24 LOCAL AGENCY COMMENTS

24 LOCAL AGENCY COMMENTS (Part 1)

Submission 1689 (Justine Buenaflor, Bay Area Air Quality Management District, June 23, 2020)

June 23, 2020

1689-1361

Mark A. McLoughlin
California High-Speed Rail Authority
100 Paseo de San Antonio, Suite 300
San Jose, CA 95113

Re: California High-Speed Rail Authority San Jose to Merced Project Section Draft EIR/EIS

Dear Mr. McLoughlin,

Bay Area Air Quality Management District (Air District) staff has reviewed the Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) for the California High-Speed Rail Authority's (the Authority) San Jose to Merced Project Section (Project). The proposed California High-Speed Rail (HSR) will connect the major population centers of Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego using state-of-the-art, electrically powered, high-speed, steel-wheel-on-steel-rail technology, including contemporary safety, signaling, and automated train-control systems, with trains capable of operating at up to 220 miles per hour over a dedicated track alignment.

The Project would construct HSR service between San Jose Diridon Station in downtown San Jose and Merced County, with a Gilroy station either in downtown Gilroy or east of Gilroy. The Project extent is from Scott Boulevard in the City of Santa Clara to Carlucci Road in unincorporated Merced County, a distance of approximately 90 miles.

Additional Fugitive Dust and Construction Emission Reduction Measures

The DEIR/EIS anticipates that the fine particulate matter (PM2.5) and particulate matter (PM10) from construction emissions will lead to a significant and unavoidable impact after incorporating all best available on-site control measures (Impact AQ#5). Air District staff recommends incorporating additional measures to further reduce and control fugitive dust in AQ-IAMF#1. Examples of additional measures to be considered include, but are not limited to:

- Install dust curtains, plastic tarps or windbreaks, or plant tree windbreaks on the property line on windward and down windward sides of station construction areas, as necessary; and

375 BEALE STREET, SUITE 600 • SAN FRANCISCO CA • 94105 • 415.771.6000 • www.baaqmd.gov

- Establish a hotline for surrounding community members to call and report visible dust problems so that the Authority can promptly fix those problems; post signs around the site with the hotline number and making sure that the number is given to adjacent residents, schools and businesses.

1689-1362

The DEIR/EIS anticipates that nitrogen dioxide (NO_2) emissions from construction activities will lead to a significant and unavoidable impact after incorporating all best available on-site control measures (Impact AQ#5). However, the Air District believes that additional on-site mitigations will be available during Project construction, scheduled for years 2022 through 2028, and recommends the Authority make a commitment to use only zero-emission on-road and off-road trucks and construction equipment or otherwise use equipment with the best available technology offered at the time of construction. This requirement could include, but is not limited to dump, water, boom, and concrete trucks, and off-road material and equipment hauling equipment.

1689-1363

The Air District also recommends that the Project plug into grid power rather than relying on diesel generators at the construction sites. If grid power is not available, the Authority should require the use of alternatives to diesel power, such as battery storage, fuel cell, and natural gas generators.

1689-1364

Health Risk Assessment Methodology

In the interest of full disclosure, Air District staff recommends that the DEIR/EIS include a breakdown of all sources included in the HRA completed for the project that contribute to cumulative health risks, for example those from the Project (e.g., from generators), nearby permitted facilities, and mobile sources such as SR-87, I-280, SR-82, I-880, I-101, Caltrain, the future BART realignment, PG&E substation, Altamont Corridor Express, Amtrak, new VTA light rail station, San Jose airport and activity on the freight rail line. The Air District can provide technical assistance and support to the Authority to ensure that best available data and methodologies are used in the Health Risk Assessment; please contact Alison Kirk (contact information below) to discuss further.

1689-1365

Compliance with Air District Regulations and Permitting Requirements

The Project may require compliance with Air District Regulation 6, Rule 6: Prohibition of Trackout for construction sites where the total land area covered by construction activities and/or disturbed surfaces at the site are one acre or larger. Due to the long linear nature of the Project, with up to 59 miles of embankment or trench expected, the DEIR/EIS should discuss Regulation 6, Rule 6 as it applies to the Project. To discuss the Project application, please visit https://www.baaqmd.gov/rules-and-compliance/rules/regulation-6-rule-6-prohibition-of-trackout and consult with the Compliance and Enforcement section at (415) 749-4795 or compliance@baaqmd.gov.

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In addition, the Project may require permits from the Air District for concrete batch plants, generators, and traction power substations. Because the Project also includes an automatic train control system that requires communication towers, the Authority should discuss with the Air District any components of the system that may require permits. To apply for an Authority to Construct/Permit to Operate please visit https://www.baaqmd.gov/permits/apply-for-a-permit or

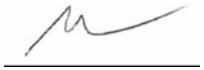
Submission 1689 (Justine Buenaflor, Bay Area Air Quality Management District, June 23, 2020) - Continued

1689-1366

contact Barry Young, Senior Advanced Projects Advisor, at (415) 749-4721 or byoung@baaqmd.gov to discuss permit requirements.

In closing, we encourage the Authority to contact Air District staff with any questions and/or to request assistance during the environmental review process. If you have any questions regarding these comments, please contact Alison Kirk, Principal Environmental Planner, at (415) 749-5169 or akirk@baaqmd.gov.

Sincerely,



Greg Nudd
Deputy Air Pollution Control Officer

Cc: Air District Board of Directors

Response to Submission 1689 (Justine Buenaflor, Bay Area Air Quality Management District, June 23, 2020)

1689-1361

The Authority has included a new mitigation measure, AQ-MM#1, in the Final EIR/EIS that will help avoid and minimize potential effects on air quality. The measure includes additional strategies to reduce fugitive dust per BAAQMD guidance. Additionally, refinements were made to the particulate matter mass emissions inventory in the Final EIR/EIS to more comprehensively capture emissions reductions that would be achieved through implementation of AQ-IAMF#1: Fugitive Dust Emissions.

1689-1362

The Authority has included a new mitigation measure, AQ-MM#1, in the Final EIR/EIS that will help avoid and minimize potential effects on air quality. With implementation of AQ-MM#1, the Authority shall prioritize use of electric or hybrid-electric off-road construction equipment and heavy-duty vehicles over diesel counterparts. As discussed in the Draft EIR/EIS, project features (AQ-IAMF#3 through AQ-IAMF#5) would also minimize localized NO2 concentrations through application of best available on-site controls to reduce exhaust emissions, including use of renewable diesel, Tier 4 off-road engines, and newer haul trucks.

1689-1363

The Authority has included a new mitigation measure, AQ-MM#1, in the Final EIR/EIS that will help avoid and minimize potential effects on air quality. With implementation of AQ-MM#1, the Authority shall prioritize use of electric or hybrid-electric off-road construction equipment (including generators) over diesel counterparts.

1689-1364

The Authority has modified Appendix C of the Air Quality and Greenhouse Gases Technical Report (Final EIR/EIS Volume 2, Appendix 3.3-A) in response to this comment. The appendix now includes a breakdown of all sources included in the cumulative HRA that was conducted for the Draft EIR/EIS.

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The comment noted that the project may be subject to Regulation 6, Rule 6. Please refer to Section 3.3.2.3, Regional and Local, of the Draft EIR/EIS for a statement on air district rules applicable to the project. This section of the Draft EIR/EIS refers readers to the Air Quality and Greenhouse Gases Technical Report (Draft EIR/EIS Volume 2, Appendix 3.3-A). Section 3.3.1.1, Bay Area Air Quality Management District, of the Air Quality and Greenhouse Gases Technical Report discloses potential District rules to which the project may be subject. The Authority has modified the list of rules to include Regulation 6, Rule 6, in response to this comment.

1689-1366

The comment is noted and does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS.

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020)

June 23, 2020

Boris Lipkin
Northern California Regional Director
California High-Speed Rail Authority
Attn: Draft San Jose to Merced Project Section EIR/EIS
100 Paseo de San Antonio, Suite 300
San Jose, CA 95113

Re: **Caltrain Comments on the Draft San Jose to Merced Project Section EIR/EIS**

Dear Mr. Lipkin,

The Peninsula Corridor Joint Powers Board (PCJPB), which operates the Caltrain commuter rail service, commends the California High-Speed Rail Authority (CHSRA) on the release of its Draft EIR/EIS for the San Jose to Merced High-Speed Rail project section – this is a major milestone for CHSRA's program.

As you know, PCJPB has a significant and longstanding partnership with CHSRA. Beginning in 2011, our two agencies have worked together to develop initial agreements and concepts for the operation of a blended system on the PCJPB-owned corridor and infrastructure between San Francisco and San Jose. The commitment to the blended system has resulted in a significant investment by CHSRA into the ongoing Peninsula Corridor Electrification Project[1]. Further in the future, CHSRA trains traveling between northern and southern California will use our corridor and infrastructure, a commitment that we have incorporated into our long-range planning work and particularly into our Business Plan and the adopted Caltrain 2040 Long Range Service Vision. Per CHSRA's 2018 and 2020 Business Plans, PCJPB is also excited by CHSRA's intention to invest in the reconstruction and electrification of the Union Pacific Railroad (UPRR)-owned corridor running south from San Jose. This investment has the potential to allow Caltrain to provide enhanced, electrified regional rail service from San Francisco to Gilroy—an aspiration that we have also reflected in our adopted Long Range Service Vision.

The PCJPB is the owner and manager of the Peninsula Corridor—the railroad right-of-way between San Francisco and Tamien Station/CP Lick in San Jose, and the San Mateo County Transit District (District) is the co-owner of the corridor within San Mateo County. The PCJPB has the ultimate responsibility for the overall planning, development and maintenance of the Peninsula Corridor, which encompasses all infrastructure, rail facilities, stations, systems and all the planning for rail services that will use the corridor. As such, the PCJPB has closely examined the Draft EIR/EIS to assess that the improvements proposed by CHSRA are clearly stated and evaluated, and that anticipated impacts are appropriately mitigated. Similarly, the PCJPB is the owner of the Caltrain regional rail service that operates between San Francisco and San Jose, with a limited amount of service continuing south to Gilroy on UPRR-owned

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[1] https://www.caltrain.com/Assets/Caltrain+Modernization+Program/High+Speed+Rail+MOU/2016+JPB+CHSRA+Agreement.pdf

track. The PCJPB has also assessed the Draft EIR/EIS with an eye to understanding how the project proposed by CHSRA would specifically impact and influence the operation of the Caltrain service-including its operation on the UPRR-owned corridor south of San Jose.

While we congratulate CHSRA on their achievement of an important program milestone, we must also emphasize that CHSRA elected to enter into their environmental process at a time when blended system planning is still active and many issues around the long-range future development of the Peninsula Corridor remain dynamic and unresolved. While the completion of this Draft EIR/EIS process is a necessary step for CHSRA's own advancement of their program, it does not constitute a complete or agreed-to body of blended system planning work describing how both the Peninsula Corridor and Caltrain service will be developed to operate jointly with high-speed rail service. There is considerable additional blended system planning that remains to be completed, both between CHSRA and the PCJPB, and in conjunction with regional agencies and local jurisdictions along the corridor.

Planning for the future of the corridor has substantially advanced during the time CHSRA has been engaged in their environmental process and the project description contemplated within the Draft EIR/EIS is now a snapshot in time—significantly out of step with plans and policy decisions made by both the PCJPB as well as various local jurisdictions along the corridor. Going forward, it is essential that CHSRA fully engage with the PCJPB, and with regional and local planning processes, to complete blended system planning as it was originally envisioned in the 2013 agreement signed by both agencies and further addressed in subsequent agreements between the agencies that are described in the next section of this letter.[2] While we have appreciated CHSRA's ongoing willingness to engage at a technical level in corridor planning work (including their engagement in the development of the Caltrain Business Plan and the Diridon Integrated Station Concept Plan), we note that technical participation is not fully meaningful if it fails to result in the incorporation of these planning processes and outputs into CHSRA's own plans, policies and decisions. Thus, the PCJPB looks forward to engaging further with CHSRA on the completion of blended system planning and the development of the more detailed legal, financial and operational agreements as the essential next steps that will be required for CHSRA's services to ultimately use the PCJPB-owned corridor.

The purpose of this letter is to provide formal comments on the Draft EIR/EIS, pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. In terms of factual data, the PCJPB finds the Draft EIR/EIS deficient or inconsistent in several areas: evaluating impacts against relevant plans, priorities and decisions for the future of the Peninsula Corridor and the Caltrain service; describing the ownership of the Peninsula Corridor and its stations and facilities by the PCJPB and other entities as clarified below; and considering the impacts to San Jose Diridon Station. The PCJPB provides specific comments where the document must be corrected but also requests the modification or addition of mitigation measures to compel the continued blended system planning that is required as a foundational step toward the development of the agreements needed for CHSRA trains to ultimately access the Peninsula Corridor.

[2] https://www.caltrain.com/Assets/Caltrain+Modernization+Program/Documents/Executed+CHSR-JPB+2013+Agreement.pdf

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1704

Caltrain 2040 Service Vision

In 2018, the PCJPB kicked-off a robust long-range planning effort (the "Caltrain Business Plan") to articulate a comprehensive plan for the future build-out of the Peninsula Corridor, including future high-speed rail service. In October 2019, the Peninsula Corridor Joint Powers Board adopted the 2040 Long Range Service Vision as the blueprint for buildout and expansion of rail services on the Peninsula Corridor[3]. The Service Vision was developed with broad participation by communities and public agencies throughout the Peninsula Corridor and Caltrain service area. The Vision was also developed based on extensive joint service planning work conducted with the CHSRA in 2017 that was then refined as part of the Business Plan process in 2018 and 2019 with full transparency to and participation by CHSRA staff. The Service Vision is the official policy of the PCJPB, and it is the blueprint for the long-term development of the Peninsula Corridor. This document provides the foundational guidance that will be needed to develop the more detailed plans for investments and phasing required on the Peninsula Corridor to realize both increased Caltrain services as well the introduction of high-speed rail services.

1695-1705

Given the intense work both the PCJPB and CHSRA have put into planning the future service and investments in the corridor, the PCJPB is disappointed in the lack of acknowledgement of the 2040 Service Vision within the Draft EIR/EIS as well as other foundational agreements that describe how blended system planning should proceed. The PCJPB finds that the Draft EIR/EIS is based upon significantly out of date plans that are superseded by the 2040 Service Vision, a publicly available document. The Draft EIR/EIS is also largely silent on agreements to date between the PCJPB and CHRSA, including the Agreement Regarding Funding Commitments Towards Peninsula Corridor Electrification Project, dated August 9, 2016[4], the Project Management and Funding Agreement, dated December 5, 2018 (PMFA)[5], and the to-be-negotiated "Shared Use Agreement" as well as other agreements expressly referenced in those documents that will govern the joint use of the Caltrain corridor by CHSRA and Caltrain. The only references to the blended system agreements appear to be referring to the MTC MOU 4056 (Chapter 1, Section 1.3.4). Similarly, the Draft EIR/EIS also does not appropriately connect mitigation measures to the PCJPB as corridor owner and manager, particularly regarding constructing CHSRA improvements on the rail corridor or at PCJPB-owned stations, such as San Jose Diridon.

