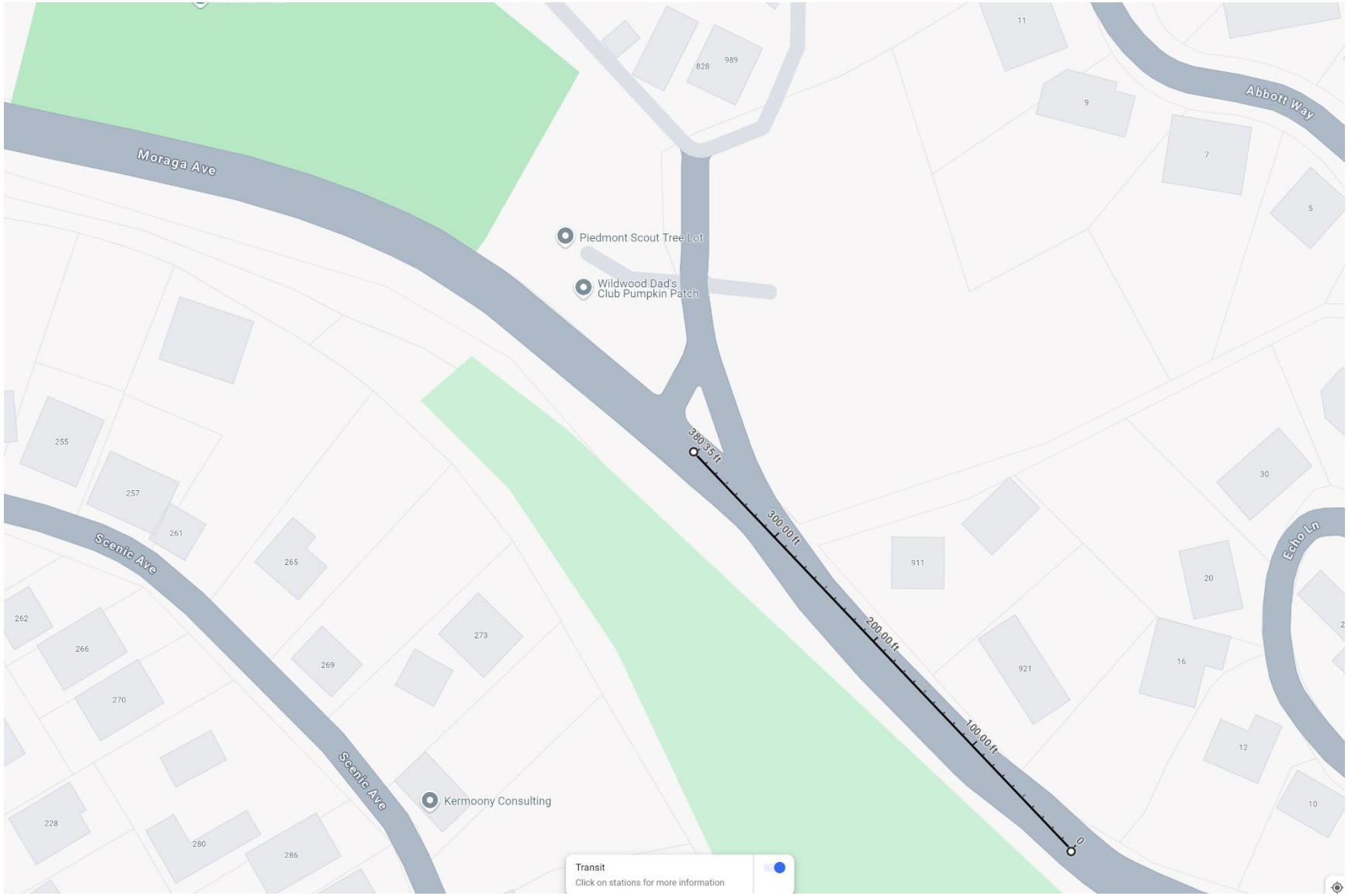
Figure A

Moraga Ave
Abbott Way
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
190.94 ft
100.00 ft
0
Scenic Ave
Echo Ln
828
989
11
9
7
5
3
12
34
30
20
23
16
12
911
921
55
257
261
265
266
269
270
273

Figure B


Moraga Ave
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
Abbott Way
Scenic Ave
Scenic Ave
Kermoony Consulting
Echo Ln
380.35 ft
300.00 ft
200.00 ft
100.00 ft
0
Transit
Click on stations for more information

From: Lisjan Nation
To: Pierce Macdonald
Cc: Kevin Jackson
Subject: Re: Draft City of Piedmont Moraga Canyon Specific Plan
Date: Thursday, May 08, 2025 5:48:46 PM
Attachments: image003.png
image002.png

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Hi Pierce,

Thank you for sharing this document with us for our records, and we appreciate the City of Piedmont's efforts to help us protect our Tribal Cultural Resources. The Tribe has no further concerns with this plan and looks forward to consulting on any development projects that may arise from this plan.

'Uni (Respectfully),

Lucy Gill, Cultural Resource Manager II
Confederated Villages of Lisjan Nation

On Tue, Apr 29, 2025 at 8:40 AM Pierce Macdonald <pmacdonald@piedmont.ca.gov> wrote:

> Good morning Deja Gould and Lucy Gill,
>
> Thank you for consulting with Director Jackson and the City of Piedmont as we prepared the Draft Moraga Canyon Specific Plan, which was recently posted for public comment on the City website here:
>
> https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_13659739/File/Government/Departments/Planning%20Division/MCSP/2025-04-18_MCSP-PUBLIC%20REVIEW%20DRAFT.pdf?v=it1sJRaUF&v=it1sJRaUF

Chapter 10 includes the provisions for the protection of cultural resources.

Please let me know if you have any questions or comments.

Sincerely,

Pierce Macdonald

Senior Planner

City of Piedmont

120 Vista Avenue, Piedmont, CA 94611

pmacdonald@piedmont.ca.gov | (510) 420 - 3063

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Piedmont is Home

To: Piedmont City Council

From: Kathleen Hurley, kjhurley77@aol.com

Re: Moraga Canyon Specific Plan, Traffic Plan Safety Concerns

Cc: Piedmont Planning Commission

Date: June 3, 2025

Dear City Council Members,

Living as I do very close to the Moraga Canyon proposed development sites, I know firsthand how people speed up and down Moraga Ave, to and from Highway 13, to or from Pleasant Valley Road, ignoring posted City of Piedmont traffic signs. It is a challenging roadway that also serves as a major connector.

When the City of Piedmont considered developing new sports fields in Blair Park from 2008 to 2012, there were years of studies, a lawsuit and much controversy. I attended meetings and read reports where experts and knowledgeable citizens explained why development was too dangerous, even with a pedestrian bridge and/or a crosswalk and/or a traffic light to have persons (children in particular) crossing busy Moraga Ave by Coaches field. Inadequate sightlines were a big part of that calculation. Identified safety issues weren't just at the Coaches field site but also farther up the hill looking at traffic impacts and dangers of bottlenecks all along Moraga which serves as an important emergency escape route for residents from both Piedmont and Oakland.

An environmental impact study in 2010 found that stopping sight distances at for the former development plan did not meet Caltrans standards. How has that changed?

I was present at the April 30 presentation by the project consultant where traffic issues were discussed. The speaker acknowledged sightlines are a continuing concern yet seemed quite dismissive of projected impacts, I believe saying it would be quite minimal. He claimed Caltrans sightline standards remain in place, yet he somehow didn't think there was a problem. It was clear their report did not address impacts along the length of Moraga Ave but only at what lies inside the boundaries of Piedmont. When asked how drivers exiting driveways from certain parts of the south side of Moraga could turn back toward central Piedmont, the consultant's response was to say the drivers could simply turn around at the next block. That next block isn't identified on the project

maps, yet locals know it is Harbord Drive he was referring to. This is a narrow winding road with an upslope side and downslope, not easy to turn in. Sightlines up to and on Harbord are poor with near blind curves depending on direction. And yes, Harbord is the next block over the Piedmont border which seems to be why the consultants aren't mapping it or looking at the issues and impact the proposed development would bring.

In 2012 there was acknowledgement that the intersection at Moraga Ave and Harbord was going to be impacted by traffic in a way that was problematic. Before that proposal died, the City of Piedmont considered paying Oakland for the installation of a four-way traffic light at Harbord. To my knowledge the suggestion didn't get far enough to check it out with State and Oakland requirements to be positioned so closely to the freeway. Cars already back up on Moraga at busy times waiting for a left turn light on Thornhill drive. Traffic on Moraga Ave and on Hwy 13 has not lessened and the need to maintain safe exits in the event of emergencies remains.

Before the Oakland firestorm in 1991, there was a freeway sign some may recall directing trucks to use Park Blvd to exit instead of Moraga, in acknowledgement Moraga isn't a good route for heavy truck traffic. That sign has been gone for years now, and trucks make their way off Moraga, sometimes getting stuck as just happened recently on Harbord Drive, blocking traffic on streets that were not intended for such use.

I much appreciated the thoughtful questions to the consultants I observed at the April 30 meeting though some of their research and answers seemed greatly lacking. Traffic and pedestrian safety must continue to be safeguarded as before. No one wants deaths on their hands. Development was not deemed safe in 2010 or 2012. Please continue to question how it can be safer now with more density and traffic.

Thank you for your consideration.

Kathleen Hurley

Harbord Drive resident since 1986

[redacted]

From: Kenneth A Polse
To: Moraga Canyon News
Subject: MoragaCayon Project
Date: Friday, June 13, 2025 2:37:47 PM

Some people who received this message don't often get email from polse@berkeley.edu. Learn why this is important

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

To: Piedmont City Planning Commission:

From: Kenneth & Joyce Polse

We have lived in Piedmont since 1972 and have always been impressed with the careful, thoughtful planning our City Council has done in planning future projects. We understand that Piedmont must meet certain housing requirements, however, we do not understand why a major source of this housing requirement is being planned for Moraga Canyon. Listed below are some our concerns:

<!--[if !supportLists]-->1. <!--[endif]-->Traffic

<!--[if !supportLists]-->a. <!--[endif]-->Currently, from 7:30am -6:00pm there is a constant flow of traffic along Moraga Ave. The addition of so many housing units will add considerably more traffic. Also, because this additional traffic is associated with home occupancy, owners will be driving in and out several times a day in addition to the associated additional traffic from service vehicles, delivery trucks, etc. In sum for many periods during the day, cars will likely back up to Pleasant Valley Rd. and perhaps further.

<!--[if !supportLists]-->2. <!--[endif]-->Safety:

<!--[if !supportLists]-->a. <!--[endif]-->The increased traffic load will almost certainly make pedestrian and bike travel dangerous. As a cyclist who often bikes up Moraga from Highland, I can assure the Council it is already dangerous. Cars tend to speed, often get too close and sometimes cross into the bike lane. With the increased traffic along with more larger service vehicles, the danger for serious accidents will increase. Does Piedmont want to expose the children and adults who will be walking or cycling along Moraga to these serious safety conditions?

<!--[if !supportLists]-->3. <!--[endif]-->Environmental Impact:

<!--[if !supportLists]-->a. <!--[endif]-->Although we understand that the City has done an environmental impact, I wonder if the correct estimates of cars, noise level, auto exhaust, etc. has been properly accessed in the evaluation. For example, did the impact study consider the “in and out” driving of homeowners and the extra number of service and delivery vehicles that will accompany the completion of the project? Also, there will be a marked increase in noise levels. It is hard to believe that the additional traffic and associated noise would not have a substantial negative impact on the environment. Is the council sure that the impact study has included the many variables that will affect the environment?

<!--[if !supportLists]-->4. <!--[endif]-->Costs:

<!--[if !supportLists]-->a. <!--[endif]-->The costs for this project are monumental. Addressing the potential hazards of excavation of the mountain, street widening, pedestrian paths, etc. most likely can't be accurately estimated. Does the City believe that the developers will bear these costs? I think that is unlikely and once begun the responsibility for over budget costs, which may run into the millions will be borne by the City.

<!--[if !supportLists]-->5. <!--[endif]-->Additional Building Sites:

<!--[if !supportLists]-->a. <!--[endif]-->It is critical for the Council to find other building sites. These would include property on Grand Avenue, Linda Beach Dog Park, and other possible sites which have been discussed at previous meetings. What is currently being planned is the "Perfect Storm". The Moraga project should be eliminated, and other more feasible construction sites should be considered.

<!--[if !supportLists]-->6. <!--[endif]-->Legacy:

<!--[if !supportLists]-->a. <!--[endif]-->If the project is funded, Piedmont will be leaving our future homeowners with a very busy street, heightened risk to pedestrians and cyclists, excessive noise, increased pollution, and potentially large property tax assessments to cover the almost certain over budget costs of the project.

We hope the city will reconsider this project. While we understand the need to add affordable housing in Piedmont, we also strongly feel that this current project is a mistake. We urge you to explore other alternatives to meet Piedmont's housing needs.

Sincerely,

Joyce and Kenneth Polse

Kenneth A. POLSE
Professor of the Graduate School
Edward A. Dickson Emeritus Professor
Herbert Wertheim School of Optometry & Vision Science
University of California, Berkeley

From: Alice Talcott
To: Moraga Canyon News; Kevin Jackson; Pierce Macdonald
Subject: Moraga Canyon Specific Plan: Public Comment
Date: Monday, June 16, 2025 12:40:12 PM

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

June 16, 2025

Dear Director Jackson, Mayor Andersen and Members of the Piedmont City Council,

I am writing to provide feedback on the Moraga Canyon Specific Plan (MCSP). I am truly excited by how far we have come as a community in both adopting our Housing Element and creating this plan as part of implementing it. It has been a long and extensive process with much thoughtful planning and conversation and I am eager to see it result in new homes being built in Piedmont. As such, it's important that that the Moraga Canyon Specific Plan be the path toward development and not create unrealistic requirements that will ensure its failure.

In addition to working with PREC on a group letter, I have the following more specific recommendations based on my professional experience financing and developing thousands of units of affordable housing in the Bay Area over the last 35 years.

The overarching comment I have is that the Plan should provide enough detail that potential developers understand the requirements and that realistic expectations are set. At the same time, development is a dynamic effort which needs to be able to respond to new information and changes in economic conditions, timelines and funding sources, and the Plan should be flexible enough to allow for these changes. Generally, I found Section 10 to reflect that need for flexibility with a more nuanced discussion of these implementation concerns than in the rest of the Plan, which has more blanket statements.

In particular, there are multiple statements in Section 9, Public Infrastructure, about which party pays for necessary infrastructure. For example, on p. 94, it states "... all underground utility infrastructure - both wet and dry- required to support the work w/in the MCSP area shall be constructed and funded by the developer." Further similar statements are made on pages 98, 103 and104. These should be removed, as Section 10.4.3 is a much more realistic statement of the reality of potential funding sources and obligations to build infrastructure, some of which may be financed with grants applied for by the City. The specifics on which costs are paid for by the developer as opposed to the City are better handled in the Developer RFP and then in the Development Agreement rather than in the Specific Plan.

There are a few details related to affordable housing that I believe are necessary/helpful for the financial feasibility of the affordable housing:

Section 10.5.2.6 B, p. 120 incorrectly defines the target population for the affordable

housing. it says the Development Agreement terms must require "the provision of affordable housing, with a minimum of 60 units affordable to households earning ***very low and extremely low incomes.*** This is not consistent with earlier statements in the plan or the Housing Element, and should instead say ***Low and Very Low Incomes***. As stated, this restricts eligibility to 50% of AMI, which is inconsistent with the major funding programs for Low Income Housing which allow up to Low Income and which will likely be necessary for financial feasibility. In addition, clarification is needed on the continuation of that statement to make it clear that ALL of the housing is required to have 50% two bedrooms. As written it is not entirely clear.

Section 5.7.1 3, P. 52. Required Recreational Amenities. For projects up to 79 units, which the affordable housing will be, there are three amenities of which two are required, which include a playground for resident youth, picnic seating and an indoor gym/fitness area. I will note that it is unusual in affordable housing to provide an indoor gym/fitness area whereas a community/multi-purpose room which is available for resident use is both common and often required. This amenity description should be changed to an indoor gym/fitness area *or community room*.

Lastly, the Plan has design requirements that will impose unnecessary expense on the affordable housing project, which will be more specifically detailed in the letter from PREC. It is important that the housing meet a high quality of design that ensures it can be well maintained over time and blend well with the market rate housing. However, this must be balanced with the reality of ever-rising construction costs. In today's housing finance landscape, cost effectiveness is absolutely vital for project success. I encourage you to delete these unnecessary design requirements.

Sincerely,

Alice Talcott

From: irene cheng
To: City Council
Cc: Kevin Jackson; Pierce Macdonald; Rosanna Bayon Moore; Moraga Canyon News
Subject: Feedback on Moraga Canyon Specific Plan
Date: Saturday, June 28, 2025 8:15:41 AM

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Dear Mayor Andersen and Members of the Piedmont City Council,

We are writing as Piedmont residents and housing advocates to provide feedback on the Moraga Canyon Specific Plan (MCSP). We deeply appreciate the extensive and thoughtful planning effort that has gone into this document. However we have significant concerns about whether the plan, as currently drafted, will actually result in the housing production that Piedmont needs to meet its obligations under the state's Housing Element law.

As a reminder of how we got here, and where we are trying to go: As part of its Housing Element, the City committed in 2022 to the creation of a MCSP in order to facilitate the construction of multifamily housing, specifically affordable housing. Program 1.L of the City's Housing Element states: "The first goal [of the specific plan] is to enable construction of housing at a minimum of 132 units,... [including] a minimum of 60 units of housing affordable to households earning less than 80 percent of the area median income (AMI)."

As we have stated in previous correspondence, **we continue to be concerned that the MCSP fails to meet this legally mandated goal, because it does not put forward an actually feasible development plan.** Our concerns fall in two primary areas: 1) financial feasibility stemming from the public infrastructure requirements, and 2) construction and cost feasibility stemming from the site and design guidelines.

Financial Feasibility Related to Public Infrastructure

The MSCP appears to place an unprecedented infrastructure burden on prospective housing developers, requiring them to fund in part or in whole:

- Complete utility undergrounding and infrastructure upgrades
- Traffic signal installation and intersection improvements
- Sewer system capacity upgrades for the broader area
- Potential relocation of the city corporation yard (Option B only)

- Extensive grading, retaining walls, and slope stabilization
- "Community benefits" beyond standard development obligations

The plan's own feasibility analysis found that "under current market conditions, it would be challenging for private developers to build all housing units and pay market value for the land, as well as cover the cost of public infrastructure and amenities identified in the Plan."

Requiring housing developers to shoulder all of the above costs creates a significant barrier to project viability. Option B–which requires the City (or a developer) to relocate and build a new Corporation Yard–is patently unfeasible, both in terms of phasing (delays any housing construction by years if not decades) and cost (the MSCP implies that reconstruction of the Corporation Yard would have to be part of the development agreement, which no developer will accept). Even Option A presents significant hurdles.

Moreover, if the City is really asking developers to pay for infrastructure beyond what is needed specifically to serve the new development, then that may be in violation of constitutional nexus and proportionality requirements enshrined in the Mitigation Fee Act. Jurisdictions are not supposed to ask a particular developer to subsidize the rest of the community; they can only charge for each developer's "fair share" of the improvements.

Construction and Cost Feasibility related to Design Guidelines

We shared the MCSP with two experienced affordable housing architects from Dahlin and David Baker Architects, who noted several requirements in particular which may pose challenges to the project's feasibility:

- The site setback requirements for Option A (housing south of Moraga Ave) cited in Section 5 Site Design produce a very constrained site footprint that may be too small to fit the 135 units prescribed in the plan. Has the City's consultant done a massing plan using its own standards that show this number of units can fit, either with or without density bonus incentives?
- While high-quality design is important, the MCSP includes numerous prescriptive and costly requirements, including highly detailed architectural styles, complex massing and roof form calculations, extensive landscape and lighting specifications, and fire-safe material requirements beyond standard codes. These standards, while well-intentioned, may add substantial costs that could prevent a development from being feasible. In particular, the affordable housing architects pointed to two requirements that will add significant cost and that should be omitted:

- Required 10 foot setbacks of the building massing (Guideline 6.5): These are very challenging to produce efficient multifamily housing, and are often produce visually clumsy massing

- Deep window recesses of 3 inches or more (Guideline 7.4.3): Deep window recesses are expensive.

- Requirement for private open space for each unit (Guideline 5.7.2): This will add unnecessary cost for the affordable housing units while also creating long term maintenance issues.

Recommendations for Revision

To better align the MCSP with housing production goals, we respectfully suggest the Council consider:

1. **Infrastructure Cost Sharing**: We recommend the MCSP be revised to clearly state and limit the costs of public infrastructure to be borne by the developers. The terms for the Development Agreement as listed in Section 10.5.6.2 of the plan include overly broad requirements related to the public infrastructure and corporation yard, as mentioned above. Item 9 (“development pays its fair share for the expansion costs and on-going service costs of City emergency response services, educational services provided by the Piedmont Unified School District, recreation services, library services, and public works services”) is not reasonable and should be removed. Typically, costs of increased public services are covered through Impact Fees, which are adopted by the School District, City or Utility District and applied to development jurisdiction wide.

2. **Confirm the Unit Count:** Do a test fit to confirm that the site setback requirements will allow for the estimated number of housing units.

3. **Streamlined Standards**: Simplify design requirements to focus on essential community goals while reducing unnecessary complexity and cost. Specifically, we recommend the city:

- Eliminate the requirement for massing stepbacks at upper levels.

- Eliminate the requirement for deep window recesses.

Eliminate the private open space requirement.

Moving Forward Constructively

Piedmont has an opportunity to be a model for how communities can thoughtfully plan for needed housing while maintaining community character. However, this requires balancing community goals with economic reality. The current plan, despite its thoroughness, may inadvertently prevent the very housing production it aims to enable. We are concerned that the MCSP, as written, will give developers the impression that the City has unrealistic expectations and hence discourage them from submitting proposals to a future RFP. Similarly, we are concerned that the MCSP may give HCD the impression that the City is disingenuous or unserious about its intention to facilitate housing production in Moraga Canyon.

We encourage the Council to revisit the MCSP with an eye toward practical implementation. Thank you for your consideration of these concerns. We look forward to working constructively with the city to ensure Piedmont meets its housing obligations while maintaining the community values residents cherish.

Respectfully submitted,

Members of the Piedmont Racial Equity Campaign (PREC) Housing Committee
Irene Cheng
Elise Collins
Frances Fisher
Carol Galante
Sarah Karlinsky
Deborah Leland
Andy Madeira
Claire Parisa
Andrea Ruiz-Esquide
Alice Talcott
Randy Wu

Comments to the Piedmont City Council on the draft Moraga Canyon Specific Plan by Ralph Catalano on July 7, 2025

City-funded EIR's (Attachment 1) as well as independent analyses (Attachments 2 and 3) report that Caltrans standards for safe sightlines cannot be met on Moraga Avenue from its intersection with Monte Avenue through its intersection with Red Rock Road. These studies estimate that at least 15% of the 12,000 to 14,000 vehicles that daily travel Moraga Avenue do so at speeds too great for drivers to stop safely at the Red Rock intersection. This circumstance led your predecessors to build the existing fence between the sidewalk and roadway west of Red Rock. To this day, that fence prevents children walking to and from Coaches Field from wandering onto Moraga Avenue where many drivers would not see them soon enough to stop safely.

The draft Moraga Canyon Specific Plan shows an option with 199 homes in Blair Park. The Plan assumes that children living in Blair Park will cross Moraga at Red Rock. **Implementing this option would *force* the children of Blair Park to cross a dangerous roadway that other Piedmont children are barred from crossing.** I hope you will reject this scheme and adopt the safer option shown in the draft Plan. That option would move the city corporation yard to Blair Park and locate the 199 new homes around Coaches Field.

The only argument publicly offered against the Coaches Field alternative is that the city would incur the cost of rebuilding the corporation yard. The city will, however, incur that cost whether or not new housing ever appears in Moraga Canyon. Why? Because the yard's aging facilities, designed a century ago, are now straining to support the deployment of modern equipment needed to respond to earthquakes, wildfires, and other emergencies. For example, a fire truck deployed from the corporation yard is kept in a temporary structure in part because other structures at the yard may not survive an earthquake.

The city's Local Hazard Mitigation Plan identifies the corporation yard as an "Essential Services Facility" but warns that the yard is in an "Earthquake Induced Landslide Zone." The Community Facilities Element of the General Plan adopted last year, moreover, commits the city (Action 33E) to assessing the adequacy of the corporation yard. More important, the city's Budget Advisory and Financial Planning Committee has recognized that the city needs to replace obsolete essential facilities and suggests methods to finance the replacement (Attachment 4). The cost of rebuilding the corporation yard should be included in that program and not attributed to the new neighborhood planned for Moraga Canyon.

to 4:10 p.m. survey time is estimated to be a typical time when parents would drop off children for practice and leave the Blair Park driveways. The results show that there were approximately 50 opportunities (i.e., gaps greater than 7.5 seconds)[188] within the 30-minute interval where future traffic can safely make a left turn out of the Blair Park driveways. The highest left-turn volume out of each driveway is 44 p.m. peak-hour vehicles. Based on the gap survey data, it was concluded that there are enough gaps to accommodate the future outbound volume of the proposed Blair Park sports fields. It should be noted, however, that the outbound traffic volume at the project site would be concentrated within a peak 15-minute period as children are dropped off and picked up.

Queuing of vehicles waiting to turn left out of the Blair Park driveways was examined to ensure that excessive stacking of vehicles within the parking areas would not occur. According to the queues calculated during the LOS analysis, the maximum queue would be two vehicles at the west driveway and 3 vehicles at the east driveway. The site plan provides adequate distance for two vehicles to queue at the west driveway and 3 vehicles to queue at the east driveway without significantly affecting on-site traffic operations.

The LOS analysis conducted for the Blair Park driveways assumes the same arrival pattern as observed at Coaches Field. The arrival pattern is accounted for through the peak-hour factor, which adjusts the traffic volume so that the trips observed during the peak 15 minutes are reflected in the hourly traffic volume. One way to improve the operation of the driveways is to reduce the number of vehicles dropping off or picking up children at the same time. Although this measure would not reduce the worst-case LOS to an acceptable LOS D, it would result in less delay experienced by vehicles leaving the site and improved traffic operations on site and along Moraga Avenue.

> **Mitigation Measure TRAFF-1:** To mitigate the operational deficiency anticipated at the outbound Blair Park driveways, the City shall require that practice and game activities on each field are staggered by at least 30 minutes and drop-off and pick-up operations occur throughout the hours that the fields are utilized, rather than in a single 15-minute period each hour. Implementation of this measure would improve the delay for the outbound driveway movements and mitigate the level of service (LOS) from LOS F during the p.m. peak hour to LOS E. Although this measure would not reduce the worst-case LOS to an acceptable LOS D, it would result in less delay experienced by vehicles leaving the site and improved traffic operations on site and along Moraga Avenue. (SU)

(2) Hazards due to Design Features. Implementation of the proposed project could result in potentially significant hazards related to the design features of existing roadways in the project area, including limited sight distance at West Driveway Exit/Moraga Avenue, parking lot deficiencies, and operational deficiencies at the Blair Park Driveways.

Impact TRAFF-2A: Implementation of the proposed project has the potential to cause sight distance traffic hazards due to design features. (S)

Sight Distance and Driveway Operations at Project Access Points. Adequate sight distance at the proposed Blair Park project driveways is necessary to ensure safe egress from the parking lots. A clear line of sight should be provided for a driver exiting the driveway so that the driver can judge the

[188] Caltrans HDM Section 405.1 states that a driver turning out of the site requires 7.5 seconds to complete the necessary maneuver, while the approaching vehicle travels at the assumed design speed of the main highway.

speed and distance of oncoming vehicles and determine whether it is safe to enter the roadway. Likewise, adequate sight distance allows an oncoming driver to see a vehicle entering the roadway from the project and either slow down or stop, if necessary, to avoid the other vehicle.

The speed limit on Moraga Avenue is 25 mph. A spot speed survey was conducted for Moraga Avenue in 2008 and provided by the City. Based on the survey, the 85th percentile speed was 35 mph. The 85th percentile is the speed at which 85 percent of the traffic is traveling. Approximately 79 percent of the traffic travels between 25 and 35 mph. Highway Design Manual Section 405.1 recommends that, on a roadway with a design speed of 25 mph, a corner sight distance of 275 feet (ft) be provided. For roadways with a design speed of 35 mph, a corner sight distance of 385 ft is required. The recommended corner sight distance ensures that adequate time is provided for the waiting vehicle to either cross all lanes of through traffic or cross the near lanes and turn left or right without requiring through traffic to radically alter speed.

More than 275 ft of sight distance is provided at the departing driveways (Intersections 6 and 8, Figure 4.7.1), which would be adequate if the prevailing speed on Moraga Avenue was 25 mph. However, the speed surveys indicate that the prevailing speed is actually 35 mph. The observed existing speed of 35 mph along Moraga Avenue would require a sight distance of 385 ft at the proposed driveways. This distance is not provided at the intersection of West Driveway Exit/Moraga Avenue. The maximum sight distance was measured to be 300 ft from the driveway exit toward the west and 320 ft from the driveway exit toward the east. The maximum sight distance at Maxwelton Road/Moraga Avenue is satisfied since the sight distance was measured to be 405 ft from the driveway exit toward the west and 420 ft from the driveway exit toward the east. There would not be adequate sight distance at West Driveway Exit/Moraga Avenue if the speed along Moraga Avenue continues to be 35 mph. However, an analysis of vehicle speeds conducted by Harris and Associates in August 2008 recommends that enforcement be increased to reduce the 85th percentile speed. The 85th percentile is the speed at which 85 percent of the traffic is traveling. If the 85th percentile speed were reduced to below 35 mph, there would be adequate sight distance at the West Driveway Exit at Blair Park.

LSA analyzed the distance between Red Rock Road at Coaches Field and the intersection of West Driveway Entrance/Moraga Avenue at Blair Park to determine whether inbound or outbound left-turn movements at each location would conflict. Approximately 100 ft separates Red Rock Road and West Driveway Entrance/Moraga Avenue. Although these two access points are offset, the respective inbound left-turn movements can both be safely accommodated, as vehicles turning left into either location can do so without conflict. Outbound left-turn movements would not conflict because outbound left turns from Blair Park would be made at the outbound driveway, located more than 375 ft east of Red Rock Road.

Implementation of the following mitigation measure would reduce impacts related to design hazards to a less than significant level.

> **Mitigation Measure TRAFF-2A:** Consistent with the recommendation in the City's speed survey, the City shall provide additional enforcement of the speed limit using enforcement methods such as speed trailers or additional officer presence to reduce the 85th percentile speed to below 35 miles per hour (mph) to improve operations and safety and provide greater sight distance in the vicinity of the project. The 85th percentile is the

speed at which 85 percent of the traffic is traveling. The proposed Blair Park landscape plan also shows a row of landscaping along Moraga Avenue fronting the site. Landscaping shall be selected so that the sight distance at the outbound driveways is not blocked. The landscaping shall not exceed 3.5 feet in height and should be regularly maintained to ensure that adequate sight distance is maintained.

It should be noted that the effect of increased enforcement on the 85th percentile speed can not be accurately forecast, and therefore it is not known whether the mitigation measure will effectively mitigate the sight distance deficiency at the project driveways. For this reason, the project impact on sight distance is significant and unavoidable. (SU)

Impact TRAFF-2B: Implementation of the proposed project has the potential to cause parking traffic hazards due to design features. (S)

Parking Demand. Parking utilization surveys completed on Saturday, November 9, 2009, during scheduled soccer games show 33 vehicles parked at Coaches Field. It should be noted that the parking situation during the day that was surveyed was sufficient to accommodate all parked vehicles. The current parking lot adjacent to the existing Coaches Field is limited to approximately 13 spaces. There are three parking spaces immediately located outside the parking lot gate. There is a parking lot located walking distance towards the northeast of Coaches Field that can accommodate additional parking. The lot consists of 12 marked parking spaces. There are also two parking spaces along the curb on the right side of the entry drive. In addition, during weekends, the City of Piedmont Corporation Yard is accessible for overflow parking of approximately 14 parking spaces. The total number of parking spaces at Coaches field is 30 during the weekdays, and 44 during the weekends. The parking demand at Coaches Field is not anticipated to change as a result of the turf replacement or lighting. The same number of spaces would be utilized; however, they would be utilized later into the evening when the lights are in use. Because the Blair Park component of the project would provide two fields, the parking demand at Blair Park is estimated to be double the number of vehicles currently parked at Coaches Field, or 66 vehicles. The Blair Park sports fields would provide 40 total parking spaces. A total of 14 parking stalls would be located in the west lot and 26 parking stalls would be located in the east lot. This represents a deficit of 26 parking spaces.

Implementation of the following mitigation measure would reduce impacts related to design hazards to a less than significant level.

> **Mitigation Measure TRAFF-2B:** Prior to operation of the project, the City shall provide 66 parking spaces on the Blair Park site to accommodate the forecast parking demand for the two proposed sports fields. (LTS)

Impact TRAFF-3: Implementation of the proposed pedestrian bridge spanning Moraga Avenue has the potential to increase safety hazards for pedestrians that may not choose to use the bridge. (S)

The project proposes to construct a pedestrian bridge spanning Moraga Avenue to connect the Coaches Field and Blair Park sites. Implementation of the proposed bridge could result in potentially significant safety hazards for pedestrians that choose to not use the bridge to cross Moraga Avenue. Research has been conducted to determine the suitability of a pedestrian bridge at the project site.