1695-1706

Peninsula Corridor Joint Powers Board Ownership

The manner in which corridor and facility ownership is described throughout the document is inconsistent and inaccurate. The Peninsula Corridor Joint Powers Board (PCJPB) is a joint exercise of powers agency formed by means of a Joint Powers Agreement among three entities: the City and County of San Francisco, the San Mateo County Transit District (District) and the Santa Clara County Transportation Authority (VTA). The District is the Managing Agency of the PCJPB pursuant to the Joint Powers Agreement. The PCJPB owns the rail right-of-way from Tamien Station (CP Lick) to San Francisco 4th and King Station, sharing that ownership within San Mateo County with the District. For its operations south of Tamien, Caltrain utilizes trackage rights it holds over the UPRR-owned right-of-way and stations owned by VTA. The PCJPB has trackage rights agreements in place with the UPRR regarding freight operations over the PCJPB-owned right-of-way from Tamien Station to San Francisco. On a

[3] https://caltrain2040.org/wp-content/uploads/Caltrain-Business-Plan-Final-Service-Vision.pdf

[4] https://www.caltrain.com/Assets/Caltrain+Modernization+Program/High+Speed+Rail+MOU/2016+JPB+CHSRA+Agreement.pdf

[5] See letter enclosure

1695-1706

portion of that right-of-way, between CP Coast (near Santa Clara) and Tamien/CP Lick, UPRR owns its own track, known as Main Track 1. PCJPB also has agreements in place for tenant railroads Altamont Corridor Express (ACE), Capitol Corridor, and Amtrak. These agreements govern their usage of the PCJPB-owned tracks and stations. The Draft EIR/EIS must accurately and clearly describe the ownership of the PCJPB territory in order to evaluate impacts and assign appropriate mitigation.

1695-1707

Service Plan Assumptions

Service planning is foundational to determining the future footprint and impacts of rail infrastructure. As noted, the Draft EIS/EIR fails to utilize the robust blended service analysis developed jointly between the PCJPB and CHSRA to support the 2040 Service Vision. Rather, an older "prototypical" blended service plan from 2017 appears to have been used. The service plan is fundamental to understanding what rail infrastructure will be required on the corridor and the assumptions in the Draft EIR /EIS are not clearly stated and at times difficult to discern. Regardless, the 2017 "prototypical" schedule contains assumptions about the Caltrain service that are highly specific and not broadly "typical" of the range of service patterns that the PCJPB may elect to operate in the future. The PCJPB has never agreed to operate a specific blended service pattern and our adopted 2040 Long Range Service Vision prescribes that the railroad should work toward a service pattern that is significantly different from the one assumed within the prototypical schedule used to support the Draft EIR/EIS. This discrepancy fundamentally calls into question the sufficiency of the impact analysis and associated determination of severity of impact from all sections related to the Peninsula Corridor, associated facilities, and tenant and freight rail operations on the PCJPB-owned territory. If a broader and more realistic range of Caltrain and tenant service levels and patterns are fully considered, additional infrastructure may be required for the introduction of high-speed service.

1695-1708

Stations and Facilities

Modifications to Caltrain's facilities and systems, in particular with stations or yards, is a significant concern. The PCJPB owns the San Jose Diridon and Tamien Stations as well as Michael Yard. The PCJPB also provides services to Capitol, Blossom Hill, Morgan Hill and Gilroy Stations, which are owned by VTA. CHRSA should ensure that the improvements described for these stations are appropriately characterized of their ownership by VTA and ensure that plans for modification are appropriately planned with and approved by VTA. The Draft EIS/EIR appears to characterize only minor modifications to Tamien and Michael Yard, as well as modifications to the Gilroy yard. As discussed in the prior section, the underlying service plan on which the Draft EIS/EIR has been based is not clearly articulated and, as such, the PCJPB cannot be certain the impact analysis for Tamien Station, Michael Yard, CP Lick to Gilroy stations and the Gilroy yard facilities are correct.

The PCJPB notes that Chapter 2 of the Draft EIR/EIS describes how CHRSA would add high-speed rail service to Caltrain stations. The PCJPB has significant concern with the description of improvements for San Jose Diridon Station. Diridon Station is a regional transit hub, a highly important station within the Caltrain system, and an operationally sensitive portion of the Peninsula Corridor. The implications for the changes suggested in the Draft EIR/EIS are serious.

1695-1709

1. Alternative 4 proposes to add CHSRA platforms to the center of the existing station, thereby reducing Caltrain platform capacity to 4 faces (2 platforms). The document does not demonstrate that this results in adequate capacity at the station for either the PCJPB or its tenant operators since the service assumptions in the Draft EIR/EIS are out of date. Once the

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

PCJPB and CHRSA mutually agree to the service parameters, the PCJPB can render an opinion as to the sufficiency of the capacity proposed for San Jose Diridon Station.

1695-1709

2. Chapter 2 describes the physical changes required to San Jose Diridon Station to accommodate high-speed rail. These modifications are understood to support *only* CHSRA's project and may be in conflict with overall rail planning efforts to accommodate all providers to Diridon Station. As CHSRA is aware, there are extensive active planning processes underway to fully explore the future vision for San Jose Diridon Station. CHSRA should continue to participate in these efforts so that future improvements to the Diridon station can be planned and implemented in a manner that satisfies the full range of rail operator rights and needs at this station and so that a rational and measured approach to phasing in high-speed rail service at the station can be developed.

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3. The Draft EIR/EIS appears to assume that up to four CHSRA trains per hour may terminate at San Jose Diridon Station, in addition to four trains per hour continuing through San Jose Diridon to San Francisco. While this assumption is consistent with the CHSRA's Business Plans, the notion of up to eight high-speed trains per hour utilizing PCJPB-owned infrastructure falls outside of the foundational blended system agreements between the PCJPB and CHSRA. In particular, pursuant to Section 6.1.1 of the PMFA CHSRA recognized and agreed that upon completion of corridor electrification and the positive train control system, CHSRA will be guaranteed a maximum of four train slots per hour per direction for San Jose to San Francisco service. Shared access to San Jose Diridon and other corridor stations authorized by Section 6.1.2 of the PMFA is tied to the aforementioned high-speed rail service level.

1695-1711

4. The San Jose Diridon Station Integrated Station Planning process is referenced inconsistently within the Draft EIR/EIS, and there are several specific references throughout the document to outdated planning documents or processes related to San Jose Diridon Station. These need to be addressed to ensure that the Final EIR/EIS is consistent with current planning processes.

1695-1712

5. The Alternative 4 design variant proposed in the Draft EIR/EIS for Diridon North Subsection needs considerable additional analysis and coordination with the PCJPB. It is both concerning and disappointing to the PCJPB that this variant was inserted into the Draft EIR/EIS just prior to publication- while during the same period of time CHSRA has consistently declined to modify other, stakeholder-requested aspects of its environmental analysis and has failed to fully incorporate numerous publicly available plans and decisions into its document. The PEPD (preliminary engineering for project delivery) associated with this variant is not included in the Draft EIR/EIS for the PCJPB to validate or review. We would remind CHSRA that all modifications to the infrastructure on the Peninsula Corridor will require the PCJPB's approval. We also note that Section 7.4 of the PMFA requires CHSRA to offer to the PCJPB the ability to contract with CHSRA for compensation to perform any CHSRA-needed improvements on the Peninsula Corridor prior to offering such work to potential contractors.

1695-1713

6. Substantial grade separation of the Peninsula Corridor is included in Caltrain's Long Range Service Vision and is a high priority for both the railroad as well as many communities along the corridor. While CHSRA's previous plan to grade separate the entire corridor (pre-2012) was eliminated from further consideration as a result of Senate Bill 1029, CHSRA remains a key partner to the PCJPB in corridor-wide strategic planning for these improvements and we request CHSRA's ongoing support and engagement in these efforts. Further, while the Peninsula Corridor will remain a primarily two-track railroad, the ultimate requirement for grade

1695-1714

separation in certain parts of the corridor will be based on the number of tracks required to fully support blended operations and the growth of tenant rail services. As noted previously, fully specifying the necessary rail infrastructure and associated number of tracks and grade separations that may be required in all locations requires the advancement and completion of blended system planning beyond the prototypical assumptions used in the Draft EIR/EIS.

1695-1714

Impact Analysis, Avoidance, Minimization, and Mitigation:

Caltrain is concerned that writing memoranda on local agency coordination and planning at stations prior to high-speed rail operations as laid out in the Impact Avoidance and Minimization Features (IAMFs) will not result in impact avoidance or minimization, nor will it provide for high-speed rail operations on the Caltrain corridor (see Appendix 2-E, Land Use, Development and Station Planning IAMFs). It is unclear to the PCJPB how the authoring of future memos would in any way avoid or minimize impacts at stations with multiple providers and ownership structure. IAMFs like this should include a mechanism for approval or statement of no harm among affected agencies/entities, timelines for development of information, and action items for each affected agency/entity to ensure success of the minimization or avoidance feature.

1695-1715

As noted above, there are cases where, despite a lack of updated information on service/operations plans, and plans guiding the decisions on the Caltrain corridor (2040 Service Vision), there is already an anticipated significant effect on the resource. In these cases, it seems prudent to (1) provide the CEQA/NEPA clarification for the Final EIR/EIS, but also (2) provide a constructive outlet for resolution. This could include creating a structure for future coordination of specific design elements before they are ready for procurement (prior to completion of CHSRA's PE4P), or it could be achieved by providing the PCJPB a seat at any Change Order Review Committee, for example.

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The Draft EIR/EIS also states repeatedly that because CHSRA's project is an undertaking of state and federal agencies, conflicts with applicable regional and local plans and policies are not environmental impacts for determining significance under CEQA. Neither CEQA nor NEPA provide such an exemption from environmental review and analysis. Specifically, the project must evaluate whether it conflicts with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. State, regional, and local land use plans must also be considered for purposes of identifying substantive environmental impact areas including, but not limited to, air resources, biological resources, cultural resources, transportation, greenhouse gas, and mineral resources. Further, this does not give CHSRA the ability to ignore legal mandates such as SB 1029, which directed the agencies to advance blended corridor planning and investment that would suit both the PCJPB and CHSRA and preclude a high-speed rail only, 4-track system. An impact analysis that is agnostic to the impacts it causes on the local and regional system would go against the purpose of SB 1029 funding.

1695-1717

Overall, the PCJPB finds that the mitigation measures included in the Draft EIR/EIS are vague and difficult to follow. The document should clearly assign mitigation measures to impacts, rather than general assumptions that the Mitigation Measure section addresses all impacts. For example:

1695-1718

> *The project would affect known archaeological resources under all alternatives and could affect unknown archaeological resources. Any archaeological resource within the APE is assumed eligible for the NRHP or CRHR, and therefore any impact is considered significant under CEQA.*

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1718

Through the implementation of the mitigation measures presented in Section 3.17.8, Mitigation Measures, such impacts may be mitigated or otherwise addressed if possible.

A more effective section would clearly tie the mitigation measure to the impact for the reader's understanding such as:

California Environmental Quality Act Significance Conclusion
Project X operational noise impacts would be significant given noise levels would exceed noise impact criteria at the Noise RSA's nearest noise-sensitive receivers. This impact requires mitigation. Therefore, N&V-MM#1 has been identified to reduce idling noise impacts. N&V-MM#1 requires the construction of noise barriers for Project X idling areas within 500 feet of residential uses. Despite implementation of N&V-MM#1, idling noise levels would still exceed the County's 45 dBA nighttime noise standard at the nearest residential receivers. There are no other feasible mitigation measures to reduce this impact. Therefore, a significant and unavoidable impact under CEQA would occur.

1695-1719

Agreements Necessary for High-Speed Rail Operations
CHSRA's Draft 2020 Business Plan cites agreements necessary for operations in blended segments to cover a range of comprehensive and very specific issues, including: coordinated implementation timelines and milestones; funding agreements; station development; service plans; and infrastructure lease agreements. The PCJPB affirms that these agreements are required by the existing Agreements between CHSRA and the PCJPB as well as necessary for the entry of high-speed rail service to the Peninsula Corridor and should supersede the vague statements in IAMFs and mitigation measures included in the Draft EIR/EIS.

1695-1720

The PCJPB expects CHSRA to continue to participate in the Caltrain Business Plan process, and to work jointly with the PCJPB and other regional and local partners to complete subsequent more detailed blended system planning work. CHSRA's full and binding participation in these planning efforts will be foundational to the subsequent development of the accompanying legal, financial and operational agreements needed for the introduction of high-speed rail service to the Peninsula Corridor. The PCJPB envisions that this work will be a multi-step endeavor that will begin by completing blended system planning related to:

- Achieving mutual clarity on the nature of CHSRA's agreement with UPRR for the use of the corridor south of San Jose, and agreement with the PCJPB and other rail operators regarding their use of same corridor
- The completion of further planning and design work related to terminal operations and improvement phasing at and around the San Jose Diridon Station as well as at other PCJPB-owned facilities within the territory covered by the Draft EIR/EIS
- Advancement of plans for the full electrification of Caltrain system and the development of actionable plans for other necessary rail infrastructure and systems required for CHSRA's operation on the Peninsula Corridor
- The development of a corridor-wide grade separation strategy

1695-1720

- Developing a framework approach to blended system agreements and negotiations that will allow for planning work identified in prior bullets to be translated into a series of legal, financial and operational agreements.

We appreciate the opportunity to provide our comments on CHSRA's San Jose to Merced Draft EIR/EIS and respectfully request resolution of the issues identified in this letter. Ultimately, we look forward to advancing and completing necessary blended system planning work with CHSRA and with our local and regional partners so that we can meaningfully advance the operationalization of high-speed rail service on the Peninsula Corridor as outlined in Caltrain's Long Range 2040 Service Vision.