Tom Brohard and Associates

May 1, 2025

Board of Directors
Friends of Moraga Canyon
451 Pala Avenue
Piedmont, California 94611

SUBJECT: Review of the Moraga Canyon Specific Plan Public Review Draft in the City of Piedmont – Traffic and Transportation Issues

Dear Board Members:

As requested and as authorized, I, Tom Brohard, P.E., have reviewed the Moraga Canyon Specific Plan Public Review Draft. As you know, I also reviewed the Administrative Draft of this document and advised of my findings on October 1, 2024. In both of these reviews, I found these significant issues:

1) Traffic Speeds - The documents continue to incorrectly rely on the 85th percentile speed rather than the "Design Speed" which is typically 10 mph above the 85th percentile speed. For Moraga Avenue, the design speed should be at least 50 mph and could be as high as 55 mph depending on current speed measurements. The vehicle speeds relied upon by the Public Review Draft were likely influenced by the speed feedback signing which apparently was in place and operating when vehicle speeds were measured in September 2023 (See Page 29). The speed measurements also do not necessarily reflect current conditions and traffic speeds.

2) Stopping Sight Distance – Use of the proper design speed which is 10 mph higher than the 85th percentile speed will result in longer distances for stopping, particularly in the downhill eastbound direction. It is critically important for motorists to see and react properly to the traffic signal indications at Red Rock Road with pedestrians crossing Moraga Avenue, even with advance flashing beacons for the traffic signal. The proposed signing with the flashing beacons should refer to the traffic signal rather than the pedestrian crossing which would be a part of the traffic signal. In addition, the proposed pedestrian refuge island should be deleted as its placement would actually encourage pedestrians to wait in the middle of Moraga Avenue rather than to walk entirely across and clear the roadway out of traffic. Traffic signal equipment and signing should not be installed within the roadway.

3) Residential Development – If located on the south side of Moraga Avenue, at least two and probably three access driveways to serve the apartments will be needed. The driveways introduce many additional points of conflict with Moraga Avenue traffic and also create the possibility of random midblock pedestrian and bicycle crossings. These potential safety issues can be eliminated before they can occur by building the residential units on the north side of Moraga Avenue where vehicle access will occur with the protection of the proposed traffic signal.

Respectfully submitted,

Tom Brohard, Principal
Enclosure - Resume

81905 Mountain View Lane, La Quinta, California 92253-7611
Phone (760) 398-8885 Email tbrohard0@gmail.com

Tom Brohard, PE

Licenses: 1975 / Professional Engineer / California – Civil, No. 24577
1977 / Professional Engineer / California – Traffic, No. 724
2006 / Professional Engineer / Hawaii – Civil, No. 12321

Education: 1969 / BSE / Civil Engineering / Duke University

Experience: 55+ Years

Memberships: 1977 / Institute of Transportation Engineers – Fellow, Life
1978 / Orange County Traffic Engineers Council - Chair 1982-1983
1981 / American Public Works Association – Life Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Big Bear Lake ..... 2006 - 2015
- Indio ..... 2005 - 2019
- Huntington Beach ..... 1998 - 2004
- Lawndale ..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside ..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Fernando ..... 2004 - Present
- San Marcos 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $10 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

In his 14 years of service to the City of Indio, Tom accomplished the following:

- Oversaw preparation and adoption of the 2008 Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain conditions.

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Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

Statement of Ralph Catalano at the Piedmont Planning Commission Meeting of October 14, 2024

Our City Council will soon choose either the north or south side of Moraga Avenue as the site for a new 200-household neighborhood envisioned to comply with state law. That choice will reflect how safely pedestrians and bicyclists can cross Moraga Avenue at Red Rock. This is true because the south side option presumes that children residing in Blair Park will cross Moraga at the Red Rock intersection when leaving for, or returning from, school, Coaches Field, or visits with friends. As is now the case on the existing sidewalk west of Red Rock, a fence on the proposed sidewalk along Blair Park would likely be built to keep children from "dashing" across Moraga where about 2,200 of the 15,000 cars expected to use the road each day will travel at speeds exceeding 40 MPH. The Blair Park fence would funnel pedestrians and bicyclists from Blair Park to the Red Rock intersection where they could activate a planned "stop light" presumably visible for a sufficient distance to allow motorists on Moraga to stop safely.

At the Planning Commission meeting of September 25, the city's traffic consultant opined that stopping sight distances for drivers approaching the proposed Red Rock stop light from either direction on Moraga Avenue would be safe. He reported basing his opinion on Caltrans guidelines.

Several of us who live in Moraga Canyon found the consultant's opinion surprising because a 2010 EIR prepared for proposed playfields in Blair Park found that sight distances on the segment of Moraga that includes the intersection at Red Rock did *not* meet Caltrans stopping sight distance standards. Hoping to understand this concerning contradiction, I applied the Caltrans guidelines to the proposed Red Rock intersection. Results, described below, were the same as reported in the earlier EIR -- stopping sight distances were less than Caltrans deems safe. I hasten to add that I am not a traffic engineer. The city's consultant may judge the following analyses incorrect. If so, he should explain, to your satisfaction, how I am wrong.

The Caltrans Highway Design Manual is large and technical but includes two tables (attached) that summarize the calculation of stopping sight distances. The first table (i.e., 405.1B) lists the *appropriate guidelines for various types of roads and intersections. For signalized intersections* such as that proposed at Red Rock and Moraga, a footnote to the table refers the reader to a second table (i.e., 201.1) showing stopping sight distances for various "design speeds."

Design speed for existing roads equals the "operational speed" adjusted for circumstances specific to the analyzed road segment. Operational speed equals the 85th percentile of vehicle

speeds observed on the road segment in question. The September 25 Planning Commission staff report cited an operational speed of 39 MPH and a design speed of 40 MPH for Moraga Avenue at Red Rock and Blair Park.

Table 201.1 in the Caltrans Highway Design Manual shows a stopping sight distance of **300 feet** for a signalized intersection on a roadway with a "design speed" of 40 MPH.

I have attached two Google maps showing sight distances on the segment of Moraga Avenue that includes the Red Rock intersection. Figure A shows about 190 feet between the point at which drivers traveling east on Moraga first see the Red Rock intersection and the intersection itself. Figure B shows about 380 feet between the point at which vehicles traveling west first see the intersection and the intersection itself. If correct, these graphs imply no safe location for a signalized intersection near the current Red Rock Road. Even if the city took private property on Moraga Avenue and moved the intersection 110 feet to the east to provide a 300-foot sight distance for vehicles traveling east, vehicles traveling west would encounter an unsafe 270-foot sight distance.

As noted above, design speed can be modified to reflect local circumstances. Caltrans, for example, modifies design speeds shown in Table 201.1 to reflect the grade of roads. Downhill grades increase design speed whereas uphill grades decrease them. The staff report did not describe the grade of the road segment in question, but Moraga Avenue is not flat. The downhill, or westerly, grade decreases at Red Rock but for the purposes of this analysis, I assumed the grade was constant. If so, grade adjusting my analyses would not affect my conclusion that a pedestrian crossing at Red Rock would not be safe. Any shortening of the 300-foot stopping sight distance for drivers approaching Red Rock from the west (i.e., traveling east) would be canceled by lengthening of that for drivers approaching from the east (i.e., traveling west). There would be no safe location for a pedestrian crossing at Red Rock.

Also note that 200 households would likely generate over 1,000 vehicular entrances and exits from Blair Park each day. The analyses described above imply that no connecting road between Blair Park and Moraga Avenue could be safely located between the current Red Rock intersection and the "first sight" point shown on Figure B for vehicles traveling west. A connector in this segment would cause dangerous stacking of vehicles making left turns into Blair Park from a point within 300 feet of first sight by drivers traveling west on Moraga. More than a 1,000 daily trips out of and into Blair Park would, therefore, occur on a single connector east of the first sight point on Figure B. AM stacking in Blair Park and PM stacking on Moraga at such a single

connector would be considerable with the latter causing stacking on the Moraga/Thornhill exit of Route 13 which has a dangerously short stopping sight distance for vehicles traveling east.

The above analyses assume a design speed of 40 MPH. About 2,200 vehicles a day will, however, *exceed* 40 MPH when traveling on Moraga Avenue. The Caltrans Highway Design Manual, in fact, recommends (Page 100-2) a 45 MPH Design Speed for local roads, like Moraga Avenue, that connect to State highways like Route 13. If we assume a 45 MPH design speed, *housing 200 families in Blair Park would appear even more dangerous than implied by my* conservative analyses described above.

Staff and consultants noted at the Planning Commission meeting of September 25 that strategies such as narrowing the roadway could lower the design speed for Moraga Avenue. This, of course, assumes that the resulting "stacking" of vehicles on Route 13 at the Moraga/Thornhill exit during peak traffic hours would be safe. Stopping sight distance to that exit on Route 13 for vehicles traveling east is, however, far below safe levels given the speeds traveled on that highway.

Assuming the above analyses are correct, protecting pedestrians and bicyclists would favor planning Piedmont's new neighborhood for the north side of Moraga Avenue. This is true because residents would have no reason to cross Moraga where the only land use would be a relocated Corporation Yard.

Table 405.1B

Application of Sight Distance Requirements

Intersection Types	Sight Distance		
	Stopping	Corner	Decision
Private Roads	X	X[(1)]	
Public Streets and Roads	X	X	
Signalized Intersections	X	X[(2)]	
State Route Intersections & Route Direction Changes, with or without Signals	X	X	X

NOTES:

(1) Per Index 405.1(2)(c), if signalized, the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.

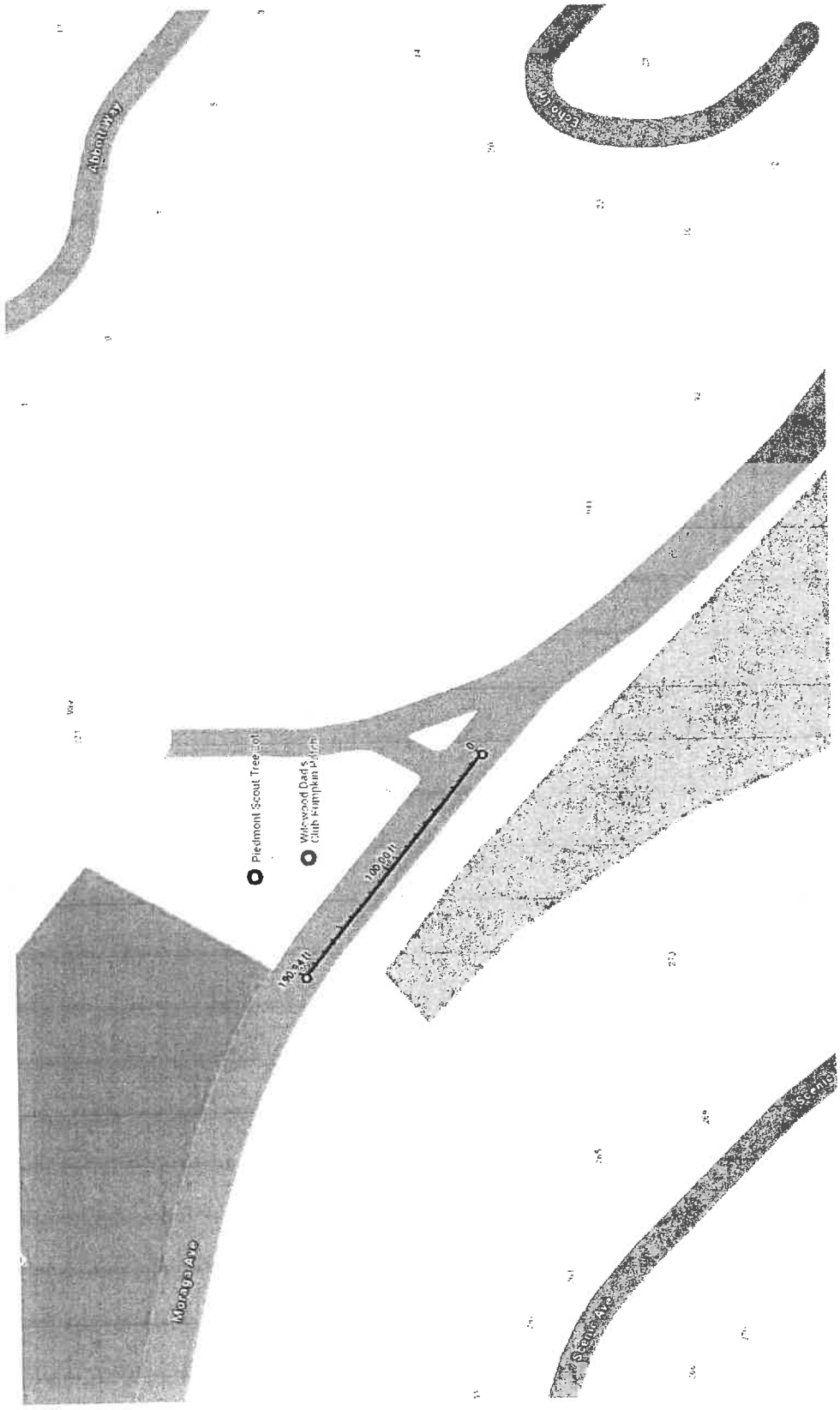
(2) Apply corner sight distance requirements at signalized intersections whenever possible due to unanticipated violations of the signals or malfunctions of the signals. See Index 405.1(2)(b).

Table 201.1

Sight Distance Standards

Design Speed[1] (mph)	Stopping[2] (ft)	Passing (ft)
10	50	---
15	100	---
20	125	800
25	150	950
30	200	1,100
35	250	1,300
40	300	1,500
45	360	1,650
50	430	1,800
55	500	1,950
60	580	2,100
65	660	2,300
70	750	2,500
75	840	2,600
80	930	2,700

Figure A


Abbott Way
Echo Lane
Piedmont Scout Treehouse
Wildwood Dad's Club Hangman Hitch
100.00 ft
100.00 ft
Moraga Ave
Moraga Ave
Scenic

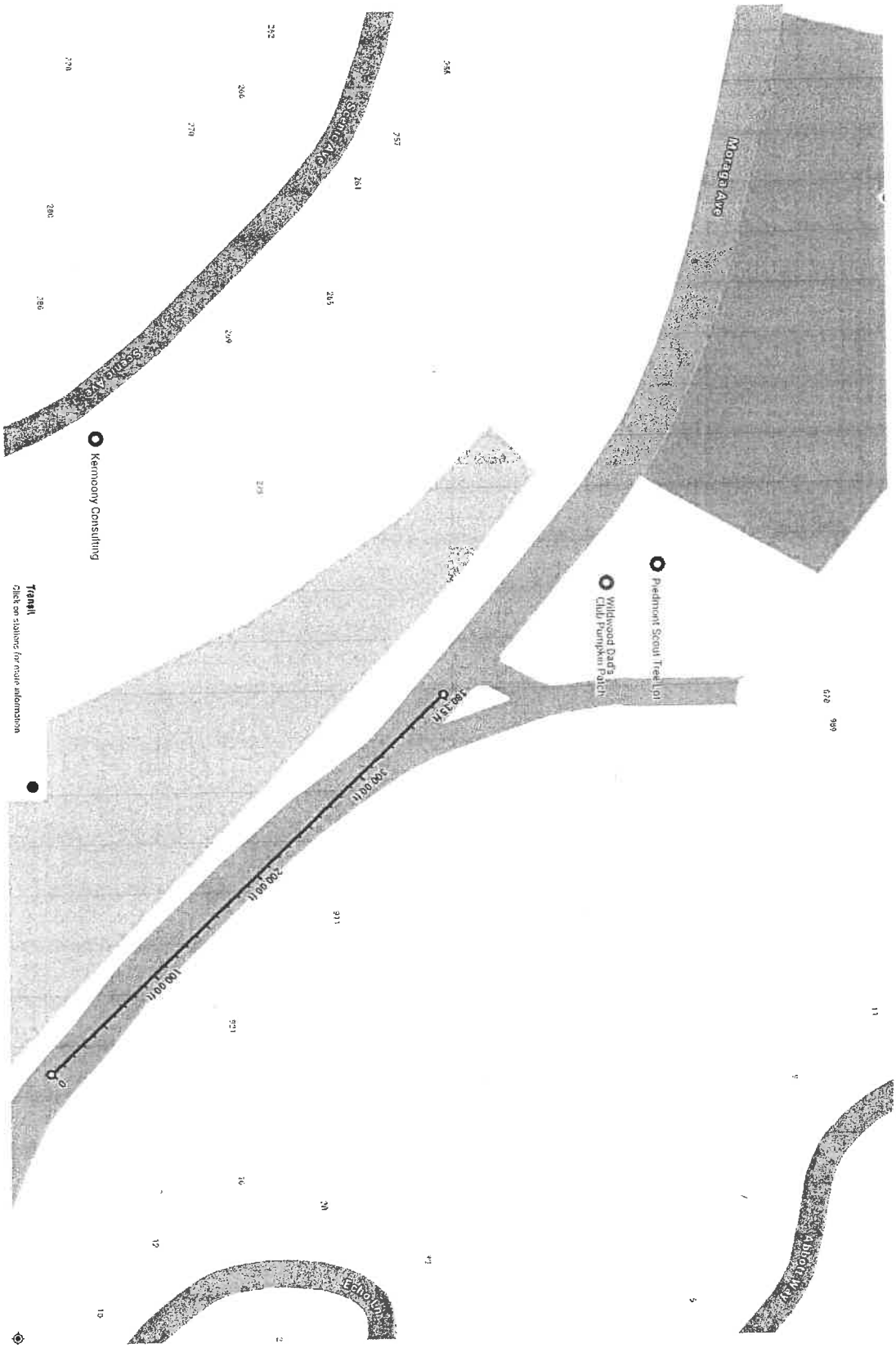

Morgan Ave
Sequoia Ave
Kermoony Consulting
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
Transit
Click on stations for more information
0
100.00 ft
200.00 ft
300.00 ft
Elmhurst
Elmhurst Ave

Figure B

Piedmont Budget Advisory and Financial Planning Committee

May 28, 2025

Ms. Mayor and City Council,

As part of our annual efforts and pursuant to its charge from the City Council, the Budget Advisory and Financial Planning Committee (the "Committee") has completed its review of financial projections in the City budget and whether they provide a sustainable long-term financial future for the City. In a meeting on May 20, 2025, the Committee reviewed the most recent revised fiscal year 2025-26 budget and projections, as prepared and presented by Interim Finance Director Michael Szczech and his staff under the guidance of City Administrator Rosanna Bayon Moore.

From the May 20 presentation, we believe that the City's understanding of its financial position, as in previous years, is very thorough and well communicated. The Interim Finance Director presented the projected financial results for the current fiscal year as well as projections for the upcoming budget year. The presentation included all material revenue sources and expense categories, and discussed potential revenue risks, projected pension costs in detail, Other Post-Employment Benefits (OPEB) funding, equipment replacement, facilities maintenance, and facilities capital projects. Overall, we believe the assumptions used, and the results presented, to be well-founded and consistent with past practices.

FY 24-25 Results and FY 25-26 Budget

The City continues to maintain a strong financial condition, although recent allocations within the Facilities Capital Fund for additional costs related to the Community Pool project have significantly reduced the City's flexibility to undertake future capital projects, both planned and unanticipated. Property tax-related revenue (including the Municipal Services Special Tax ("Parcel Tax") and Real Property Transfer Tax ("Transfer Tax") revenue), which generally makes up in excess of 60% of the City's revenue, has been bolstered by the strong residential real estate market during and following the pandemic, even when accounting for the downward trend following the FY 20-21 peak and the current economic climate. In addition, other material revenue categories have rebounded and now equal or exceed their pre-pandemic levels. The combination of higher-than-expected revenues across several categories and lower expenditures helped the City achieve a projected budget surplus of approximately $3.6 million for FY 24-25 before capital transfers.

The Committee supports the proposed uses of the FY 24-25 surplus: transferring $850,000 to the Equipment Replacement Fund and retaining a higher balance in the General Fund to cover higher operating expenses, new initiatives and facilities capital projects budgeted for FY 25-26. This is consistent with both recent City practice and the Committee's recommendations in prior years.

The proposed budget for FY 25-26 reflects the City's continued commitment to conservative budgeting and financial discipline. This approach ensures that the City can continue to provide high quality public services, replace aging equipment, and address infrastructure repairs, while retaining a strong General Fund.

The proposed FY 25-26 budget shows expense growth in excess of revenue growth. Overall revenues are essentially flat, while expenditures and operating transfers out are expected to grow by 7% due to higher personnel costs and a combination of one-time and cyclical costs. In addition, the proposed budget shows a number of capital projects, including the completion of the Community Pool and the dispatch center relocation, that will essentially deplete the Facilities Capital Fund in the coming fiscal year. The Community Pool project has required approximately $5.4 million to be drawn from the Facilities Capital Fund (approximately 50% of this year's beginning fund balance). This will restrict the City's ability take on new capital projects absent revenue growth in excess of the amounts planned in the budget and long-term forecast. While the City may have flexibility to defer some projects for the short and intermediate terms, deferral will inevitably result in higher overall costs to complete the project given inflation and extension of wear / useful life .

Long-term Planning

As discussed in our prior reports, the Committee believes the objective of long-term financial planning for the City is to enable it to take steps to ensure that current services are being paid for in the current year, to the extent possible, and that funds for known future requirements (including infrastructure needs) are set aside on a current basis. In short, current citizens should pay for the current costs of running the City and not defer those costs to future citizens.

In reviewing the City's long-term projections, the Committee notes the following:

- The financial projections continue to seek to maintain, over the long term, an 18% General Fund balance, which the Committee thinks is a prudent goal. It should be noted, however, that the current long-term projections now show the General Fund balance dipping to as low as 15% in several of the next nine years. This is a change from the prior year which showed the General Fund consistently at 18% or above. In addition, the long-term projections assume only minor transfers to the Facilities Capital Fund after FY 24-25. This lack of funding for facilities capital projects is addressed later in the report but the Committee wants to note here that achieving the General Fund balances in the long-term projections is at risk due to this lack of funds.

- The long-term forecast assumes a 3.3% increase in property tax revenue for FY 25-26 and then 4.9% annually for the remaining term of the forecast. While the 4.9% is the same as the 15 year average growth rate, this number may be

aggressive. Reaching this number requires the continued sale of homes with comparatively low assessed valuation due to Proposition 13 and the number of such homes is presumably decreasing. As noted in the May 20 presentation, the amounts that Sales Price has exceeded the Assessed Valuation has declined from 119% to 83% over the last four years and further deterioration in the ratio will make it difficult to reach the 4.9% growth projection.

- As in prior years, the projections continue to show that the long-term financial health of the City is heavily dependent on property-related taxes, including the collection of the Parcel Tax, robust Transfer Tax revenue and growth in assessed property values. The long-term projections assume that the Parcel Tax continues with a standard CPI adjustment each year, and the Committee supports this approach. The Committee supports continued careful review of property-tax-related revenue projections, given the City's reliance on these revenue sources.

- Pension expenses are projected to increase substantially over the next decade, as has been anticipated for some time. While these increased expenses are fully met in the long-range projections (due to the City's active management and prior funding of the of the Public Agency Retirement Services Fund), the extreme volatility of the financial markets still presents risks to the extent that investment returns fail to achieve expected returns in the long run. The long-term projections assume the use of funds from the Pension Rate Stabilization Fund starting in FY 26-27 to mitigate the increase in pension expenses and show that the Fund will be exhausted in FY 28-29.

- The long-term projections assume that salaries and benefits grow by 3.25% in FY 25-26 and then 3.0% annually thereafter. This increase will be significantly impacted by the results of the current and future labor negotiations. In addition, the Committee notes that the budget includes an operating subsidy for the pool of $400,000 for FY 25-26 and $200,000 per year thereafter. While the City intends to operate the pool on a revenue-neutral basis, the City has taken this conservative budgeting approach since the actual operating performance is not yet known. While the Committee supports this approach, there is also the risk that actual costs could exceed these numbers.

- As discussed throughout this letter, the Facilities Capital Fund will be essentially depleted in FY 25-26.

Over the past decade, the City has done an excellent job planning for and controlling future costs of retirement commitments and equipment replacement. Below, the Committee highlights future needs that it believes require further attention now, followed by revenue considerations to address those needs.

Infrastructure Needs

As the Council is aware, quantifying and planning for the future costs associated with the City's facilities, streets, and sidewalks – broadly, its infrastructure – have been and continue to be a focus of this Committee. The City staff have done an admirable job over the past several years in identifying these costs, especially for facilities maintenance and equipment replacement. Work remains to be done, however, in quantifying costs and allocating funding for major Facilities Capital projects, most notably for the City buildings in the City Center, including public safety.

The Facilities Maintenance Fund is separated into two funds: one focused on regular repairs and maintenance (Facilities Maintenance Fund), and the other for major capital projects and improvements (Facilities Capital Fund). Due primarily to both the increased Transfer Tax revenue in the recent years and the growth in assessed property values, the City is now able to fund its facilities maintenance costs over the term of the long-term projections. This contrasts with the practice in earlier years, in which contributions to the Facilities Maintenance Fund were generally not budgeted, and transfers would only be made to that Fund if and when budget surpluses were achieved. Despite the notable progress made for funding facilities maintenance, significant issues remain for the Facilities Capital Fund, including the following infrastructure needs:

- **Aging Buildings.** The Facilities Capital Fund projections include estimates for major capital projects to address the necessary replacement or renovation of aging buildings and parks to meet current standards and to improve operating capacity and efficiency. Staff has done a commendable job in identifying necessary renovations in the buildings and parks, but many numbers are rough estimates or based on outdated analyses at this point. Much more work remains to be done to more comprehensively detail and quantify the City's capital needs and to provide sufficient information for the Council to weigh strategic priorities. Nonetheless, based on existing information, the cost of such infrastructure needs (preliminarily estimated to be in excess of $80 million) is well beyond the City's current funding capacity. The Committee continues to believe that continued quantification, prioritization, and planning for these capital projects is of high importance given the high cost for some of these projects, as well as the long lead time to identify funding and to implement these initiatives. The Committee supports that the FY 25-26 budget allocates funds to preliminarily assess the potential costs for capital projects related to the buildings in the Civic Center.

- **Stormwater Management/Storm Drain Infrastructure Needs.** The Regional Water Quality Control Board regulates local jurisdictions' stormwater management and has imposed new requirements on cities, including Piedmont, to control stormwater runoff. Currently, cities are being required to inventory their storm drain infrastructure and project the cost of

improvements to meet new standards. At present, no State funding sources are available to cover the potential costs, which are likely to be significant. While the City's assessment is ongoing, priority projects estimated at $1.7 million have been identified and potential costs are expected to be much higher. These amounts are not fully included in the Facilities Capital Fund and underscores that inadequate funds are available to cover the costs associated with stormwater management requirements. The first FY 25-26 budget for the Facilities Capital Fund does include $400,000 to address certain areas of known need where there has been flooding and/or failure of the storm drain infrastructure.

- **Road Conditions.** While the City has made efforts to step up its repaving activity and improve its roadways in recent years, the condition of Piedmont's roads has not improved since 2017. Piedmont's overall Pavement Conditions Index (PCI) was 64 in 2017 (where a score of 60 – 69 is in the "Fair" category), 67 in 2019, 65 in 2022, and 63 in 2023 in and 2024. An estimated $700,000 in additional annual spending above recent levels would be required to improve the PCI to 71 and reach the "Good" category. The long-range projections do not include any additional annual amounts for paving beyond the dedicated street improvement funding sources (Measures BB & F, gas tax revenue and SB1) that the City has historically utilized to maintain its streets.

The long-term projections reflect that the Facilities Capital Fund will be essentially depleted after FY 25-26 given the significant outlays in the upcoming year for the Community Pool and other projects. While certain major capital projects may be funded through debt financing, this will not be feasible for all capital projects. The Facilities Capital Fund, as presented, is therefore inadequately capitalized for the duration of the projections. This projected underfunding is not realistic since there will undoubtedly be necessary replacement expenditures after FY 25-26. The Committee does recognize, however, that this funding shortfall may be alleviated to some degree if revenues, such as Transfer Tax revenue, come in higher than projected or if the City develops incremental or new broad-based tax sources.

Staffing Needs

The City's staffing levels, along with the City's population, have held largely steady over the past two decades and the FY 25-26 budget and long-term projections assume only two full-time additions for replacing part-time positions. However, the provision of services is becoming increasingly complex due to a combination of factors including changing technologies and increasing requirements for local jurisdictions to address state and regional requirements and challenges. The City currently has staffing studies underway that may identify the need for additions to staffing levels and funding will need to be identified for these additions.

Revenue Considerations

It is clear from our discussions and the May 20 presentation that the City has very limited ability, both currently and during the window of the long-term projections, to absorb future cost increases due to inflation, contract negotiations, new State mandates or the need to increase staff to provide the services that the City residents expect. The community's approval of Measure F in February 2024, which renewed the Parcel Tax for 12 years with an initial 20% increase starting in FY25-26, will provide necessary stability and some additional funds to the City's revenue stream.

Even with the renewal of the Parcel Tax, the Committee believes that the City will likely need additional revenue in the future to fund known capital projects, as well as to respond to both increasing public expectations for higher services and unplanned cost increases. Prior Committee reports, including its October 3, 2023 report on the Parcel Tax, identified the need for and examined potential additional revenue sources, including an increase in the Transfer Tax, that may be useful to the City. Staff and Council. The Committee believes that increasing the Transfer Tax continues to be the most broad-based and sustainable source for material additional revenue during the window of the 10-year projections

The Committee appreciates the opportunity to serve the City and is especially appreciative of the work of the Interim Finance Director in providing such a complete and thorough long-term financial plan, as well as the work of the Public Works Director in identifying and quantifying the City's facilities needs reflected in the long-term projections. The Committee believes the City is well positioned to address this next fiscal year but cautions that the City is likely to face challenges as it addresses the City's increasing service needs and capital projects, especially for its ever-aging facilities.

Please let us know if you have any questions or would like any additional analysis.

Thank you,

Frank Ryan

Budget Advisory and Financial Planning Committee

Frank Ryan, Chair
Murat Bozkurt
Andrew Flynn
David Kimball
Teddy King
Robert McBain
Paul Raskin
Alice Cho (alternate)

From: Jeffrey Alpert
Sent: Friday, August 8, 2025 1:27 PM
To: Lorrel Plimier; Kevin Jackson
Subject: Fwd: Who to send letters to on Piedmont Planning commission

Some people who received this message don't often get email from jeffrey.alpert@gmail.com. Learn why this is important

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

Presumably the Oakland residents will start harassing you directly pretty soon. The lawyer they hired told them to focus on safety, rather than what they actually care about, so you'll take them more seriously, I guess.

---------- Forwarded message ---------
From: **jane pingatore**
Date: Fri, Aug 8, 2025 at 1:17 PM
Subject: Who to send letters to on Piedmont Planning commission
To: Harbord Google Group

Lplimier@piedmont.ca .gov
Lorrel Plimier is the staff liaison
With the planning commission. Ask her to please send your letter to all planning Commission members asap as the meeting is so soon (Mon). Remember: safety vs inconvenience. Dont want to sound like NIMBYS!
Thanks
Jane

--
You received this message because you are subscribed to the Google Groups "Harbord2020" group.
To unsubscribe from this group and stop receiving emails from it, send an email to harbord2020+unsubscribe@googlegroups.com.

Tom Brohard and Associates

May 1, 2025

Board of Directors
Friends of Moraga Canyon
451 Pala Avenue
Piedmont, California 94611

SUBJECT: Review of the Moraga Canyon Specific Plan Public Review Draft in the City of Piedmont – Traffic and Transportation Issues

Dear Board Members:

As requested and as authorized, I, Tom Brohard, P.E., have reviewed the Moraga Canyon Specific Plan Public Review Draft. As you know, I also reviewed the Administrative Draft of this document and advised of my findings on October 1, 2024. In both of these reviews, I found these significant issues:

1) Traffic Speeds - The documents continue to incorrectly rely on the 85th percentile speed rather than the "Design Speed" which is typically 10 mph above the 85th percentile speed. For Moraga Avenue, the design speed should be at least 50 mph and could be as high as 55 mph depending on current speed measurements. The vehicle speeds relied upon by the Public Review Draft were likely influenced by the speed feedback signing which apparently was in place and operating when vehicle speeds were measured in September 2023 (See Page 29). The speed measurements also do not necessarily reflect current conditions and traffic speeds.

2) Stopping Sight Distance – Use of the proper design speed which is 10 mph higher than the 85th percentile speed will result in longer distances for stopping, particularly in the downhill eastbound direction. It is critically important for motorists to see and react properly to the traffic signal indications at Red Rock Road with pedestrians crossing Moraga Avenue, even with advance flashing beacons for the traffic signal. The proposed signing with the flashing beacons should refer to the traffic signal rather than the pedestrian crossing which would be a part of the traffic signal. In addition, the proposed pedestrian refuge island should be deleted as its placement would actually encourage pedestrians to wait in the middle of Moraga Avenue rather than to walk entirely across and clear the roadway out of traffic. Traffic signal equipment and signing should not be installed within the roadway.

3) Residential Development – If located on the south side of Moraga Avenue, at least two and probably three access driveways to serve the apartments will be needed. The driveways introduce many additional points of conflict with Moraga Avenue traffic and also create the possibility of random midblock pedestrian and bicycle crossings. These potential safety issues can be eliminated before they can occur by building the residential units on the north side of Moraga Avenue where vehicle access will occur with the protection of the proposed traffic signal.