Sincerely,

Jim Hartnett
Executive Director
Peninsula Corridor Joint Powers Board

Enclosures:
(1) Project Management and Funding Agreement, dated December 5, 2018 (PMFA)

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

STANDARD AGREEMENT
STD. 213 (NEW 06/03)

AGREEMENT NUMBER	REGISTRATION NUMBER
HSR 18 - 40	

1. This Agreement is entered into between the State Agency and the Contractor named below
   STATE AGENCY'S NAME: California High-Speed Rail Authority
   CONTRACTOR'S NAME: Peninsula Corridor Joint Powers Board (Caltrain)
2. The term of this Agreement is: December 5, 2018 through termination per Exhibit D Section 5.1
3. The maximum amount of this Agreement is: $ 600,000,000.00 Six Hundred Million Dollars and zero cents
4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement:

Exhibit A – Scope of Work	16 Pages
Exhibit B – Funds, Budget Detail and Payment Provisions	3 Pages
Exhibit C – General Terms and Conditions	4 Pages
Exhibit D – Special Terms and Conditions	6 Pages
Attachment 1 – Scope of Work	5 Pages
Attachment 2 – Project Schedule	3 Pages
Attachment 3 – Easement Interest	9 Pages
Attachment 4 – Cost Plan	2 Pages
Attachment 4.5 – Minimum Contingency Drawdown Curve	1 Page
Attachment 5 – Funding Sources List	1 Page
Attachment 6 – Billing Rates	6 Pages
Attachment 7 – Invoice Requirements	1 Page
Attachment 8 – Approved Contractor List	2 Pages
Attachment 9 – Outstanding Project Permits	1 Page

Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto.
These documents can be viewed at http://www.dgs.ca.gov/ols/Resources/StandardContractLanguage.aspx

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR	California Department of General Services Use Only
CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.): Peninsula Corridor Joint Powers Board	
BY (Authorized Signature): [signature] — DATE SIGNED (Do not type): 12/05/18	
PRINTED NAME AND TITLE OF PERSON SIGNING: Jim Hartnett, Chief Executive Officer	
ADDRESS: 1250 San Carlos Avenue, PO Box 3006, San Carlos, CA 94070	
STATE OF CALIFORNIA	
AGENCY NAME: California High-Speed Rail Authority	
BY (Authorized Signature): [signature] — DATE SIGNED (Do not type): 05 Dec 2018	
PRINTED NAME AND TITLE OF PERSON SIGNING: Joe Hedges, Chief Operating Officer	
ADDRESS: 770 L Street, Suite 620 MS1, Sacramento, CA 95814	☐ Exempt per:

EXHIBIT A: SCOPE OF WORK

1 BACKGROUND

1.1 The California High-Speed Rail Authority ("CHSRA") is responsible for the planning, design, construction and operation of a high-speed rail system that will connect most of populated California. Between San Francisco and San Jose, the CHSRA's trains will share the rails in the corridor ("Peninsula Rail Corridor" or "Corridor") that is currently used primarily by commuter rail service operated by the Peninsula Corridor Joint Powers Board ("PCJPB"). For purposes of this PMFA, the terms "Peninsula Rail Corridor" and "Corridor" generally include all the property located between San Francisco at PCJPB Milepost 0.00 (formerly MP 0.147 under the 1991 Trackage Rights Agreement between PCJPB and Southern Pacific Railroad (predecessor to current owner Union Pacific Railroad) ("1991 TRA")) and Lick at PCJPB Milepost 50.94 (present UPRR Milepost 51.64, which formerly was Milepost 51.4 under the 1991 TRA). The Corridor includes all the property located between PCJPB Mileposts 0.00 and 50.94 on which PCJPB operates or will operate, including but not limited to rails, platforms, access areas, station areas and parking, maintenance facilities and storage facilities. PCJPB owns in fee ("PCJPB Fee-Owned Area", described with more particularity in Exhibit B to Attachment 3) nearly all the Corridor, and has other lesser rights (e.g., contract or easement) to the portions of the Corridor it does not own in fee, such as parking and station buildings at some stations; further, there are future stations in San Francisco at 4th and Townsend and Transbay not within the PCJPB Fee-Owned Area. PCJPB member agency San Mateo County Transit District ("SamTrans") is a co-owner of the PCJPB Fee-Owned Area in San Mateo County and has a security interest in the PCJPB Fee-Owned Area in Santa Clara County and San Francisco County.

1.2 This Project Management and Funding Agreement ("PMFA" or "Agreement") is entered into as of this 5th day of December 2018 ("Effective Date") by and between the CHSRA, an agency of the State of California ("State"), and the PCJPB, a joint exercise of powers agency organized under Chapter 5 of Division 7 of Title 1 of the California Government Code responsible for operating commuter rail passenger service between the cities of San Francisco and Gilroy. The CHSRA and PCJPB are collectively referred to herein as the "Parties" and individually as a "Party."

1.3 Shared usage of the Corridor by the CHSRA and PCJPB (and by existing freight and other tenants) is known as the "Blended System." The Corridor is not currently electrified; current PCJPB trains are diesel.

1.4 The total cost for Corridor electrification and associated Electrical Multiple Unit ("EMU") rolling stock acquisition (collectively, "Peninsula Corridor Electrification Project" or "PCEP", as further described in 3.1 of this Exhibit A, below) is $1.98 billion.

1.5 PCEP is a project of independent utility that PCJPB has been seeking to implement for nearly twenty-five years. At the same time, PCEP implementation is a foundational element of Blended System operations in the Corridor and therefore a necessary element for CHSRA to operate in the Corridor. Implementation of the PCEP will create a corridor that is suitable and ready for operation of PCJPB trains and CHSRA trains sharing the Corridor, and will create capacity in the form of additional train slots in the Corridor that will be used by CHSRA for its intercity passenger rail service. The full, exact parameters of shared Blended System operations are being evaluated by the Parties, in consultation with other stakeholders ("Blended System Planning Process").

1.6 In 2016, various public agencies involved in funding and/or implementation of PCEP, including PCJPB and CHSRA, developed a written Funding Partners Oversight Protocol for Caltrain's CALMOD Program, which included instituting a Configuration Management Board and which PCJPB affirmed and committed to its implementation at a public meeting on January 5, 2017.

1.7 PCJPB executed a design-build contract for the electrification final design and construction with Balfour Beatty, Inc., effective August 15, 2016 ("Electrification Design-Build Contract") and electrification of the Corridor is underway. The CHSRA has agreed to fund up to $713 million of the total cost on a reimbursable basis, as set forth more specifically in that Agreement Regarding Funding Commitments Towards Peninsula Corridor Electrification Project between the CHSRA and PCJPB dated August 9, 2016 ("Funding Commitment Agreement") and the associated Seven-Party Supplement to 2012 Memorandum of Understanding Financial Commitments to Address Funding Gap for the Peninsula Corridor Electrification Project ("MOU Supplement"); both of these agreements list the non-CHSRA funding partners and their respective funding contribution amounts.

1.8 On August 15, 2016, PCJPB entered into a contract with Stadler USA, Inc. ("Stadler") for construction and delivery of EMU rolling stock ("EMU Contract").

1.9 On November 18, 2016, PCJPB and CHSRA entered into an agreement ("Implementing Agreement") to reimburse PCJPB up to $113M of costs incurred for certain aspects of the Corridor electrification. This Implementing Agreement provides more detail regarding CHSRA's funding commitments made in the 2012 Nine-Party MOU and MOU Supplement (collectively, the "MOUs"), and also provides a partial framework for this PMFA.

1.10 On May 22, 2017, the Federal Transit Administration ("FTA") and PCJPB executed a Full Funding Grant Agreement ("FFGA") to provide $647 million to partially fund PCEP. On June 1, 2017, PCJPB issued a notice to proceed to Stadler. On June 19, 2017, PCJPB issued a full notice to proceed to Balfour Beatty, Inc., authorizing performance of the entire scope of work under the Electrification Design-Build Contract.

1.11 Effective June 1, 2017, PCJPB, CHSRA and the City of San Mateo entered into an agreement regarding the construction of a grade separation project generally located at 25th Avenue in San Mateo, California, that will benefit PCEP.

2 **OVERALL PURPOSE**

2.1 The purpose of this PMFA is to provide the mechanism for CHSRA to provide up to a maximum of $600 million (the "Funds") to PCJPB to be used to reimburse the PCJPB for

CHSRA's designated contribution (as set forth in the MOUs) of the project costs for the PCEP. The Funds, when combined with PCJPB's other secured sources of funding, including the $113 million in funds CHSRA has provided pursuant to the Funding Commitment Agreement and the Implementing Agreement, are anticipated to be sufficient to fund in full the completion of the PCEP in a manner that will be compatible (as described in Article 1.A of the Funding Commitment Agreement) with future CHSRA operations in the Corridor at a later date. To accomplish this overall purpose, this PMFA also provides CHSRA with certain approval, oversight and/or audit rights to ensure, among other things, that (a) the PCEP system and improvements are appropriately designed and constructed in a manner meeting the purposes outlined above, (b) PCJPB is efficiently managing implementation of PCEP and the post-completion operation and maintenance of the PCEP system and infrastructure, and (c) PCJPB does not take actions related to PCEP or the Corridor that PCJPB knows or reasonably should know at the time of the action would effectively preclude or make materially more complicated or expensive CHSRA future use of the Corridor for Blended System operations. This PMFA also details certain other agreements between the Parties. This PMFA provides more detail about the rights and obligations of the Parties than is contained in the MOUs and Funding Commitment Agreement, but is not intended to alter the intent of those documents.

3 **PROJECT DESCRIPTION**

3.1 Description of PCEP; Scope of Work. The Funds will be used to reimburse PCJPB for a portion of the costs of PCEP, as a share of the total costs as set forth in the MOU Supplement. PCEP is described in the Scope of Work attached hereto as Attachment 1 (the "Scope of Work") and includes both (1) the design, construction, and installation of electrification systems for the existing Corridor along with associated other projects and (2) the acquisition of EMU rail vehicles ("EMU Vehicles") that will operate on the new electrified systems in the Peninsula Rail Corridor. The Scope of Work includes a detailed description of the PCEP. The Funds can only be used towards the non-EMU-Vehicles portion of the Scope of Work; CHSRA will consider moneys, other than the Funds, spent by PCJPB on PCEP as match to the Proposition 1A portion ($600 million) of the Funds if allowable under California Streets and Highways Code Section 2704.04 *et seq.* PCJPB is obligated to complete the entire Scope of Work, regardless of its total actual cost, provided CHSRA contributes the Funds as required by this PMFA and the $113 million in funds committed pursuant to the Implementing Agreement. In the event overall PCEP costs exceed $1.98 billion or if FTA Core Capacity Funds are ultimately provided at less than $647 million, PCJPB and CHSRA, in conjunction with all parties to the 2012 Nine-Party MOU, will discuss how to secure additional funding beyond what is presently identified and/or discuss PCEP scope adjustments to match funding availability.

3.2 Project Schedule. PCJPB shall be responsible for complete performance of the PCEP as described in the Scope of Work, all in accordance with the terms of this PMFA, the requirements of SB 1029, Item 2665-104-6043, and all applicable statutes and regulations, and in accordance with the schedule agreed to by PCJPB and CHSRA, which is attached hereto as Attachment 2 (the "Project Schedule"). The Project Schedule may only be modified with the written concurrence of both Parties, which shall not be unreasonably withheld or conditioned (see section 4.2.1 of this Exhibit A), and such modified version of the Project Schedule may be substituted for the version previously attached hereto without need for a formal amendment to this PMFA. The Project Schedule shall be the schedule being used for PCEP with the other PCEP funding partners, including FTA.

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3.3 PCEP as PCJPB's Sole Responsibility. PCJPB acknowledges and agrees that, unless otherwise agreed at a future date by written amendment to this PMFA, it is solely responsible for control and management of the PCEP and all associated costs and its subsequent operation, repair, and maintenance for the benefit of the public.

3.4 Completion and Closeout; Cost Savings. Upon PCEP completion, PCJPB will certify to the CHSRA, in writing, that the standards and requirements set forth in the Electrification Design-Build Contract and in the EMU Contract have been achieved and the entire scope of work in Attachment 1 (with any changes approved through the process described in Section 8.1.2) has been delivered. Additionally, PCJPB shall fully utilize PCEP warranties provided pursuant to such contracts to ensure PCEP elements continue to meet contract standards and requirements throughout the warranty term. Upon PCEP completion, if total costs are less than $1.98 billion, refunds or credits to CHSRA shall be handled consistent with Article I.F of the Funding Commitment Agreement; the Parties acknowledge that grantor conditions placed on the $20 million in TIRCP funding (see Funding Sources List), which funding was secured after the date of the Funding Commitment Agreement, may require adjustment to implementation of the refund/credit provision in Article I.F of the Funding Commitment Agreement.

3.5 Compatibility. It is the shared goal of the Parties to enable PCEP to be constructed in a manner that obviates the necessity for CHSRA to have to make material changes to the PCEP infrastructure to allow CHSRA's operations in the Blended System. In the event CHSRA requests incorporation of modifications of the PCEP to enable CHSRA's operation of the Blended System, PCJPB will exercise best efforts to implement such modifications subject to (1) confirmation of any required environmental clearance for such modifications and (2) CHSRA assumption of responsibility for all associated incremental costs of said modifications (except as may otherwise be provided in Section 6.1.1), including PCEP schedule delay impacts, as described in Articles I.A.(2) and (3) of the Funding Commitment Agreement.

3.6 Approval of Electrification Elements Not Included in Electrification Design-Build Contract. The Parties acknowledge that certain infrastructure elements that are part of the Scope of Work in Attachment 1 and are necessary for PCJPB to operate electrified service in the Corridor, and which elements will also form a basis for the Blended System, are not included within the scope of the EMU Contract or Electrification Design-Build Contract ("Future Necessary Electrification Elements") although are included in the Cost Plan (defined at section 8.1.1); these elements consist of the following: (a) Tunnel Modification to provide sufficient vertical clearance for safe rail operations through the tunnels in San Francisco, (b) Centralized Equipment Maintenance and Facilities Improvement Project to provide maintenance and inspection functionality for new EMU"s and (c) any other material technical element contained in the Scope of Work in Attachment 1 but not within the EMU Contract or Electrification Design-Build Contract. PCJPB may not award a contract for final design or construction of Future Necessary Electrification Elements without first obtaining CHSRA"s written approval of the design and specifications, which approval will not be unreasonably withheld, conditioned or delayed provided that the design does not prejudice or impair CHSRA"s rights and ability to operate in the Corridor consistent with the standards set forth in Section 6 of this Agreement and that the cost of the Future Necessary Electrification Elements contract(s) are consistent with the Cost Plan. After CHSRA has approved the design, PCJPB may not modify the design and specifications in any material way without first obtaining written approval from the CHSRA unless the change order or design variance is approved by the Configuration Management Board.

4 PROJECT MANAGEMENT

4.1 Project Management and Oversight Costs; PCJPB Certification Obligations; Change Orders

4.1.1 Project Management and Oversight Costs. Project management and oversight costs that PCJPB and its contractors expend to deliver the Scope of Work under this Agreement shall be reasonable and consistent with industry practice for similar projects.