Respectfully submitted,

Tom Brohard

Tom Brohard, Principal
Enclosure - Resume

81905 Mountain View Lane, La Quinta, California 92253-7611
Phone (760) 398-8885 Email tbrohard0@gmail.com

Tom Brohard, PE

Licenses: 1975 / Professional Engineer / California – Civil, No. 24577
1977 / Professional Engineer / California – Traffic, No. 724
2006 / Professional Engineer / Hawaii – Civil, No. 12321

Education: 1969 / BSE / Civil Engineering / Duke University

Experience: 55+ Years

Memberships: 1977 / Institute of Transportation Engineers – Fellow, Life
1978 / Orange County Traffic Engineers Council - Chair 1982-1983
1981 / American Public Works Association – Life Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Big Bear Lake..... 2006 - 2015
- Indio..... 2005 - 2019
- Huntington Beach ..... 1998 - 2004
- Lawndale..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
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Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

From: Marjorie Blackwell
To: Kevin Jackson
Cc: Vincent Fisher; Julie Watters; Daphne Albert; Peggy Esposito
Subject: Planning Commission Letter
Date: Thursday, August 07, 2025 3:23:33 PM
Attachments: Moraga Canyon Specific Plan Traffic Analysis.rtfd.zip
Brohard letter-4282025.pdf
R.Catalano- stopp.distance letter 022024.docx

[EXTERNAL] This email originated from an **external source**. Please use judgment and caution when opening attachments, clicking links, or responding.

This is regarding Item #4 of the Planning Commission agenda on Aug. 11, 2025:

Dear Planning Commission,

We are sending the attached letters again to remind you of the serious traffic safety problems that will result from the proposed development of 200 housing units in Moraga Canyon.

We urge you to pay close attention to this issue and appreciate your consideration.

Sincerely,
Marj Blackwell, President
Friends of Moraga Canyon Board of Directors

Statement of Ralph Catalano at the Piedmont City Council of October 7, 2024

Our City Council will soon choose either the north or south side of Moraga Avenue as the site for a new 200-household neighborhood required by State law. That choice will reflect how safely pedestrians and bicyclists can cross Moraga Avenue at Red Rock. This is true because the south side option presumes that children residing in Blair Park will cross Moraga at the Red Rock intersection when leaving for, or returning from, either school or Coaches Field. As is now the case on the existing sidewalk west of Red Rock, a fence on the proposed sidewalk along Blair Park would likely be built to keep children from "dashing" across Moraga where about 2,200 of the 15,000 cars using the road each day will travel at speeds exceeding 40 MPH. The Blair Park fence would "funnel" pedestrians to the Red Rock intersection where they could activate a planned "stop light" presumably visible for a sufficient distance to allow motorists on Moraga to stop safely.

At the Planning Commission meeting of September 25, the city's traffic consultant opined that stopping sight distances for drivers approaching the Red Rock intersection from either direction on Moraga Avenue would be safe. He reported basing his opinion on Caltrans guidelines.

Several of us who live in Moraga Canyon found the consultant's report surprising because a 2010 EIR prepared for proposed playfields in Blair Park found that sight distances on the segment of Moraga that includes the intersection at Red Rock did *not* meet Caltrans stopping sight distance standards. Hoping to understand this important contradiction, I applied the Caltrans guidelines to the proposed Red Rock intersection. Results were the same as reported in the earlier EIR -- stopping sight distances were less than Caltrans deems safe.

The Caltrans Highway Design Manual is very technical but includes two tables (attached) that succinctly provide the information regarding stopping sight distances. The first table (i.e., 405.1B) lists the appropriate guidelines for various types of roads and intersections. For signalized intersections such as that proposed at Red Rock and Moraga, a footnote to the table refers the reader to a second table (i.e., 201.1) showing stopping sight distances for various "design speeds."

Design speed for existing roads equals the "operational speed" adjusted for circumstances specific to the analyzed road segment. Operational speed equals the 85th percentile of vehicle speeds observed traveling on the road segment in question. The September 25 Planning Commission staff report cited an operational speed of 39 MPH and a design speed of 40 MPH for Moraga Avenue at Red Rock and Blair Park.

Table 201.1 in the Caltrans Highway Design Manual shows a stopping sight distance of **300 feet** for a signalized intersection on a roadway with a "design speed" of 40 MPH**.**

I have attached two Google maps showing my results. Each shows the segment of Moraga Avenue that includes the Red Rock intersection. Figure A shows about 190

feet between the the point at which drivers traveling east on Moraga first see the Red Rock intersection and the intersection itself. Figure B shows about 380 feet between the point at which vehicles traveling west first see the intersection and the intersection itself. If correct, these graphs imply no safe location for a signalized intersection near the current Red Rock Road. Even if the city took private property on Moraga Avenue and moved the intersection 110 feet to the east to provide a 300 foot sight distance for vehicles traveling east, vehicles traveling west would encounter an unsafe 270-foot sight distance.

Also note that 200 households would likely generate over 1,200 vehicular entrances and exits from Blair Park each day. The guidelines described above imply no connecting road between Blair Park and Moraga Avenue could be safely located between the current Red Rock intersection and the “first sight” point shown on Figure B for vehicles traveling west. A connector in this segment would cause dangerous stacking of vehicles making left turns into Blair Park from a point within 300 feet of first sight by drivers traveling west on Moraga. All 1200 or so daily trips out of and into Blair Park would, therefore, occur on a single connector east of the first sight point on Figure B. AM stacking in Blair Park and PM stacking on Moraga at such a single connector would be considerable with the latter causing stacking on the Moraga/Thornhill exit of Route 13 which has a dangerously short stopping sight distance.

Assuming the above is correct, it would seem that any scheme to house 200 families in Moraga Canyon will be dangerous by Caltrans standards. Pedestrian and bicyclist safety, however, favors planning Piedmont’s new neighborhood for the north side of Moraga. This is true because residents would have no reason to cross Moraga where the only land use would be the relocated Corporation Yard.

As noted above, design speed can be modified to reflect local circumstances. Caltrans, for example, modifies design speed shown in Table 201.1 to reflect the grade of roads. Downhill grades increase design speed whereas uphill grades decrease them. The staff report did not describe the grade of the road segment in question, but Moraga Avenue is not flat. The downhill, or westerly, grade decreases at Red Rock but for the purposes of this analysis, I assumed the grade was constant. If so, grade adjusting my analyses would not affect my conclusion that a pedestrian crossing at Red Rock would not be safe. Any shortening of the 300 foot stopping sight distance for drivers approaching Red Rock from the west (i.e., traveling east) would be canceled by lengthening of that for drivers approaching from the east (i.e., traveling west). There would be no safe location for a pedestrian crossing at Red Rock.

The above result assumes a design speed of 40 MPH. As noted above, however, about 2,200 vehicles a day will *exceed* 40 MPH when traveling on Moraga Avenue. Indeed, the Highway Design Manual recommends (Page 100-2) that the Design Speed for local roads connecting to a State highway like Route 13 be 45 MPH or higher. If we assume this design speed (i.e., 45 MPH), housing 200 families in Blair Park would appear even more dangerous than implied by my conservative analyses described above. The

argument entertained at the Planning Commission meeting, moreover, that narrowing Moraga Avenue could yield safer speeds assumes that the resulting “stacking” of vehicles on Route 13 at the Moraga/Thornhill exit during peak traffic hours would be safe. Stopping sight distance to that exit on Route 13 while traveling east is, however, far below safe levels given the speeds traveled on that highway.

Table 405.1B

Application of Sight Distance Requirements

Intersection Types	Sight Distance		
	Stopping	Corner	Decision
Private Roads	X	X[(1)]	
Public Streets and Roads	X	X	
Signalized Intersections	X	X[(2)]	
State Route Intersections & Route Direction Changes, with or without Signals	X	X	X

NOTES:

(1) Per Index 405.1(2)(c), if signalized, the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.

(2) Apply corner sight distance requirements at signalized intersections whenever possible due to unanticipated violations of the signals or malfunctions of the signals. See Index 405.1(2)(b).

Table 201.1

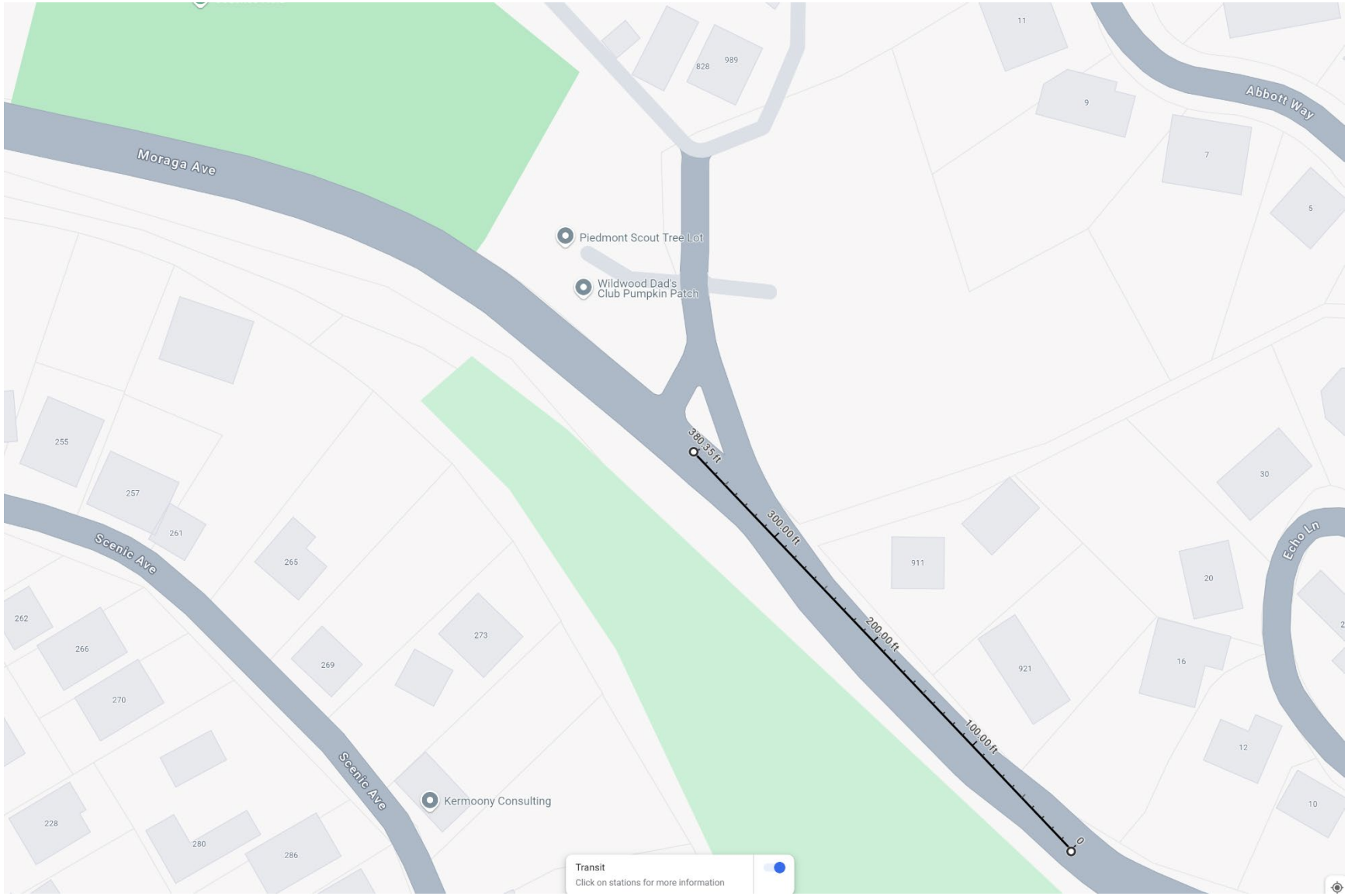
Sight Distance Standards

Design Speed[1] (mph)	Stopping[2] (ft)	Passing (ft)
10	50	---
15	100	---
20	125	800
25	150	950
30	200	1,100
35	250	1,300
40	300	1,500
45	360	1,650
50	430	1,800
55	500	1,950
60	580	2,100
65	660	2,300
70	750	2,500
75	840	2,600
80	930	2,700

Figure A

Moraga Ave
Abbott Way
Piedmont Scout Tree Lot
Wildwood Dad's Club Pumpkin Patch
190.94 ft
100.00 ft
0
Scenic Ave
Echo Ln
828
989
11
12
9
7
5
3
34
30
20
23
16
12
911
921
55
257
261
265
266
269
270
273

Figure B


Moraga Ave
Abbott Way
Piedmont Scout Tree Lot
Wildwood Dad's
Club Pumpkin Patch
Scenic Ave
Scenic Ave
Kermoony Consulting
Echo Ln
380.35 ft
300.00 ft
200.00 ft
100.00 ft
0
Transit
Click on stations for more information

wcw_aka@pacbell.net

From: wcw_aka@pacbell.net
Sent: Saturday, August 9, 2025 5:06 PM
To: 'moragaCanyonNews@piedmont.ca.gov'
Subject: Comment on MCSP - Multi-Modal access

There are problems with this plan with regard to sidewalks and bike access for new and existing Piedmont residents, specifically in the section of street and sidewalk on Moraga Avenue just west of the Moraga Canyon Specific Plan area. Moraga Avenue is the only direct route between the proposed new housing development and schools in Piedmont, City Hall, etc. The narrow, curved section from Coaches Field, going west, to below Pala Avenue creates a bottleneck for realistic multi-modal access to the MCSP area. (A)

The video summary refers to "sidewalks on both sides" of Moraga Canyon. However, the main access from the rest of the City of Piedmont has a sidewalk on only one side, as it is today. See page 34, the section west of Coaches Field.

The plan includes a "buffered bike lane uphill." This is misleading because the buffered bike lane does not exist in the approach from the west (near Pala Ave) to the MCSP area. What is shown in the plan (page 37) is a Class III Bike Lane.

A "Class III Bikeway" simply **means that bikes and vehicles need to share the road. This particular section of road is both narrow and curved, with very limited visibility.** I can't imagine how this section, as proposed, can be safe for children and families travelling to and from Piedmont for school and recreation.

The plan does not adequately address this issue with respect to the various considerations for Class III Bikeways. See:

https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000-a11y.pdf

P. 38 discusses adding bus transit along Moraga Ave. This would make bicycling along that route even more dangerous. Bikes *and* buses along the very narrow section of this route will not be safe. I don't believe the plan adequately addresses the possible combination of all of these modes of transportation.

Winifred Walters

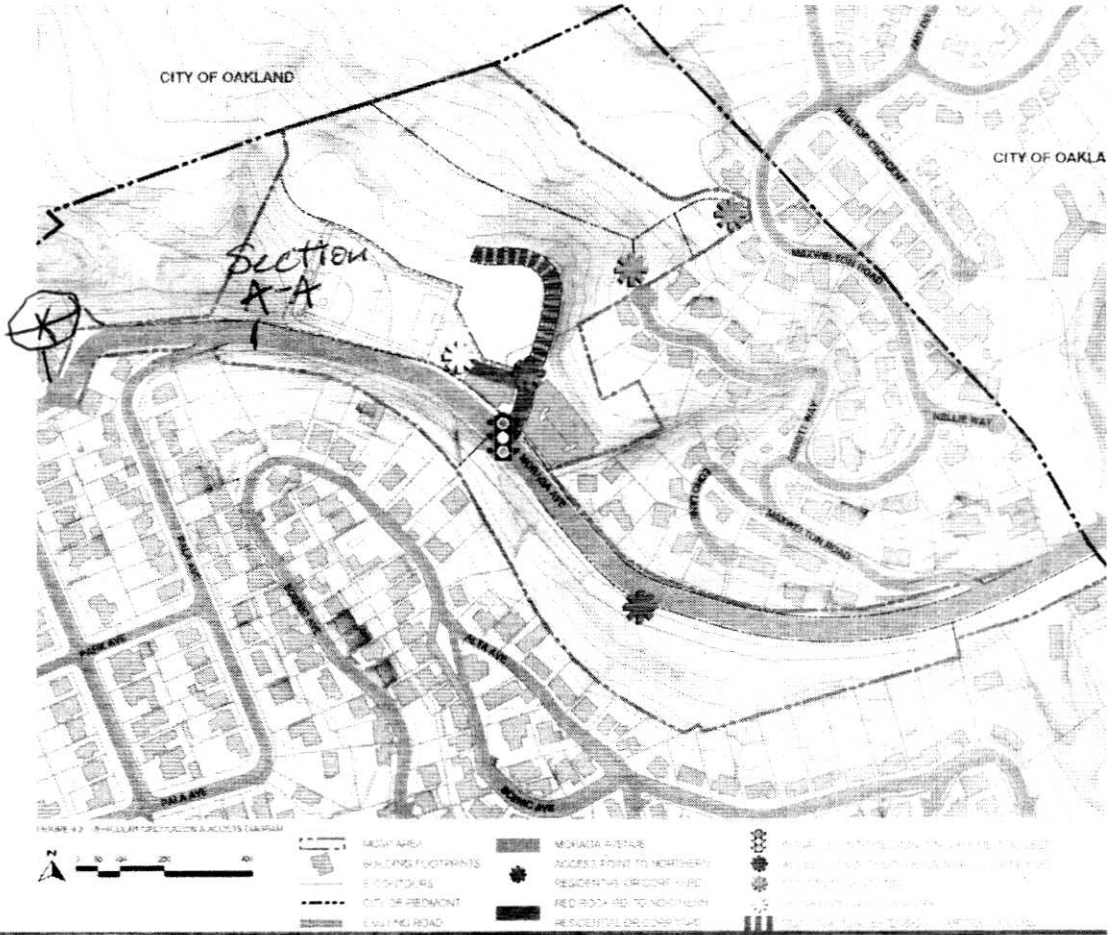
(A) Please see attached.

CHAPTER 4: CIRCULATION AND MULTI-MODAL/COMPLETE STREETS IMPROVEMENTS

Moraga Avenue Road Improvements

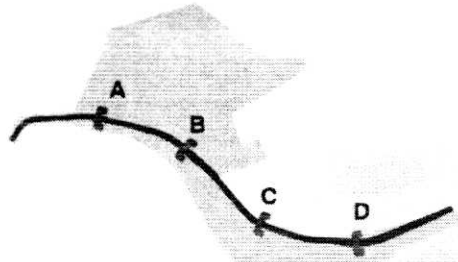
"Choke Point" or Bottleneck

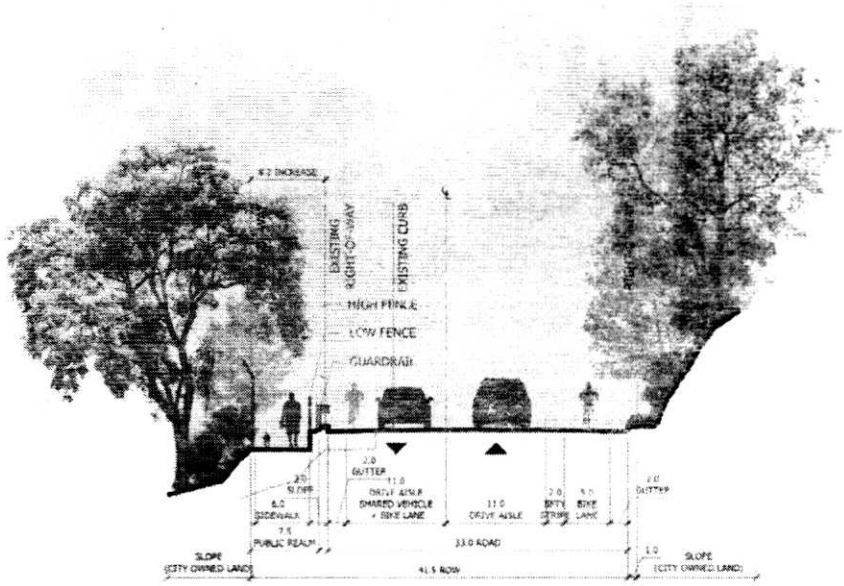
- Improvement of road leads to safer public realm
- Upgraded bike lane encourages biking
- Red Rock Road improvements (extension if development requires it)
- Red Rock Road intersection promotes slower vehicular speed and improves pedestrian crossing
- Appropriate ingress/egress to new development



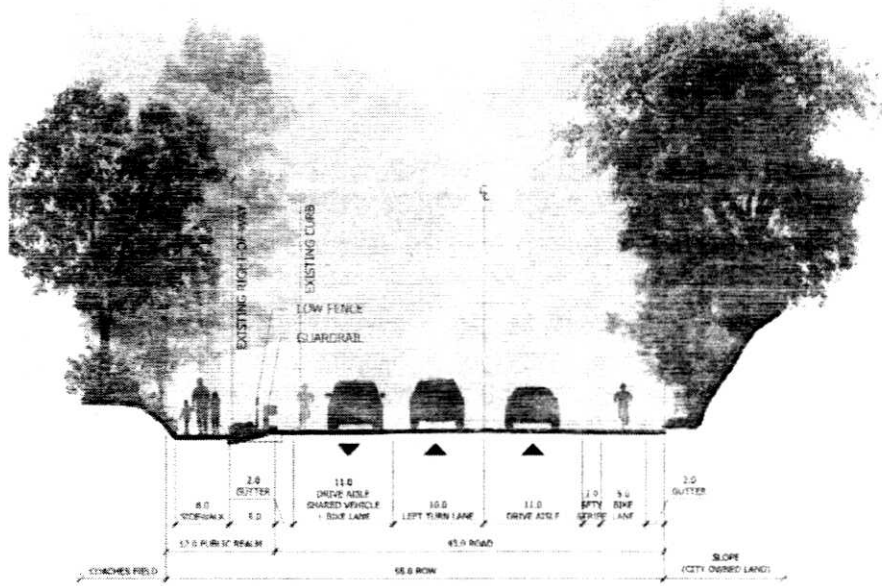
CHAPTER 4: CIRCULATION AND MULTI-MODAL/COMPLETE STREETS IMPROVEMENTS

Moraga Avenue Road Improvements





Section A-A': MCSP



Section B-B': MCSP

August 13, 2025

Dear Commissioners,

I tried to make the following points about the Blair Park Option A at the August 11 Planning Commission meeting

1. The graphic site plan and 3-D aerial view have not been updated since the maximum number of units increased from 130 to 197.
2. Using as a template the 4-story over 2-levels parking, Bond Apartments in Redmond, Washington, I created a view of what 197 units might look like on Blair Park. See attached images.
3. Piedmont requires 2 parking spaces for every 1-bedroom to 4-bedroom unit, or 394 spaces for 197 units. In addition, the project will need visitor and employee parking, which may total an additional 50 spaces for a total of 444 spaces. The Bond example shows that only around 270 spaces can be accommodated under the residential floors, leaving 176 spaces for surface parking which is not indicated in the Plan.
4. Creating such a large development on Moraga Avenue will create additional congestion and may preclude the enhancement and improvement of the avenue for pedestrians, cyclists and fire evacuation.
5. I pointed out that the concept of "buffering" pedestrian zones from the vehicular zones has already been tested at the Harbord intersection with the result being that the buffers are constantly demolished by angry motorists swerving around left turning cars.
6. I submitted the following to the Piedmont Post: " The buildings could be 75% as large as The Baxter and Merrill Gardens on Broadway, combined. The surface parking could be 75% as much as stretches from the Rockridge Safeway to Pleasant Valley Road. Another option presented at the August 11 Planning Commission meeting could instead be to negotiate with the City of Oakland to build across Broadway from The Baxter, where residents could walk to Safeway instead of drive. Blair Park could instead be redeveloped as both a park and a world-class staging area to prevent the next firestorm. Moraga Avenue could be enhanced for walkers, bikers and fire evacuation."

Sincerely,

David Petta
[redacted] Harbord Drive, Oakland

1 MORAGA CANYON SPECIFIC PLAN
NOVEMBER, 2023 130 UNITS

2 MORAGA CANYON SPECIFIC PLAN
AUGUST, 2025 130 UNITS

3 COMPARATIVE SITE STUDY
AUGUST, 2025 197 UNITS + PARKING

4 BLAIR PARK AUGUST, 2025

5 BLAIR PARK, 2028?
197 UNITS + PARKING

August 23, 2025

To: Kevin Jackson
The Piedmont City Council
The Piedmont Planning Commission

Marj Blackwell did an excellent job summarizing the neighborhood concerns about the MCSP for the August 11, 2025 Planning Commission meeting. I'm adding my name to the list of residents who have signed her letter to you. I also am adding comments of my own below.

Points I would like to make:

Cars and Traffic.

- Like Marj, I'm very concerned about traffic safety on Moraga Ave. The City's traffic consultant has provided an average 900 trips per day increase for 199 housing units. This is not the relevant concern. The issue is the increase in the number of ingresses/egresses during peak commute times, when everyone is heading to work, taking their kids to school, and then coming home in the evening. Moraga Ave will come to a standstill. Nor does it make sense that the multiple driveways proposed by the traffic consultant will help. As noted by the resident on Harbord Drive at the Aug 11th meeting, it is already a long wait to turn left down (west) onto Moraga Ave when there is traffic during commute hours; more points of interruption from multiple driveways will only make things worse.

- As was shown in a drawing from a new architect in the neighborhood at the Planning Commission meeting on Aug 11th, the parking under the apartment buildings is woefully inadequate and does not compute out for the increase to 197 units over the original 132 units. There will need to be another parking lot somewhere.

- The employment of driveway standards instead of CalTrans standards for line of sight will make the light dangerous for drivers and crossing to the sidewalk on the North side at the Red Rock light dangerous for people and children, if construction is in Blair Park.

- As was pointed out at the Planning Commission meeting, the traffic planning for Moraga Ave stops at the boundaries of the Plan, and does not include the continuing curve heading west to Pala Ave. Nor has the City taken into consideration Oakland residents that use Moraga Ave. Moraga Ave does not just stop at the edges of the MCSP map.

Evacuation Safety.

This is my major concern. In no way do I believe that people will be able to "hike up the trail and go out the gate to the cemetery" behind the skate park in the event of a fire storm, as suggested by Drew at the City Council meeting earlier this summer. I have documented 55 – 64 mph gusts in Moraga Canyon. Firestorms driven by those winds cannot be outwalked or outdriven, as amply demonstrated in this state. People will die.

Nor do I believe the city fire department can adequately evacuate the canyon in advance. Moraga Ave will already be at a standstill. We just had an evacuation drill conducted by the

Piedmont Fire Dept on Scenic Ave in June, in which we were asked to practice an evacuation for a Blair Park fire. We were told we would pretty much be on our own because between the Police and the Fire departments and the number of neighborhoods involved, there would only be one police or fire car available to spread the warning and help people leave. Nor will the Fire dept somehow be able to get a fire truck up Moraga Ave as proposed by our fire captain at the City Council meeting. Again, people will die.

I have heard of no effort to approach the Mountain View Cemetery for an easement to build an emergency road to Pleasant Valley for residents of Moraga Canyon, offering an alternate route out of the canyon.

For me, the last year has been about determining the feasibility of building 199 units in Moraga Canyon by exploring all the various issues that needed to be addressed in more detail, from traffic, to building designs and to which side of the canyon would work better. As the issues have compounded, it does not seem that anyone has taken a step back to say, "Is this truly feasible? Is this really a good idea? Will it be safe for the residents?"

Instead MCSP has just plowed forward. I know a considerable investment has been made in MCSP by the City. However, I strongly urge you to reconsider. Reduce the density to a safe level in the Canyon. Spread the load to other sites such as the now available Linda Ave Dog Park. Talk to Oakland about a trade. The people who will live in Moraga Canyon will be part of our community. Please care about them.

Sincerely,

Pam Hirtzer *Pam Hirtzer*

[redacted] Scenic Ave

[redacted]

p.s. Please stop trying to rebrand Blair Park as "Open Space". It's a park.

August 25, 2025

Re. Moraga Canyon Specific Plan

Dear Council and Commissioners,

Please consider the following:

1. The Plan contains illustrations and text that are not in agreement: The illustrations still show only 130 units and the text allows for 197 units.
2. The text requires that parking meet City of Piedmont requirements of 2 cars per unit and that all parking shall be contained in two floors below the buildings.
3. The 394 parking spaces do not fit below the buildings, and do not even fit as surface parking on the entirety of Blair Park. See attached.
4. A development of this magnitude will put further pressure on Moraga Avenue, making it unsafe both on a daily basis and in an evacuation emergency.
5. The Plan should be amended to correct these inconsistencies before being offered to developers so that citizens can see what is being proposed, and/or to reduce the scope of the project.

Sincerely,

David Petta
[redacted] Harbord Drive, Oakland

attachment

174 surface parking spaces do not fit on Blair Park

3 buildings x 66 units + 90 podium cars = 197 units + 270 podium cars

Required parking = 394 resident cars + 50 visitor/employee = 444 cars

Podium parking deficit = 444 - 270 = 174 cars

By email to: moragaCanyonNews@piedmont.ca.gov

Comment to Planning Commission for 9/8/25 meeting on Moraga Canyon Specific Plan (MCSP)

9/1/2025

Introduction: The MCSP articulates principles and objectives with respect to the "Multi-modal transportation network" in the MCSP area and vicinity. I have questions and concerns (see 8/9/25 comments on page 3) that have not yet been addressed.

2.3 VISION PRINCIPLES

The Vision articulated in the Specific Plan is aligned with the vision and guiding principles for the Plan Area set forth in the General Plan.

FIGURE 2.2: CIRCULATION VISION DIAGRAM

CIRCULATION

Improve vehicular, pedestrian and bicycle safety along Moraga Avenue

Improvement and expansion of the Moraga Avenue right-of-way (ROW) includes an eastbound separated bike lane and double sided sidewalk. A traffic light at Red Rock Road will slow traffic and provide a safer street crossing.

4.2 OBJECTIVES

The Specific Plan objectives related to mobility and circulation include:

- Provide multi-modal access for the development envisioned by the Specific Plan.
- Enhance the multi-modal connections within the MCSP, to the surrounding areas, and the larger community and region.
- Improve pedestrian access across Moraga Avenue.
- Enhance the safety and comfort of the pedestrian and bicycle facilities along Moraga Avenue.
- Provide adequate parking supply that meets the expected parking demand but does not encourage excessive reliability on motor vehicles and driving.
- Accommodate future bus transit service along Moraga Avenue.

Specifically, at the 8/11/25 meeting, at about 34 minutes on the video, the consultant states that a bike lane, which is critical for bike safety, will be created on the uphill section of Moraga Ave. The consultant was referring to Section A-A (see page 40 of the MCSP). Section A-A depicts a separate bike lane for uphill (east bound) cyclists. **However, cyclists will share the lane with vehicles (and possibly buses) on the section of Moraga Ave to the west of Section A-A.** I am attaching a copy of page 37 of the MCSP with the section of concern indicated with blue markings. Here, the plan depicts a Class III bike lane in green on the eastbound section of Moraga Ave.

After the August 11, 2025 Planning Commission meeting, I spoke with Kevin Jackson. Mr. Jackson stated that there are no improvements planned for the narrow section of Moraga Avenue west of Coaches Field near Pala Avenue.

Current conditions: Moraga Avenue, west of Pala Avenue. The eastbound (uphill) lane is to be designated as a Class III, shared, bike lane. Note limited visibility due to the curve in the road.

I respectfully request that the Planning Commission again consider the issues raised in my 8/9/25 comments. Access to the proposed new housing is NOT safe for most bicyclists. The planning document would appear to over-generalize and potentially mislead decisionmakers on this particular topic. Do other parts of this planning document gloss over or miss critical details?

The City recently took the Linda Beach Dog Park out of service. During the council meeting discussion, it was stated that the site was not suitable for use as a dog park and should never have been designated for this use because of the topography. **Now is the time to carefully consider all the issues regarding a new housing development in Moraga Canyon to avoid making choices that will be regretted in the future.**

Thank you for your consideration. Winifred Walters (Piedmont resident)

Attachments: 8/9/25 comments; excerpt from MCSP (page 37)

Prior Comment:

Sent to 'moragaCanyonNews@piedmont.ca.gov' for the Planning Commission on 8/9/25

There are problems with this plan with regard to sidewalks and bike access for new and existing Piedmont residents, specifically in the section of street and sidewalk on Moraga Avenue just west of the Moraga Canyon Specific Plan area. Moraga Avenue is the only direct route between the proposed new housing development and schools in Piedmont, City Hall, etc. The narrow, curved section from Coaches Field, going west, to below Pala Avenue creates a bottleneck for realistic multi-modal access to the MCSP area.

The video summary refers to “sidewalks on both sides” of Moraga Canyon. However, the main access from the rest of the City of Piedmont has a sidewalk on only one side, as it is today. See page 34, the section west of Coaches Field.

The plan includes a “buffered bike lane uphill.” This is misleading because the buffered bike lane does not exist in the approach from the west (near Pala Ave) to the MCSP area. What is shown in the plan (page 37) is a Class III Bike Lane.

A “Class III Bikeway” simply **means that bikes and vehicles need to share the road. This particular section of road is both narrow and curved, with very limited visibility.** I can’t imagine how this section, as proposed, can be safe for children and families travelling to and from Piedmont for school and recreation.

The plan does not adequately address this issue with respect to the various considerations for Class III Bikeways. See:

https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000-a11y.pdf

P. 38 discusses adding bus transit along Moraga Ave. This would make bicycling along that route even more dangerous. Bikes *and* buses along the very narrow section of this route will not be safe. I don’t believe the plan adequately addresses the possible combination of all of these modes of transportation.

Winifred Walters

04

4.11 BICYCLE NETWORK REQUIREMENTS

As shown in Figure 4.14, upgrades to the bicycle network are required on Moraga Avenue as follows:

1. Eastbound (uphill): Moraga Avenue shall provide a buffered Class II bicycle lane, with an option to upgrade to a Class IV protected bicycle lane, on the south side of the roadway along the entire corridor in the MCSP area. Eastbound Moraga Avenue will remain a Class III bike lane west of Pala Avenue, and a Class II bike lane east of Maxwelton Road.
2. Westbound (downhill): Moraga Avenue shall remain a Class III enhanced bicycle route on the north side of the roadway within a consistent lane width throughout the MCSP area and extending in both directions of Moraga Avenue. However, depending on the final development plan and right-of-way availability, westbound Moraga Avenue may be upgraded to a Class II bicycle lane.

4.11.1 BICYCLE PARKING

An expansion of bicycle parking at Coaches Field and other open spaces in the area will be required to further encourage bicycling. Chapter 5, Site Design provides the minimum short-term (bike racks intended for visitors) and long-term (bike rooms or lockers intended for residents) bicycle parking requirements for new developments.

FIGURE 4.16: BUFFERED CLASS II BIKE LANE EXAMPLE IMAGERY

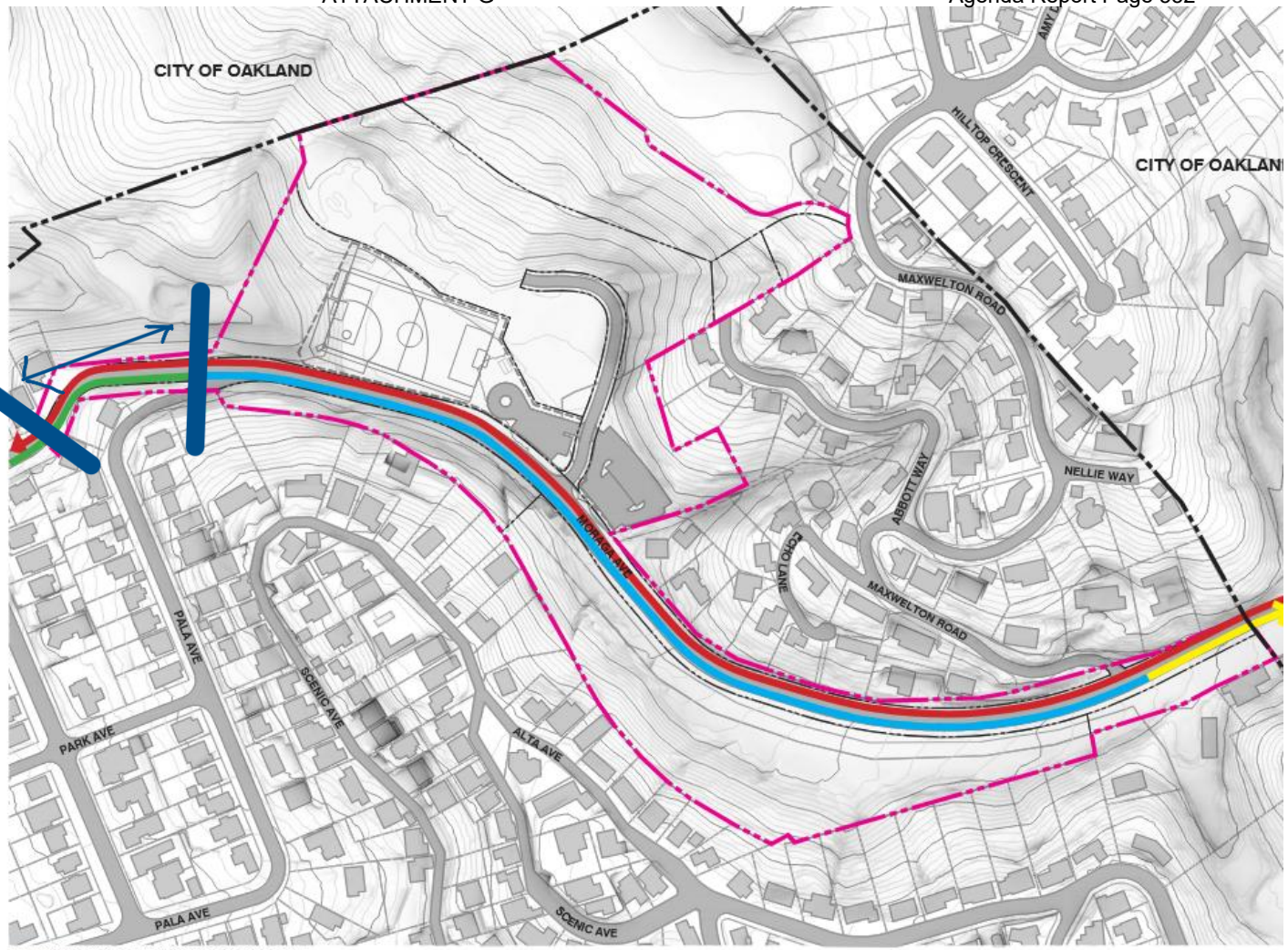


FIGURE 4.14: BICYCLE NETWORK REQUIREMENTS DIAGRAM

Attachment to comments submitted by Winifred Walters 9/1/25 – indicating narrow section of Moraga Ave with a shared lane for bicycles and vehicles (Class III bike lane depicted in green)

U.S. Customary	Metric
$d_B = 1.075 \frac{V^2}{a}$	$d_B = 0.039 \frac{V^2}{a}$
where:	where:
d_B = braking distance, ft	d_B = braking distance, m
V = design speed, mph	V = design speed, km/h
a = deceleration rate, ft/s²	a = deceleration rate, m/s²

(3-1)

Studies documented in the literature (*19*) show that most drivers decelerate at a rate greater than 14.8 ft/s² [4.5 m/s²] when confronted with the need to stop for an unexpected object in the roadway. Approximately 90 percent of all drivers decelerate at rates greater than 11.2 ft/s² [3.4 m/s²]. Such decelerations are within the driver's capability to stay within his or her lane and maintain steering control during the braking maneuver on wet surfaces. Therefore, 11.2 ft/s² [3.4 m/s²] (a comfortable deceleration for most drivers) is recommended as the deceleration threshold for determining stopping sight distance. Implicit in the choice of this deceleration threshold is the assessment that most vehicle braking systems and the tire-pavement friction levels of most roadways are capable of providing a deceleration rate of at least 11.2 ft/s² [3.4 m/s²]. The friction available on most wet pavement surfaces and the capabilities of most vehicle braking systems can provide braking friction that exceeds this deceleration rate.

Table 3-1. Stopping Sight Distance on Level Roadways

U.S. Customary					Metric				
Design Speed (mph)	Brake Reaction Distance (ft)	Braking Distance on Level (ft)	Stopping Sight Distance		Design Speed (km/h)	Brake Reaction Distance (m)	Braking Distance on Level (m)	Stopping Sight Distance	
			Calculated (ft)	Design (ft)				Calculated (m)	Design (m)
15	55.1	21.6	76.7	80	20	13.9	4.6	18.5	20
20	73.5	38.4	111.9	115	30	20.9	10.3	31.2	35
25	91.9	60.0	151.9	155	40	27.8	18.4	46.2	50
30	110.3	86.4	196.7	200	50	34.8	28.7	63.5	65
35	128.6	117.6	246.2	250	60	41.7	41.3	83.0	85
40	147.0	153.6	300.6	305	70	48.7	56.2	104.9	105
45	165.4	194.4	359.8	360	80	55.6	73.4	129.0	130
50	183.8	240.0	423.8	425	90	62.6	92.9	155.5	160
55	202.1	290.3	492.4	495	100	69.5	114.7	184.2	185
60	220.5	345.5	566.0	570	110	76.5	138.8	215.3	220
65	238.9	405.5	644.4	645	120	83.4	165.2	248.6	250
70	257.3	470.3	727.6	730	130	90.4	193.8	284.2	285
75	275.6	539.9	815.5	820	140	97.3	224.8	322.1	325
80	294.0	614.3	908.3	910					
85	313.5	693.5	1007.0	1010					

Note: Brake reaction distance predicated on a time of 2.5 s; deceleration rate of 11.2 ft/s² [3.4 m/s²] used to determine calculated sight distance.

Table 3-2. Stopping Sight Distance on Grades

U.S. Customary						
Design Speed (mph)	Stopping Sight Distance (ft)					
	Downgrades			Upgrades		
	3%	6%	9%	3%	6%	9%
15	80	82	85	75	74	73
20	116	120	126	109	107	104
25	158	165	173	147	143	140
30	205	215	227	200	184	179
35	257	271	287	237	229	222
40	315	333	354	289	278	269
45	378	400	427	344	331	320
50	446	474	507	405	388	375
55	520	553	593	469	450	433
60	598	638	686	538	515	495
65	682	728	785	612	584	561
70	771	825	891	690	658	631
75	866	927	1003	772	736	704
80	965	1035	1121	859	817	782
85	1070	1149	1246	949	902	862

Metric						
Design Speed (km/h)	Stopping Sight Distance (m)					
	Downgrades			Upgrades		
	3%	6%	9%	3%	6%	9%
20	20	20	20	19	18	18
30	32	35	35	31	30	29
40	50	50	53	45	44	43
50	66	70	74	61	59	58
60	87	92	97	80	77	75
70	110	116	124	100	97	93
80	136	144	154	123	118	114
90	164	174	187	148	141	136
100	194	207	223	174	167	160
110	227	243	262	203	194	186
120	263	281	304	234	223	214
130	302	323	350	267	254	243
140	341	367	398	302	287	274

On nearly all roads and streets, the grade is traversed by traffic in both directions of travel, but the sight distance at any point on the highway generally is different in each direction, particularly on straight roads in rolling terrain. As a general rule, the sight distance available on downgrades is larger than on upgrades, more or less automatically providing the appropriate corrections for grade. This may explain why some designers do not adjust stopping sight distance because of grade. Exceptions are one-way roadways or streets, as on divided highways with independent profiles. For these separate roadways, adjustments for grade may be needed.

3.2.2.5 Variation for Trucks

The recommended stopping sight distances are based on passenger car operation and do not explicitly consider design for truck operation. Trucks as a whole, especially the larger and heavier units, need longer stopping distances for a given speed than passenger vehicles. However, there is one factor that tends to balance the additional braking lengths for trucks with those for passenger cars. The truck driver is able to see substantially farther beyond vertical sight obstructions because of the higher position of the seat in the vehicle. Separate stopping sight distances for trucks and passenger cars, therefore, are not generally used in highway design.

There is one situation in which the goal should be to provide stopping sight distances greater than the design values in Table 3-1. Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades where truck speeds closely approach or exceed those of passenger cars, the greater height of eye of the truck driver is of little value. Although the

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Todd A. Williams
Director
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Oakland, California 94607
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fennemorelaw.com

September 3, 2025

VIA EMAIL

Kevin Jackson kjackson@piedmont.ca.gov
Planning and Building Director
City of Piedmont
120 Vista Avenue
Piedmont, CA 94611

Re: Planning Commission Meeting of September 8, 2025
re Moraga Canyon Specific Plan
Coaches Field Property Transferred by Mountain View Cemetery
to City of Piedmont

Dear Director Jackson and Planning Commissioners:

On behalf of my client, Mountain View Cemetery ("Cemetery"), I am writing to inform the City of Piedmont ("City") Planning Commission about a restriction contained in the Real Estate Sale Agreement ("Agreement") for the property, consisting of APN Nos. 048-7002-003 and 050-4579-0 (the "Property"), sold by the Cemetery to the City in 1993. The Property is immediately adjacent to the existing Cemetery. The Property's current uses include Coaches Field, a skatepark and the City's corporation yard, and is included within the proposed Moraga Canyon Specific Plan ("MCSP") for potential residential development.

I previously raised the concerns contained in this letter to the City Administrator in a correspondence dated May 1, 2025. (See attached letter including a copy of the Agreement and Grant Deed. We incorporate the May 1 letter and its attachments with this letter.). To date, I have received no response to that letter.

Per Section 2.4 of the Agreement, the purpose of the transfer was as follows:

> 2.4 Purpose. Buyer has determined that the Property may be a suitable site for a park, sports playfield, municipal recreational facility, city corporation yard or other appropriate municipal use. Buyer desires to acquire and Seller desires to sell the Property on the terms and conditions of this Agreement.

Moreover, Section 7.1(a) (Buyer's Covenants, Deed Covenants) of the Agreement states that "[t]he Property shall be exclusively used for municipal purposes as reasonably determined from time to time by the Buyer…."

The grant deed for the Property (included in the attachments to my May 1 letter) includes this covenant and states as follows:

> Grantee covenants and agrees for itself, and its successors and assigns to or of the Property as follows:
>
> 1. Grantee, and such successors and assigns shall use the Property exclusively for municipal purposes as reasonably determined from time to time by Grantee; provided, however, Grantee shall not use, store or dispose of any hazardous or toxic substance (as defined under applicable law) on the Property.

The grant deed also contains the following provision:

> It is intended and agreed that the agreements and covenants provided in Paragraphs 1 through 4 above shall be covenants running with the land for the benefit and in favor of the Adjacent Parcel and burdening the Property. Such covenants shall inure to the benefit of and be enforceable by, Grantor and its successors and assigns, and be binding upon Grantee, its successors and assigns to or of the Property or any part thereof or any interest therein, and any party in possession or occupancy of the Property or any part thereof.

Thus, the transfer included a clear restriction on future use of the Property, i.e., that it could only be used for a "municipal use" or "municipal activity," and that such restriction applies not only to the City, but any successors and assigns (e.g., a residential developer) who must also use the Property "exclusively for municipal purposes."

The Cemetery believes that the City's current use of the Property is in compliance with this provision in that the Property has been used as a public park (Coaches Field), a skate park, as well as a corporation yard for the City.

However, the City now intends, through the adoption of the MCSP, to potentially sell the Property to a private developer for the construction of housing. Such use of the Property would not qualify as a "municipal activity" and would be in violation of the restriction and covenant.

We understand that the current draft Moraga Canyon Specific Plan includes two development options, labelled as Option A and B. Option A clusters multifamily development south of Moraga Avenue, while Option B clusters multifamily development on the Property. Of

the two options, Option B clearly conflicts with the stated purpose of the Agreement and should not be approved in conflict with the Agreement.

The Cemetery appreciates the City's need to plan for and approve housing. That said, it is notifying and reminding the City of the restriction and covenant regarding the Property, and that the Cemetery intends to enforce it rights under the Agreement were a non-municipal activity use be approved for the Property.

Sincerely,

FENNEMORE LLP

Todd A. Williams

/taw

Attachments: May 1, 2025 letter to City with attachments

cc: Client
Pierce MacDonald, Senior Planner (pmacdonald@piedmont.ca.gov)
Planning Commission

FENNEMORE.

Todd A. Williams
Director
toddwilliams@fennemorelaw.com

1111 Broadway, 24th Floor
Oakland, California 94607
PH (510) 622-7630 | FX (510) 834-1928
fennemorelaw.com

May 1, 2025

VIA EMAIL

Rosanna Bayon Moore rbayonmoore@piedmont.ca.gov
City Administrator
City of Piedmont
401 Highland Avenue
Piedmont, CA 94611

Re: Coaches Field Property Transferred by
Mountain View Cemetery to City of Piedmont

Dear City Administrator Moore:

On behalf of my client, Mountain View Cemetery ("Cemetery"), I am writing to inform the City of Piedmont ("City") about a restriction contained in the Real Estate Sale Agreement ("Agreement") for the property, consisting of APN Nos. 048-7002-003 and 050-4579-0 (the "Property"), sold by the Cemetery to the City in 1993. The Property is immediately adjacent to the existing Cemetery. The Property's current uses include Coaches Field, a skatepark and the City's corporation yard.

Per Section 2.4 of the Agreement (see attached), the purpose of the transfer was as follows:

> 2.4 Purpose. Buyer has determined that the Property may be a suitable site for a park, sports playfield, municipal recreational facility, city corporation yard or other appropriate municipal use. Buyer desires to acquire and Seller desires to sell the Property on the terms and conditions of this Agreement.

Moreover, Section 7.1(a) (Buyer's Covenants, Deed Covenants) of the Agreement states that "[t]he Property shall be exclusively used for municipal purposes as reasonably determined from time to time by the Buyer…."

The grant deed for the Property (attached) includes this covenant and states as follows:

> Grantee covenants and agrees for itself, and its successors and assigns to or of the Property as follows:
>
> 1. Grantee, and such successors and assigns shall use the Property exclusively for municipal purposes as reasonably determined from time to time by Grantee; provided, however, Grantee shall not use, store or dispose of any hazardous or toxic substance (as defined under applicable law) on the Property.

The grant deed also contains the following provision:

> It is intended and agreed that the agreements and covenants provided in Paragraphs 1 through 4 above shall be covenants running with the land for the benefit and in favor of the Adjacent Parcel and burdening the Property. Such covenants shall inure to the benefit of and be enforceable by, Grantor and its successors and assigns, and be binding upon Grantee, its successors and assigns to or of the Property or any part thereof or any interest therein, and any party in possession or occupancy of the Property or any part thereof.

Thus, the transfer included a clear restriction on the use of the Property, i.e., that it could only be used for a "municipal use" or "municipal activity," and that such restriction applies not only to the City, but any successors and assigns who must also use the Property "exclusively for municipal purposes."

The Cemetery believes that the City's past use of the Property was in compliance with this provision in that the Property was used as a public park (Coaches Field), a skate park, as well as a corporation yard for the City.

However, the City now intends to potentially sell the Property to a private developer for the construction of housing. We do not believe that such use of the Property qualifies as a "municipal activity" and would be in violation of the restriction and covenant.

We understand that the current draft Moraga Canyon Specific Plan includes two development options, labelled as Option A and B. Option A clusters multifamily development south of Moraga Avenue, while Option B clusters multifamily development on the Property. Of the two options, Option B clearly conflicts with the stated purpose of the Agreement.

The Cemetery appreciates the City's need to plan for and approve housing. That said, it wanted to notify the City of the restriction and covenant regarding the Property, and that the Cemetery intends to enforce it rights under the Agreement were a non-municipal activity use be approved for the Property.

If you have any questions or would like to discuss this issue further, please let me know.

Sincerely,

FENNEMORE LLP

Todd A. Williams

/taw

cc: Client
Pierce MacDonald, Senior Planner (pmacdonald@piedmont.ca.gov)

ATTACHMENT 1

ATTACHMENT 1

FILE COPY

REAL ESTATE SALE AGREEMENT

1. PARTIES

This Agreement is entered into between Mountain View Cemetery Association, a California non-profit corporation ("Seller") and the City of Piedmont, a California municipal corporation ("Buyer"), as of June 15, 1992.

2. FACTS

2.1 The Property. Seller owns that certain real property consisting of approximately four (4) acres in Piedmont, California adjacent to Moraga Avenue, as more particularly shown on attached Exhibit A and more particularly described on Exhibit B (the "Property").

2.2 Use of the Property. The property is dedicated to cemetery use, but has not, as of the date hereof, been used for the interment of human remains. The property is partially improved with improvements constructed by Buyer. Pursuant to an agreement dated March 26, 1969, and an amendment thereto dated December, 1982 ("License Agreement"), Seller has granted to Buyer the right to use certain portions of the Property for the purpose of (i) maintaining the existing improvements constructed by Buyer on the Property, (ii) maintaining an existing drainage pipe, (iii) dumping landfill and (iv) operating a pistol range for use by the Piedmont Police Department. The License Agreement may be revoked by Seller upon two years prior written notice.

2.3 Adjacent Parcel. Seller owns the real property adjacent to the Property as shown on attached Exhibit C (the "Adjacent Parcel").

2.4 Purpose. Buyer has determined that the Property may be a suitable site for a park, sports playfield, municipal recreational facility, city corporation yard or other appropriate municipal use. Buyer desires to acquire and Seller desires to sell the Property on the terms and conditions of this Agreement.

3. SALE OF PROPERTY.

Seller hereby agrees to sell to Buyer, and Buyer hereby agrees to purchase from Seller all of the Property in accordance with the terms and conditions of this Agreement.

4. PURCHASE PRICE

4.1 Purchase Price. The purchase price (the "Purchase Price") of the Property shall be the amount of $250,000.00. The Purchase Price shall be payable in accordance with Paragraph 4.2.

4.2 Payment of Purchase Price. The Purchase Price shall be paid by bank cashier's check or the equivalent at close of escrow.

5. REMOVAL OF DEDICATION

5.1 Removal. The parties acknowledge that Seller's duty to sell and convey the Property pursuant to this Agreement is subject to the issuance of a court order removing the Property from dedication to cemetery use. Seller shall pay all of Seller's costs, fees and expenses, including reasonable attorneys' fees, for the removal of such dedication.

5.2 Filing. Within thirty (30) days after the date of this Agreement, Seller shall file and diligently pursue the procedures set forth in California Health and Safety Code §§ 8580, et seq., requesting that the Property be removed from dedication to cemetery use. Seller shall deliver notice of such petition to Buyer within five (5) days after such filing.

5.3 Approval of Petition. If (i) a court orders that the Property be removed from dedication to cemetery use pursuant to Seller's petition or after an appeal of a denial of Seller's petition and (ii) the time for any party to appeal such order has expired, Seller shall deliver written notice of such order to the Buyer within three (3) business days after the expiration of such time to appeal.

5.4 Denial of Petition. If Seller's petition is denied, Seller may in its sole discretion appeal such denial at its sole

expense. In addition, Seller shall appeal such denial if Buyer delivers notice to Seller requesting such an appeal within five (5) days after the denial of Seller's petition, in which case Buyer shall be responsible for paying all reasonable attorneys' fees and costs related to such appeal. If Seller determines that it will not appeal such denial, and Buyer has not delivered notice requesting an appeal, Seller shall deliver notice to the Escrow Holder requesting that Escrow be closed. "Escrow Holder" and "Escrow" are defined in Paragraph 9.1 hereof. If no appeal is taken from an order denying removal of cemetery use dedication, this Agreement shall automatically terminate without further notice, and the parties shall have no further obligations pursuant to its terms and conditions.

6. TITLE TO PROPERTY

6.1 Condition of Title. Title to the Property shall be conveyed by Seller in the form of a Grant Deed (the "Grant Deed") to Buyer, free and clear of all liens, encumbrances, covenants, conditions, restrictions, easements, rights of way, and leases of record except: (i) the lien of current taxes not yet delinquent, (ii) those portions of current assessments not yet due and payable, (iii) anything of record that in any way affects title to the Property resulting from the acts or omissions of Buyer, (iv) those covenants specified in the Grant Deed, and (v) all exceptions to title listed in a current 1992 preliminary title report issued by the Escrow Holder (the "Preliminary Report"), and attached hereto as Exhibit D.

6.2 Buyer's Policy. Buyer's obligation to purchase the Property pursuant to this Agreement shall be conditioned upon Escrow Holder's commitment to issue an ALTA standard coverage policy of title insurance in the amount of the Purchase Price showing the Buyer as holder of the fee title to the Property subject to the exceptions specified in the Preliminary Report.

7. BUYER'S COVENANTS

7.1 Deed Covenants. The Grant Deed shall specify that:

(a) The Property shall be used exclusively for munici-

pal purposes as reasonably determined from time to time by Buyer; provided, however, Buyer shall not use, store or dispose of any hazardous or toxic substance (as defined under applicable law) on the Property.

(b) Buyer shall construct, maintain, repair and replace in good condition and repair an eight (8) foot cyclone fence along the southwest property line of the Property to prevent persons from trespassing into the Adjacent Parcel (construction of such fence shall be completed within nine (9) months after the close of Escrow in accordance with Paragraph 9.3), said fence to be equipped with vertical slats.

(c) In the event of a blockage to the water supply to Seller provided by the stream flowing below the Property in a pipe, which blockage to such water supply is caused by Buyer, or which blockage occurs on the Property by other than an Act of God (such as a major earthquake), Buyer will take prompt action to remedy and remove such blockage. For purposes hereof "to block" and "blockage" shall mean any reduction of water flow in such stream by 5% or more caused by Buyer or which blockage occurs on the Property by other than an Act of God.

(d) Buyer shall not perform any grading or other act which materially adversely affects the stability of the soils located on the Adjacent Parcel or causes material adverse soil erosion on the Adjacent Parcel, and Buyer will take prompt action to remedy and repair any such soil instability or erosion caused by Buyer.

7.2 Property Affected. The covenants specified in Paragraph 7.1 shall (i) burden and run with the Property and shall be binding upon Buyer and its heirs, successors and assigns and (ii) benefit the Adjacent Parcel and Seller and its heirs, successors and assigns.

7.3 Use of Property. Between the date hereof and the close of Escrow, Buyer shall not take any action which would restrict Seller's ability to use the Property for cemetery purposes without Seller's prior written consent, provided that continued use of the Property pursuant to the License Agreement referred to in Para-

shall be paid in equal amounts by Buyer and Seller. Transfer taxes are exempt pursuant to Section 20.87 of the Piedmont City Code due to Buyer being a governmental entity.

10. BUYER PURCHASING "AS IS"

10.1 Buyer's Inspection. Buyer shall have the right to make full inspection of the Property, including making any and all tests that it deems appropriate relating to the Property at Buyer's sole expense, including, but not limited to soil tests and toxic substance tests. Buyer shall indemnify, protect and defend Seller from and against all claims, demands, actions, causes of action, losses, liabilities, damages, costs, fees and expenses (including without limitation attorneys' fees) in any way arising out of, resulting from or relating to such tests and inspections and shall restore and repair any damage to the Property resulting from such inspections. Buyer acknowledges that Buyer is purchasing the Property "as is" and is relying solely on its own investigations of the physical characteristics and conditions of the Property, and hereby waives any and all objections to the physical characteristics, including acreage and condition of the Property which would be disclosed by such inspection or otherwise. Buyer acknowledges that the Property has been used as a landfill and that the purchase of the Property pursuant to this Agreement is without regard to any physical condition of the Property including (without limitation) topography, climate, soil, subsoil, existing fill, drainage and surface and groundwater quality, and without regard to air and water rights, the availability of utilities and water, present and future zoning purposes for which the Property is suited, access to public roads, proposed routes, or enlargement of roads or extension thereof, or any other condition or matter.

10.2 Buyer's Release of Seller. Buyer hereby waives, releases, acquits, and forever discharges Seller and the officers, directors, employees and agents of Seller to the maximum extent permitted by law, of and from any and all claims, actions, causes of action, demands, rights, damages, costs, expenses, or compensation whatsoever, direct or indirect, known or unknown, foreseen or unforeseen, that it now has or which may arise in the future on account of or in any way growing of or in connection with the existence or condition of the Property, with the condition of any

improvements or buildings on the Property, with the presence of toxic or hazardous waste, substances or materials, with any settlement or subsidence of any fill or filled ground on the Property or settlement or subsidence of construction thereon, if any, with any operative or proposed governmental laws and regulations, including, but not limited to, zoning, environmental hazardous substance and land use laws, and regulations to which the Property may be subject, or with Buyer's contemplated used and development of the Property.

(a) Waiver. Buyer waives the provisions of California Civil Code Section 1542. Buyer acknowledges that Civil Code Section 1542 provides as follows:

> A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor.

10.3 Buyer's Indemnity. Buyer shall defend, indemnify, protect and hold harmless Seller and the officers, directors, employees and agents of Seller from and against any and all claims actions, causes of action, demands, damages, costs, expenses and fees, including, but not limited to, attorneys' fees, whatsoever, asserted by any person, including any governmental agency, that may in any way arise out of result from the past, present or future use, ownership or condition of the Property except for such claims actions, causes of action, demands, damages, costs, expense and fees, including, but not limited to, attorneys' fees, which arise out of or will result from Seller's willful misconduct.

11. LICENSE AGREEMENT TERMINATION

As of the close of Escrow, the License Agreement as amended and all rights granted thereunder shall be of no further effect.

12. ASSIGNMENT

Buyer shall not assign its interest, or any portion of its interest in this Agreement, without Seller's prior written consent,

which consent may be withheld in the sole and absolute discretion of Seller.

13. REAPPRAISAL

Buyer shall pay at its sole expense for a reappraisal of the Property, but not to exceed $6,000.00.

14. MISCELLANEOUS

14.1 Notices. Any notice required to be given pursuant to this Agreement shall be in writing and shall be delivered personally or deemed delivered 72 hours after deposit in the United States Mail, postage prepaid, by registered or certified mail, at the address set forth below the signatures to this Agreement. Either party may change its address for notifications purposes by complying with this paragraph.

14.2 Entire Agreement. This Agreement and the exhibits attached hereto which are incorporated herein by this reference contain the entire agreement between the parties relating to the sale and may not be modified or amended except by a written document signed by all parties.

14.3 ARBITRATION OF DISPUTES. ANY CONTROVERSY OR CLAIM ARISING OUT OF THIS CONTRACT OR A BREACH THEREOF SHALL BE SETTLED BY ARBITRATION IN ACCORDANCE WITH THE RULES OF THE AMERICAN ARBITRATION ASSOCIATION, AND JUDGMENT ON THE AWARD RENDERED BY THE ARBITRATOR(S) MAY BE ENTERED IN ANY COURT HAVING JURISDICTION.

NOTICE: BY INITIALLING IN THE SPACE BELOW YOU ARE AGREEING TO HAVE ANY DISPUTE ARISING OUT OF THE MATTERS INCLUDED IN THE 'ARBITRATION OF DISPUTES' PROVISION DECIDED BY NEUTRAL ARBITRATION AS PROVIDED BY CALIFORNIA LAW AND YOU ARE GIVING UP ANY RIGHTS YOU MIGHT POSSESS TO HAVE THE DISPUTE LITIGATED IN A COURT OR JURY TRIAL. BY INITIALLING IN THE SPACE BELOW YOU ARE GIVING UP YOUR JUDICIAL RIGHTS TO DISCOVERY AND APPEAL, UNLESS THOSE RIGHTS ARE SPECIFICALLY INCLUDED IN THE 'ARBITRATION OF DISPUTES' PROVISION. IF YOU REFUSE TO SUBMIT TO ARBITRATION AFTER AGREEING TO THIS PROVISION, YOU MAY BE COMPELLED TO ARBITRATE UNDER THE AUTHORITY OF THE CALIFORNIA CODE OF CIVIL PROCEDURE. YOUR AGREEMENT TO THIS

ARBITRATION PROVISION IS VOLUNTARY.

WE READ AND UNDERSTAND THE FOREGOING AND AGREE TO SUBMIT DISPUTES ARISING OUT OF THE MATTERS INCLUDED IN THE "ARBITRATION OF DISPUTES" PROVISION TO NEUTRAL ARBITRATION.

BEK
SELLER

SELLER

BUYER

14.4 Binding Effect. This Agreement shall bind and inure to the benefit of respective heirs, personal representatives, successors and assigns of the parties hereto.