4.1.2 Compliance with technical specifications and design change orders. Corridor electrification construction and EMU Vehicles manufacture must be designed and built in material conformance with the preliminary design and specifications upon which the respective contracts were awarded plus any change orders issued subsequent to such awards but prior to execution of this Agreement. PCJPB hereby certifies to the CHSRA that all deliverables set forth in the contracts for Corridor electrification and EMU Vehicles completed to date, such as in-progress design plan sets ("In-Progress Designs") and final design and engineering plans ("Final Plans"), are consistent with the design and performance standards upon which the PCEP respective contracts were awarded plus pre-Agreement change orders as relates to compatibility with future joint use of the Blended System by PCJPB and CHSRA, and for all future In-Progress Designs and Final Plans, PCJPB will certify to CHSRA in writing as to the same prior to commencement of work reliant on such plans. Purchase of materials to support construction must conform to criteria and standards upon which the PCEP contracts were awarded plus pre-Agreement change orders, unless otherwise authorized in writing by CHSRA. In the event a change order or design variance is necessary, PCJPB may not approve any such change order to or design variance under either the

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Electrification Design-Build Contract or the EMU Contract that modify the design or specifications of the electrification project in any material way without first obtaining written approval from the CHSRA, unless the change order or design variance is approved by the Configuration Management Board. CHSRA shall review the requested design variance or change order, and communicate to PCJPB its written approval or disapproval, including reasons for such approval or disapproval, within five (5) working days after receiving the request from PCJPB. Review by CHSRA of any plans or approval of any design variance carries no express or implied warranties of any kind and shall not relieve PCJPB of its obligation to enforce contractor compliance with the Electrification Design-Build Contract or the EMU Contract, to maintain the Corridor and to operate its service safely.

4.1.3 Change orders that increase cost. See Section 8.1.2 of this Exhibit A.

4.2 Funding Shortfalls, Cost Overruns, and Delays.

4.2.1 In the event that PCJPB learns (or CHSRA reasonably believes and so informs PCJPB in writing), at any time prior to or during the performance of the PCEP work, that either (1) PCEP is unlikely to timely receive any funds shown in the Funding Sources List (Attachment 5) anticipated to be received by PCJPB for purposes of completing the PCEP, (2) the costs of completing the PCEP likely will exceed the budget (as shown in Attachment 4, the Cost Plan) for completion of the PCEP for any reason, including but not limited to delays in Project Schedule, remaining contingency including in-process contingency use falls below the minimum contingency drawdown curve contained in Attachment 4.5, or other reasonably-expected cost items likely will result in the budget in Attachment 4, the Cost Plan, being exceeded (3) PCJPB likely will not be able to complete the PCEP within the time established in the Project Schedule and such delay might delay commencement of CHSRA operations in the Corridor, or (4) the PCEP will not be completed in material conformance with the plans and specifications that CHSRA has approved pursuant to this PMFA, PCJPB will (i) notify and explain to CHSRA and all signatories to the Funding Partners Oversight Protocol as promptly as practicable of the nature and projected extent of the funding shortfall, cost overrun, or delay, or specification noncompliance; (ii) in the event of a potential funding shortfall or cost overrun or contingency deficit, within a reasonable period of time of notifying CHSRA per (i) above, identify and quantify realistic potential cost savings measures and/or the source of additional funds that can be available to PCJPB to complete the PCEP that PCJPB proposes to institute to bring the costs of the PCEP into balance with the available funds, (iii) in the event of a delay in completion of the PCEP that might delay commencement of CHSRA operations in the Corridor, identify measures that PCJPB proposes to implement to mitigate or eliminate such delays and (iv) in the event of material noncompliance with CHSRA-approved specifications, identify measures that PCJPB proposes to correct such material noncompliance. The proposed cost savings, additional funding sources, delay mitigation measures and/or material noncompliance mitigation measures identified by PCJPB pursuant to clauses (ii) to (iv) of the preceding sentence, as applicable, are collectively referred to herein as the "Remediation Plan."

4.2.2 CHSRA shall promptly review the Remediation Plan and may reject the Plan if it (A) would require CHSRA or the State of California to provide additional money to PCJPB for PCEP, in such event, the Parties understand that, among other things, CHSRA will need to obtain consent from California Department of Finance, (B) in CHSRA's reasonable discretion is not reasonably likely to result in PCJPB being capable of completing the PCEP with the funds actually available or to be available in material conformance with the CHSRA-approved project design or (C) in CHSRA's reasonable discretion is not reasonably likely to result in PCJPB being capable of completing the PCEP per the Project Schedule and such failure likely will delay CHSRA's ability to operate service in the Corridor. If CHSRA rejects the Remediation Plan, CHSRA shall explain in writing to PCJPB and to the signatories of the Funding Partners Oversight Protocol the reasons for such rejection.

4.2.3 If CHSRA approves the Remediation Plan, PCJPB shall proceed diligently to carry out and complete the Remediation Plan and shall report to CHSRA monthly on the status of achieving the intended cost savings, obtaining the additional funds, and/or implementing the mitigation measures contemplated by the Remediation Plan; at any point, CHSRA may authorize in writing that monthly reporting may cease and be folded into the quarterly reporting required elsewhere in this PMFA. If CHSRA determines at any time after approving a Remediation Plan or Revised Remediation Plan that PCJPB is not reasonably likely to successfully implement the Plan, CHSRA may notify PCJPB of such determination in writing. In response, PCJPB shall modify the Remediation Plan or Revised Remediation Plan for CHSRA review and approval, which approval will not be unreasonably withheld, conditioned or delayed.

4.3 Quarterly Reviews.

4.3.1 CHSRA and PCJPB will conduct, on a quarterly basis, reviews of all aspects of the progress of the PCEP (which reviews may be conducted on-site, at CHSRA's election). Such reviews shall satisfy the requirements of SB 1029 (2012) Provision 8 of Item 2665-104-6043, and at least one week prior to each scheduled review, PCJPB in writing will provide CHSRA with at least the following information:

- Whether the PCEP is proceeding and is anticipated to continue to proceed on schedule and within budget;
- Any requested or requested and approved changes to the Scope of Work, the Final Plans, the Project Schedule, the Cost Plan, or the Funding Sources List since the last quarterly review;
- Major design and construction accomplishments during the quarter;
- Any actual or anticipated problems that could lead to delays in schedule, increased costs, funding shortfalls, or other difficulties, including, without limitation, a report on any legal challenges to the PCEP or this PMFA;
- The status of the budget for the PCEP per Exhibit A, Section 8.1.4; and

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- Updated status of contingency use and availability as compared to the most recent official version of the Contingency Drawdown Curve shown in Attachment 4.5; and
- Copies of the updated change order log and contract awards; and
- The status of critical elements of the PCEP.

The PCJPB shall present the above information in a format agreed to by the Parties within 2 months after execution of this Agreement; the Parties shall utilize the CHSRA Legislative Update August 2016 as a starting point for their format discussions. The Legislative Update is available at the following link: http://cahsrprg.com/files/PRG-report-2016-08.pdf

The quarterly reviews will also include consideration of whether reported implementation activities are in compliance with this PMFA and all applicable laws, regulations, and administrative requirements as well as any additional information reasonably requested by CHSRA.

5 **PCJPB PROJECT OWNERSHIP, MAINTENANCE AND USE OBLIGATIONS AND RESTRICTIONS**

5.1 Project Ownership. Unless otherwise expressly agreed by the Parties in writing or as set forth in this PMFA, and subject to the terms and conditions of this PMFA, PCJPB shall be the sole owner of all improvements and property included in the PCEP that are constructed, installed, or acquired by PCJPB using any of the Funds.

5.2 Documents and Data. PCJPB will provide copies of, and access and rights of use to the CHSRA to, all reports, documents, plans, specifications, electronic documents and estimates produced in whole or in part with funding provided under this Agreement or funding used as matching funds or produced pursuant to the Electrification Design-Build Contract ("Produced Plans"). Furthermore, in the event PCJPB is unable for any reason to enter into the construction phase of the Electrification Design-Build Contract or, following commencement of construction is unable to cause full completion of the scope of work of the Electrification Design-Build Contract, ownership of Produced Plans will vest jointly in the CHSRA and PCJPB.

5.3 Obligation Not to Preclude Future CHSRA Usage.

5.3.1 PCJPB agrees that it shall not take action, whether with respect to PCJPB's design and construction of the PCEP, operation of the Peninsula Rail Corridor, real property ownership or control in the Peninsula Rail Corridor, or otherwise, that PCJPB knows or reasonably should have known at the time of the action would effectively preclude or make materially more complicated or expensive CHSRA's future operation in the Peninsula Rail Corridor consistent with Proposition 1A and per Exhibit A, Section 6.

5.3.2 PCJPB represents to CHSRA that the Cost Plan includes costs for EMU Vehicles that will have two doors each, at different heights to ensure maximum flexibility and interoperability as to shared passenger platform heights in the Blended System with CHSRA's anticipated passenger rail vehicle door heights, it being

understood that actual platform configurations designed to meet the operational needs of each party and associated cost responsibility will be addressed in conjunction with the Blended System planning process contemplated by the Funding Commitment Agreement.

5.3.3 It is of paramount importance and fundamental consideration for this Agreement that operating rights be conveyed or made available so as to enable future CHSRA blended system operations in the Corridor.

PCJPB agrees to support and will attempt to facilitate (without incurring any obligation to spend material additional moneys that are not reimbursed by CHSRA) efforts by CHSRA to obtain rights, additional to those granted by this PMFA, within or adjacent to the Corridor from third parties, including freight railroads, as may be required or appropriate to enable or support CHSRA's potential future operations within the Corridor as described in Section 6, below. In addition and in no way limiting the preceding portion of this Section 5.3.3, PCJPB shall use best efforts to obtain all passenger operating rights in the Corridor currently held by Union Pacific Railroad ("UPRR") between San Francisco (PCJPB MP 0.00) and Santa Clara/CP Coast (PCJPB MP 43.93, which formerly was MP 44.0 under the 1991 TRA), subject to Surface Transportation Board ("STB") approval (which PCJPB shall use best efforts to obtain), if necessary, of the transfer of such rights to PCJPB from UPRR; PCJPB then immediately shall convey such rights previously held by UPRR to CHSRA at no cost to CHSRA, sufficient to allow CHSRA to operate service consistent with this PMFA and the Easement Interest referenced in Section 5.5.1. PCJPB will cooperate and support CHSRA's efforts to obtain STB approval, if necessary, for the transfer of such rights from PCJPB to CHSRA.

In pursuit of that objective, PCJPB has reached agreement with UPRR providing for the transfer of UPRR's passenger operating rights between San Francisco and Santa Clara subject to and upon implementation of a transaction whereby a short line freight operator is engaged to replace UPRR common carrier operations in that portion of the Corridor. UPRR, in turn, has initiated a competitive procurement process for the selection of a short line freight operator by UPRR to be followed by review and concurrence by PCJPB and approval by the STB. PCJPB shall use best efforts to complete this process and associated transaction.

In addition, if CHSRA so desires, PCJPB hereby commits to jointly working with CHSRA, including meeting at least monthly and making personnel and legal resources available at no cost to CHSRA for PCJPB's personnel and legal resources and no cost to PCJPB for CHSRA's personnel and legal resources, for CHSRA to acquire directly the operating rights for passenger service currently held by UPRR in the southernmost portion of the Corridor between Santa Clara and San Jose.

The Parties acknowledge that PCJPB has separate and independent exclusive commuter passenger operating rights on the Corridor such that no additional transfer of rights from UPRR is necessary for PCJPB, or another operator operating pursuant to PCJPB's permission to use those commuter passenger operating rights, to operate commuter service on the Corridor.

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In the interim and in addition to the rights granted in this PMFA, PCJPB hereby agrees as between San Jose and San Francisco to operate or allow the operation of on its behalf, as commuter rail express trains, the CHSRA-owned trains occupying the train slots provided for in Section 6.1.1 of this PMFA to the stations set forth in Section 6.1.2 of this PMFA, in accordance with the following principles:

5.3.3.1 CHSRA may operate, engage a third party to operate, or engage PCJPB to operate, the CHSRA-owned trains, as part of and folded into PCJPB's commuter service;

5.3.3.2 The Parties will agree on a schedule for such operations and any changes to such schedules will be based on agreement of the Parties;

5.3.3.3 The trains will be listed on both PCJPB and CHSRA schedules as PCJPB commuter service.

5.3.3.4 PCJPB passengers traveling between San Francisco and San Jose (and/or the intermediate stations in Section 6.1.2 of this PMFA) will have access to such CHSRA-owned trains upon payment of fares and using fare media that are comparable to fares PCJPB charges for other express commuter trains on the corridor and that are to be agreed upon by CHSRA and PCJPB;

5.3.3.5 CHSRA passengers continuing to or originating from points south of San Jose will not be required to purchase an additional and separate commuter train ticket. Such passengers will be required, for the commuter portion of the journey, to pay an associated fare based on fares PCJPB charges for other express commuter trains on the Corridor, but CHSRA and PCJPB will work cooperatively to implement a ticketing system that allows such CHSRA passengers to purchase only one ticket that covers the entire journey of such passengers.

5.3.3.6 As to the operation of CHSRA-owned trains in the Corridor, Sections 6.1.3 and 6.1.4 of this PMFA will apply to infrastructure and maintenance costs, and station maintenance costs, respectively. As to other costs (e.g., personnel and administrative costs for PCJPB employees or contractors operating the CHSRA-owned trains), the operation of CHSRA-owned trains in the Corridor whether by CHSRA, a third party or PCJPB, will neither require an operating subsidy by or generate an operating profit to PCJPB (i.e., will result in no net additional cost or net additional revenue to PCJPB, such that it will be cost-neutral to PCJPB).

The Parties recognize that implementing the above agreement and principles regarding commuter express service will require further detail to be discussed between the Parties. Accordingly, no later than two years prior to the anticipated needed (as determined by CHSRA) commencement of operation of the commuter express trains, the Parties will have such discussions and memorialize the outcomes in one or more operating memoranda, to be signed by the Parties. Topics to cover will include (a) whether CHSRA or a third party will operate the service or whether PCJPB will operate the service, (b) mechanisms, methods and calculations to accomplish item 5.3.3.6 above, (c) operating requirements, (d)

insurance and allocation of liability and (e) such other terms and conditions as are industry standard in agreements in similar situations involving operators and government providers of commuter rail services.

5.4 Maintenance and Usage Requirements and Limitations.

5.4.1 Unless otherwise agreed by the Parties in writing, PCJPB is required to continue the operation and maintenance of the physical aspects of the PCEP dedicated to the public transportation purposes for which the PCEP was initially approved.

5.4.2 Facilities constructed or reconstructed in connection with the PCEP, and property and equipment (including EMU Vehicles) purchased in connection with the PCEP, shall remain permanently dedicated to the public transit use (whether publicly or privately operated) in the same proportion and scope and to the same extent as mandated in this PMFA and in any related requirements established pursuant to the governing bond documents, if applicable. Property and equipment (including EMU Vehicles) acquired as part of the PCEP shall be dedicated to that public transit use for their full economic life cycle, which, for the purposes of this PMFA, will be determined in accordance with standard national transit practices and applicable rules and guidelines, including any extensions of that life cycle achievable by reconstruction, rehabilitation or enhancements.

5.4.3 PCJPB shall maintain the facilities, equipment and EMU Vehicles constructed, reconstructed or acquired in connection with the PCEP in a safe and good working condition and state of repair and in compliance with all applicable laws, using such care as a reasonably prudent owner and operator of such facilities and vehicles would use. PCJPB shall also maintain the Corridor, ensuring that such corridor is free of debris or refuse and that all improvements in such corridor remain safe and in good working condition and state of repair and in compliance with all applicable laws, using such care as a reasonably prudent owner and operator of such facilities and improvements would use.

5.5 CHSRA Rights to the Peninsula Rail Corridor.

5.5.1 PCJPB agrees that it shall convey to CHSRA, to the fullest extent of its legal right to do so and at no cost to CHSRA, a permanent and irrevocable non-exclusive possessory property interest in the PCJPB Fee-Owned Area of the Corridor to (a) enable future operation of CHSRA Blended System service in the Corridor after completion of the PCEP and consistent with CHSRA service commencement timing plans in the Corridor set forth in CHSRA's then-latest Business Plan; and (b) ensure CHSRA has the ability to construct additional improvements in the Corridor as might be reasonably necessary to reasonably enable CHSRA operations in the Corridor as described in Section 6, below. The property interest to be conveyed will be in the exact form (except non-substantial formatting changes for execution and recordation) of the Passenger Rail Service Easement attached hereto as Attachment 3 ("Easement Interest") (to the extent required, PCJPB will fully support, including in writing and through legal filings (including joint filings) as necessary, any regulatory or Surface Transportation Board ("STB") approvals required for transfer and/or usability of such Easement Interest) and will be conveyed (via PCJPB execution of the Easement Interest and transmittal to CHSRA) immediately following allocation by CHSRA and receipt

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by PCJPB of any portion of the Funds; the Parties acknowledge that the effectiveness of the conveyance will be delayed until any required STB approvals are obtained. PCJPB represents that the legal descriptions attached as or referenced in Exhibit 2 to Attachment 3, which PCJPB provided, are complete and accurate descriptions of the PCJPB Fee-Owned Area.

5.5.1.1 The Parties acknowledge that the extent of the PCJPB Fee-Owned Area at and in the area of the Millbrae station used by PCJPB and the Bay Area Rapid Transit District ("BART") will be modified – with some land being added to and some land being deleted from the PCJPB Fee-Owned Area – pursuant to the terms of that certain Use, Operating and Maintenance Agreement for the Millbrae station and BART/JPB/SAMTRANS Facilities Related to the BART SFO Extension Project dated February 18, 2005, and as described in Recital E and Section 2.4 of that agreement. As stated in that Recital E, such land deletion and addition will be consummated by a Real Property Transfer Agreement, which is yet to be completed as of the Effective Date of this PMFA. The Parties agree to modify Exhibit 2 to Attachment 3, and re-record the Easement Interest if its recordation precedes completion of the Real Property Transfer Agreement referenced above, upon completion of the Real Property Transfer Agreement as necessary to (a) add to the area burdened by the Easement Interest the land that PCJPB receives from BART and (b) delete from the area burdened by the Easement Interest the land that PCJPB conveys to BART.

5.5.1.2 That the Easement Interest will be recorded initially only on the PCJPB Fee-Owned Area is not a limitation on the rights obtained by CHSRA through this PMFA. Following execution of this PMFA, and carrying through the Blended System Planning Process and negotiation of the Shared Use Agreement referenced in the Easement Interest, the Parties shall work cooperatively to develop approaches to ensure CHSRA obtains, at PCJPB cost if there is any cost, and records real property rights (preferred), or contract rights (secondary), to operate in and on areas of the Corridor outside of the PCJPB Fee-Owned Area. At a minimum, PCJPB shall in whole or in part transfer, convey or otherwise assign or allow, at no cost to CHSRA, the sharing with CHSRA of any rights PCJPB currently has in such areas as necessary to match or approximate the rights granted to CHSRA in the Easement Interest.

5.5.1.3 The Parties acknowledge that pursuant to Property Acquisition Law, the Easement Interest may need to convey the property rights described in this Section 5.5 to the California Public Works Board (PWB), or their designee, for subsequent conveyance to CHSRA.

5.5.2 The Parties anticipate that, at a future date as may be mutually agreed between the Parties, the Easement Interest may need to be amended and restated to reflect the implementation of the Blended System on the Corridor, including but not limited to as the vehicle to implement the intent of Section 5.5.1.1 of this PMFA.

6 **STANDARDS/CONDITIONS GOVERNING SHARED USE OF THE CORRIDOR**

6.1 Unless otherwise agreed to by the Parties in writing as an amendment to this Agreement, PCJPB and CHSRA agree to the following regarding the Corridor:

6.1.1 The Parties agree that, upon completion of PCEP, the Future Necessary Electrification Elements, and the Positive Train Control system that PCJPB currently is installing, a minimum of eight (8) electric train slots per hour per direction will be created. CHSRA will be guaranteed two train slots per hour per direction created upon completion of the above. CHSRA may occupy two additional train slots per hour per direction (for a total of four trains slots) created upon completion of the above, with the understanding that through the Blended System Planning Process the Parties jointly will determine whether additional capital investments in the Corridor other than investments in the electrification infrastructure and/or alternative or modified operating patterns involving both Parties" operating plans in the Corridor will be necessary to support creation of those next two additional train slots with the further understanding that the PCEP electrification infrastructure will be designed and constructed in a manner sufficient to support operation of four CHSRA 410-meter Velaro "E", or equivalent, trains per hour in each direction.

6.1.2 CHSRA will have reasonable shared access to the following stations for passengers and passenger-related facilities: 4th & King, 4th and Townsend, Millbrae, Transbay and Diridon, unless the Parties mutually agree otherwise through the Blended System Planning Process. The precise layouts and configurations for such shared access that can accommodate the respective operations of each Party will be addressed in future agreement(s) between the Parties. Facilities and infrastructure to be shared at the above-listed stations shall include but not be limited to parking, driveways, walkways, pathways, concourses, buildings, station buildings and platforms.

6.1.3 Upon commencement of CHSRA operations in the Corridor, CHSRA will pay PCJPB a share of infrastructure maintenance and power costs based on relative burden placed on the infrastructure or some similar basis. The precise formula for determining such cost sharing, including potential use of neutral third-party experts to conduct an analysis, will be addressed in a future agreement between the Parties.

6.1.4 Upon commencement of CHSRA operations in the Corridor, CHSRA will pay PCJPB a share of station maintenance costs based on relative burden placed on the infrastructure or some similar basis. The precise formula for determining such cost sharing, including potential use of neutral third-party experts to conduct an analysis, will be addressed in future agreement(s) between the Parties.

6.1.5 To meet CHSRA's starting service date, as set forth in its latest Business Plan, PCJPB will allow construction of reasonable improvements CHSRA needs to accomplish operations per Exhibit A, Sections 6.1.1 and 6.1.2 and to meet the requirements set forth in Proposition 1A. PCJPB will allow the same level of construction-period disruption to its service as it allow(ed) for Corridor electrification.

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7 **FUTURE COOPERATION**

7.1 PCJPB is currently working with PG&E to interconnect PCJPB's PCEP electrification system with PG&E's electrical infrastructure. Upon reaching agreement with PG&E regarding the infrastructure necessary for the interconnection, the Parties anticipate that PCJPB and PG&E will initiate discussions regarding allocation of the costs associated with the interconnection infrastructure (*i.e.* discussions to determine the share of costs to be borne by PCJPB, PG&E and/or other non-CHSRA parties). PCJPB agrees to inform and involve CHSRA during these cost allocation discussions and negotiations because of their potential impact on CHSRA.

7.2 The Parties recognize and acknowledge that, beyond the rights and privileges this PMFA already grants to CHSRA, there will be a continuing need over time to negotiate additional agreements that will address, among other things, detailed issues pertinent to future shared use (including dispatching and scheduling) and maintenance of the Corridor by PCJPB and CHSRA. To the extent not addressed by this PMFA, such negotiations shall follow the process described in Article IV of the Funding Commitment Agreement.

7.3 To the extent competitive bidding rules applicable to CHSRA allow, CHSRA will offer to PCJPB the ability to contract with CHSRA to perform for compensation any CHSRA-needed improvements in the Corridor prior to offering such work to other potential contractors.

8 **FUNDING**

8.1 Project Costs; Sources of Funds.

8.1.1 The total estimated project costs of the PCEP are $1.98 billion, and Attachment 4 attached hereto (the "Cost Plan") sets forth the anticipated budget by component of project costs, including the fiscal years in which such costs are anticipated to be incurred.

8.1.2 Unless approved by the Configuration Management Board ("CMB") or deemed by the CMB to not require its approval (for example, change orders under a certain threshold set by the CMB), the PCJPB shall not without the prior written approval of CHSRA execute or approve any contract, scope increase, change order or any other cost increase with respect to the PCEP that would individually increase either the Corridor electrification or EMU Vehicle cost (as set forth in Attachment 4) by more than $1,000,000. PCJPB shall refrain from segmenting contracts, scope increases, change orders and cost increases into smaller components to avoid exceeding the $1,000,000 threshold.

8.1.2.1 Prior to agreeing to a dispute settlement with any PCEP contractor, PCJPB will confer with CHSRA if the settlement would cause known and in-process contingency drawdown to fall below the expected threshold in the Contingency Drawdown Curve set forth in Attachment 4.5. When PCJPB confers with CHSRA regarding the proposed settlement, PCJPB will present an outline of a Remediation Plan for addressing the contingency deficit.

8.1.3 The Funding Sources List sets forth the sources of all amounts, including the Funds, anticipated to be used to fund the PCEP in full, including the fiscal years in which such amounts by source are anticipated to be received. CHSRA is obligated to provide the amounts of the Funds in the fiscal year schedule set forth in the Funding Sources List (as it may be modified from time to time per the following Section 8.1.4), provided, however, that such CHSRA obligation (a) does not commence until PCJPB obtains approval from SamTrans to grant and record the Easement Interest and (b) is limited by the extent to which PCJPB and the other funding partners listed in the Funding Sources List have timely performed their respective obligations under the applicable agreements and MOUs, including but not limited to, the obligation of those funding partners, other than CSHRA, to provide funds in accordance with the dates and amounts set forth in the Funding Sources List. The Parties acknowledge that SB 1029 may need to be amended to allow CHSRA contributions ($600 million) per the Funding Sources List schedule attached hereto, because the SB 1029 appropriation expires in 2018; the Parties agree to modify the Funding Sources List schedule if such SB 1029 amendment does not occur.

8.1.4 The Cost Plan and the Funding Sources List may only be materially modified with the written concurrence of both Parties and only if consistent with the MOU Supplement and Funding Commitment Agreement, and such modified version of the Cost Plan and the Funding Sources List may be substituted for the versions thereof previously attached hereto without need for a formal amendment to this PMFA; provided, however, that any modification to the Cost Plan and Funding Sources List that increases CSHRA's level of funding or accelerates performance of its financial obligations shall require a formal amendment that is approved by the California Department of Finance. PCJPB shall provide CHSRA with written updates on the status of the Cost Plan and the Funding Sources List during each quarterly meeting described in Section 4.3 of Exhibit A; such updates shall include a detailed summary of then-to-date total billing for PCEP costs to each of the funding partners listed in the Funding Sources List, so that CHSRA will be able to determine what costs (type and amount) have been billed to each funding entity.

8.2 Matching Funds.

8.2.1 PCJPB shall provide matching funds, to be spent on the items in Attachment 1 Scope of Work, in an amount not less than the total amount reimbursed by CHSRA for the PCEP under this PMFA.

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8.2.2 Except where specifically provided to the contrary in this PMFA or as authorized and reimbursed through the Funding Commitment Agreement and Implementing Agreement, reimbursement of and credits for local matching funds will be made or allowed only for work performed after the Effective Date hereof and before August 1, 2022, or such later date as the Parties may agree to via amendment to this Agreement as a result of PCEP schedule modifications contemplated by Section 3.2 hereof provided that CHSRA first obtains the consent of the California Department of Finance (the "Funding Termination Date").

8.3 Funding Contingency Clause

8.3.1 After execution of this PMFA, if Congress or the State Legislature does not appropriate sufficient funds to the CHSRA, or actions or inactions of other government agencies or market forces prevent appropriated funds from becoming available, or a court of law prevents CHSRA use of appropriated funds, thereby preventing the CHSRA's ability to satisfy its funding obligations contained in this PMFA, the CHSRA shall have the option to either: 1) cancel this PMFA with no further liability occurring to the CHSRA; or 2) amend this PMFA and reduce the scope of work to reflect any reduction in funds.

9 PROJECT REPRESENTATIVES

9.1 All inquiries during the term of this Agreement will be directed to the project representatives ("Contract Managers") identified below:

CHSRA		PCJPB	
Contract Manager:	Bruce Armistead	Contract Manager:	April Chan
Address:	770 L Street, Suite 620 MS 1 Sacramento, CA 95814	Address:	1250 San Carlos Avenue PO Box 3006 San Carlos, CA 94070
Phone:	916) 330-5663	Phone:	650-508-6228
Email:	bruce.armistead@hsr.ca.gov	Email:	chana@samtrans.com

9.2 The Contract Managers may be changed without amendment (as specified in Exhibit D, Section 1).

Exhibit A: Scope of Work

EXHIBIT B: FUNDS, BUDGET DETAIL AND PAYMENT PROVISIONS

1 INVOICING AND PAYMENT

1.1 For services satisfactorily rendered in accordance with the terms of this Agreement, and upon receipt and approval of the invoices by the CHSRA Contract Manager, the CHSRA agrees to reimburse the PCJPB for actual hours worked by PCJPB staff (which consist of public employees of PCJPB member agencies) on an actual cost basis according to the billing rates set forth in Attachment 6 (and in accordance with PCJPB's policies and procedures) and for other allowable costs as set forth in this Exhibit B or Attachment 7 hereto. The hourly rates (by position) for PCJPB staff set forth in Attachment 6 are rate caps, or the maximum allowed to be billed for work completed by PCJPB staff over the duration of this Agreement. Notwithstanding the foregoing, in the event new rates are (1) implemented and approved by the PCJPB, (2) implemented pursuant to the San Mateo County Transit District Personnel Policies and Procedures Manual, Chapter 3, Section 25 – Position Change or (3) implemented pursuant to the San Mateo County Transit District Personnel Policies and Procedures Manual, Chapter 3, Section 13 – Acting, Additional Duties, and Lead Pay, the new rates will apply, without amendment, for work performed by PCJPB staff after the PCJPB's submittal of the new rates (with reasoning for implementation) to the CHSRA's Contract Manager. The PCJPB may also modify, without amendment, the PCJPB staff authorized to perform work under this Agreement. In the event the PCJPB desires to add an authorized staff member, the PCJPB must provide written notice to the CHSRA's Contract Manager before such staff member may perform work under this Agreement. PCJPB hereby confirms that the positions listed in Attachment 6 include only those positions PCJPB reasonably expects to be necessary to deliver the Scope of Work, Attachment 1.