SELLER:

MOUNTAIN VIEW CEMETERY ASSOCIATION, a California non-profit corporation

By: Bauer E. Kramer
BAUER E. KRAMER
President

By: Gerald E. Johansen
GERALD E. JOHANSEN
Secretary

Address:

5000 Piedmont Avenue
Oakland, California 94611

BUYER:

THE CITY OF PIEDMONT, a California municipal corporation

By: Kathy Foulkes

Its: Mayor

Address:

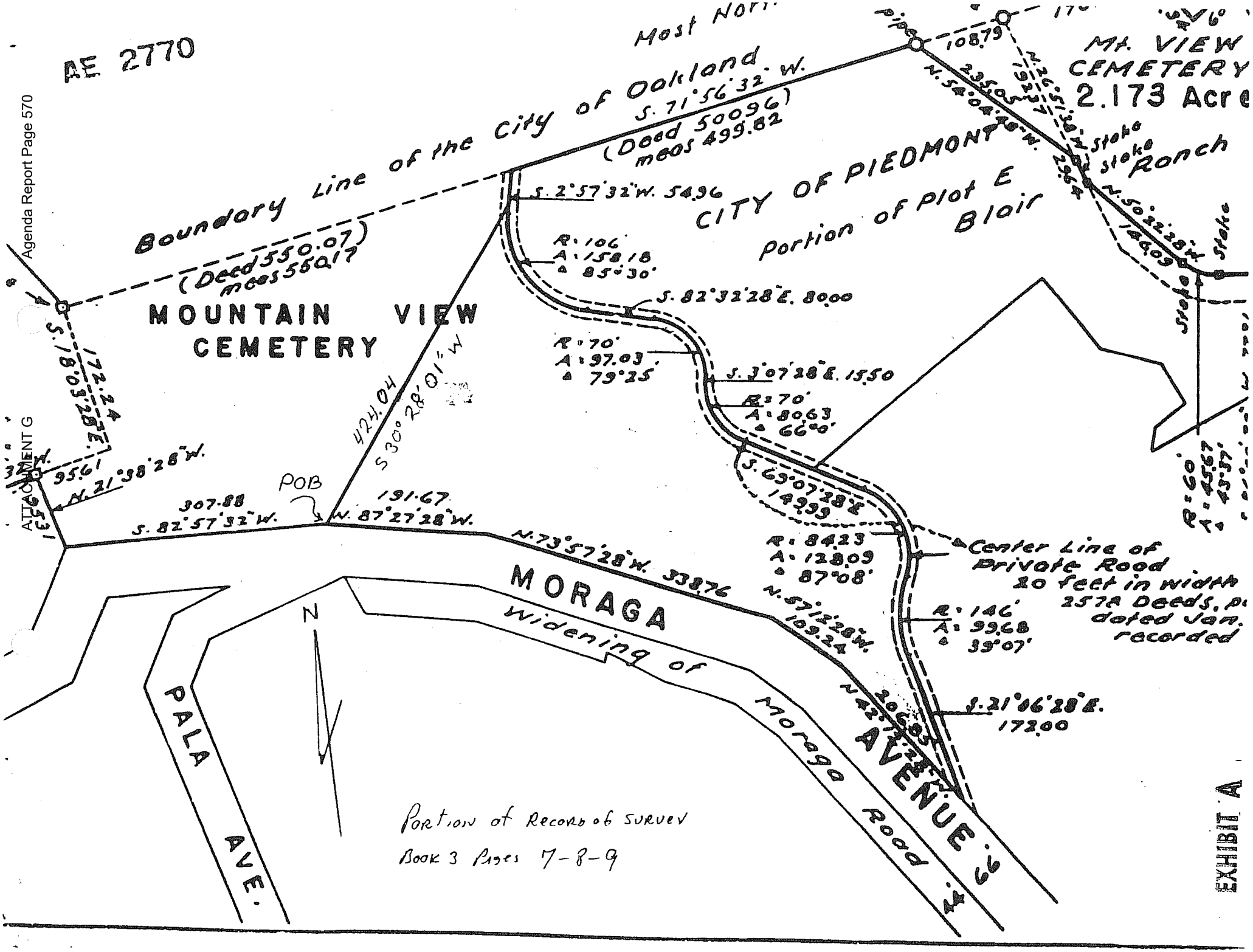
120 Vista Avenue
Piedmont, California 94611

Attest:

City Clerk or
Deputy City Clerk

Approved as to Legality and Form:

City Attorney or
Deputy City Attorney


AE 2770
Most Nort
Boundary Line of the City of Oakland
S. 71°56'32" W.
(Deed 50096)
meas 499.82
(Deed 550.07)
meas 550.17
MOUNTAIN VIEW CEMETERY
CITY OF PIEDMONT
Portion of Plot E
Blair
MT. VIEW CEMETERY
2.173 Acre
Stoke
Ranch
S. 2°57'32" W. 54.96
R: 106'
A: 158.18'
Δ 85°30'
S. 82°32'28" E. 80.00
R: 70'
A: 97.03'
Δ 79°25'
S. 3°07'28" E. 15.50
R: 70'
A: 80.63'
Δ 66°00'
S. 69°07'28" E.
149.93'
R: 84.23'
A: 128.09'
Δ 87°08'
N. 57°12'28" W.
109.24'
R: 146'
A: 99.68'
Δ 39°07'
S. 21°06'28" E.
172.00'
Center Line of Private Road
20 feet in width
257A Deeds, P.
dated Jan.
recorded
N. 54°04' W.
235.05'
N. 26°51'32" W.
192.47'
N. 50°22'28" W.
144.09'
R: 60'
A: 43.67'
43.57'
S. 18°03'28" E.
172.24'
N. 21°38'28" W.
95.61'
307.88'
S. 82°57'32" W.
424.04'
S 30°28'01" W
POB
191.67'
N. 87°27'28" W.
N. 73°57'28" W. 338.76'
MORAGA
Widening of Moraga Road
PALA AVE.
AVENUE
N
Portion of Record of Survey
Book 3 Pages 7-8-9
EXHIBIT A

Order No. 130176
Page No. 6

LEGAL DESCRIPTION

REAL PROPERTY in the City of Oakland, County of Alameda, State of California, described as follows:

Commencing at the southeasterly corner of that certain 2.50 acre conveyed in the deed from Realty Syndicate Company, a corporation to Mountain View Cemetery Association, a corporation, dated December 30, 1914, recorded January 4, 1915 in Book 2297, of Deeds, Page 363, Alameda County Records; thence along the southerly line of said 2.50 acre parcel south 68° 21' 32" west 95.61 feet, thence south 21° 39' 28" east, 95.31 feet to a point in the northerly line of Moraga Avenue (formerly County Road No. 1105), thence along said northerly line, north 82° 57' 32" east 307.83 feet, to the true point of beginning of this description, thence leaving said northerly line north 30° 28' 01" east, 424.04 feet, to the center line of that certain private road described in the deed form Realty Syndicate Company, a corporation to Mountain View Cemetery Association, a corporation dated January 31, 1917 recorded May 16, 1917, in Book 2578 of Deeds, Page 107, Alameda County Records, thence southeasterly along said center line of said private road to a point in the northerly line of said Moraga Avenue, thence along said northerly line north 42° 12' 28" west, 206.85 feet; thence north 57° 12' 28" west, 109.24 feet; thence north 73° 57' 28" west, 338.76 feet; thence north 87° 27' 28" west, 191.67 feet to the true point of beginning.

A.P. No. 48A-7002-3 (Portion)

****

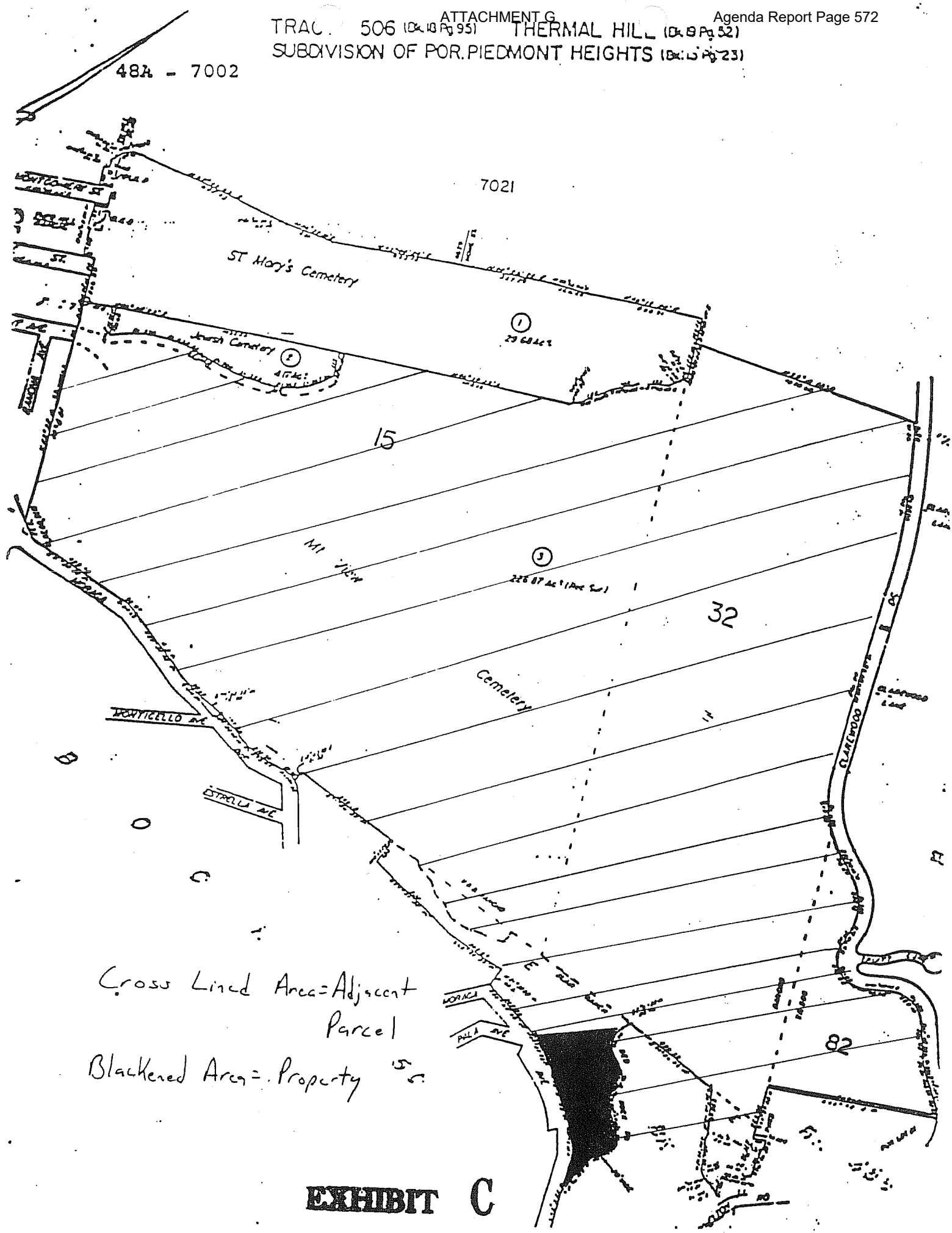

TRAC. 506 (Bk 18 Pg 95) THERMAL HILL (Bk 9 Pg 52)
SUBDIVISION OF POR. PIEDMONT HEIGHTS (Bk 5 Pg 23)
48A - 7002
7021
St Mary's Cemetery
15
32
82
Cemetery
DONYCELLO AVE
STRAUS AVE
CLARENDON AVENUE
Cross Lined Area = Adjacent Parcel
Blackened Area = Property

EXHIBIT C

t062492mp

APPLICANT:

City of Piedmont
120 Vista Avenue
Piedmont, CA 94611
Attn: Ann Swift
420-3040

YOUR CONTACT PERSON IS: Andrea Bell

CALL	:	(510) 763-0500
ESCROW ORDER NO.	:	130176
TITLE ORDER NO.	:	130176
TITLE OFFICER	:	Share Moreland (DA)
CUSTOMER REFERENCE	:	CITY OF PIEDMONT
PROPERTY ADDRESS	:	5000 Piedmont Avenue Oakland, California

COPIES TO: Mountain View Cemetery Association

Subject to a minimum charge required by Section 12404 of the Insurance Code. The form of policy of title insurance contemplated by this report is: A CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990, POLICY, AND A SPECIFIC REQUEST SHOULD BE MADE IF ANOTHER FORM OR ADDITIONAL COVERAGE IS DESIRED.

In response to the referenced application for a policy of title insurance, this Company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy of Title Insurance in the form specified above, describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said policy form.

The printed Exceptions and Exclusions from the coverage of said Policy or Policies are attached. Copies of the Policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments thereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder of Commitment should be requested.

Authorized Signature

FIRST AMERICAN TITLE

EXHIBIT D

Order No. 130176
Page No. 2

Dated as of **June 11, 1992** at 7:30 a.m.

Title to said estate or interest at the date hereof is vested in:

MOUNTAIN VIEW CEMETERY ASSOCIATION, a corporation

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A FEE

AT THE DATE HEREOF EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS CONTAINED IN SAID POLICY FORM WOULD BE AS FOLLOWS:

1. PROPERTY TAXES, including any assessments collected with taxes, for the fiscal year 1992–1993, a lien not yet due or payable.

2. THE LIEN of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. EASEMENT for the purposes stated herein and incidents thereto
   Purpose : **Roadway**
   Reserved by : **Realty Syndicate Company**
   Recorded : **May 16, 1917, Book 2578 of Deeds, Page 107, Official Records**
   Affects : **The northeastern 10 feet of said land**

4. THE EFFECT of an easement for roadway purposes, and purposes incidental thereto as granted by Realty Syndicate Company to H. Slikerman in that certain Deed dated December 15, 1922, recorded January 20, 1923, Book 323, Page 403, Official Records.

   Said matter effects the northeastern 10 feet of said land.

   NOTE: Realty Syndicate Company had no record interest in the herein described land when said deed was executed and recorded.

5. EASEMENT for the purposes stated herein and incidents thereto
   Purpose : **The establishing and maintaining of a municipal corporation yard and for the construction, maintenance and use of a roadway**
   Granted to : **The City of Piedmont**
   Recorded : **July 21, 1925, Book 1024, Page 423, Official Records**
   Affects : **A northeastern portion of said land**

6. RESTRICTIONS imposed by law regarding the sale and disposition of said land or a place within any mausoleum or columbarium erected thereon resulting from the use or dedication of said land for cemetery purposes.

Said land has been dedicated for private cemetery purposes by the following:

A. Declaration of Dedication of Land to Cemetery Purposes, executed by Mountain View Cemetery Association, filed January 25, 1950, Series No. AE6782, Alameda County Records.

B. That certain map entitled "Mountain View Cemetery, Oakland–Piedmont, Alameda County, California, Master Plan," filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records;

C. Declaration of Dedication of Cemetery Property, executed by Mountain View Cemetery Association, recorded January 2, 1973, Reel 3312, Image 127, Official Records, and October 23, 1978, Reel 5635, Image 409, Official Records.

D. Declaration of Dedication of Cemetery Property, as disclosed by the dedication page of the "Map of Mountain View Cemetery", filed October 9, 1991, Map Book 185, Pages 71–78.

7. EASEMENTS over any of the unnamed streets, roads, alleys, walks, paths, parks or parkways shown on the Map of said "Mountain View Cemetery" filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records.

8. EASEMENTS, rights, or interests arising out of

(a) the sale or transfer of lots, blocks, plots or sections in said "Mountain View Cemetery or of burial rights therein;

(b) The sale or transfer of crypts or vaults in any mausoleum, and of niches in any columbarium to be erected on the herein described land, or

(c) any interment in said land.

9. EASEMENTS for existing and proposed Storm sewers, "inlets", "outlets" and "culverts" affecting all areas designated therefor on the Map of said "Mountain View Cemetery" filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records.

10. ANY INTEREST of East Bay Municipal Utility District in and to those portions of said land designated "Red Rock Reservoir #2" and "New Unpaved Road" on the Map of "Mountain View Cemetery" filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records.

11. THE TERMS and provisions contained in that certain unrecorded license agreement dated March 26, 1969, executed by and between the City of Piedmont and Mountain View Cemetery Association, as amended by an unrecorded Document dated December 20, 1982, for the purposes states below and purposes incidental thereto as disclosed by off record Documentation provided to this Company:

Grant to	: The City of Piedmont
Purposes	: Building encroachments, drainage pipe, land fill and pistol firing
Affects	: The exact locations of the areas burdened by said uses and not defined of record

12. Matters which may be disclosed by an inspection or by a survey of said land that is satisfactory to this Company, or by inquiry of the parties in possession thereof.

13. Information in possession of this company indicates that this may be a division of land, as defined in Government Code Section 66424. Such a division of land would appear to fall within the purview of the Subdivision Map Act (commencing with Government Code Section 66410). As a prerequisite to the issuance of any Policy of Title Insurance, evidence of at least one of the following requirements must be accomplished to this Company's satisfaction.

1) That a Final (Tract) Map has been recorded in compliance with the Subdivision Map Act and related ordinances;

2) That a Parcel Map has been recorded in compliance with the Subdivision Map Act and related ordinances; or

3) That a Certificate of Compliance as provided for in the Subdivision Map Act (Government Code 66499.35) has been recorded; or that other satisfactory evidence indicating compliance or non-violation be furnished.

14. THE REQUIREMENT that a resolution of the board of directors of the vestee be submitted authorizing execution of any deed or loan documents and that the by-laws be submitted prior to the recordation of such instruments.

15. THE REQUIREMENT that this Company be provided satisfactory evidence showing that the herein vestee is in good standing in the State of California.

Note: The Office of California Secretary of State currently has no record of the herein vestee.

Order No. 130176
Page No. 5

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INFORMATION NOTES:

A. TAXES for the fiscal year 1991-1992

1st Installment	: $258.09 PAID
2nd Installment	: $258.09 PAID
Land	: $10,060.00
Improvements	: $22,602.00
Personal Property	: $-0-
Exemption	: $-0-
Assessee	: MOUNTAIN VIEW CEMETERY
A. P. No.	: 048A-7002-003
Code Area	: 17-001

B. The City of Piedmont imposes a property transfer tax of $6.50 per $1,000.00 or fractional part thereof based upon the total consideration.

C. Short term rate does not apply.

D. Collect $10.00 (per parcel) user fee for each Grant Deed for County Monument Preservation Fund.

E. ANY FACTS, rights, easements, interest or claims which are not shown by the public records but which could be ascertained by making inquiry of persons in possession of said land and disclosed by a physical inspection thereof.

F. Effective January 1, 1993 all notarial acknowledgment forms must comply substantially with the language contained in California Civil Code Section 1189 entitled "General form of certificate of acknowledgment" pursuant to Senate Bill 2251, Chapter 1070 of Statutes of 1990. Any documents executed on or after January 1, 1992 and acknowledged in the State of California by a notary public containing other notarial forms of acknowledgments may not be acceptable for recordation. First American Title will make the form available upon request.

Order No. 130176
Page No. 6

LEGAL DESCRIPTION

REAL PROPERTY in the City of Oakland, County of Alameda, State of California, described as follows:

Commencing at the southeasterly corner of that certain 2.50 acre conveyed in the deed from Realty Syndicate Company, a corporation to Mountain View Cemetery Association, a corporation, dated December 30, 1914, recorded January 4, 1915 in Book 2297, of Deeds, Page 363, Alameda County Records; thence along the southerly line of said 2.50 acre parcel south 68° 21' 32" west 95.61 feet, thence south 21° 39' 28" east, 95.31 feet to a point in the northerly line of Moraga Avenue (formerly County Road No. 1105), thence along said northerly line, north 82° 57' 32" east 307.83 feet, to the true point of beginning of this description, thence leaving said northerly line north 30° 28' 01" east, 424.04 feet, to the center line of that certain private road described in the deed form Realty Syndicate Company, a corporation to Mountain View Cemetery Association, a corporation dated January 31, 1917 recorded May 16, 1917, in Book 2578 of Deeds, Page 107, Alameda County Records, thence southeasterly along said center line of said private road to a point in the northerly line of said Moraga Avenue, thence along said northerly line north 42° 12' 28" west, 206.85 feet; thence north 57° 12' 28" west, 109.24 feet; thence north 73° 57' 28" west, 338.76 feet; thence north 87° 27' 28" west, 191.67 feet to the true point of beginning.

A.P. No. 48A-7002-3 (Portion)

****

EXHIBIT A

DECLARATION OF DEDICATION OF CEMETERY PROPERTY

MOUNTAIN VIEW CEMETERY ASSOCIATION, a nonprofit cemetery corporation organized December 19, 1863, under the provision of an act of legislature of the State of California entitled "An Act to Authorize the Incorporation of Rural Cemetery Associations", approved April 18, 1859 and known as the "Cemetery Act", does hereby certify and declare:

1. That it is the owner of certain lands and premises known as MOUNTAIN VIEW CEMETERY, situated in the cities of Oakland and Piedmont, Alameda County, California, delineated on the maps filed by it in the Office of the Recorder of Alameda County, California, January 10, 1950 in License Survey Book No. 3, pages 7, 8 and 9 thereof and particularly described in the "Declaration of Dedication of Land to Cemetery Purposes", recorded January 25, 1950 in the Office of the Recorder of Alameda County, California, Recorders Series AE6782, and declaration of dedication recorded September 6, 1963 in the Office of the Recorder of Alameda County, California, to which maps and declarations of dedication and the recording thereof in the office of said County Recorder reference is hereby made for description of said land and premises. That pursuant to the provisions of Article 3, Section 1b of the Constitution of the State of California all of said lands, including the lands shown on the maps hereinafter mentioned are used and held exclusively for the burial or other permanent deposit of the human dead.

2. That it has surveyed and subdivided into lots, roads, walks and other subdivisions a portion of the lands referred to in paragraph 1 hereof and has made a good and substantial map thereof, which said map consists of eight sheets and is entitled "Amended Map of Plot 14.B, Amended Map of Plot 29, Amended map of Plot 33, Amended Map of Plot 36, Amended Map of Plot 38, Amended Map of Plot 48, Amended Map of Plot 51, Mountain View Cemetery".

3. That it has dedicated, and, by these presents and the aforesaid surveys and maps and the filing thereof, it does hereby dedicate said lands and premises referred to in paragraph 2 hereof and the use thereof exclusively to private cemetery purposes, reserving, however, unto itself, its successors and assigns the right and privilege to resurvey, enlarge, replat, remap, alter in shape or size or otherwise change any part of such subdivision, including the right to modify or change the location of roads, avenues, walks and paths and to file an amended map or maps thereof, and reserving the right and privilege to use any part or parts thereof for the erection of buildings and for any purpose or use connected with, convenient for, or incident to the care, preservation, and preparation for disposal or interment of dead human bodies and other cemetery purposes and further specifically reserving the right and privilege to maintain and operate pipelines, conduits and storm drains for sprinklers, drainage, or any other purpose; so long as such changes or reserved rights and privileges do not disturb the interred remains of any deceased person.

4. This dedication is and at all times shall be subject to all the rules and regulations governing MOUNTAIN VIEW CEMETERY ASSOCIATION, and various parcels, blocks, sections, lots, walks or plots therein now in effect and to thos hereafter adopted.

5. This dedication is made and is intended to be made under and in accordance with the provision of the Health and Safety Code of the State of California.

In Witness Whereof MOUNTAIN VIEW CEMETERY ASSOCIATION has caused its name to be subscribed hereto and its corporate seal to be affixed by its President and Secretary thereunto duly authorized this 3rd day of October, 1991.

MOUNTAIN VIEW CEMETERY ASSOCIATION

BY _____
PRESIDENT

BY _____
SECRETARY

RUHMANN COMPANY, INC.
ENGINEERING - SURVEYING
1661 BROWN AVE. LAFAYETTE, CA 94549
PH (415)283-5000 FAX (415)283-5870

State of California) s.s.
County of Alameda)

On this 3rd day of October 1991 before the undersigned Notary Public, duly commissioned and sworn, personally appeared Hendrie B. Morrish, known to me to be President and Gerald E. Johansen, known to me to be the Secretary of MOUNTAIN VIEW CEMETERY ASSOCIATION, the corporation that executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my Official Seal the day and year in this certificate first above written.

RUTH M. GARDEN

NOTARY PUBLIC in and for the State of California with principal office in the County of Alameda

I hereby certify that the said map has been made by me from my own survey of the ground and that the monuments are of the nature and in the location shown thereon.

Dated 9-24-91

LICENSED LAND SURVEYOR JOSEPH M. BRAJKOVICH 5714 EXP. 12-31-91 STATE OF CALIFORNIA

RUHMANN COMPANY, INC.
BY _____
JOSEPH M. BRAJKOVICH, L.S. 5714

Filed at the request of _____
Secretary of Mountain View Cemetery Association on the 3rd day of October, 1991 at 3:42 P.m. in the office of the County Recorder of Alameda County, State of California.
FEE: 20.00
SURVEY: 91279806

Rita Davidson
County Recorder

BY _____
Deputy County Recorder

ALAMEDA COUNTY CALIF.

MOUNTAIN VIEW CEMETERY ASSOCIATION

5000 PIEDMONT AVENUE, OAKLAND 94611

ATTACHMENT 2

ATTACHMENT 2

FILE COPY

Recorded At The Request Of
and When Recorded Return To:
CROSBY, HEAFEY, ROACH & MAY
Professional Corporation
1999 Harrison Street
Oakland, CA 94612

Attention: William A. Durgin, Jr.

Mail Tax Statements To:

City of Piedmont
City Hall
Piedmont, CA 94611

GRANT DEED

MOUNTAIN VIEW CEMETERY ASSOCIATION, a California nonprofit corporation ("Grantor"), hereby grants to CITY OF PIEDMONT, a California municipal corporation ("Grantee"), all of Grantor's right, title and interest in and to the real property situated in the City of Piedmont, County of Alameda, State of California, more particularly described in attached Exhibit "A" (the "Property").

The foregoing grant is further subject to encumbrances, easements, assessments, and other restrictions of record, including, without limitation, those set forth in Exhibit "B" and the conditions, covenants and restrictions contained in this Grant Deed.

Grantee covenants and agrees for itself, and its successors and assigns to or of the Property as follows:

1. Grantee, and such successors and assigns shall use the Property exclusively for municipal purposes as reasonably determined from time to time by Grantee; provided, however, Grantee shall not use, store or dispose of any hazardous or toxic substance (as defined under applicable law) on the Property.

2. Grantee, and such successors and assigns, shall construct, maintain, repair and replace in good condition and repair an eight (8) foot cyclone fence equipped with vertical slats along the southwest line of the Property to prevent persons from trespassing onto the Adjacent Parcel.

3. Grantee, and such successors and assigns, shall, in the event of a blockage to the water supply to Grantor or the real property owned by Grantor located adjacent to the Property, as is more particularly described in attached

Exhibit "C" (the "Adjacent Parcel") provided by the stream flowing below the Property in a pipe, which blockage to such water supply is caused by Grantee, or which blockage occurs on the Property by other than an Act of God (such as a major earthquake), Grantee will take prompt action to remedy and remove such blockage. For purposes hereof "to block" and "blockage" shall mean any reduction of waterflow in such stream by five percent (5%) or more caused by Grantee or its successors and assigns, or which blockage occurs on the Property by other than an Act of God.

4. Grantee, and such successors and assigns, shall not perform any grading or other act which materially adversely affects the stability of the soils located on the Adjacent Parcel or causes material adverse soil erosion on the Adjacent Parcel, and Grantee and its successors and assigns will take prompt action to remedy and repair any such soil instability or erosion caused by Grantee or its successors and assigns.

It is intended and agreed that the agreements and covenants provided in Paragraphs 1 through 4 above shall be covenants running with the land for the benefit and in favor of the Adjacent Parcel and burdening the Property. Such covenants shall inure to the benefit of and be enforceable by, Grantor and its successors and assigns, and be binding upon Grantee, its successors and assigns to or of the Property or any part thereof or any interest therein, and any party in possession or occupancy of the Property or any part thereof.

All exhibits attached hereto are incorporated herein by this reference.

IN WITNESS WHEREOF, the parties hereto have executed this Grant Deed this 9th day of February, 1993.

GRANTEE:

CITY OF PIEDMONT, a California municipal corporation

By: Kay Rorke

Its: Mayor

By: Milt Keyler

Its: Vice Mayor

GRANTOR:

MOUNTAIN VIEW CEMETERY CORPORATION, a nonprofit corporation

By: Bauer E Kramer

Its: President

By: Gerald D Hansen

Its: Secretary

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

No. 5193

State of California
County of Alameda

On 2/9/93 (DATE) before me, Norvan Garden, Notary Public (NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC")

personally appeared Bauer E. Kramer (NAME(S) OF SIGNER(S))

☒ personally known to me - **OR** - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Norvan Garden
SIGNATURE OF NOTARY

OPTIONAL SECTION

CAPACITY CLAIMED BY SIGNER

Though statute does not require the Notary to fill in the data below, doing so may prove invaluable to persons relying on the document.

☐ INDIVIDUAL
☒ CORPORATE OFFICER(S) President (TITLE(S))
☐ PARTNER(S) ☐ LIMITED ☐ GENERAL
☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)
Mt. View Cemetery Assoc.

OPTIONAL SECTION

THIS CERTIFICATE MUST BE ATTACHED TO THE DOCUMENT DESCRIBED AT RIGHT:

Though the data requested here is not required by law, it could prevent fraudulent reattachment of this form.

TITLE OR TYPE OF DOCUMENT _____
NUMBER OF PAGES _____ DATE OF DOCUMENT _____
SIGNER(S) OTHER THAN NAMED ABOVE _____

©1992 NATIONAL NOTARY ASSOCIATION • 8236 Remmet Ave., P.O. Box 7184 • Canoga Park, CA 91309-7184

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

No. 5193

State of California
County of Alameda

On 2-9-93 (DATE) before me, Norvan Garden, Notary Public (NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC")

personally appeared Gerald E. Johansen (NAME(S) OF SIGNER(S))

☒ personally known to me - **OR** - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Norvan Garden
SIGNATURE OF NOTARY

OPTIONAL SECTION

CAPACITY CLAIMED BY SIGNER

Though statute does not require the Notary to fill in the data below, doing so may prove invaluable to persons relying on the document.

☐ INDIVIDUAL
☒ CORPORATE OFFICER(S) Secretary (TITLE(S))
☐ PARTNER(S) ☐ LIMITED ☐ GENERAL
☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)
Mt. View Cemetery Assoc

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Though the data requested here is not required by law, it could prevent fraudulent reattachment of this form.

TITLE OR TYPE OF DOCUMENT _____
NUMBER OF PAGES _____ DATE OF DOCUMENT _____
SIGNER(S) OTHER THAN NAMED ABOVE _____

CITY OF PIEDMONT

CALIFORNIA

STATE OF CALIFORNIA)ss
County of Alameda)

On February 16, 1993 before me, Ann Swift personally appeared Katy Foulkes, Mayor and Milt Kegley, Vice Mayor, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Ann Swift

Ann Swift, City Clerk
City of Piedmont

FIRST AMERICAN TITLE GUARANTY COMPANY

FAX TRANSMISSION REQUEST

Date: 2-19-93

Deliver to: Ann Swift

Company: City of Piedmont

Fax No.: 653-8272

Re:

Escrow No.: 13017L

Number of pages sent including this one: 1

Sent By: First American Title Guaranty Company
1535 Harrison Street
Oakland, Ca 94612
Phone: (510) 763-0500
FAX: (510) 763-0544

By: Andrea Bell

Sample

STATE OF CALIFORNIA }
COUNTY OF }ss.

On February 16, 1993 before me, Ann Swift

personally appeared Katy Foulkes, Mayor and Milt Kegley, Vice Mayor

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature

(This area for official notarial seal)

3008 (1/91) — (General) First American Title Company

1535 Harrison Street, Oakland, CA 94612 (510) 763-0500

LEGAL DESCRIPTION

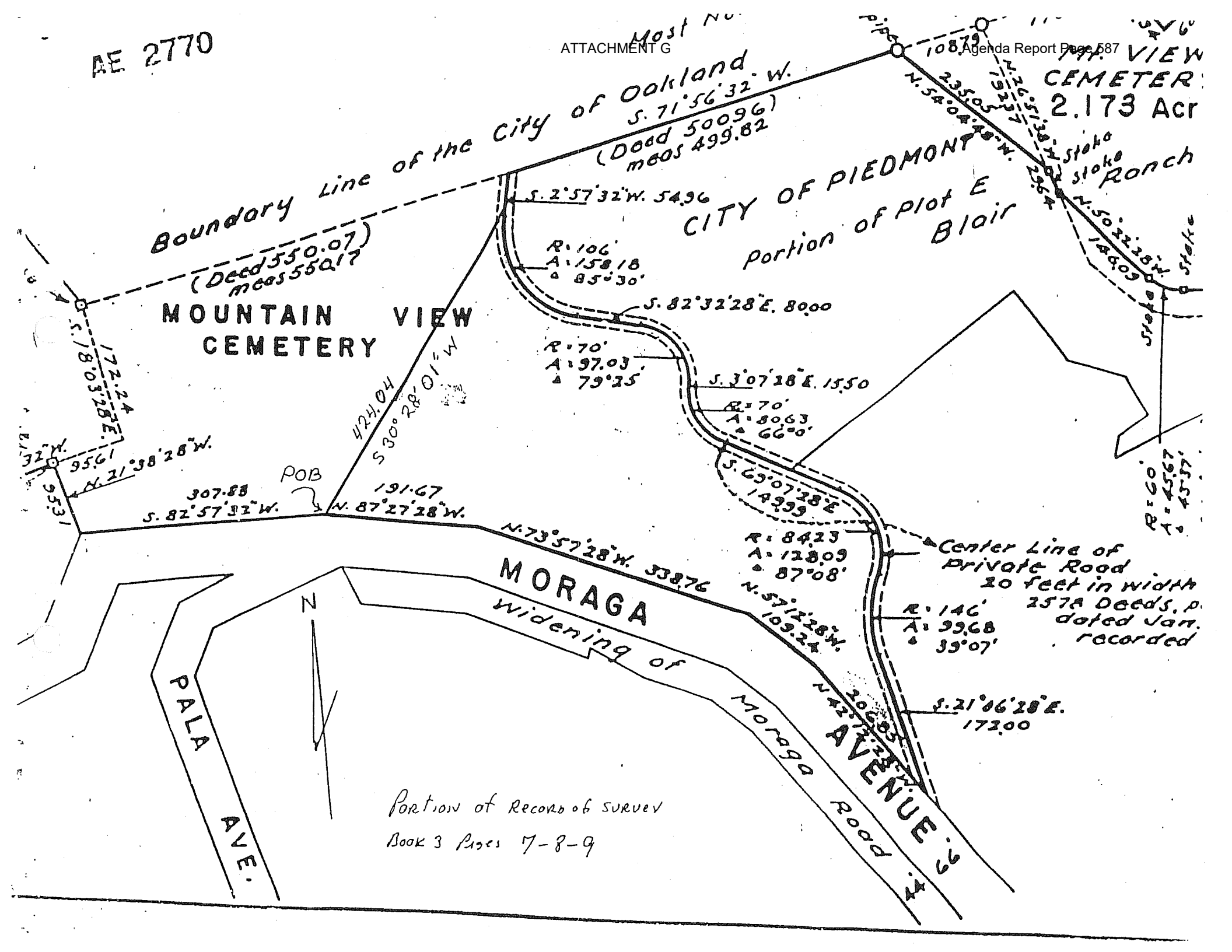
REAL PROPERTY in the City of Oakland, County of Alameda, State of California, described as follows:

Commencing at the southeasterly corner of that certain 2.50 acre conveyed in the deed from Realty Syndicate Company, a corporation to Mountain View Cemetery Association, a corporation, dated December 30, 1914, recorded January 4, 1915 in Book 2297, of Deeds, Page 363, Alameda County Records; thence along the southerly line of said 2.50 acre parcel south 68° 21' 32" west 95.61 feet, thence south 21° 39' 28" east, 95.31 feet to a point in the northerly line of Moraga Avenue (formerly County Road No. 1105), thence along said northerly line, north 82° 57' 32" east 307.83 feet, to the true point of beginning of this description, thence leaving said northerly line north 30° 28' 01" east, 424.04 feet, to the center line of that certain private road described in the deed form Realty Syndicate Company, a corporation to Mountain View Cemetery Association, a corporation dated January 31, 1917 recorded May 16, 1917, in Book 2578 of Deeds, Page 107, Alameda County Records, thence southeasterly along said center line of said private road to a point in the northerly line of said Moraga Avenue, thence along said northerly line north 42° 12' 28" west, 206.85 feet; thence north 57° 12' 28" west, 109.24 feet; thence north 73° 57' 28" west, 338.76 feet; thence north 87° 27' 28" west, 191.67 feet to the true point of beginning.

A.P. No. 48A-7002-3 (Portion)

****

EXHIBIT A


AE 2770
Most No
Pipe
108.79
N. 26°51'38" W.
192.27
MT. VIEW
CEMETER
2.173 Acr
N. 54°04'48" W.
235.05
296.4
Boundary Line of the City of Oakland
S. 71°56'32" W.
(Deed 50096)
meas 499.82
CITY OF PIEDMONT
portion of plot E
Blair
Ranch
S. 2°57'32" W. 54.96
R: 106'
A: 158.18
Δ 85°30'
N. 50°33'38" W.
149.03
MOUNTAIN VIEW
CEMETERY
(Deed 550.07)
meas 550.17
S. 82°32'28" E. 80.00
R: 70'
A: 97.03'
Δ 79°25'
S. 3°07'28" E. 15.50
R: 70'
A: 80.63
Δ 66°00'
S. 63°07'28" E.
149.99
R: 84.23
A: 128.09
Δ 87°08'
N. 57°12'38" W.
103.24
R: 140'
A: 99.68
Δ 39°07'
Center Line of
Private Road
20 feet in width
257A Deeds, p.
dated Jan.
recorded
S. 21°06'28" E.
172.00
S. 18°03'28" E.
172.24
S. 21°38'28" W.
95.61
95.31
307.88
S. 82°57'32" W.
POB
N. 87°27'28" W.
191.67
424.04
S 30° 28' 01" W
N. 73°57'28" W. 338.76
MORAGA
Widening of
Moraga Road
PALA AVE.
AVENUE
N
Portion of Record of Survey
Book 3 Pages 7-8-9

1. PROPERTY TAXES, including any assessments collected with taxes, for the fiscal year 1992–1993, a lien not yet due or payable.

2. THE LIEN of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. EASEMENT for the purposes stated herein and incidents thereto
Purpose : Roadway
Reserved by : Realty Syndicate Company
Recorded : May 16, 1917, Book 2578 of Deeds, Page 107, Official Records
Affects : The northeastern 10 feet of said land

4. THE EFFECT of an easement for roadway purposes, and purposes incidental thereto as granted by Realty Syndicate Company to H. Slikerman in that certain Deed dated December 15, 1922, recorded January 20, 1923, Book 323, Page 403, Official Records.

Said matter effects the northeastern 10 feet of said land.

NOTE: Realty Syndicate Company had no record interest in the herein described land when said deed was executed and recorded.

5. EASEMENT for the purposes stated herein and incidents thereto
Purpose : The establishing and maintaining of a municipal corporation yard and for the construction, maintenance and use of a roadway
Granted to : The City of Piedmont
Recorded : July 21, 1925, Book 1024, Page 423, Official Records
Affects : A northeastern portion of said land

6. RESTRICTIONS imposed by law regarding the sale and disposition of said land or a place within any mausoleum or columbarium erected thereon resulting from the use or dedication of said land for cemetery purposes.

Said land has been dedicated for private cemetery purposes by the following:

A. Declaration of Dedication of Land to Cemetery Purposes, executed by Mountain View Cemetery Association, filed January 25, 1950, Series No. AE6782, Alameda County Records.

B. That certain map entitled "Mountain View Cemetery, Oakland–Piedmont, Alameda County, California, Master Plan," filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records;

C. Declaration of Dedication of Cemetery Property, executed by Mountain View Cemetery Association, recorded January 2, 1973, Reel 3312, Image 127, Official Records, and October 23, 1978, Reel 5635, Image 409, Official Records.

D. Declaration of Dedication of Cemetery Property, as disclosed by the dedication page of the "Map of Mountain View Cemetery", filed October 9, 1991, Map Book 185, Pages 71–78.

7. EASEMENTS over any of the unnamed streets, roads, alleys, walks, paths, parks or parkways shown on the Map of said "Mountain View Cemetery" filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records.

8. EASEMENTS, rights, or interests arising out of

(a) the sale or transfer of lots, blocks, plots or sections in said "Mountain View Cemetery or of burial rights therein;

(b) The sale or transfer of crypts or vaults in any mausoleum, and of niches in any columbarium to be erected on the herein described land, or

(c) any interment in said land.

9. EASEMENTS for existing and proposed Storm sewers, "inlets", "outlets" and "culverts" affecting all areas designated therefor on the Map of said "Mountain View Cemetery" filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records.

10. ANY INTEREST of East Bay Municipal Utility District in and to those portions of said land designated "Red Rock Reservoir #2" and "New Unpaved Road" on the Map of "Mountain View Cemetery" filed September 17, 1963, Map Book 43, Page 17A, Alameda County Records.

11. THE TERMS and provisions contained in that certain unrecorded license agreement dated March 26, 1969, executed by and between the City of Piedmont and Mountain View Cemetery Association, as amended by an unrecorded Document dated December 20, 1982, for the purposes states below and purposes incidental thereto as disclosed by off record Documentation provided to this Company:

Grant to	: The City of Piedmont
Purposes	: Building encroachments, drainage pipe, land fill and pistol firing
Affects	: The exact locations of the areas burdened by said uses and not defined of record

12. Matters which may be disclosed by an inspection or by a survey of said land that is satisfactory to this Company, or by inquiry of the parties in possession thereof.

LEGAL DESCRIPTION

REAL PROPERTY in the City of Piedmont, County of Alameda, State of California, described as follows:

PARCEL ONE:

Commencing at a point in the dividing line between Subdivision "E" and the lands of the Mountain View Cemetery Association, distant thereon South 73° 56' West Thirteen Hundred Thirty-seven and 42/100 (1337.42) feet from the most Northeasterly corner of Subdivision "E", as said Subdivision "E" is laid down, delineated and so designated upon that certain map entitled "Map in Partition of the Blair Ranch" etc. hereinafter referred to, said point of commencement also being the most Northeasterly corner of that certain Two and 50/100 (2.50) acre piece or parcel of land Firstly described in that certain deed from Realty Syndicate Company, a corporation, to Mountain View Cemetery Association, a corporation, dated December 30th, 1914, and recorded January 4th, 1915, in Liber 2297 of Deeds, at page 363, in the office of the County Recorder of said County of Alameda; and running thence along the Easterly boundary line of said Two and 50/100 (2.50) acre piece or parcel of land South 18° 04' East One Hundred Seventy-two and 24/100 (172.24) feet to the most Southeasterly corner of said Two and 50/100 (2.50) acre piece or parcel of land; thence along the Southerly boundary line of said Two and 50/100 (2.50) acre piece or parcel of land South 68° 21' West Ninety-five and 61/100 (95.61) feet; thence South 21° 39' East Ninety-five and 31/100 (95.31) feet to the Northerly line of Moraga Avenue (formerly known as County Road No. 1109); thence along said Northerly line of said Moraga Avenue north 82° 57' East Three Hundred Seven and 88/100 (307.88) feet, South 87° 28' East One Hundred Ninety-one and 67/100 (191.67) feet, South 73° 56' East Three Hundred Thirty-eight and 76/100 (338.76) feet, South 57° 13' East One Hundred Nine and 24/100 (109.24) feet and South 42° 13' East Two Hundred Six and 85/100 (206.85) feet to the center line of a private road Twenty (20) feet in width; thence along said center line of said private road North 21° 07' West One Hundred Seventy-two (172) feet; thence continuing along said center line of said private road Northerly on the arc of a circle of One Hundred Forty-six (146) feet radius, deflecting to the right or Eastward and tangent to last mentioned course, a distance of Ninety-nine and 68/100 (99.68) feet thence continuing along said center line of said private road Northwesterly on the arc of a circle of Eighty-four and 23/100 (84.23) feet radius, deflecting to the left or Westward and tangent to last mentioned arc of One Hundred Forty-six

(146) feet radius, a distance of One Hundred Twenty-eight and 9/100 (128.09) feet; thence continuing along said center line of said private road North 69° 08' West, tangent to that mentioned arc of Eighty-four and 23/100 (84.23) feet radius, One Hundred Forty-nine and 99/100 (149.99) feet; thence leaving said center line of said private road Northwesterly on the arc of a circle of Seventy (70) feet radius, deflecting to the right or Northward and tangent to last mentioned course a distance of Eighty and 63/100 (80.63) feet, thence North 03° 08' West tangent to last mentioned arc, Fifteen and 50/100 (15.50) feet, thence northwesterly on the arc of a circle of seventy (70) feet radius, deflecting to the left or Westward and tangent to last mentioned course, a distance of Ninety-seven and 3/100 (97.03) feet; thence North 82° 33' West tangent to last mentioned arc Eighty (80), thence northwesterly on the arc of the circle of One Hundred Six (106) feet radius, deflecting to the right or Northward and tangent to the last mentioned course a distance of One Hundred Fifty-eight and 18/100 (158.18) feet thence North 02° 57' East tangent to last mentioned arc, Fifty-four and 96/100 (54.96) feet to said dividing line between said Subdivision "E" and the lands of the Mountain View Cemetery Association and thence along said dividing line South 71° 56' West Five Hundred Fifty and 7/100 (550.07) feet to the point of commencement.
Being a portion of Subdivision "E", as said Subdivision is laid down, delineated and so designated upon that certain map entitled "Map in Partition of the Blair Ranch" etc., Accompanying Referees Report in Case No. 10390, Superior Court of Alameda County, California; Florence Ethel Blair vs. Mabel E. Squires, Phoebe A. Blair, et al, filed April 28th, 1897, in the office of the County Clerk of said County of Alameda, except for the Property referenced in Exhibit A to this Grant Deed.

A. P. No. 48A-7002-3

All that lot of land situated partly in the City of Piedmont, and partly in the City of Oakland, County of Alameda, State of California, and described as follows: to-wit:

PARCEL TWO:

Commencing at the most Northern corner of Plot E, as the said Plot E is shown upon that certain Map herein referred to; thence along the Northeasterly boundary line of said Plot E South 44° 30' East 77.34 feet to the most Western corner of Lot 13, as said Lot 13 is shown upon that certain Map herein referred to; thence along the Northwesterly boundary line of said Lot 13, North 45° 45' East 60.00 feet; thence leaving last

mentioned line South 36° 47' East, 194.60 feet; thence South 43° 13' West 25 feet; thence South 36° 47' East, 25.90 feet; thence South 43° 13' West, 104.80 feet; thence from a tangent which bears South 20° 14' East, along a curve to the left, having a radius of 140 feet, a distance of 110 feet; thence from a tangent which beras North 65° 15' West, along a curve to the left, having a radius of 100 feet, a distance of 50.18 feet; thence South 86° 00' West, tangent to last mentioned curve, a distance of 77.31 feet; thence Southwesterly and Northwesterly along the arc of a circle to the right tangent to the last course with a radius of 60.00 feet a distance of 45.67 feet; thence North 50° 23' West tangent to the last said arc of a circle 146.09 feet; thence North 26° 52' 10" West 222.01 feet to the Northwesterly boundary line of Plot E as aforesaid; thence along last said line North 71° 56' East 176.97 feet to the point of commencement.

Being a portion of Plot E, as said Plot is shown upon that certain Map entitled, "Map in partition of the Blair Ranch", etc., accompanying Referee's Report in Case No. 10390, Superior Court, Alameda County, California, Florence Ethel Blair vs. Mabel E. Squires, Phoebe A. Blair, et al., filed April 28, 1897 in the Office of the County Clerk of the said County of Alameda; and being a portion of Lot 13, as said lot is shown upon that certain Map entitled, "Map of a Subdivision of a portion of Piedmont Heights, Oakland Township, Alameda Co., California", etc., filed November 9, 1894 in the Office of the County Recorder of said County of Alameda and of record in Map Book 15, at Page 23.

PARCEL THREE:

The non-exclusive right-of-way for the purpose of a road or passageway, to grantees, their heirs, executors, administrators, and assigns, excepting and reserving however, to grantors, their heirs, executors, administrators, and assigns, a like use of said right of way for the purpose of a road or passageway over that certain parcel of land described as follows:

All that lot of land situated in the City of Piedmont and County of Alameda, State of California, described as follows:

Commencing at the most Northern corner of Plot E, as said Plot E is shown upon that certain Map herein referred to; thence along the Northwesterly boundary line of Plot E South 71° 56' West 176.97 feet to a point; thence leaving said boundary line South 26° 52' 10" East 222.01 feet to the point of beginning of this description; thence South 50° 23' East 146.09 feet to a point; thence along the arc of a circle to the left, tangent to last

mentioned line with a radius of 60.00 feet, a distance of 45.67 feet to a point; thence North 86° 00' East tangent to last mentioned arc of a circle 77.31 feet to a point; thence along that arc of a circle to the right, tangent to the last mentioned course with a radius of 100 feet, a distance of 50.18 feet; thence South 65° 15' East tangent to the last mentioned arc of a circle of 12.91 feet; thence, tangent to last mentioned course, along a curve to the left, having a radius of 41.42 feet, a distance of 25.12 feet to the Westerly line of a street known as Maxwelton Road; thence along said Westerly line of Maxwelton Road, South 10° 00' East, a distance of 45.51 feet; thence continuing along said line of Maxwelton Road on the arc of a circle to the left, with a radius of 120.00 feet, a distance of 12.64 feet; thence leaving said line of Maxwelton Road North 65° 15' West 70.19 feet; thence along the arc of a circle to the left, tangent to last mentioned course, with a radius of 60.00 feet, a distance of 30.11 feet; thence South 86° 0' West tangent to the last mentioned arc of a circle 77.31 feet; thence along the arc of a circle to the right of tangent to the last mentioned course, with a radius of 100 feet, a distance of 76.12 feet; thence North 50° 23' West tangent to the last mentioned arc of a circle 54.15 feet; thence North 26° 52' 10" West 100.25 feet to the point of beginning.

Being a portion of Plot E, as said Plot is shown upon that certain Map entitled, "Map in Partition of the Blair Ranch", etc., accompanying Referee's Report in Case No. 10390 Superior Court, Alameda County, California; Florence Ethel Blair vs. Mabel E. Squires, Phoebe A. Blair, et al., filed April 28, 1897 in the Office of the County Clerk of said County of Alameda.

PARCEL FOUR:

Portion of Plot "E", according to the Map in Partition of the Blair Ranch, accompanying Referee's Report in Case No. 10390, Superior Court, Alameda County, California, Florence Ethel Blair, vs. Mable E. Squires, Phoebe A. Blair, et al., filed April 28, 1897 in the Office of the County Clerk of said County of Alameda, bounded as follows:

Beginning at a point on the Northwestern line of said Plot "E", distant thereon South 71° 56' West 176.97 feet from the most Northern corner of said Plot "E"; running thence South 25° 52' 10" East 192.36 feet; thence North 54° 05' 20" West 235.05 feet to a point on the Northwestern line of said Plot "E", distan thereon North 71° 56' West 285.76 feet from the most Northern corner of said Plot "E"; thence North 71° 56' East 108.79 feet to the point of beginning.

PARCEL FIVE:

Real Property in the City of Oakland, County of Alameda, State of California, described as follows:

Beginning at the point of intersection of the Southeastern line of Lot 81, as said lot is shown on the map hereinafter referred to, with the Southwestern line of Edith Place, as said Edith Place is described in Parcel 1 in the Deed from Claremont Pines Corporation, a corporation, to City of Oakland, a municipal corporation, dated May 20, 1936 and recorded June 19, 1936 in Book 3350 of Official Records, Page 171; running thence Northwesterly along the said line of Edith Place, being the arc of a curve to the left having a radius of 270 feet, a distance of 42.04 feet to the most Eastern corner of that certin parcel of land described in the Deed from Claremont Pines Corporation, a corporation to Charles H. Nie, by deed dated October 16, 1939 and recorded October 31, 1939 in Book 3797 of Official Records, Page 472; thence leaving said line of Edith Place South 45° 42' 12" West parallel with and distant 40 feet Northwesterly, measured at right angles, from the Southeastern line of Lot 82, as shown on said map, a distance fo 368.22 feet to the most Southern corner of that certain parcel of land described in the deed from Claremont Pines Corporation, a corporation, to Charles H. Nie, dated January 19, 1940 and recorded January 24, 1940 in Book 3849 of Official Records, Page 264; thence North 44° 17' 48" West 200 feet; thence North 45° 42' 12" East 255 feet to the said Southwestern line of Edith Place and at the most Northern corner of said parcel of land described in the deed to Charles H. Nie, first hereinabove referred to; thence Northwesterly along said line of Edith Place, being along the arc of a curve to the right, having a radius of 330 feet, a distance of 16.58 feet, more or less, to the Southeastern most corner of that certain parcel of land described in the Deed from Claremont Pines Corporation, a corporation, to City of Oakland, a municipal corporation, dated February 23, 1939 and recorded February 28, 1939 in Book 3732 of Official Records, Page 311; thence along the Southwestern and Southern lines of Edith Place, as described in the Deed last above mentioned North 61° 02' 33" West 176.77 feet and thence Westerly along the arc of a curve to the left, having a radius of 170 feet, a distance of 229.04 feet to the intersection thereof, with the Southeastern line of Edith Place, as described in the deed to the City of Oakland, recorded in Book 3350 of Official Records, Page 171, first hereinabove referred to; thence running along the general Southeastern and Southwestern lines of said Edith Place, the following courses and distances: South 41° 45' 54" West 98.33 feet; thence Northwesterly along the arc of a curve to the right, having a radius

of 148 feet, a distance of 276.55 feet; thence North 31° 10' 26" West 99.64 feet; thence Northwesterly along the arc of a curve to the left, having a radius of 320 feet, a distance of 277.73 feet; thence North 80° 54' 06" West 116.69 feet and thence Northwesterly along the arc of a curve to the right, having a radius of 630 feet, a distance fo 121.98 feet to the intersection of said line of Edith Place with the Southwestern line of said Lot 82; thence along said last named line and leaving said line of Edith Place South 44° 27' 58" East 1278.45 feet to the most Southern corner of said Lot 82; thence North 45° 42' 12" East along the Southeastern line of said Lot 82 and along the Southeastern line of said Lot 81, 769.83 feet to the point of beginning.

Being a portion of Lots 81 and 82, as said lots are shown on the map of "Tract No. 506, Oakland, Alameda County, California, April 1932", filed June 9, 1932, in Book 18 of Maps, Pages 95 and 96, in the Office of the County Recorder of Alameda County.

PARCEL SIX:

All that lot of land situated in the City of Oakland, County of Alameda, State of California, and described as follows, to-wit:

Commencing at the point of intersection of the Southern line of Clarewood Drive, formerly Edith Place, as same now exists, with the Southeastern boundary line of Lot 81 and "Tract 506", as said Lot 81 is shown on the Map of "Tract 506," etc., herein referred to; and running thence Northwesterly along said Southern line of Clarewood Drive, along the arc of a circle to the left, with a radius of 270.00 feet, an arc distance of 42.04 feet; thence Southwesterly and leaving said line of Clarewood Drive, South 45° 42' 12" West 130.00 feet to the point of beginning for this description; thence continuing along Southwestern production of the last course herein set forth South 45° 42' 12" West 238.22 feet; thence Northwesterly and at right angles to the last mentioned course North 44° 17' 48" West 200.00 feet; thence Northeasterly and at right angles to the last mentioned course North 45° 42' 12" East 125.00 feet; thence South 73° 48' 38" East 229.82 feet to the point of beginning.

Being a portion of Lot 82 of Map entitled, " Tract 506, Oakland, Alameda County, California," etc., filed June 9, 1932 in Book 18 of Maps, at Pages 95 and 96, in the Office of the County Recorder of Alameda County.

PARCEL SEVEN:

Commencing at the point of intersection of the Southern line of Clarewood Drive, formerly Edith Place, as the same now exists, with the Southeastern boundary line of Lot 81 and and "Tract No. 506." as said Lot 81 is shown on the map of "Tract No. 506," etc., herein referred to; and running thence Northwesterly along said Southern line of Clarewood Drive, along the arc of a circle to the left, with a radius of 270.00 feet, an arc distance of 42.04 feet to the point of beginning for this description; thence Northwesterly along said Southern line of Clarewood Drive and continuing along said arc of said circle to the left, with said radius of 270.00 feet, an arc distance fo 50.91 feet; thence continuing along said line of Clarewood Drive, tangent to the last mentioned course, Northwesterly North 77° 13' 27" West 102.90 feet; thence Northwesterly along said line of said Clarewood Drive, along the arc of a circle to the right, tangent to the last mentioned course, with a radius fo 330.00 feet, an arc distance of 76.62 feet; thence Southwesterly and leaving said line of Clarewood Drive and running parallel with the Southeastern line of Lot 82, of said map above referred to, distant therefrom 240.00 feet Northwesterly at right angles thereto, South 45° 42' 12" West 130.00 feet; thence South 73° 48' 38" East 229.82 feet; thence Northeasterly and parallel with said Southeastern line of said Lot 82, distant therefrom 40.00 feet Northwesterly at right angles, thereto, North 45° 42' 12" East 130.00 feet to the point of beginning.

PARCEL EIGHT:

All that real property situated in the City of Oakland, County of Alameda, described as follows:

All of Plot 32 as said plot is shown on the Record of Survey for Mountain View Cemetery Association, filed January 11, 1950, in Book 3 of Record of Survey Maps, at Pages 7, 8 & 9, Series AE2770, Alameda County Records.

SHEET NO OF THREE (3) SHEETS

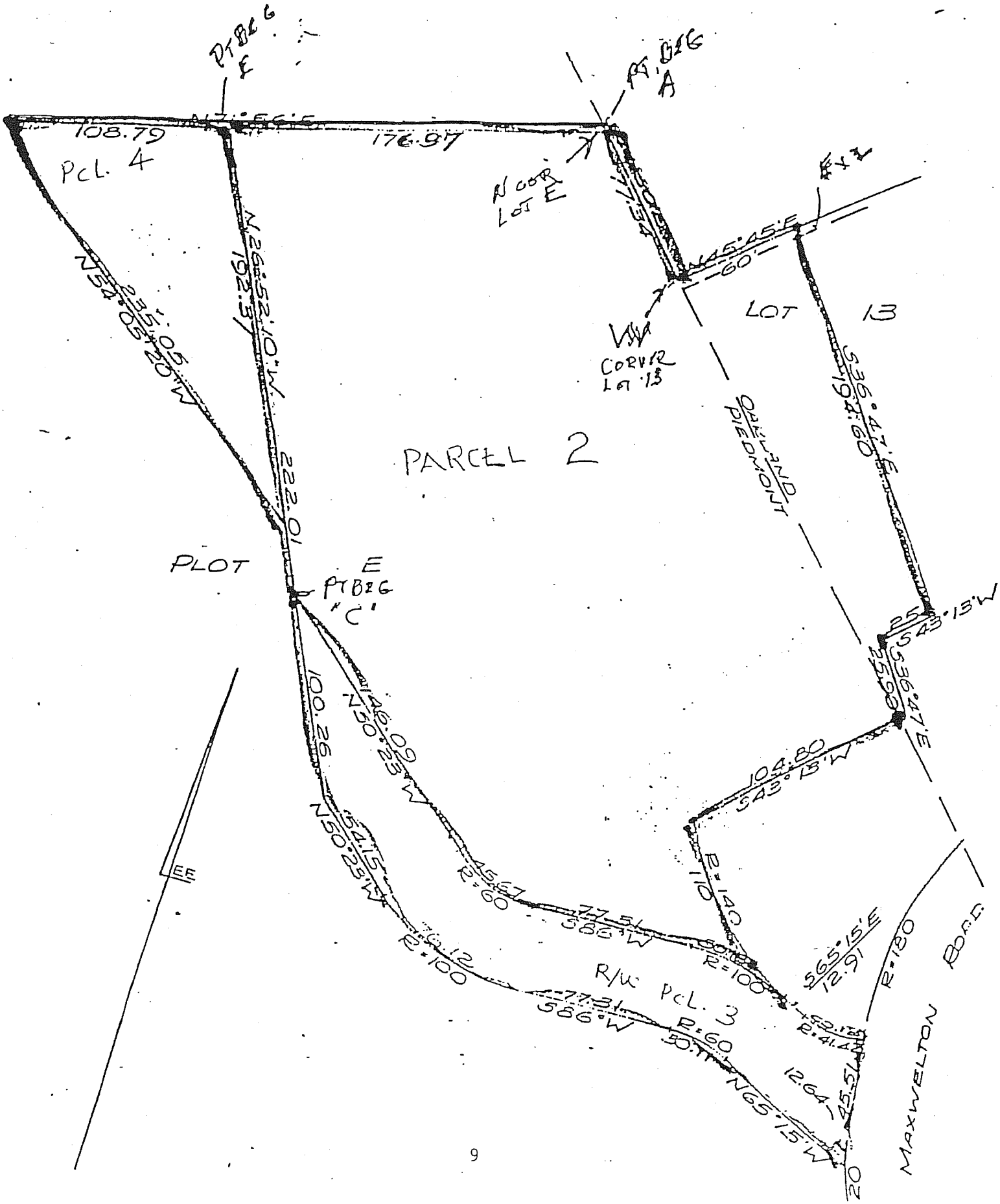
RECORD OF SURVEY
FOR
MOUNTAIN VIEW CEMETERY ASSOCIATION
LYING PARTLY IN THE CITY OF OAKLAND
AND PARTLY IN THE CITY OF PIEDMONT
ALAMEDA COUNTY, CALIFORNIA.
OCTOBER 1949

Scale: 1 inch = 150 feet

Summary
217.749 Acres
6.947
2.173
Total 226.869

NOTICE
THIS MAP MAY OR MAY NOT BE A SURVEY OF THE LAND DEPICTED HEREON. IT IS NOT TO BE RELIED UPON FOR ANY PURPOSE OTHER THAN ORIENTING ONE'S SELF AS TO THE GENERAL LOCATION OF THE PARCEL OR PARCELS OF INTEREST. FIRST AMERICAN TITLE COMPANY ASSUMES NO LIABILITY FOR LOSS OR DAMAGE RESULTING FROM RELIANCE THEREON.

CLAREMONT
DRIVE
MOUNTAIN VIEW CEMETERY
NO. 32
217.749 Acres
PARCEL 1
Pcl 8
Pcl 5
TRACT NO. 808
LOT 82
LOT 12
Subdivision of a portion of PIEDMONT HEIGHTS
HARBORD DRIVE
HAMILTON ROAD
MORAGA
PALA
AE 2770
MOUNTAIN VIEW CEMETERY 6.947 Acres
MT. VIEW CEMETERY 2.173 Acres
CITY OF PIEDMONT
Boundary Line of the City of Oakland
City Monument
See Pg. 3
See Next Pg 2
Pg. 1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PT BEG A
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176.97
N COR LOT E
N 26°52'10" W
152.37
N54°05'20"W
235.05
222.01
PLOT E
PT BEG "C"
PARCEL 2
LOT 13
CORNER LOT 13
N46°45'E
60'
OAKLAND PIEDMONT
S36°47'E
194.60
S43°15'W
25.00
S36°47'E
25.00
104.80
S43°15'W
N50°23'W
46.09
R=60
77.51
S86°W
R=100
N50°25'W
154.15
R=100
77.31
S86°W
R=60
50.11
N65°15'W
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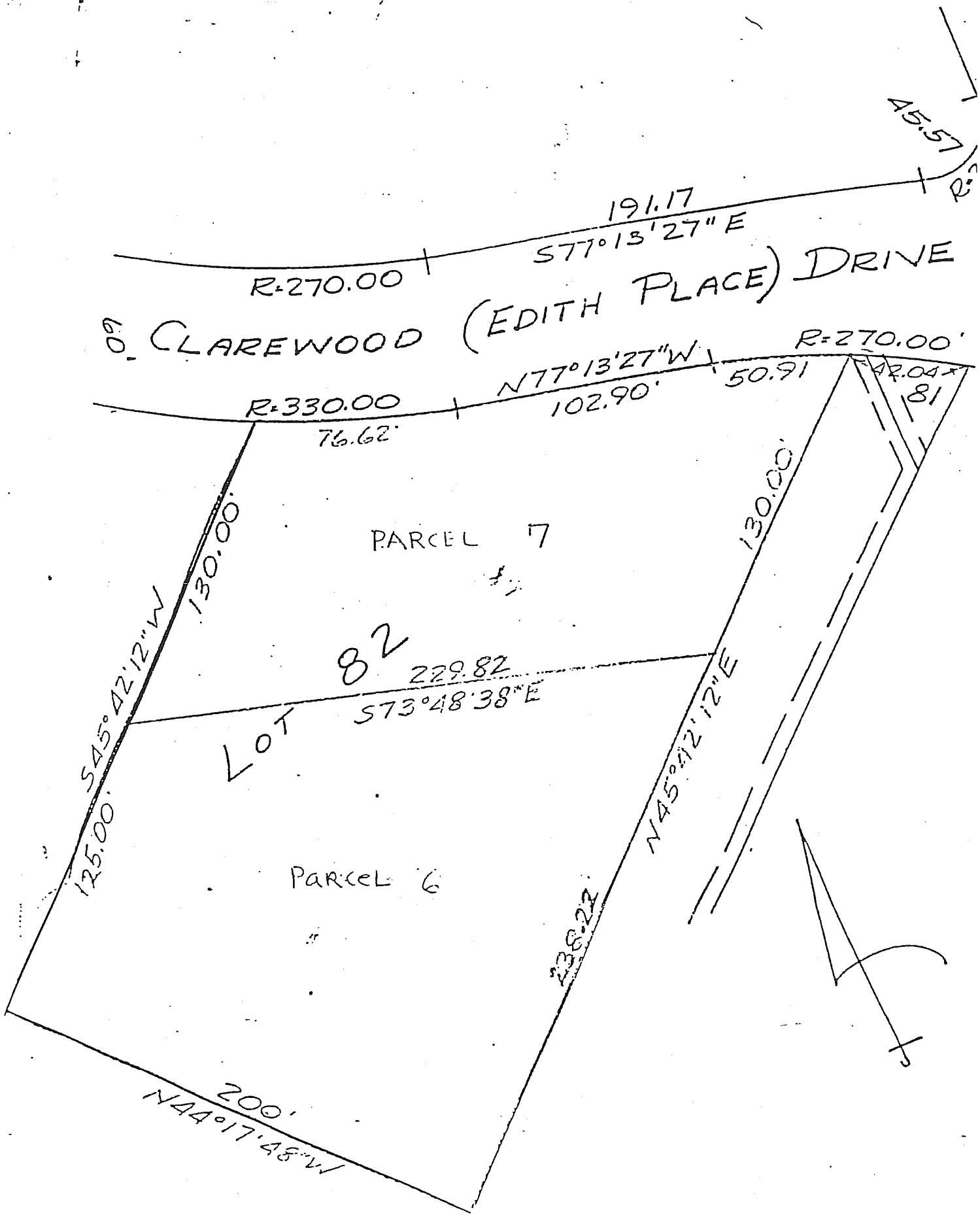
MAXWELTON
ROAD
EE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R=270.00
CLAREWOOD (EDITH PLACE) DRIVE
R=270.00
N77°13'27"W
50.91
102.90'
R=330.00
76.62'
130.00'
PARCEL 7
130.00'
S45°42'12"W
82
229.82
S73°48'38"E
LOT
N45°42'12"E
125.00'
PARCEL 6
200'
N44°17'45"W

Pg. 3

CITY OF PIEDMONT

CALIFORNIA

FILE COPY

January 29, 1993

Mountain View Cemetery Association
5000 Piedmont Avenue
Oakland, California 94611

Re: Closing of Sale of Moraga Avenue Property

Gentlemen:

This letter will confirm the following matters regarding the purchase and sale of the property subject to the Purchase and Sale Agreement between the City of Piedmont and Mountain View Cemetery dated as of June 15, 1992.

1. The dedication to cemetery purposes was removed from the property by order of the Superior Court of Alameda County dated November 12, 1992.

2. The statute of limitations to appeal such order may not have expired.

3. Notwithstanding that the statute of limitations of such order may not have expired, we desire to proceed to close the purchase and sale and hereby acknowledge that the City of Piedmont will indemnify, protect, defend and hold you harmless from and against any appeal of such order of dededication pursuant to Paragraph 10.3 of the Purchase and Sale Agreement.