1.2 No payments will be made by CHSRA in advance of the applicable service being rendered or the applicable cost being incurred by PCJPB. In addition, CHSRA shall not be required to reimburse more project costs cumulatively, per quarter of any fiscal year, than the sums identified and included in the Cost Plan for such time period; this is to ensure that CHSRA can manage its funds availability for its own projects and for PCEP in a controlled and predictable manner. However, accelerated reimbursement of PCEP costs in excess of the amounts indicated in the Cost Plan for a particular time period may be allowed in the sole discretion of CHSRA if amounts are available to CHSRA for such purpose.

1.3 PCJPB shall provide one paper original and two copies of the invoice for payment. Invoices shall be submitted no more than monthly in arrears and no later than 30 calendar days after completion of each billing period or upon completion of a task to:

Financial Office
California High-Speed Rail Authority
770 L Street, Suite 620 MS3
Sacramento, CA 95814

accountspayable@hsr.ca.gov

(1 original and 2 copies)

Exhibit B: Funds, Budget Detail and Payment Provisions

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1.4 The PCJPB shall also submit (electronically) one additional copy of the invoice and supporting documentation to the CHSRA's Contract Manager or designee at the address identified in Exhibit A.

1.5 With the exception of pending claims and potential claims that can be filed within applicable legal time limits or other extenuating circumstances, the Funding Termination Date is the last date for PCJPB to incur valid PCEP costs or credits for reimbursement by CHSRA. Subject to the foregoing, PCJPB has 180 days after the Funding Termination Date to make already-incurred final allowable payments to PCEP contractors or vendors and submit the final invoice to CHSRA for reimbursement of allowable PCEP costs before the remaining CHSRA funds may no longer be used to pay for PCEP costs. PCJPB expressly waives any right to allowable reimbursements from CHSRA pursuant to this PMFA for costs incurred after the Funding Termination Date and for costs invoiced to CHSRA for payment after the 180th day following the Funding Termination Date.

2 **INVOICE FORMAT**

2.1 The CHSRA will accept computer generated or electronically transmitted invoices. The date of "invoice receipt" shall be the date the CHSRA receives the paper copy at the address listed in Section 1.3 of this Exhibit.

2.2 An invoice shall include all aspects and information as set forth in Attachment 7.

2.3 The PCJPB acknowledges that the CHSRA may add reasonable information or documentation requirements to the invoice list requirements of Attachment 7 to meet CHSRA needs, if required by the State Controller"s Office or if required for the CHSRA to meet any reporting requirements. The PCJPB, upon receipt of written communication requiring additional documentation or information, shall promptly provide such requested documentation and/or information.

2.4 The PCJPB shall retain back-up documentation for audit purposes available to the CHSRA upon request. The PCJPB shall include appropriate provisions in each of its subcontracts to secure adequate backup documentation to verify all PCJPB"s contractor services and expenses invoiced for payment under this Agreement.

3 **TRAVEL AND PER DIEM RATES**

3.1 The PCJPB shall only be reimbursed for travel by its staff to and from PCJPB offices to the PCEP construction sites (no other travel is authorized) as necessary to carry out the scope of work under this Agreement. Such travel for PCJPB staff will be reimbursed using the same rates provided to non-represented state employees. The PCJPB must pay for any travel expense in excess of these rates. The PCJPB may obtain current rates at the following website: http://www.calhr.ca.gov/employees/pages/travel-reimbursements.aspx.

3.2 PCJPB contractor travel is not eligible for reimbursement under this Agreement.

3.3 The PCJPB must retain documentation of travel expense in its financial records. The documentation must be listed by trip and include dates and times for departure and return. Travel receipts shall be submitted with invoices requesting reimbursement from the CHSRA.

4 **COST PRINCIPLES**

4.1 The PCJPB agrees to comply with procedures in accordance with OMB Circular A-87, as amended, Cost Principles for State, Local, and Indian Tribal Governments.

4.2 The PCJPB agrees to comply with Title 49 Code of Federal Regulations, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, and with any requirements stemming from the Funds received by PCJPB under this PMFA or other funds received or used by PCJPB in connection with the PCEP.

4.3 Any costs for which payment has been made to the PCJPB that are determined by subsequent audit to be unallowable under OMB Circular A-87, as amended, 49 C.F.R. Part 18, or other applicable statute, rule, requirement or regulation are subject to repayment by the PCJPB to the CHSRA.

4.4 Any subagreement in excess of $25,000 entered into as a result of this Agreement, shall contain all the provisions of Exhibit B, Section 4.

5 **EXCISE TAX**

5.1 The State of California is exempt from federal excise taxes, and no payment will be made for any federal excise taxes levied on PCJPB. CHSRA will only pay for any state or local sales or use taxes on the services rendered to CHSRA pursuant to this PMFA.

6 **PROMPT PAYMENT ACT**

6.1 CHSRA will endeavor to make payment in the time frames set forth in Government Code Chapter section 927, *et seq*.

7 **INVOICE DISPUTES**

7.1 Payments shall be made to the PCJPB for undisputed invoices. An undisputed invoice is an invoice submitted by the PCJPB for services rendered and for which additional evidence is not required to determine its validity. The invoice will be disputed if the invoice is inaccurate, or if it does not comply with the terms of the Agreement. If the invoice is disputed, the PCJPB will be notified via a Dispute Notification Form, or with other written notification within 15 working days of receipt of the invoice; the PCJPB will be paid the undisputed portion of the invoice. In the event the project representatives are unable to resolve the issue(s) leading to the disputed invoice, the Parties shall follow the dispute resolution procedure set forth in Exhibit D, Section 4.

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

EXHIBIT C: GENERAL TERMS AND CONDITIONS

1 **APPROVAL**

1.1 This PMFA shall be of no force and effect until signed by both Parties and approved by the California Department of Finance and any other required state department or agency, if required.

2 **AMENDMENT**

2.1 No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the Parties and approved as required, including but not limited to, approval by the California Department of Finance. No oral understanding or Agreement not incorporated in the Agreement is binding on any of the Parties.

3 **ASSIGNMENT**

3.1 This Agreement is not assignable by the PCJPB, either in whole or in part, without the written consent of the State in the form of a formal written amendment.

4 **AUDIT**

4.1 PCJPB agrees that the awarding department, the Department of General Services, the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. PCJPB agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of records retention is stipulated. PCJPB agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, PCJPB agrees to include a similar right of the State to audit records and interview staff in any contract or subcontract related to performance of this Agreement. (Gov. Code §8546.7).

5 **INDEMNIFICATION**

5.1 PCJPB agrees to indemnify, defend and save harmless the State, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by PCJPB in the performance of this Agreement.

6 **DISPUTES**

6.1 PCJPB shall continue with the responsibilities under this Agreement during any dispute.

7 **INDEPENDENT CONTRACTOR**

7.1 PCJPB, and the agents and employees of PCJPB, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the State.

8 **NON-DISCRIMINATION CLAUSE**

8.1 During the performance of this Agreement, PCJPB and its contractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of family care leave. PCJPB and contractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. PCJPB and contractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. PCJPB and its contractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

8.2 PCJPB shall include the nondiscrimination and compliance provisions of this clause in all contracts to perform work under the Agreement.

9 **CERTIFICATION CLAUSES**

9.1 DRUG-FREE WORKPLACE REQUIREMENTS: PCJPB will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:

9.1.1 Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

9.1.2 Establish a Drug-Free Awareness Program to inform employees about:

9.1.2.1 The dangers of drug abuse in the workplace;

9.1.2.2 the person's or organization's policy of maintaining a drug-free workplace;

9.1.2.3 any available counseling, rehabilitation and employee assistance programs; and,

9.1.2.4 penalties that may be imposed upon employees for drug abuse violations.

9.1.3 Every employee who performs work under this Agreement will:

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9.1.3.1 receive a copy of the company's drug-free workplace policy statement; and,

9.1.3.2 agree to abide by the terms of the company's statement as a condition of employment on the Agreement.

9.1.4 Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and PCJPB may be ineligible for award of any future State agreements if the CHSRA determines that any of the following has occurred: the PCJPB has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code §8350 et seq.)

9.2 DOMESTIC PARTNERS: For contracts over $100,000 executed or amended after January 1, 2007, the PCJPB certifies that PCJPB is in compliance with Public Contract Code section 10295.3.

9.3 AMERICANS WITH DISABILITIES ACT: PCJPB assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

9.4 AIR OR WATER POLLUTION VIOLATION: PCJPB shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

10 TIMELINESS

10.1 Time is of the essence in this Agreement.

11 COMPENSATION

11.1 The consideration to be paid PCJPB, as provided herein, shall be in compensation for all of PCJPB's expenses incurred in the performance hereof, including (if authorized) travel, per diem, and taxes, unless otherwise expressly so provided.

12 GOVERNING LAW

12.1 This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

13 CHILD SUPPORT COMPLIANCE ACT

13.1 For any agreement in excess of $100,000, PCJPB acknowledges in accordance with Public Contract Code 7110, that:

13.1.1 The PCJPB recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and

13.1.2 The PCJPB, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

14 UNENFORCEABLE PROVISION

14.1 In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the Parties agree to work cooperatively to amend this Agreement to restore the original full intent and rights and obligations of the Parties contained in this Agreement, if reasonably feasible. If not reasonably feasible, either Party may terminate this Agreement.

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EXHIBIT D: SPECIAL TERMS AND CONDITIONS

1 **CONTRACT MANAGEMENT**

1.1 The PCJPB's Contract Manager is responsible for the day-to-day project status, decisions and communications with the CHSRA's Contract Manager.

1.2 Either Party may change its Contract Manager at any time by giving written notice to the other Party.

2 **CONTRACTS**

2.1 Nothing contained in this Agreement or otherwise, shall create any contractual relation between the CHSRA and any PCJPB contractors, and no contract shall relieve the PCJPB of its responsibilities and obligations under this Agreement. The PCJPB agrees to be as fully responsible to the CHSRA for the acts and omissions of its contractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of its contractors and of persons either directly or indirectly employed by the PCJPB. The PCJPB's obligation to pay its contractors is an independent obligation from the CHSRA's obligation to make payment to the PCJPB. As a result, the CHSRA shall have no obligation to pay or enforce the payment of any moneys to any PCJPB contractor or subcontractor.

3 **CONFLICT OF INTEREST**

3.1 Both Parties acknowledge their shared interest in avoiding organizational conflicts of interest in the performance of work funded under this Agreement.

3.2 The PCJPB's contractors and their employees will comply with the PCJPB's Organizational Conflict of Interest Policy.

3.3 By inclusion of the authorized contractors listed in the Approved Contractor List attached hereto as Attachment 8, both Parties agree that no significant conflict exists that would preclude the listed firms from performing work under this Agreement.

3.4 If the PCJPB seeks to add any contractors or subcontractors to this Agreement, the CHSRA retains authority to analyze whether such additions would present an organizational conflict of interest under the CHSRA 's Organizational Conflict of Interest Policy and, if so, either to decline to add such contractors or subcontractors, or to require mitigation of identified conflicts before the conflicted entity is assigned any work under this Agreement.

4 **SETTLEMENT OF DISPUTES**

4.1 The Parties will follow the dispute resolution procedure set forth in Section IV of the Funding Commitment Agreement.

5 **TERMINATION**

5.1 This Agreement can be terminated at any time by mutual agreement of the parties.

6 **NON-WAIVER**

6.1 No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. No remedy available in this Agreement is intended to be exclusive of or a prerequisite to any other remedy, and every remedy shall be cumulative and shall be in addition to every other remedy provided therein or available at law or in equity. The failure of the CHSRA to enforce any provision of this Agreement or require performance by the PCJPB of any provision shall in no way be construed to be a waiver of those provisions, affect the validity of this Agreement in whole or in part, or the right of the CHSRA to subsequently enforce any such provision.

7 **CAPTIONS**

7.1 The clause headings appearing in this Agreement have been inserted for the purpose of convenience and ready reference and do not define, limit, or extend the scope or intent of the clauses.

8 **INDEMNIFICATION**

8.1 In addition to the Indemnification provision in Exhibit C, the following indemnification provision shall also apply to this Agreement: The CHSRA agrees to indemnify, defend and save harmless the PCJPB, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement stemming from any tortious acts of the CHSRA in the performance of this Agreement.

9 **PREVAILING WAGES**

9.1 PCJPB shall comply with all Labor Code requirements applicable to the Scope of Work set forth in Attachment 1 of this Agreement or any additional requirements stemming from the funding provided under this Agreement. PCJPB shall include the provisions of this clause in all contracts to perform work under the Agreement.

10 **LICENSES AND PERMITS**

10.1 The PCJPB shall ensure that all contractors hired to complete the Scope of Work under Attachment 1 of this Agreement possess all required licenses and permits.

11 **INSURANCE**

11.1 Without limiting the PCJPB's indemnification of the CHSRA, PCJPB agrees to require any and all PCJPB contractors to list the CHSRA as an additional insured on all insurance required under each contract between the PCJPB and its PCJPB contractor(s). The PCJPB shall provide certificates of insurance to the CHSRA as evidence of the insurance coverage required herein. The PCJPB shall ensure that it provides current certifications of insurance to the CHSRA at all times during the term of this Agreement.

Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

12 **PROJECT PERMITS AND APPROVALS**

12.1 PCJPB represents that as of the date of this PMFA, except as listed on Attachment 9 hereto, to the best of its knowledge PCJPB has obtained all public and private approvals, permits, entitlements and rights (including property and operating rights) needed or reasonably necessary to acquire all equipment and materials identified in the Scope of Work, to construct the PCEP infrastructure and to operate the PCEP electrification system once completed, all as contemplated in this PMFA (collectively, "Project Permits"). PCJPB will keep all Project Permits in full force and effect throughout the term of this PMFA and available for CHSRA review at any time upon reasonable advance notice. PCJPB will secure and pay for all approvals and permits of any kind required from any government entity necessary to construct the PCEP infrastructure and eventually operate in the post-PCEP Corridor.

13 **NONDISCRIMINATION COMPLIANCE**

13.1 During the performance of this Agreement, the PCJPB and the PCJPB Contractors shall not deny the Agreement's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, PCJPB identity, gender expression, age, sexual orientation, or military and veteran status. The PCJPB shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

13.2 The PCJPB shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code section 12900, *et seq.*) the regulations promulgated thereunder (Cal. Code Regs., Tit. 2, section 11000, *et seq.*), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code sections 11135-11139.5), and the regulations or standards adopted by the awarding state agency to implement such article.