CITY OF PIEDMONT

By Kathy Foulkes
Mayor

Its _____

Jeff Hoffman
[redacted] Echo Lane
Piedmont, CA 94618

September 4, 2025

Kevin Jackson
Planning & Building Director
City of Piedmont
120 Vista Avenue
Piedmont, CA 94611

Re: Moraga Canyon Specific Plan – Opposition to Blair Park (South-Side) Housing Option

Dear Planning Commissioners,

I'm writing as a Piedmont resident and homeowner in the Moraga Canyon area to express my overall support for adding housing in our city. However, while I have serious reservations about concentrating so much of this housing in Moraga Canyon, I want to state my strong opposition to the option that places the housing on the south side of Moraga Avenue in Blair Park.

This location is the wrong place for dense new housing, for several reasons:

Traffic and Safety Risks. Moraga Avenue is already a fast, narrow corridor with blind curves, limited sidewalks, and almost no safe pedestrian crossings. Forcing hundreds of new residents to enter and exit directly onto this stretch would multiply the hazards. South-side housing would require constant left turns across speeding traffic, new driveways at the most constrained part of the canyon, and far more people crossing Moraga Avenue on foot or bike just to reach the rest of Piedmont. This is not just an inconvenience — it's a recipe for collisions. And in a wildfire or other emergency, I'd imagine that south-side housing could magnify the challenges of evacuation when every second matters.

The City has proposed installing a traffic light at Red Rock Road. At least with north-side housing, residents would enter and exit through this controlled intersection, allowing safer vehicle and pedestrian movements. Traffic and safety will remain serious challenges under any scenario, but south-side housing compounds those challenges.

Isolation from the Community. Housing in Blair Park would be physically cut off from the rest of Piedmont. Families would be separated from schools, parks, and town by a busy arterial. While not perfect — it still crams hundreds of new residents into a remote canyon at the city's edge — north-side housing would at least be somewhat more connected, with a shorter, safer walk or ride into town and direct access to Coaches Field and the new hiking trail. It also carries additional advantages such as Bay views that improve the market viability of new units.

Destruction of Open Space and Neighborhood Character. Blair Park is a cherished canyon landscape. While moving the Corporation Yard there would be damaging, building a massive housing complex would more fully erase one of Piedmont's few remaining natural open spaces, replacing greenery and quiet with traffic, noise, and light spill into the canyon. As someone whose home directly overlooks Blair Park, I would experience these impacts personally — but they extend far beyond me. They would meaningfully diminish livability for many residents in the area. These harms would be lessened with north-side housing.

Taken together, these impacts show why Blair Park is the wrong choice for Piedmont. The City has alternatives that achieve its housing goals without unduly sacrificing safety, community integration,

open space, and neighborhood livability. Choosing Blair Park would mean taking on the greatest harms when less damaging options are available.

Thank you for considering my comments and for your service to our community.

Sincerely,

Jeff Hoffman
[redacted] Echo Lane

EAST BAY
MUNICIPAL UTILITY DISTRICT

September 4, 2025

Kevin Jackson, Director of Planning and Building
City of Piedmont
Parks, Recreation and Waterfront Department
120 Vista Avenue
Piedmont, California 94611

Re: Public Hearing Notice for the Moraga Canyon Specific Plan and Amendments to Piedmont City Code, Piedmont

Dear Mr. Jackson:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Moraga Canyon Specific Plan (MCSP) and Addendum to the Draft Environmental Impact Report (EIR) for the Piedmont Housing Element (2023-2031) located in the City of Piedmont (City). EBMUD commented on the Notice of Availability of a Draft EIR for the Piedmont Housing Element (2023-2031) on December 12, 2023. EBMUD's original comments (see Attachment A) still apply regarding water service, wastewater planning, and water conservation. EBMUD has the following additional comments.

WATER SERVICE

Depending upon the property elevation to be developed, EBMUD's Piedmont Pressure Zone, with a service elevation range between 325 and 500 feet, or the Dingee Pressure Zone, with a service elevation range between 500 and 675 feet, will serve the MCSP area. EBMUD owns and operates water distribution pipelines and hydrants in Moraga Avenue and within the MCSP site, which provide continuous service to EBMUD's customers in the area (see Attachment B). There are 4-inch, 6-inch, and 8-inch pipelines in Moraga Avenue and the MCSP site; a 20-inch inlet/outlet pipeline for Piedmont Reservoir in Moraga Avenue, the MCSP site, and in EBMUD right-of way (R/W) 1222 and R/W 1224; and hydrants FH-14017, 133, 15167, and 199 in Moraga Avenue. All costs associated with abandonment and relocation of pipelines, relocation of water services, relocation of hydrants, pipeline extensions, and offsite improvements would be at the City's expense. The engineering, installation and abandonment of pipelines often require substantial lead time, which should be accounted for in the City's development schedule. Any proposed construction activity would need to be coordinated with EBMUD so that the integrity of these pipelines and hydrants are maintained at all times.

EBMUD owns Property 146 (PROP 146), R/W 1221, and R/W 1224 adjacent to the MCSP site. R/W 1221 and R/W 1224 are 20-foot-wide easements for the Piedmont Reservoir inlet/outlet pipeline. Any proposed construction activity in EBMUD rights-of-way and/or EBMUD property

Recycled Paper

would be subject to the terms and conditions determined by EBMUD including relocation of the rights-of-way at the City's expense.

The MCSP site has three EBMUD facilities in its vicinity located in PROP 146: Piedmont Reservoir, Estates Pumping Plant, and Piedmont Regulator. These facilities provide continuous service to EBMUD's customers in the area. Any proposed development within the MCSP area should not hinder EBMUD's continued use of the facilities or mission to provide water service to EBMUD's customers.

If you have any questions concerning this response, please contact Sandra Mulhauser, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-7032.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:WTJ:
wdpd25_148_Moraga Canyon Specific Plan DEIR Addendum.doc

Attachment: A – Letter to City of Piedmont on December 12, 2023
B – Map of EBMUD Distribution Pipelines and R/Ws

EAST BAY MUNICIPAL UTILITY DISTRICT

December 12, 2023

Kevin Jackson, Director of Planning & Building
City of Piedmont
120 Vista Avenue
Piedmont, CA 94611

Re: Notice of Availability of a Draft Environmental Impact Report for City of Piedmont 2023-2031 Housing Element Implementation Project, Piedmont

Dear Mr. Jackson:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the City of Piedmont 2023-2031 Housing Element Implementation Project located in the City of Piedmont (City). EBMUD has the following comments.

WATER SERVICE

Effective January 1, 2018, water service for new multiunit structures shall be individually metered or sub-metered in compliance with Section 537 of California's Water Code & Section 1954.201-219 of California's Civil Code, which encourages conservation of water in multifamily residential, mixed-use multi-family, and commercial buildings by requiring metering infrastructure for each dwelling unit, including appropriate water billing safeguards for both tenants and landlords. EBMUD water services shall be conditioned for all development projects that are subject to these metering requirements and will be released only after the project sponsor has satisfied all requirements and provided evidence of conformance with Section 537 of California's Water Code & Section 1954.201-2019 of California's Civil Code.

Main extensions that may be required to serve individual projects within the Housing Element Implementation Project to provide adequate domestic water supply, fire flows, and system redundancy will be at the project sponsor's expense. EBMUD requirements for water main separation (California Waterworks Standards) Code of Regulations, Title 22, Section 64572) and placement of water mains are included as Attachment 1. Pipeline and fire hydrant relocations and replacements due to modifications of existing streets, and off-site pipeline improvements, also at the project sponsor's expense, may be required depending on EBMUD metering requirements and fire flow requirements set by the local fire department. When the development plans are finalized for individual projects within the Housing Element Implementation Project, project sponsors should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions of providing water service to the development. Engineering and installation of

Recycled Paper

new and relocated pipelines and services require substantial lead time, which should be provided for in the project sponsor's development schedule.

EBMUD's Standard Site Assessment Report and the Draft EIR indicate the potential for contaminated soils or groundwater to be present within the Housing Element Implementation Project site boundaries. Project sponsors for proposed projects within the Housing Element Implementation Project site boundaries should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete, and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater.

EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation, or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD's work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD's standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from proposed projects within the Housing Element Implementation Project site boundaries and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally,

the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows.

A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce I/I in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform I/I reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient I/I reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents.

To ensure that proposed projects within the Housing Element Implementation Project site boundaries contribute to these legally required I/I reductions, the lead agency should require the project applicant to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed projects: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines, to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for proposed projects within the Housing Element Implementation Project site boundaries are constructed to prevent I/I to the maximum extent feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.

WATER CONSERVATION

Proposed projects within the Housing Element Implementation Project site boundaries present an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that individual project sponsors for proposed projects within the Housing Element Implementation Project site boundaries comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations

requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:EZ:kn
wdpd23_240 City of Piedmont 2023-2031 Housing Element Implementation Project

Attachment 1 - EBMUD Requirements for Placement of Water Mains

EAST BAY MUNICIPAL UTILITY DISTRICT

Applicant Pipeline Design Criteria

EBMUD values applicant pipeline projects and is committed to providing a thorough and efficient design. To ensure an efficient design process and to avoid significant delays the design criteria below should be adhered to when submitting improvement plans.

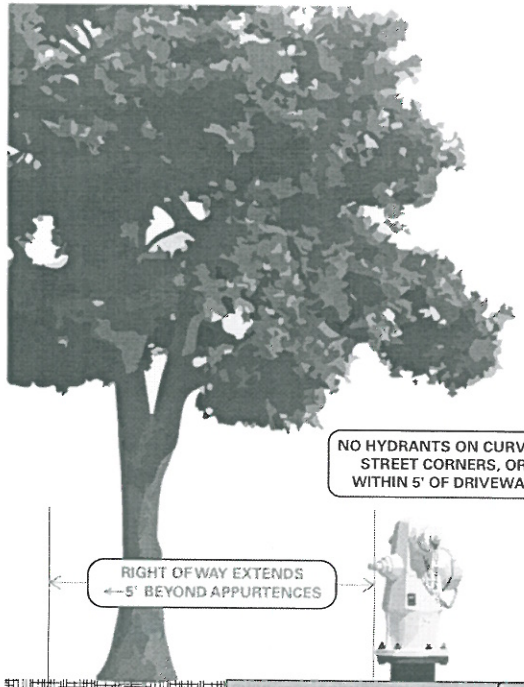
Design Criteria

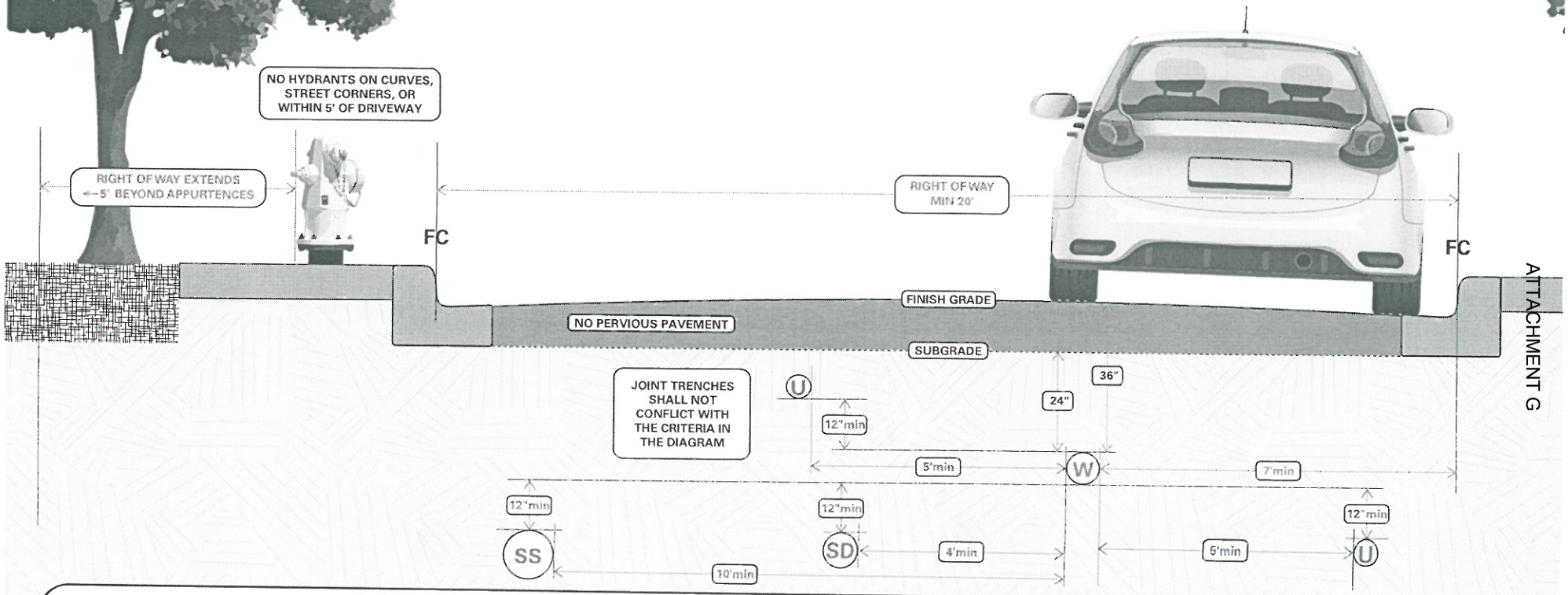
- Water mains shall be seven (7) feet from face of curb.
- Water mains shall maintain a minimum one (1) foot vertical and five (5) foot horizontal clearance from other utilities.
- Gas mains shall meet the one (1) foot vertical separation requirement by installing the gas main below the water main only.
- Water mains shall maintain a minimum ten (10) foot horizontal clearance (O.D. to O.D.) and be located a minimum one (1) foot above any sewer main. Title 22 CCR
- Water mains shall maintain a minimum four (4) feet horizontal clearance (O.D. to O.D.) and be located a minimum one (1) foot above any storm drain. Title 22 CCR
- Water mains shall have a 36-inch cover to final grade and 24-inch cover to pavement subgrade.
- Joint trenches that are in conflict with the criteria above may delay the project. Submit to EBMUD final joint trench plans (no intent plans) which include the size of the joint trench and the utilities located inside.
- Water mains shall not be installed under pervious pavement.
- Water mains installed under decorative pavement, pavers, or stamped concrete will require an additional paving agreement.
- Hydrants shall not be located on curved sections of street, street corners, or within five feet of a driveway.
- Right of ways for 6-inch and 8-inch water mains shall be a minimum of 20 feet wide and extend five (5) feet past the water main centerline.
- Right of ways for 12-inch to 24-inch water mains shall be a minimum of 20 feet wide and extend eight (8) feet past the water main centerline.

Please contact the New Business Office representative assigned to your project if there are any questions regarding the requirements listed above. Meeting this criteria will enable the most efficient design possible.

March 2021

APPLICANT PIPELINE DESIGN CRITERIA





W = WATER
24" cover to subgrade
36" cover to final grade
7' inset from face of curb

U = UTILITY
min 12" vertical clearance
min 5' horizontal clearance

SS = SANITARY SEWER
min 12" below water
min 10' horizontal clearance

SD = STORM DRAIN
min 12" below water
min 4' horizontal clearance

FC= FACE OF CURB

4203 • 5/21

LOCATIONS ARE APPROXIMATE – NOT INTENDED FOR DESIGN PURPOSES – REQUEST AS-BUILT DRAWINGS IF NEEDED FOR DESIGN WORK

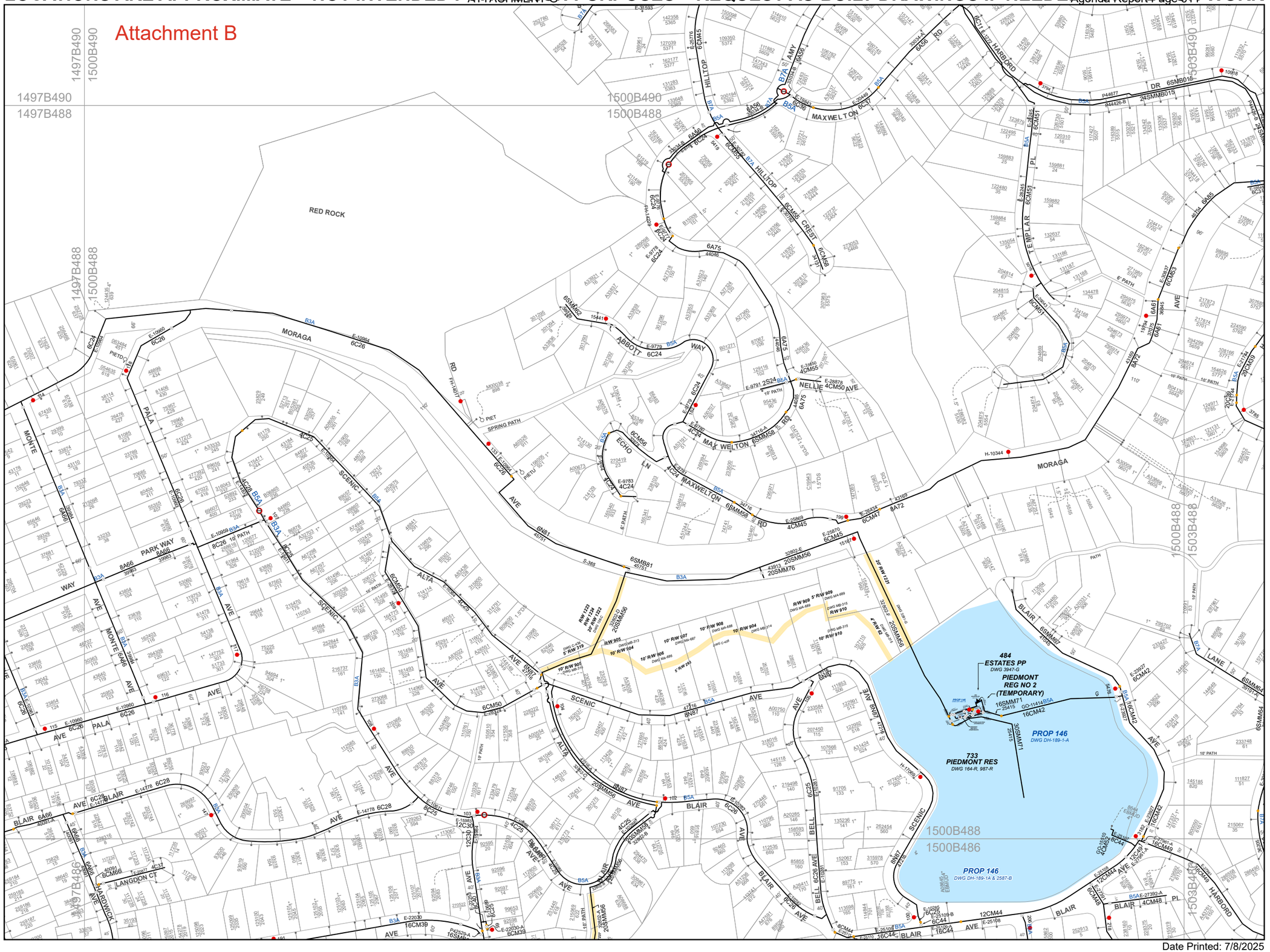
EAST BAY MUNICIPAL UTILITY DISTRICT

Potable Distribution System

- Potable Pipeline
- Service Lateral
- System Valve (*OL = Opens Left*)
- Check Valve
- Zone Valve
- Change of Pipe ID
- Rate Control Station
- Regulator
- Pressure Reducing Station
- Flow Meter
- Manhole
- Service Connection
- Hydrant
- Facility
- Pumping Plant

Landbase

- EBMUD Right of Way
- EBMUD Property



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Date Printed: 7/8/2025

Position Paper: Housing Allocation and Open Space Constraints in the City of Piedmont

Introduction

The City of Piedmont fully recognizes California's critical housing shortage and supports the state's efforts to expand housing opportunities across income levels. However, Piedmont faces unique geographic and land-use constraints that make it impractical, and in many cases impossible, to meet its Regional Housing Needs Allocation (RHNA) obligations without sacrificing essential community assets such as parks and recreational fields. This paper outlines why applying a uniform housing allocation formula to Piedmont is inequitable and counterproductive, and proposes alternative strategies for meaningful compliance.

1. Built-Out Character and Geographic Constraints

• Piedmont is a fully incorporated, landlocked city surrounded entirely by Oakland, with no opportunity for annexation or outward expansion.
• Nearly all land within city limits is already developed as residential neighborhoods, schools, or civic facilities.
• Unlike larger municipalities, Piedmont has no commercial corridors, underutilized industrial zones, or vacant parcels that could reasonably be redeveloped for multifamily housing.

2. Preservation of Parks and Recreational Space

• The city's limited public land consists primarily of parks, athletic fields, and open space that serve both Piedmont residents and the broader East Bay community.
• These spaces provide critical recreational, environmental, and public health benefits, including opportunities for youth sports, senior recreation, and climate resilience.
• Requiring Piedmont to rezone these areas for housing would directly undermine state goals of maintaining livable, healthy, and environmentally sustainable communities.

3. Disproportionate Burden of RHNA Allocation

• The RHNA process applies uniform housing growth expectations without sufficient adjustment for size, density, or physical capacity.
• Piedmont's small size and unique land-use profile create disproportionate challenges compared to larger cities with vacant land and redevelopment corridors.
• A "one-size-fits-all" allocation unfairly forces Piedmont into a false choice: eliminate essential open space or risk noncompliance.

4. Alternative Compliance Strategies

Piedmont is committed to contributing to regional housing solutions and proposes that the state recognize alternative pathways to compliance, including:
• Accessory Dwelling Units (ADUs): Piedmont has experienced significant growth in ADU development

within existing housing stock. Expanding this trend can meaningfully contribute to housing supply without eliminating parks.
• Regional Partnerships: Piedmont is willing to collaborate with neighboring jurisdictions, particularly Oakland and Alameda County, to invest in affordable housing projects on more feasible sites.
• Financial Contributions: The city can provide funding or subsidies to regional affordable housing initiatives as a means of meeting its fair share.
• Small-Scale Infill: Opportunities exist for limited infill development (e.g., duplexes, triplexes, and fourplexes) within existing neighborhoods, consistent with state law and community character.

5. Policy and Legal Consistency

• California law requires balancing housing production with environmental protection, climate resilience, and community health.
• Forcing a city like Piedmont to eliminate recreational facilities for housing production creates policy conflicts with CEQA, state climate adaptation goals, and public health priorities.
• Adjustments to Piedmont's RHNA obligations would better align state housing policy with broader state objectives.

Conclusion

Piedmont is not resisting its responsibility to help address California's housing crisis. Rather, it seeks a practical, equitable, and regionally coordinated approach that respects the city's built-out character and preserves essential open space. By recognizing alternative compliance measures, the state can achieve its housing goals without requiring Piedmont to sacrifice the very community assets that make it livable.

TO: City Council

RE: MCSP Public Hearing, Oct. 6, 2025

FROM: Friends of Moraga Canyon Board of Directors

DATE: Sept. 29, 2025

Those of us who have followed the Moraga Canyon development plan for the past 2 years have questions and serious concerns for Piedmont's future if this plan becomes reality. Here are a few.

Disaster Evacuation: Piedmont Fire Dept. cites Moraga Canyon as a "high risk wildfire" area and predicts a wildfire is "highly likely." The Canyon is also less than 1 mile from the Hayward Fault. Moraga Ave. is a designated emergency evacuation route and the only way out for the estimated 400 to 1,000 new Canyon residents, as well as for many existing nearby Oakland and Piedmont residents. The Plan expects people to walk or bicycle in a disaster. How likely is that? How will emergency crews reach the Canyon if Moraga Ave. is gridlocked as residents desperately try to leave? Despite assurances from the Fire Chief, does Piedmont want to risk its residents' lives?

Traffic/Pedestrian Safety: Moraga Ave. is a busy, 24-hour traffic arterial, with 11,000 cars per day traveling an average 40 mph. The MCSP proposes a traffic light with a pedestrian crossing at Red Rock Rd. The City's traffic consultants say the "safe stopping distance" required for cars traveling 40-mph meets Caltrans regulations for a traffic light. But a CA licensed civil & traffic engineer retained by Friends of Moraga Canyon says the safe stopping distance should be calculated for cars traveling 50 mph, meaning Moraga Ave. likely does not have the required stopping distance for a traffic light. If housing is built in Blair Park, the Plan specifies several driveways off of Moraga, creating even more risk and chaos for cars making left turns to enter or exit the project. Children would be tempted to dash across Moraga without waiting for a green light. Is Piedmont willing to risk serious accidents and children's lives?

Financial Risks: The MCSP requires the market-rate developer to pay all infrastructure costs, including widening Moraga Ave., adding sidewalks and bike lanes, new stormwater drains and sewer lines, undergrounding all utilities – and expanding Coaches Field. What if the developer declines or defaults partway through development? Does this cost fall on the City and Piedmont taxpayers? Will new residents be able to get fire insurance? Developing the Coaches Field side also requires moving the Corporation Yard to Blair Park at the City's expense!

Community Connection: The MCSP creates an " island community" with no improvements on Moraga Ave. beyond the plan boundaries. No consideration of traffic backups to Hwy 13 or to the sharp curves on Moraga adjacent to Pala Ave., which are already dangerous for bicyclists.

The Plan makes no mention of what happens to daily traffic on Moraga Ave. during years of construction? How will Piedmont residents get to Hwy 13 and Montclair and to Highland Ave. and Pleasant Valley?

Public Transit: The MCSP calls for a bus line on Moraga Ave to serve MCSP residents. How likely is AC Transit to add new bus service when it has cut nearly all service in Piedmont? Where exactly would the bus go? State law requires affordable housing to be within .5 mile of public transit. It's .7 mile from Red Rock Rd. to the closest bus stop on Highland Ave.

School Children: Rather than let their young children walk .7 mile to Havens School on busy Moraga Ave,. isn't it likely parents will drive them, creating more congestion during school drop-off and pick-up times?

Known Obstacles: The Plan, itself, acknowledges constraints to the development, stating that hydrology "could cause dangerous road conditions on Moraga Ave. during significant rain and cause local flooding." Stormwater storage basins at both site options may have to be replaced. AND "due to the presence of steep slopes (above Coaches Field), much of this land is not conducive to development."

The City wants to declare Blair Park -- a designated Piedmont City park -- "surplus land" in order to develop it. But CA State law says that declaring a city park surplus land can only be done for specific reasons. The law does not mention for market rate housing.

What is Plan B? State housing law requires cities to look at alternate sites. What other sites is Piedmont examining? City planners say developers want at least 1/2 acre, which narrows the choices. But the law does allow smaller sites under certain conditions. Wouldn't it be better for current and future Piedmont residents to spread new housing to existing neighborhoods, closer to schools and transit? Newcomers would be more integrated into the community and need fewer cars.

Other potential sites: The City's original plan was to build housing on the Corey Reich tennis courts and rebuild the courts on top. The Council rejected this plan, and the City switched to building 132 units Moraga Canyon. With no analysis of the capacity, the Council increased the number to 199, mainly to entice a developer to pay for expanding Coaches Field. Other potential smaller, neighborhood sites: Linda Beach Park; the two tennis courts adjacent to the Community Center; the flat canyon area of Dracena Park; the long unused and empty EBMUD reservoir at the top of Blair Ave.

Bottom Line: Adding State mandated 587 new housing units in Piedmont is a massive challenge, and you have a monumental task in deciding what to do. You must weigh carefully how you think Piedmont should grow. Should new housing be on the outskirts of town or integrated into neighborhoods? Is Moraga Canyon actually a safe, buildable site for 197 housing units? Is the MCSP a financially viable choice for Piedmont? There is still time to change course and consider alternatives. We urge you to do so!

Signed: Friends of Moraga Canyon Board of Directors

Marj Blackwell, Vincent Fisher, Julie Watters, Daphne Albert, Peggy Esposito

Alta Avenue Piedmont
California, 94611
September 30, 2025

Dear Councilperson,

Staff has finally acknowledged, in a video released by the city, that the “blind curves” of Moraga Avenue create safety hazards unique to the Blair Park option described in the Moraga Canyon Specific Plan. The presentation implies that Blair Park driveways would not be located to maximize vehicular flow in and out of the site but rather to meet Caltrans standards for safe stopping distances on Moraga Avenue. Otherwise, the more than 2,500 drivers daily exceeding 38 MPH on Moraga Avenue’s would not be able to stop safely after seeing vehicles entering or exiting Blair Park.

While the video describes hazards arising from autos accessing and leaving Blair Park on blind curves, it fails to acknowledge the hazard these curves pose for pedestrians in general and children in particular. Unlike autos, pedestrians need not use carefully located driveways to cross Moraga Avenue. Children, for example, will cross wherever impulse dictates to reach Coaches Field or to walk to school. Indeed, concern over impulse crossing caused your predecessors to build the existing fence on the north side of the Moraga right of way between Monte and Red Rock. That fence keeps children from central Piedmont from wandering onto “blind curves” on Moraga Avenue while walking to and from Coaches Field. But the Moraga Canyon Specific Plan shows no barrier to keep Blair Park children from dashing across Moraga Avenue to and from Coaches Field or to and from the fence-protected sidewalk on the north side of Moraga Avenue. Indeed, the plan assumes they will cross at Red Rock – an intersection that 2,500 or more drivers a day on Moraga will not see in time to stop safely.

The video alludes to signage and other warning mechanisms that would supposedly reduce the risk of accidents by alerting drivers to upcoming blind curves. The speaker, however, doesn’t mention that the best engineering research on such mechanisms reports that they reduce fatal accidents by only 10% (see https://www.fhwa.dot.gov/publications/research/safety/08044/#Toc193873755). Indeed, Caltrans does not reduce its estimates of safe stopping sight distances when such mechanisms are added to blind curves.

The video misleads viewers as to how many autos will daily speed on Moraga Avenue. It may be that, as the video claims, the 199 new homes built in Moraga Canyon will add only 900 trips to 12,000 or so now using Moraga. But the more than 550 new homes anticipated by the revised Housing Element will raise the volume of traffic on Moraga Avenue by much more than 900 trips. I believe analyses prepared for the Housing Element predicted that trips on Moraga Avenue would increase to about 14,000 per day and that 20% of these would be at speeds greater than 38 MPH.

Blair Park has stood empty for over a century for good reasons. Impassable terrain on 3 sides and Moraga Avenue on the 4th isolate it visually and functionally from the remainder of the community. It's steep "bowl" shape, open only to Moraga Avenue, makes it dark year-round and "captures" noise and particulate pollution from trucks, motorcycles, and automobiles. And, most importantly, the blind curves of Moraga Avenue make accessing the site so dangerous that Blair Park has never been improved for recreational uses. In fact, the founders of Piedmont concluded over a century ago that the best use of the site was as the municipal corporation yard! A bond measure to build city facilities failed so what is now Blair Park was used for decades as an unregulated landfill with now unknown contents. In short, Blair Park remains inferior, on every measure of good land use planning, to the area above and around Coaches Field as a place to house families.

The public record includes the argument that Blair Park should be offered to developers because building there will take less time and incur fewer costs than building above and around Coaches Field. I assume no Piedmonter would put children at risk of injury or death just to lower costs incurred by land developers. I also suggest that Alameda County Measure A1 funds, Low Income Housing Tax Credits, and essentially free land in Piedmont should be sufficient inducement for developers.

Please do not accept the argument that the Coaches Field option would cost the city too much because the corporation yard would have to be shrunk or moved. As many reports to the Council have documented over the last several years, the century-old corporation yard is one of several essential facilities that the city will soon have to replace or upgrade. The city will incur the cost of rebuilding the corporation whether or not an additional home is ever built in Moraga Canyon.

In closing, I return to an issue your constituents have raised in public hearings but that staff has not addressed. Intentionally housing Piedmont's only lower income families in the city's most isolated, polluted, and dangerous location will surely stigmatize them in local culture. Regardless of your true intentions in housing low-income families in Blair Park, history will view the scheme as consistent with Piedmont's well-documented record of exclusionary practices. Do the "right thing" and approve only the safe, clearly more livable neighborhood envisioned by the Coaches Field option. You can always revisit your decision if no developer chooses to partner with the city in building the better neighborhood. But please do not "settle" for a clearly inferior, implicitly exclusionary plan just to please developers.

Respectfully,

Ralph Catalano

To the Piedmont Planning Commission
Re: Moraga Canyon Specific Plan
Date: October 1, 2025

Dear Committee Members,

My name is Lisa Kaplan and I live at _____ Harbord Dr. in Oakland, eight houses in from Moraga Avenue on the Piedmont side of Harbord Drive.

Our formerly quiet street **has been inundated by Piedmont traffic**—residents, contractors, delivery vans, and moving trucks and more--ever since the advent of Google maps and Waze, directing upper Piedmont household and rush-hour traffic into our neighborhood and making our street unsafe with speeding vehicles and oversize trucks, every day all day long.

Now we learn that the city of Piedmont plans to **impact the safety and sanctity of our Oakland neighborhoods** by planning to add almost 200 apartment units in a narrow canyon with only one access road (Moraga Avenue) that is a designated emergency evacuation route for both Piedmont and Oakland. As anyone who has been on Moraga Avenue in the morning or evening during rush hours, this route is already heavily congested and literally stopped dead at times when Highway 13 is backed up. The idea of funneling hundreds of additional residents through this corridor during an emergency—especially in a fire-prone canyon—is reckless, negligent and irresponsible.

In addition, there is no public transportation available on Moraga Avenue. Everyone living in those units will need a car to get to work, to take their children to Piedmont schools, to go the grocery store, to run errands, to go out to dinner—in sum, to go anywhere safely. There are no sidewalks.

If two adults live in the units, there is distinct possibility there will need to be two cars for each unit. That's almost 400 additional cars making their way each day, morning and evening down or up Moraga Avenue: into Piedmont or up into Oakland on **the only street that they can access** from their apartment complex. How can this be considered "safe" when considered the only access is on a designated emergency evacuation route for fires and earthquakes?

Even now, our Harbord/Moraga intersection struggles daily with capacity—traffic on Moraga frequently backs up to Masonic Avenue. Adding hundreds of new units without a clear and effective traffic mitigation plan, including a dedicated left-turn lane and proper traffic flow management, will only worsen the safety situation. There are currently no safe pedestrian crossings and no continuous sidewalks into Piedmont or into Montclair Village, making Moraga Avenue unsafe for current residents, let alone future ones.

Finally, Moraga Canyon is officially designated a high fire-risk zone. Insurance companies already limit coverage or significantly raise premiums for homeowners in this area. Adding hundreds of units in this fire-prone canyon will not only increase risk but could also further jeopardize homeowners' access to affordable and comprehensive fire insurance coverage. Do you have any idea how difficult it is for homeowners to get insurance coverage once they have been dropped? What hubris to not think about the current residents and what damage this development may cause them.

There must be other options in the greater Piedmont city limits that are more conducive to development than the Blair Park site on Moraga Ave, a site that lacks the basic safety, traffic infrastructure, and environmental latitude needed for a large development such as this. I urge the Planning Commission to reconsider this plan and explore more appropriate alternatives. At the very least, I implore them to consider the size of the development and reduce the number of planned units to a much more modest and manageable size.

Thank you for your attention and for taking the time to listen to residents who will be directly impacted by these decisions.

Sincerely,
Lisa Kaplan
____ Harbord Drive, Oakland

To: Mayor Anderson and City Council
From: Liz Lummis O'Neil, ___Maxwelton Road
Mary and Arnie Levine, ___ Maxwelton Road
Laura and Keith Dierx, ___ Maxwelton Road
Subject: Request for Further Study and Community Engagement Regarding Moraga Canyon Housing Plans

Dear Mayor Anderson and Councilmembers,

We all have the shared goal of ensuring low- and mid-income housing. We are writing to express our deep concern regarding the proposed housing development in Moraga Canyon and to respectfully urge you **not** to approve the Moraga Canyon Specific Plan in its current form. The City must first conduct thorough and updated studies to assess the full impact of this project before any decisions are made, and consider other locations in Piedmont.

At the most recent Planning Commission meeting, the Chair remarked that their role was limited to confirming whether the consultants had completed their work—not to evaluate the substance or broader implications of the plan itself. This struck me as an alarmingly low bar for a decision of such significance. It gave the impression of a procedural rubber stamp rather than a meaningful review. It seems the priority is meeting deadlines and checking boxes to show that meetings were held and comments were collected, rather than genuinely engaging with community concerns or fully understanding the potential impacts of the plan. From the beginning of this process, there has been a clear determination to push the Specific Plan through.

1. Insufficient Community Notification

From the beginning, the Housing Element process has not included adequate outreach to those most affected. While Highland Avenue had signage promoting the Housing Element, no signs were placed in the Moraga Canyon area.

Though information may have been shared via the Piedmont Post, residents of Maxwelton, Echo, Abbott, and Nellie do not receive the monthly free city-wide distributions. As a result, many of us were unaware until meetings were well underway; by then, other neighborhoods were well ahead of us in organizing and ensuring building near them was off the table. By the time we learned of the Housing Element, the conversation had already shifted away from other possible locations.

2. Lack of Equity in Site Selection

Piedmont had opportunities to distribute low- and mid-income housing throughout the city—along Grand Avenue, at church-owned properties, within the Civic Center area, and even as part of a very necessary fire station upgrade. This would have allowed for authentic integration of new low- and mid-income residents. Yet, these locations were quickly removed from consideration early in the Housing Element process.

At one public meeting, for example, then-Mayor Teddy King dismissed the idea of housing at the tennis court location by remarking, “I’ve never seen tennis courts on top of a building. Has anyone else?” Further study of building there was immediately dropped.

From there, very quickly the Moraga Canyon Specific Plan was underway.

3. Steep Slopes & Landslide Risk

The two proposed single-family homes off Abbott and Maxwelton are situated on steep slopes. As residents of Maxwelton Road, we drive past two areas that have undergone extensive landslide repairs and stabilization efforts. From my window, I can see additional properties currently undergoing similar work.

We ask that the City conduct a thorough geological and engineering study, including:

- Drainage patterns
- Erosion potential
- Landslide risk modeling
- Impacts to adjacent properties

It is perplexing that these two lots are being considered when other, less geologically challenging parcels must exist elsewhere in Piedmont. We request other lots are considered.

4. Traffic and Evacuation Safety

We ask that the City provide a corrected and updated traffic study. A resident remarked in the last meeting that the Moraga Avenue vehicle counts used in the study were outdated and pulled from a period when traffic was still low due Covid impacts.

Please also reference the comments made by resident Todd Kaiser at the last planning meeting, which highlighted discrepancies in proposed housing vehicle estimates. It is clear that the number of cars assumed per household is far too low, which calls into question the accuracy of the entire traffic impact analysis.

Most importantly, the City must:

- Conduct updated traffic modeling based on current usage
- Include *worst-case scenario wildfire evacuation modeling*
- Account for how 199 new housing units will impact evacuation timelines
- Detail how evacuation would proceed during proposed Moraga Road construction
- Specify what safety measures will be in place during construction

5. Night Sky and noise

Past assurances about meeting lighting standards does not take into account the cumulative glow from hundreds of homes and vehicles. Since field lights for Coach's were previously ruled out to protect the Night Sky, the true impacts of adding 199 units deserves a similar level of review.

Sounds from Coaches Field already travel clearly. With the scale of this development, the added activity and traffic could turn the area into a significant source of noise. This should also be carefully assessed.

6. Concerns About Integration and Accessibility

The idea that this development is being referred to as "integrated" simply because it includes a mix of low- and mid-income levels in one location is troubling. All of these units are being placed together on the outskirts of town, away from walkable access to schools, amenities, and transit.

If housing were more evenly distributed throughout Piedmont, we would not be facing the logistical and safety challenges associated with widening Moraga Avenue or dealing with high-density housing in a geologically risky zone.

In Conclusion

We respectfully urge the City Council and Planning Commission to:

- Reconsider other locations initially discussed for low- and mid-income housing
- Require updated traffic and wildfire evacuation modeling
- Propose safer lots for the two single family homes
- Commission a thorough geological, drainage, and slope stability study
- Require a study of night sky and noise that includes what the actual impact would be with 199 units
- Improve outreach to all Moraga Canyon residents

Thank you for your time and consideration.

Sincerely,

Liz Lummis O'Neil, ___Maxwelton Road
Mary and Arnie Levine, ___Maxwelton Road
Laura and Keith Dierx, ___ Maxwelton Road

Date: October 1, 2025
To: City of Piedmont City Council
120 Vista Avenue, Piedmont, CA 94611

Subject: Comments on Moraga Canyon Specific Plan (MCSP)

Dear Councilmembers,

I am a resident of ___ Scenic Ave living directly adjacent to the proposed Moraga Canyon Specific Plan (MCSP) development area.

I am writing to **oppose** the Moraga Canyon Specific Plan (MCSP) regarding the following aspects:

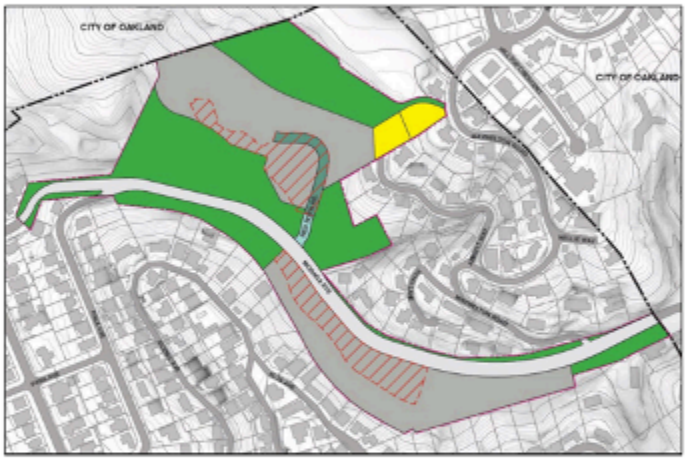
1. Building a 5-story housing MCSP area
2. Increasing housing units from 133 to 199 in MCSP area
3. Retaining Corp Yard in MCSP area while simultaneously increasing housing units

4. Option A outlined below

Development Scenarios

Two locations options for new housing

The Draft Moraga Canyon Specific Plan anticipates up to 199 units of new housing, with two possible development scenarios.



Potential development area for multifamily housing

Parks and private open space

Single family residential (2 lots)

Potential Corporation Yard location

In Option A

- Housing is built on the south side on Moraga Avenue, where Blair Park Open Space is now
- The Corporation Yard stays where it is

In Option B

- Housing is built on the north side of Moraga Avenue, on the current site of the Corporation Yard and Kennelly Skate Park
- The Corporation Yard is relocated across the street

We support thoughtful housing solutions, but the MCSP fails to adequately evaluate or mitigate significant impacts to our safety, environment, and property.

I request the city to address the following comments as the rationale of these recommendations/decisions were not sufficiently documented

1. Special and Regular Meeting Minutes for Monday, August 1, 2022 stated that affordable housing in the civic center can be feasible, particularly with a half-acre or greater parcel. However, the Council failed to explain,or document, how the decision was made to remove Civic Center parcels (120 Vista, 801 Magnolia) and shift capacity to Grand Ave/Moraga. **Please explain how this recommendation was made despite analysis showed that the civic center**

can be feasible for development and if the assumptions made still hold true given the learnings obtained from the increased evaluation of the MCSP.

2. In the COUNCIL AGENDA REPORT dated 11/15/2022, “Removal of the Corey Reich Tennis Center, Highland Strip, City Hall and Veterans Hall, and 801 Magnolia Avenue, and redistribute the housing units” was recommended. **Please justify this recommendation to remove the Corey Reich Tennis Center from its inventory for potential housing development and release study documents**

3. Pursuant to Government Code Section 54220-54232, land designated for parks is not “surplus and excess public land. **What is the reason why the Council added Blair Park to the Sites Inventory but not Piedmont Park, Dracena Park or Linda Park?**

4. The proposed development within MCSP area creates a dramatic change in flow and intensity in traffic on Moraga Canyon traffic. This road begins and ends in Oakland, with development occurring hundreds of yards from Oakland. This will likely require supporting infrastructure to be constructed in Oakland. **I request the city properly engage in discussions with Oakland to prevent legal action from Oakland’s local government or citizens.**

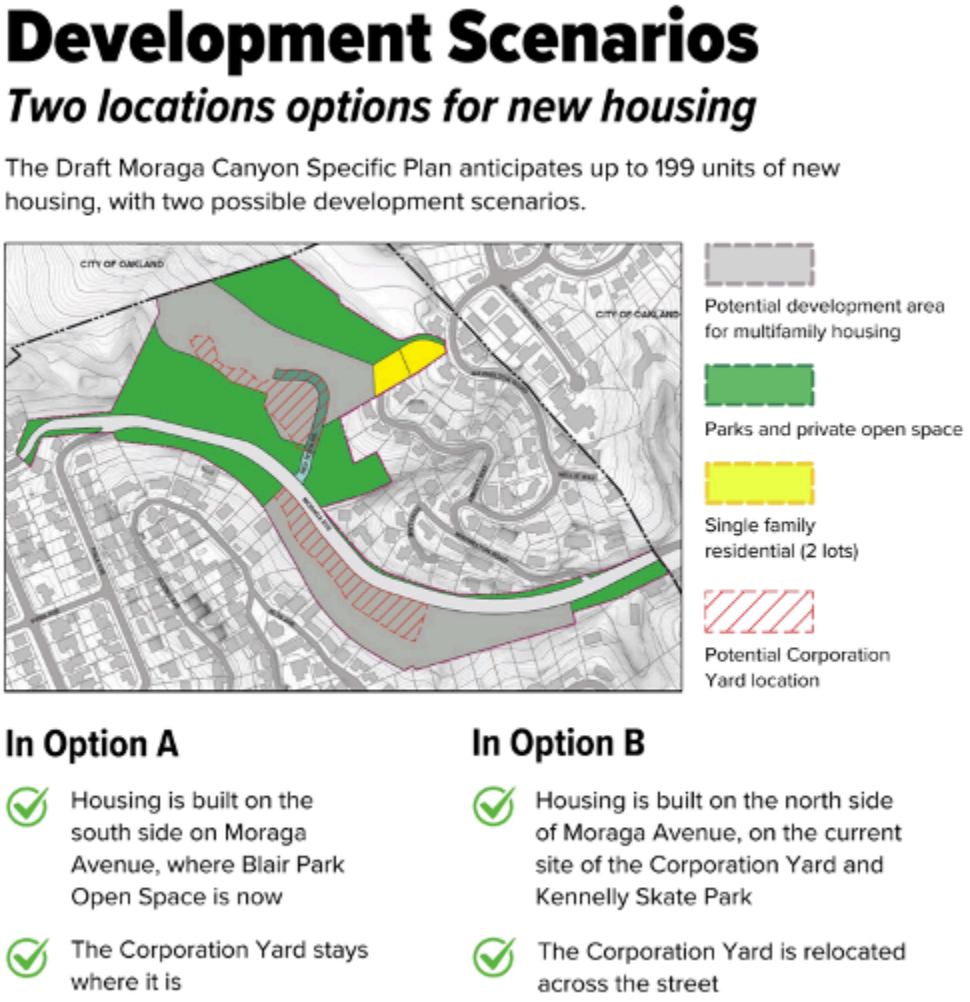
Last, attempting to fulfill nearly the entirety of the state mandated affordable housing via this single parcel, effectively tucking away low income individuals in a difficult-to-access corner of our city without true consideration of alternative sites contradicts claims of equity and inclusion. It is difficult to imagine this proposal is in the best interest of Piedmont as a whole, and better reflects the interests of a handful of those in our community and arrived at without appropriate evaluation.

By no means do I propose to eliminate development, but rather that the quantity is unreasonable, unjustified, and arrived at through a flawed and poorly undocumented process with only token attempts at taking community feedback.

Sincerely,

Shengyi Chang & Steven Edgar

4. Option A outlined below



I support adding homes in Piedmont and meeting State requirements, but I ask the Council to modify the Draft Moraga Canyon Specific Plan before adoption to address safety concerns and negative impact to property owners around the area.

Summary of requested actions

I request the city to address the following comments as the rationale of these recommendations/decisions were not sufficiently documented

1. Direct staff to present alternatives that either (a) relocate or reconfigure the Corp Yard or (b) reduce the maximum residential intensity if the Yard remains in place, with a side-by-side cost, timing, and safety comparison

2. Special and Regular Meeting Minutes for Monday, August 1, 2022 stated that affordable housing in the civic center can be feasible, particularly with a half-acre or greater parcel. However, the Council failed to explain,or document, how the decision was made to remove Civic Center parcels (120 Vista, 801 Magnolia) and shift capacity to Grand Ave/Moraga. Please explain how this recommendation was made despite analysis showed that the civic center can be feasible for development and if the assumptions made still hold true given the learnings obtained from the increased evaluation of the MCSP.
3. In the COUNCIL AGENDA REPORT dated 11/15/2022, “Removal of the Corey Reich Tennis Center, Highland Strip, City Hall and Veterans Hall, and 801 Magnolia Avenue, and redistribute the housing units” was recommended. Please justify this recommendation to remove the Corey Reich Tennis Center from its inventory for potential housing development and release study documents
4. Phase any MCSP entitlements on a clear, funded package of traffic and evacuation improvements (signal at Red Rock Rd, sight-distance fixes, pedestrian refuges, and emergency egress protocols) verified through independent evacuation modeling and formal coordination with Oakland.
5. The proposed development within MCSP area creates a dramatic change in flow and intensity in traffic on Moraga Canyon traffic. This road begins and ends in Oakland, with development occurring hundreds of yards from Oakland. This will likely require supporting infrastructure to be constructed in Oakland. I request the city properly engage in discussions with Oakland to prevent legal action from Oakland’s local government or citizens.
6. Pursuant to Government Code Section 54220-54232, land designated for parks is not “surplus and excess public land. What is the reason why the Council added Blair Park to the Sites Inventory but not Piedmont Park, Dracena Park or Linda Park?

Last, attempting to fulfill nearly the entirety of the state mandated affordable housing via this single parcel, effectively tucking away low income individuals in a difficult-to-access corner of our city without true consideration of alternative sites contradicts claims of equity and inclusion. It is difficult to imagine this proposal is in the best interest of Piedmont as a whole, and better reflects the interests of a handful of those in our community and arrived at without appropriate evaluation.

By no means do I propose to eliminate development, but rather that the quantity is unreasonable, unjustified, and arrived at through a flawed and poorly undocumented process with only token attempts at taking community feedback.

Sincerely,

Shengyi Chang & Steven Edgar

Statement to City Council Re: Moraga

To: Mayor Anderson and City Council

From: Patty Siskind, ___ Maxwelton Road, Piedmont

Subject: Request for Further Study and Community Engagement

The purpose of this memo is to persuade you to reconsider passing the proposed housing development plan for Moraga Canyon. There are several points that I would like to make for your reconsideration.

1. Safety - Everyone should know by now that safety is a major issue. There has been a great deal of discussion about sight lines and speed of traffic on Moraga, making it unsafe for additional traffic or installation of traffic lights or signs. I think the easiest way I can illustrate the dangers of traffic on Moraga is to let you know that my car was totaled on Moraga and my son-in-law and daughter were injured when another driver plowed into them on Moraga Avenue. The second driver was not only speeding but also didn't have the sight line to see they were turning left with enough advance notice to avoid them. I think there should be greater study done on the sight lines.

We were told by the previous Fire Chief that the evacuation plan for Maxwelton in the next emergency is to walk down our street (because Maxwelton is too narrow and would immediately be blocked by cars if we attempted to drive) and continue down Moraga to the Corporate Yard. Moraga is the major egress out of town with one lane and pedestrians walking to the Corporate Yard. To this situation, you want to add another 200 homes. I think emergency evacuation plans should be studied in greater detail... perhaps for the existing residents impacted by this development.

2. Night Sky - In previous meetings I have expressed my concern about the impact of Night Sky with this large development. I was assured that this was accounted for and would meet the required standards. It's my understanding that those standards refer to street lights and don't include light emitted from the additional 200 cars in the neighborhood or any light emanating from the 200 residences. Lights for Coaches Fields were never installed because of the impact on the Night Sky. I feel this development should be studied to see if it would have the equivalent impact as the game lights.

3. Noise Abatement - Currently we are able to hear batting practice on Coaches Field. With the addition of 200 residences, and at least 300 inhabitants, cars etc. the natural amphitheater qualities of the site would make this a cacophony of sound flooding the air. If you think you are getting lots of **complaints** about the pickleball courts at Linda, with this location and this size of development the Bachman-Turner Overdrive song of "You Ain't Seen Nothin Yet" might apply. Seriously, this is another topic that needs to be addressed.

I wish to be reasonable. I feel some development here is a good idea. Many Piedmont residents might consider downsizing and freeing up their larger homes and lots for development with some alternative housing available. Also, our city, school and private employees working in Piedmont

should be given an opportunity for less expensive housing to continue in their jobs. Young families should be able to find starter homes in Piedmont, and this would give them a chance. However, fewer than 100 homes in this location instead of 200 would reduce a portion of the safety, night and sound issues I've mentioned. Therefore, I recommend these issues be addressed with much more study before moving forward with the development.

Date: October 2, 2025
To: City of Piedmont City Council
120 Vista Avenue, Piedmont, CA 94611

Subject: Comments on Moraga Canyon Specific Plan (MCSP)

Dear Mayor Andersen and Councilmembers:

I am a resident of __ Abbott Way living directly adjacent to the proposed Moraga Canyon Specific Plan (MCSP) development area. We support thoughtful housing solutions, but the environmental review fails to adequately evaluate or mitigate significant impacts to our safety, environment, and property. As mentioned numerous times, it is the **aggregation and density** of this housing that creates, exacerbates and raises alarm about the impacts of this required housing.

Overview: There is a failure to include the following:

 Slope stability factors of safety for cut/fill slopes adjacent to parcels.

 Drainage modeling ensuring no increase in off-site runoff.

 Clear performance standards for all deferred mitigation.

 Quantified evacuation clearance times for all routes.

Detailed inadequacy:

The Moraga Canyon Specific Plan proposes up to 199 new units on city-owned land and purportedly aims to improve wildlife, wildfire, and transportation safety. The density of housing, along with the defererred mitigations efforts (which will largely be driven by developers as opposed to standards that will protect the existing interests of residents) require additional scrutiny and planning.

The following are not adequate

- Wildfire & Safety Deficiency: the plan inadequately addresses wildfire risk, evacuation routes, defensible space, emergency access, and fire department capacity.
- Slope / Geology / Drainage Risks: there has been an inadequate review of slope stability, landslide risk, erosion, drainage impacts, and downstream effects onto adjacent parcels.
- Traffic / Circulation / Parking Impacts: increased traffic and limited parking will burden adjacent streets, affecting ingress/egress, safety, (also noise, and air quality).

- Consistency with Surrounding Zoning / Density: Since this neighborhood has parcels that are comparatively lower-density and all single-family units, this proposal is inconsistent in scale and character with the neighborhood.

1) Inadequate wildfire evacuation & public-safety analysis

We do not see realistic, evidence-based evacuation modeling and disclosure of constraints (e.g., choke points, concurrent incidents, weather, ignition scenarios). The EIR relies on generic statements and consists of informational failure. The City highlights wildfire safety/evacuation as a core plan goal; yet the EIR doesn't show quantifiable evacuation performance for neighbors on canyon roads (time to clear, VMT during egress, lane losses, disabled populations).

2) Weak tiering from the Housing Element EIR

The Public Review Draft says the City will rely on a previously certified Housing Element EIR (SCH #2022020362). Yet that programmatic EIR didn't study site-specific Moraga Canyon hazards (slope stability, drainage onto adjacent parcels, evacuation, fire weather). There is also a failure of project-level analysis.

An EIR must meaningfully connect data to concrete local effects; "programmatic" documents can't skip site-specific impacts where they're reasonably foreseeable.

3) Geology, drainage, and potential downstream flooding onto adjacent parcels

There is substantial evidence, also known as a "fair-argument" claim, that cuts/fills, retaining systems, or stormwater changes will increase slide/erosion or flood risk onto existing property in this zone of proposed development.

4) Traffic safety

Traffic safety remains an issue (e.g., evacuation conflicts, pedestrian/bike conflicts on constrained canyon roads). This plan treats safety as a secondary measure and punts to later design.

5) General Plan consistency

There is an internal inconsistency in the City's approach. These approvals frustrate wildfire-safety, evacuation, and hillside-stability policies.

6) Spot zoning / specific-plan zoning

The rezoning here is a disingenuous effort to aggregate the required housing on the edge of Piedmont as opposed to serving the interests of new residents and preserving

the interests of existing residents. By placing all the housing in an area where there are no public amenities, access to city center or public transportation, a high wildfire risk zone, an area with unique terrain that is prone to landslides and instability, there is a justifiable question as to the motivations that underlie this site as a location for the vast majority of new, required housing. By placing the majority housing load in Moraga Canyon with an adjacent plan for recreation, the City is effectively creating a city within a city. This further entrenches the classist characteristics that are used to shut down housing and reveals the supporters of this plan to be the actual “NIMBYs” of Piedmont.

The neighbors who are directly impacted have an issue with the density and the strategic viability of building here. The considerable issues with traffic, evacuation, terrain, lack of infrastructure and difficulty managing noise and pollution offsets in this area are vast. **There are no residents who have stated that zero housing should occur here. The argument is that the density is ridiculous given the terrain and evacuation routs and this plan disproportionately impacts one area of Piedmont not in a net neutral manner but in an objectively unsafe and negative manner.**

7) Procedural issues: There are also procedural issues with this plan: inadequate notice to directly affected neighbors; non-responsive replies to evacuation/drainage comments; and a failure to recirculate any late changes which added new significant impacts (the increase in housing density after public comments highlighting that the high density was a significant issue).

I have outlined the issues above but will provide a more granular analysis below:

Analysis of the issues with legal citations:

For your reference. As you know, the impact of the 2025 reforms on CEQA litigation is not yet fully understood.

1. Inadequate Wildfire and Evacuation Analysis

Section **10.5.7.6 (Evacuation Planning)** of the MCSP states the City will “implement all recommendations” of the Fehr & Peers 2023 Emergency Evacuation Time Assessment, including signal timing plans, lane reversals, and parking restrictions

Problem: No quantitative results (clearance times, worst-case modeling) are presented. There is no disclosure of **evidence-based evacuation performance** (*Newtown Preservation Society v. County of El Dorado*, 2022). Adjacent residents cannot meaningfully comment on whether these measures are adequate without data.

Request:

- Publish the full evacuation model and disclose clearance time results under build-out conditions.

- Provide zone-by-zone evacuation timing, identify bottleneck locations, and analyze concurrent fire/weather events.
- Include enforceable mitigation performance standards (e.g., target clearance times, minimum roadway capacity).

2. Deferred Mitigation for Slope Stability

Section **10.5.7.5 (Hillside Stability)** defers geotechnical assessment to the grading-permit stage, requiring only that design "incorporate all recommendations" of future reports

Section **5.12.7 (Slope Setbacks)** allows adjustments by the City Engineer but does not specify numeric factors of safety or mandatory mitigation triggers.

Problem: CEQA prohibits deferring mitigation without performance criteria (*Endangered Habitats League v. County of Orange*, 2005). Adjacent property owners cannot know if future designs will prevent slope failure or lateral loading onto their parcels.

Request:

- Include numeric factor-of-safety requirements (e.g., 1.5 static, 1.1 seismic).
- Commit to no net increase in slide probability or erosion affecting neighboring parcels.
- Require peer review of geotechnical reports with public disclosure before grading permits are issued.

3. Drainage and Stormwater Impacts

Section **5.12.10 (Drainage and Retaining Walls)** allows drainage easements "if runoff…across adjacent property is unavoidable" but does not quantify runoff increases.

Problem: CEQA requires modeling of peak flows and mitigation to avoid increasing off-site flooding or erosion.

Request:

- Provide hydrology modeling for 10-, 25-, and 100-year storm events with post-project impervious surfaces.
- Commit to detention/retention design ensuring no increase in peak discharge onto adjacent parcels.
- Require energy-dissipating devices sized per hydraulic calculations and publish results.

4. Grading and Retaining Wall Realignment

Section **9.5.1 (Site Grading)** proposes significant regrading, wall realignments, and new retaining walls on both Coaches Field and Blair Park Open Space

Problem: These mass-grading activities may destabilize slopes, concentrate runoff, or change subsurface water flows impacting neighboring foundations.

Request:

- Disclose cut/fill volumes, wall heights, and soil nail/anchor designs.
- Model construction-phase erosion and specify BMPs with measurable effectiveness.

5. Traffic Safety

While the plan proposes ROW expansion and traffic signals, it does not present a **quantitative safety analysis** (pedestrian/vehicle conflict modeling, evacuation traffic simulation).

Request:

- Provide a traffic safety analysis focusing on evacuation scenarios, intersection performance, and pedestrian conflicts.
- Include design alternatives (e.g., additional egress routes, roundabouts) with comparative safety outcomes.

6. General Plan Consistency

Without quantified wildfire clearance times or slope stability metrics, the MCSP is inconsistent with General Plan Safety Element policies calling for risk reduction in Very High Fire Hazard Severity Zones. Courts require “reasonable consistency” that does not ignore core safety objectives (*San Francisco Tomorrow v. CCSF*, 2014).

Chart of evidence gaps and legal weakness:

Evidence Gaps & Deferred Analysis in MCSP

Topic	Plan Citation	What It Says	Evidence Gap / Legal Weakness
Evacuation & Wildfire Risk	§10.5.7.6, p.125	Lists general measures (signal timing, lane reversals, parking restrictions, education) based on Fehr & Peers Emergency	No publication of actual **clearance time results** or traffic simulation. No worst-case fire/weather modeling or zone-specific bottleneck analysis. CEQA requires

Topic	Plan Citation	What It Says	Evidence Gap / Legal Weakness
		Evacuation Time Assessment.	substantial evidence for public-safety conclusions 2025-04-18_MCSP-PUBLIC REVIEW D…
Slope Stability	§10.5.7.5, p.124	Requires geotechnical report before grading permit; design must incorporate recommendations.	. **Deferred mitigation**: No factor-of-safety standards (1.5/1.1), no commitment to peer review, no public disclosure prior to grading. Violates CEQA rule against deferring mitigation without performance criteria 2025-04-18_MCSP-PUBLIC REVIEW D…
Cut & Fill Standards	§5.12.5–5.12.6, p.55–57	States cut slopes ≤ 2:1, fill slopes ≤ 2:1 unless stability shown by soil engineer.	. No disclosure of **total cut/fill volumes**, no modeling of adjacent load effects, no analysis of slope creep or groundwater impacts on neighbors 2025-04-18_MCSP-PUBLIC REVIEW D…
Retaining Walls	§9.5.1, p.107; §8.7.1.5, p.92	Requires retaining wall upgrades at Coaches Field, new walls at Blair Park and Moraga Ave; wall height/size/location “TBD.”	. Heights, anchors, surcharges **not specified**. No finite element modeling of wall stability adjacent to private parcels. Realignment could alter slope loadings 2025-04-18_MCSP-PUBLIC REVIEW D…

Topic	Plan Citation	What It Says	Evidence Gap / Legal Weakness
			2025-04-18_MCSP-PUBLIC REVIEW D…
Drainage & Stormwater	§5.12.9, p.58	Requires LID BMPs and drainage to nearest facility.	. No **hydrology model** quantifying post-project peak flow. No guarantee of zero increase in runoff to neighbors. Easements allowed “if runoff across adjacent property is unavoidable” — indicates potential off-site impacts
			2025-04-18_MCSP-PUBLIC REVIEW D…
Erosion Control	§5.12.11, p.60	Calls for terrace drains, rip-rap, etc.	. No performance standards (e.g., maximum allowable soil loss rate). No cumulative construction-phase sediment modeling.
Traffic Safety	Narrative throughout Ch.9	Proposes ROW widening, new signals.	No quantitative **safety performance analysis** (conflict points, pedestrian LOS, emergency egress capacity). CEQA still treats safety as a valid impact.

In conclusion, I respectfully request the City:

1. Prepare a project-level or recirculated EIR with the analyses described above.
2. Include enforceable performance standards for slope stability, drainage, and evacuation.
3. Provide public disclosure of technical studies before final adoption.

Please ensure that ANY housing uses the highest standards of wildfire mitigation landscaping and construction to effectively retard wildfire spread. Look at the impact of this density on the evacuation routes in a meaningful way.

Failure to address these issues exposes the City to legal challenge and undermines public safety.

Thank you for your attention to this submission.

Deepti Sethi
__ Abbott Way
Piedmont, CA 94618

kjackson@piedmont.ca.gov,

16 people have signed a petition on Action Network telling you to Approve 930 Moraga Ave in October: Bring 132–199 Homes to Piedmont's High-Opportunity Area.

Here is the petition they signed:

> Dear Mayor and Councilmembers,
>
> I'm writing to urge you to approve the 930 Moraga Ave infill project and the associated actions recommended by the Planning Commission on September 8, 2025, including the Addendum to the 2023–2031 Housing Element Implementation EIR and the Moraga Canyon Specific Plan with amendments to Chapter 17 (Divisions 17.22 & 17.24).
>
> This proposal would add 132–199 new homes in a high-resource part of Piedmont....exactly where homes do the most good! It's infill, uses existing infrastructure, and expands Missing Middle options that serve teachers, healthcare workers, seniors, and families. Approving this project helps Piedmont meet its state-mandated RHNA commitments and reduces displacement pressure on neighboring Oakland.
>
> Please vote YES to keep Piedmont on track, build more homes near opportunity, and do our fair share.
>
> Thank you for your leadership.

You can view each petition signer and the comments they left you below.

Thank you,

East Bay YIMBY

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1. RAUL MALDONADO (*ZIP code: 94606)*

2. Vivek Rangaswamy (*ZIP code: 94610)*

3. Alfred Twu (*ZIP code: 94704)*

4. Andrea Horbinski (*ZIP code: 94708)*

5. Nitin Rao (*ZIP code: 94611)*
Live on Estates Dr. Very supportive of more housing.

6. Jeffrey Alpert (*ZIP code: 94611)*
Oakland neighbors support building more housing

7. John Krzywicki (*ZIP code: 94611)*

8. barbara wilson (*ZIP code: 94611)*
As my mother used to say, people have to live somewhere. Would you like your children's and grandchildren's teachers to arrive exhausted from 50 mile commutes. Our children and families deserve their teachers, healthcare workers and first responders to live and work nearby.

9. Clara Valenstein (*ZIP code: 94611)*

10. Thomas Hayes (*ZIP code: 94611)*
I’m supportive of this development and applaud efforts to consider traffic engineering updates to encourage safe driving and multimodal travel along Moraga Road.

11. Clare Trimbur (*ZIP code: 94611)*
Fingers crossed that this can move forward!

12. Bob Meade (*ZIP code: 94611)*

13. Kristen Burrall (*ZIP code: 94611)*

14. Jay Sholl (*ZIP code: 94611)*
Yes to housing at 930 Moraga, we need more workforce housing in all of our communities.