13.3 The PCJPB shall permit access by representatives of the Department of Fair Employment and Housing and the CHSRA upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or CHSRA shall require to ascertain compliance with this clause.

13.4 The PCJPB and the PCJPB Contractors shall give written notice of their obligations under this Section 13 to labor organizations with which they have a collective bargaining or other agreement.

13.5 The PCJPB shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

14 **ACCESS TO SITES AND RECORDS**

14.1 The CHSRA staff or its representatives shall have reasonable access to all sites (including, but not limited to, construction sites) and records related to this Agreement.

15 **SIGNATORIES**

15.1 Each Party warrants and affirms that the individual signing this Agreement on behalf of the respective Party has the authority to bind such Party to the terms and conditions herein.

16 **COUNTERPARTS**

16.1 This PMFA may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of copies of this PMFA and of signature pages by electronic mail in "portable document format" (".pdf") form shall constitute effective execution and delivery of this PMFA as to the Parties and may be used in lieu of the original PMFA for all purposes.

17 **BOND PROVISIONS**

17.1 Management Contracts. If PCJPB enters into a management contract with a private party for operation of rail or other transportation services in connection with the PCEP or that otherwise will involve use of the PCEP, PCJPB will obtain prior approval from Bond Counsel acceptable to CHSRA and the California State Treasurer that the terms of such management contract meet the requirements of Internal Revenue Service Revenue Procedure 2017-13 (as supplemented or amended) or any successor thereto (dealing generally with guidelines for when management contracts may be deemed not to create a "private use" of bond-financed property) or are otherwise acceptable. PCJPB must also be prepared to certify, upon request of CHSRA or the California State Treasurer, that the revenues that PCJPB (or its manager) receives directly from the operation of transportation services in connection with the PCEP (but not including any subsidy of the transportation operation from taxes or other outside fund sources) are, for any fiscal year, less than the ordinary and necessary expenses directly attributable to the operation and maintenance of the transportation system (excluding any overhead or administrative costs of PCJPB).

17.2 Non-Governmentally Used Property

17.2.1 Except as provided in this Section 17, CHSRA and PCJPB agree that any costs of the PCEP acquired or constructed by PCJPB allocable to portions of the PCEP that are subject to any property interests held by a non-governmental person(s) in connection with business activities, such as easements, leases, or fee interests, not generally enjoyed by the public (hereinafter referred to as "Non-Governmentally Used Property," or "NUP") shall require the prior approval of CHSRA and the California State Treasurer, if applicable. It is anticipated that approval will be granted if, taking into account the existing and expected uses of the proceeds of the bonds, CHSRA and the California State Treasurer determine that the continued tax-exempt status of the State of California bonds will not be adversely affected and that the use of the property is consistent with the PCEP and its described purpose. If PCJPB receives any revenues or profits from any NUP activities allowed pursuant to this (whether approved upon execution of this PMFA or hereafter approved by CHSRA), PCJPB agrees that such revenues or profits shall be used exclusively for the public transportation services for which the PCEP was initially approved, either for capital improvements or operating costs. If PCJPB does not so dedicate those revenues or profits, a proportionate share shall (unless disapproved by the California State Treasurer) be paid to CHSRA equivalent to the ratio of CHSRA's percentage of funding for the PCEP.

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17.2.2 NUP will include, but is not limited to, property that is sold (including sales of air and subsurface rights), and property subject to easements, leases, or similar rights. A rail right of way will not be treated as NUP solely as a result of a freight use easement retained by the seller of the right of way to PCJPB, provided that the sale agreement appropriately excludes the freight use easement from the property or rights being acquired.

17.2.3 For purposes of this Section 17, NUP does not include "incidental uses" of the PCEP, such as vending machines, pay telephones, small kiosks, and similar uses provided that (i) such uses are not related to any other use of the facility by the same persons or entities, and (ii) all such "incidental uses" do not comprise, in the aggregate, more than 2.5% of the costs or space of the PCEP.

17.3 Allocation and Uses of State of California Bond Proceeds.

17.3.1 State of California bond proceeds transferred pursuant to this PMFA will be used by PCJPB to pay costs of acquiring and constructing the PCEP. Absent written approval by CHSRA, the Department of Finance and the State Treasurer, PCJPB will not use State of California bond proceeds derived from the sale of tax-exempt bonds to repay any tax-exempt-based debt (e.g., used as interim financing for the PCEP). Without relieving PCJPB of it obligation to comply with all terms of this PMFA (including but not limited to Exhibit D, Section 17), it is understood and agreed that PCJPB may use State of California bond proceeds derived from the sale of taxable bonds as may be issued from time to time to repay any debt (e.g., used as interim financing for the PCEP); upon request by PCJPB, CHSRA will inform PCJPB of whether a payment(s) under this PMFA from CHSRA to PCJPB was derived from taxable or tax-exempt bonds. Bond proceeds will be used to reimburse PCJPB for a portion of the costs of the PCEP initially paid by PCJPB, but no bond proceeds will be used to reimburse any costs paid by PCJPB more than 18 months prior to such reimbursement.

17.3.2 NUP shall, for accounting and bookkeeping purposes, first be allocated to funding sources other than the bond funds. For purposes of making such allocations, the costs attributable to NUP involving a sale, easement, lease or similar arrangement shall be determined on the basis of a fair allocation of value, which may include determinations based upon square meters/feet of the area encumbered by the NUP lease or easement relative to the total area acquired or constructed it all such area is of approximately equal value.

17.3.3 Notwithstanding the foregoing, PCJPB may be authorized to receive an allocation of State of California bond proceeds for costs of NUP if PCJPB submits a certified bond certification questionnaire to CHSRA and both CHSRA and the State Treasurer approve the NUP to be financed with bond proceeds.

17.3.4 PCJPB shall not loan any portion of bond proceeds funding the PCEP to any other person or entity (whether for-profit, non-profit or governmental). For this purpose, a "loan" includes any arrangement that is the economic equivalent of a loan, regardless of how it is named.

17.3.5 To the extent any State of California bond proceeds are used to fund right of way acquisition for the PCEP, including temporary construction easements and excess property, PCJPB will not sell such property without approval of CHSRA and the State Treasurer. If approved, proceeds from the sale of such bond-funded property may be required to be returned or credited to CHSRA on a pro-rata basis.

17.4 Nothing in this Section 17 shall be interpreted to limit or prevent CHSRA from providing service in the Corridor via a commercial, for-profit operator, consistent with the rights, agreements and understandings between the Parties set forth elsewhere in this PMFA.

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020)

1695-1702

Refer to Standard Response SJM-Response-GEN-3: Consideration of Caltrain Business Plan, Including the 2040 Caltrain Service Vision.

The Authority will continue coordination with PCJPB through planning, design, construction and operation of the blended system, and with other regional agencies and local jurisdictions where appropriate. The operational assumptions utilized to support the project description in the Draft EIR/EIS are adequate to inform the analysis and disclosure of environmental impacts associated with the Authority's proposed project within the Draft EIR/EIS.

1695-1703

Refer to Standard Response SJM-Response-GEN-3: Consideration of Caltrain Business Plan, Including the 2040 Caltrain Service Vision.

The Authority will continue coordination with PCJPB through planning, design, construction and operation of the blended system, and will enter into agreements as needed. The operational assumptions utilized to support the project description in the Draft EIR/EIS are adequate to inform the analysis and disclosure of environmental impacts associated with the Authority's proposed project and described within the Draft EIR/EIS.

1695-1704

The Authority appreciates the comments on the Draft EIR/EIS. In subsequent individual comments, the commenter provided specific concerns regarding the deficiencies and inconsistencies with relevant plans, priorities and decisions for the future of the Peninsula Corridor and the Caltrain service; describing the ownership of the Peninsula Corridor and its stations and facilities by the PCJPB and other entities; and considering the impacts on the San Jose Diridon Station. Each of these specific comments is addressed below.

1695-1705

Refer to Standard Response SJM-Response-GEN-3: Consideration of Caltrain Business Plan, Including the 2040 Caltrain Service Vision.

Regarding the August 9, 2016, Agreement (Authority and PCJPB 2016, as cited in Chapter 1, Project Purpose, Need, and Objectives, of the Final EIR/EIS), that agreement requires the Authority to dedicate $600 million in Proposition 1A funding for the PCEP, additional Authority and/or other state funding of $113 million for the PCEP, and established certain terms of cooperation between the Authority and the PCJPB to cooperate in realizing blended service in the Caltrain Corridor. The 2016 Agreement does not reference the 2040 Service Vision or the current Business Plan, as the vision and plan were not in preparation at the time. The 2016 Agreement does not describe a specific Caltrain or HSR level of service. Instead, it references PCJPB sharing train slots consistent with the Authority's 2014 Business Plan (Authority 2014, as cited in Chapter 1 of the Final EIR/EIS) and the simulations deemed feasible in the prior 2012 Caltrain/Authority Blended Operations Analysis (Caltrain 2012, as cited in Chapter 1 of the Final EIR/EIS). The 2016 Agreement does not require or imply an Authority responsibility for funding of, or environmental review of, an increased level of Caltrain service beyond that envisioned in the PCEP or agreed upon between Caltrain and the Authority in prior agreements.

Regarding the 2018 PMFA (Authority and PCJPB 2018, as cited in Chapter 1 of the Final EIR/EIS), that agreement provides further detail concerning the $600 million in Proposition 1A funding and further detail regarding the obligations of PCJPB in completing the PCEP and of the Authority in regard to the HSR project and both parties' obligations and responsibilities concerning implementing blended service. The 2018 PMFA recognizes that, after completion of the PCEP, any associated electrification elements, and Positive Train Control system, there would be 8 electric train slots per hour per direction, including 2 guaranteed HSR train slots per hour per direction (implying 6 Caltrain train slots per hour per direction). The 2018 PMFA recognizes that HSR may occupy 2 additional train slots per hour per direction (for a total of 10 train slots, including 4 HSR train slots and 6 Caltrain train slots per hour per direction), with the understanding that, through the Blended System Planning Process, PCJPB and the Authority will determine whether additional capital investments in the Caltrain Corridor would be necessary or not. The 2018 PMFA describes that allocation of train slots

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1705

beyond the 10 slots addressed in the PMFA would be determined through the Blended System Planning Process and future agreements, which may include the Shared Use Agreement.

Regarding the yet-to-be-negotiated Shared Use Agreement, it would be speculative to reference an agreement that is not yet completed.

These agreements concern funding and cooperation between the Authority and the PCJPB to realize the PCEP and HSR/Caltrain blended service. These agreements these agreements are consistent with the assumptions in the Draft EIR/S concerning prior understanding of blended system planning, which to date has only agreed on a total of 6 Caltrain train slots per hour per direction and up to 4 HSR train slots per hour per direction. Nevertheless, reference to the 2016 Agreement and the 2018 PMFA have been added to Chapter 1 of the Final EIR/EIS as background information.

Regarding mitigation that may occur within the Caltrain Corridor, the Draft EIR/EIS appropriately recognizes that the PCJPB is the corridor owner and manager. The Authority is responsible for implementing identified feasible mitigation related to significant impacts identified in the EIR/EIS per the requirements of CEQA and any other mitigation the Authority deems as required relative to the NEPA analysis. The Authority recognizes that construction of improvements within the Caltrain Corridor requires agreement and approval of the PCJPB, including the implementation of any environmentally required mitigation per the requirements of the federal and state statutes.

1695-1706

The Authority is aware of the PCJPB's ownership and trackage rights agreements as well as those of Union Pacific Railroad and VTA. Where relevant to the environmental analysis, ownership and agreements are referenced in the EIR/EIS. For example, in Section 3.2, Transportation, of the Draft EIR/EIS, relevant aspects of the trackage rights agreement between the PCJPB and the UPRR are described in the discussion of existing conditions for freight rail in Section 3.2.5.6,Freight Rail Service, of the Draft EIR/EIS on pages 3.2-41 to 3.2-42. The Authority recognizes that construction of improvements within the Caltrain Corridor require agreement and approval of the PCJPB, including the implementation of any environmentally required mitigation per the requirements of the relevant federal and state statutes. To provide clarity for the EIR/EIS reader, the description provided by the PCJPB in this comment has been added to both Section 1.2.4.1, Travel Demand and Capacity Constraints, and Section 2.6.1.5, Planned Intercity Transit Improvements, of the Final EIR/EIS.

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1707

Refer to Standard Response SJM-Response-GEN-3: Consideration of Caltrain Business Plan, Including the 2040 Caltrain Service Vision.

Regarding the use of "prototypical" schedule for the purposes of environmental analysis, the approach for analysis of the HSR project and blended service in the Draft EIR/EIS is the same as that used by the PCJPB in its environmental analysis of the potential effects of the PCEP. A "prototypical" schedule was used in order to conduct analyses for environmental purposes, such as analysis of potential effects of the project on traffic, noise, safety, passenger rail operations, and freight rail operations. The PCJPB, in its 2015 EIR, recognized that the "prototypical" schedule it used for its environmental analysis did not represent every possible future permutation of potential service operations and also did not limit those potential permutations. Furthermore, PCJPB did not limit itself to only operating Caltrain service based on the Caltrain "prototypical" schedule contained in its EIR (PCJPB2015, as cited in Section 3.2 of the Draft EIR/EIS). The Authority has done the same thing for its environmental analysis of the HSR project. The Draft EIR/EIS does not imply that the schedule of blended service used for the sake of environmental analysis is the only possible schedule or that the Authority and PCJPB have agreed to that specific schedule for either HSR or Caltrain service. However, in order to complete an environmental analysis, one must make certain assumptions about future operations in order to complete the analysis. As such, the Authority derived a prototypical schedule based on blended service evaluations at the outset of the environmental analysis for the HSR project (which formally restarted in 2016). The Authority shared the study of blended service (including the prototypical schedule) with the PCJPB throughout its Draft EIR/EIS preparation. The analysis of the impact of HSR operations on Caltrain and other passenger rail operations as well as freight operations is based on the reasonable use of a prototypical schedule that would accommodate Caltrain service levels (as identified at the time based on the PCEP infrastructure), the proposed HSR service levels (as indicated in the Draft EIR/EIS), and the service levels of other rail operations. Existing passenger rail service is described in Table 3.2-10 in Section 3.2, Transportation, of the Draft EIR/EIS. The daily freight service assumed for the future for the analysis in the EIR/EIS is described in Table 3.2-20 in Section 3.2 of the Draft EIR/EIS. The daily passenger service assumed for the future for the analysis in the EIR/EIS is described in Tables4-9 and 4-10 in Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2 of the Draft EIR/EIS). These levels of service

1695-1707

were considered in completing the analysis of potential effects on passenger rail and freight rail service and operations in Section 3.2 of the Draft EIR/EIS. For the ease of the reader, the information in Tables 4-9 and 4-10 in Appendix 3.4-A has been added to Section 3.2 in the Final EIR/EIS to be clear regarding expected future service.

1695-1708

Proposed infrastructure changes to the Caltrain stations, the Michael Yard, and the Gilroy yard are described in Chapter 2, Alternatives, of the EIR/EIS and preliminary engineering drawings are presented in Volume 3, Preliminary Engineering for Project Design Record. The train service levels assumed for the future were identified in Section 3.2, Transportation, of the Draft EIR/EIS and considered in regard to the analysis of potential impacts on passenger and freight rail service. As explained in response to submission 1695, comment 1707, information from Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), about anticipated passenger service has been added to Section 3.2 in the Final EIR/EIS in response to an earlier comment from Caltrain.

1695-1709

Refer to Standard Response SJM-Response-GEN-2: Consideration of Diridon Integrated Station Concept and the Google Development at the San Jose Diridon Station.

The Authority will continue to engage PCJPB through the design process, construction, and operation of the project. The ultimate implementation of the project (both physical and operation of services) on Caltrain-owned facilities will be subject to further joint blended system planning and agreement with Caltrain as governed through existing and future inter-agency agreements. Please refer to response to submission 1695, comment 1711 for a discussion of the revisions to Section 3.2, Transportation, in the Final EIR/EIS to describe the Diridon Station platform analysis more explicitly in Impact TR#16. With the two proposed dedicated platforms for HSR, there would remain adequate platform capacity on the other four platforms to serve Caltrain, ACE, and Capitol. Amtrak can also be accommodated. The Authority is committed to continuing to work with Caltrain to mutually agree to service parameters.

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1710

Refer to Standard Response SJM-Response-GEN-2: Consideration of Diridon Integrated Station Concept and the Google Development at the San Jose Diridon Station.

1695-1711

The description of the 2018 PMFA requirements in regards to HSR service levels and infrastructure is accurate in that the PMFA only specifies up to four HSR train slots per hour for San Jose to San Francisco service. As clarified in the Final EIR/EIS in Chapter 2, the analysis of blended operations (including up to 6 HSR trains per peak hour per direction and up to 4 Caltrain trains per peak hour per direction) also included an analysis of the capacity of San Jose Diridon Station to accommodate HSR service, Caltrain service and service for the other passenger railroads (Capitol Corridor, Amtrak, and ACE) (Authority 2018b, as cited in Section 3.2 of the Draft EIR/EIS). Under Alternative 4, HSR service from San Jose to Merced would be within the Caltrain Corridor from the Diridon Station to CP Lick and would be blended with Caltrain (and other rail service).This segment of the Caltrain Corridor only contains two tracks at present: MT-1, which is owned by UPRR and MT-2, which is owned by the PCJPB. The PCEP is only proposing to electrify MT-2 as UPRR has objected to electrifying MT-1, meaning that PCJPB electrified operations would be limited o MT-2 only. The Authority is proposing the installation of an additional electrified track to add capacity within the Caltrain Corridor and will double the capacity for electrified train service compared to PCEP. The third track will be used by freight rail, ACE, and other passenger rail. Thus, the HSR project will double the electrified track capacity available compared to that with PCEP alone, while not reducing any capacity available to freight and other passenger rail operations utilizing the UPRR controlled MT-1. As explained in Section 3.2, Transportation, of the Draft EIR/EIS, the Authority analyzed the impact of blended operations on Caltrain passenger service between San Jose and Gilroy under Impact TR#16, which concluded that with the new infrastructure there would be a capacity for up to 12 trains per peak hour per direction on the two electrified tracks, although there would be need for some modifications to service schedules due to increase speed requirements for blended operations. The allocation of those slots between HSR and Caltrain service will need to be determined between the Authority and the PCJPB as it is not specified in prior agreements. South of the San Jose Diridon Station, the UPRR corridor only has one track at present and the HSR project would add two additional tracks which would substantially increase capacity for both HSR and Caltrain service between San Jose and Gilroy in the UPRR corridor as well. Since the HSR project would maintain a dedicated track for UPRR (MT-1), capacity for freight and other passenger rail operations would be maintained. The analysis of blended operations between San Jose and Gilroy also included an analysis of the capacity of San Jose

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1711

Diridon Station to accommodate HSR service, Caltrain service, and service for the other passenger railroads (ACE, Capitol Corridor, Amtrak, and ACE) (Authority 2018b). With the two proposed dedicated platforms for HSR, there would remain adequate platform capacity on the other 4 platforms to serve Caltrain (up to 6trains per hour per direction); ACE (up to 4 trains per hour per direction),and Capitol Corridor (up to 2 trains per peak hour). Amtrak only has two trains per day, does not have the same platform capacity needs as the peak hour services and can also be accommodated. Section 3.2, Transportation, has been revised in the Final EIR/EIS to describe the Diridon Station platform analysis more explicitly in Impact TR#16.

1695-1712

Regarding the San Jose Diridon Station Integrated Station Planning Process and the Diridon Integrated Station Concept, please refer to SJM-Response-GEN-2, Consideration of Diridon Integrated Station Concept and the Google Development at the San Jose Diridon Station.

Regarding inconsistent references to the integrated station planning, the planning process is described in Section 2.1, Introduction, of the Draft EIR/EIS as a separate planning process, and decisions about future changes to the San Jose Diridon Station and the surrounding Caltrain-owned rail infrastructure and corridor are the subject of multiple planning and agreement processes that are proceeding independently from this environmental process. The comment does not provide reference to any specific language regarding the integrated planning process and thus further response is not possible.

1695-1713

The Alternative 4 design variant preliminary engineering is referenced (Authority 2020b, as cited in Chapter 2 of the Final EIR/EIS) in Section 3.19, Design Variants to Optimized Speed and was available for review, upon request, from the Authority during the review of the Draft EIR/EIS. The design variant preliminary engineering drawings are included in Volume 3, Preliminary Engineering for Project Design Record, in the Final EIR/EIS. The Authority recognizes that all modifications within the Caltrain Corridor require the PCJPB's approval, and the Authority acknowledges the requirements of the PMFA cited in this comment. Regarding other stakeholder-requested modifications, the comment is non-specific as to what they may be and no further response can be provided. However, the Authority will continue coordination with PCJPB through planning, design, construction, and operation of the blended system, and with other regional agencies and local jurisdictions where appropriate.

1695-1714

Refer to Standard Response SJM-Response-GEN-3: Consideration of Caltrain Business Plan, Including the 2040 Caltrain Service Vision, SJM-Response-GS-1: Requests for Grade Separations.

The comment's request for ongoing support and engagement for corridor-wide strategic planning is noted. The Authority will continue to engage jurisdictions and stakeholders through the design process, construction, and operation of the project.

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1715

The comment states that writing memoranda on local agency coordination and planning at stations prior to HSR operations as laid out in the IAMFs will not result in impact minimization. The Authority has and will continue to coordinate with local agencies and jurisdictions during the design and operational phases of the project to ensure that the memo would describe the local agency coordination and station area planning conducted to prepare the station area for HSR operations and as such will require opportunities for further discussion with stakeholders and agencies to achieve resolution of the issues raised by the commenter. The Authority's commitment is to the application of station area principles and avoiding alternations of planned land uses, where possible.

Additionally, MOUs have been used throughout the design and environmental review process to provide the foundation and baseline understanding of each party's obligations, responsibilities, and agreements on the implementation process. These MOUs would contain terms to ensure that impacts would be avoided and minimized at stations with multiple providers and ownership structure.

1695-1716

Refer to Standard Response SJM-Response-GEN-3: Consideration of Caltrain Business Plan, Including the 2040 Caltrain Service Vision.

The description of the San Jose to Merced project that supports the Draft EIR/EIS is adequate to analyze and disclose environmental impacts.

1695-1717

The comment mischaracterizes how the EIR/EIS analyzes potential conflicts with regional and local plans and policies. The EIR/EIS includes the CEQA- and NEPA-required discussion of potential inconsistencies. See for example Section 3.2.3, Consistency with Plans and Laws. That analysis relative to transportation is provided in Appendix 2-K, Policy Consistency Analyses (located in Volume 2 of the Draft EIR/EIS). Additional clarifying text has been provided in Section 3.13 of the Final EIR/EIS, explaining that any environmental impacts that would result from conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect are also be analyzed and discussed in applicable resource chapters. It is important to note that a mere inconsistency with a regional or local plan or policy does not necessarily mean the inconsistency results in a significant environmental impact. Also see Standard Response OUT-2. The EIR/EIS is accurate in stating that the project, as an undertaking of state and federal agencies, is not legally subject to local transportation regulations. SB 1029 is a state law, not regional or local regulation or policy. The Authority is bound by state law, and the project is being designed consistent with the SB 1029 requirements. The impact analysis does consider the potential impacts of the project on the local and regional rail system in Section 3.2, Transportation, of the Draft EIR/EIS, and this comment does not identify any specific deficiencies with that analysis.

Response to Submission 1695 (Sebastian Petty, Caltrain, June 23, 2020) - Continued

1695-1718

Regarding the example provided in the comment, the cultural resource text referenced is from Section 3.17.7.2, Archaeological Resources, of the Draft EIR/EIS. Section 3.17.7.2 refers to Section 3.17.8, Mitigation Measures, of the Draft EIR/EIS, which provides the language of each mitigation measure. Draft EIR/EIS Table 3.17-6 provides a summary of the alternatives and resources each mitigation measure is applicable to. Further, Draft EIR/EIS Table 3.17-8 presents CEQA significance conclusions and the applicable mitigation measures for each impact. The above example was drawn from Section 3.17, but all resource sections follow the same format: for any impact that is identified as significant prior to mitigation, there is an narrative following the table that explains how the mitigation avoids or reduces the impacts and the resulting CEQA level of significance after mitigation. As to the example provided in the comment concerning noise mitigation, Section 3.4, Noise and Vibration, of the Draft EIR/EIS follows the same document organization and approach to identifying and discussing mitigation as the cultural resources section described above; text and tables clearly identify which mitigation applies to which impacts and whether that mitigation reduces the impacts to a less-than-significant level or whether a significant unavoidable impact would remain. As such, the mitigation measures are identified in the Draft EIR/EIS in relation to the impacts they apply to. The commenter may prefer a different style in which to present or discuss the mitigation measures, but that preference does not indicate any inadequacy in the identification of mitigation in the EIR/EIS.

1695-1719

The Authority agrees that there are a range of agreements and implementation actions necessary for building and operating the HSR project, including those related to the cooperation between PCJPB and the Authority regarding implementing blended service in the Caltrain Corridor.

Regardless of these agreements, NEPA and CEQA require the Authority to identify mitigation to address identified environmental effects. Under CEQA, the Authority is required to adopt feasible mitigation for identified significant impacts unless it makes specific findings based on overriding considerations. Under CEQA, the Authority is obligated to implement commitments that are documented in its final mitigation documents (including a Mitigation Monitoring and Reporting Plan under CEQA). Under NEPA, the Authority is obligated to implement commitments made in its Record of Decision. The comment does not identify any specific IAMFs or mitigation measures as infeasible or otherwise inconsistent with prior agreements between the PCJPB and the Authority. The Authority recognizes that its construction and operations must comply with the existing agreements between the PCJPB and the Authority and any future agreements that the two parties may complete.

1695-1720

The comment is noted and does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS. The Authority will continue engagement with PCJPB through the planning, design, construction and operation of the blended system.

Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020)

1335 West "T" Street
PO Box 1231
Los Banos, CA 93635

(209) 826-1421
Fax (209) 826-3184
www.cidwater.org

RECEIVED
JUN 23 2020
BY:

June 19, 2020

Attn: Draft San Jose to Merced Project Section EIR/EIS
100 Paseo de San Antonio
Suite 300
San Jose, CA 95113

Re: Comments on Draft Environmental Impact Report/Environmental Impact Statement- San Jose to Merced Project Section.

Dear HSR Authority:

This letter contains the Central California Irrigation District's comments on the "Draft San Jose to Merced EIR/EIS Report". We would like to inform the HSR Authority of the matters that may impact the District's facilities, the facilities of its customers, and the agricultural community within its boundaries.

ENVIRONMENTAL CONCERNS:

The District is approving the content of volume 1, Section 3.14, Agricultural Farmland, as a whole. In addition, the District would like to include the following comments:

1472-582 Any application of pesticides or herbicides for weed control within the HSR right-of-way must be performed using best practices and coordinated with the adjacent landowner and/or the District. Measures shall be taken to ensure that drift or over-spray onto nearby crops is avoided, particularly for organically grown crops.

1472-583 Implementation of dust control measures should be in strict compliance with the minimizing practices outlined in report to mitigate potential crop damage.

1472-584 Compliance with the Clean Water Act, TMDLs, Ground Water Sustainability, and SWPPP, along with other codes and regulations for water management should be applied. Further details are required on how drainage, water flow, and construction water and waste water will be addressed without impacting CCID facilities.

1472-585 Historic capacities must be maintained to move irrigation and flood waters through existing drainage and irrigation facilities to prevent the impounding of water over crop lands.

1472-586 Runoff from the rail levee will need to be continually managed for prevention of pollution to area lands and facilities. Any plans to discharge drainage water into CCID facilities will need to be coordinated in advance, with CCID.

1472-587 Protection and cleanup of hazardous materials from spills into water channels or surface irrigation ditches is not defined specifically for these types of water facilities. This needs to be addressed in the report or in supplemental reports and/or contracts prior to construction. The report requires that a SPCC program be implemented. However, the contractor is instructed to work with local agencies to resolve such encounters and address cleanup. CCID recognizes that any mitigation is the sole responsibility of the HSR Authority.

1472-588 The report mentions that installing wells will not be used as a water supply. Any water needed for construction or long-term Operation & Maintenance shall be coordinated in advance. CCID cannot guarantee availability of water.

DESIGN:

1472-589 HSR engineering or its consulting engineers who will be designing the structures and providing for the civil plans must work closely with CCID on details of the improvements necessary for its waterways at multiple locations.

1472-590 The District delivers water year-round requiring that all pipes, canals, ditches, and drains remain in service. Construction at these locations will need to be coordinated with the District in advance to maintain water deliveries and provide the most conducive conditions for construction.

1472-591 Shallow ground water exists below District lands at depths less that ten feet below ground surface, from Interstate Highway 5 to Carlucci Road. This area will need to be dewatered to allow for construction to occur. Dewatering activities may be continuous during construction and coordination of discharging this water into any District facilities shall be coordinated with CCID in advance.

1472-592 All CCID facilities shall maintain delivery capacity consistent with District operations. Design details for a structure of any kind at water channels, ditches, and culverts shall be coordinated with the District.

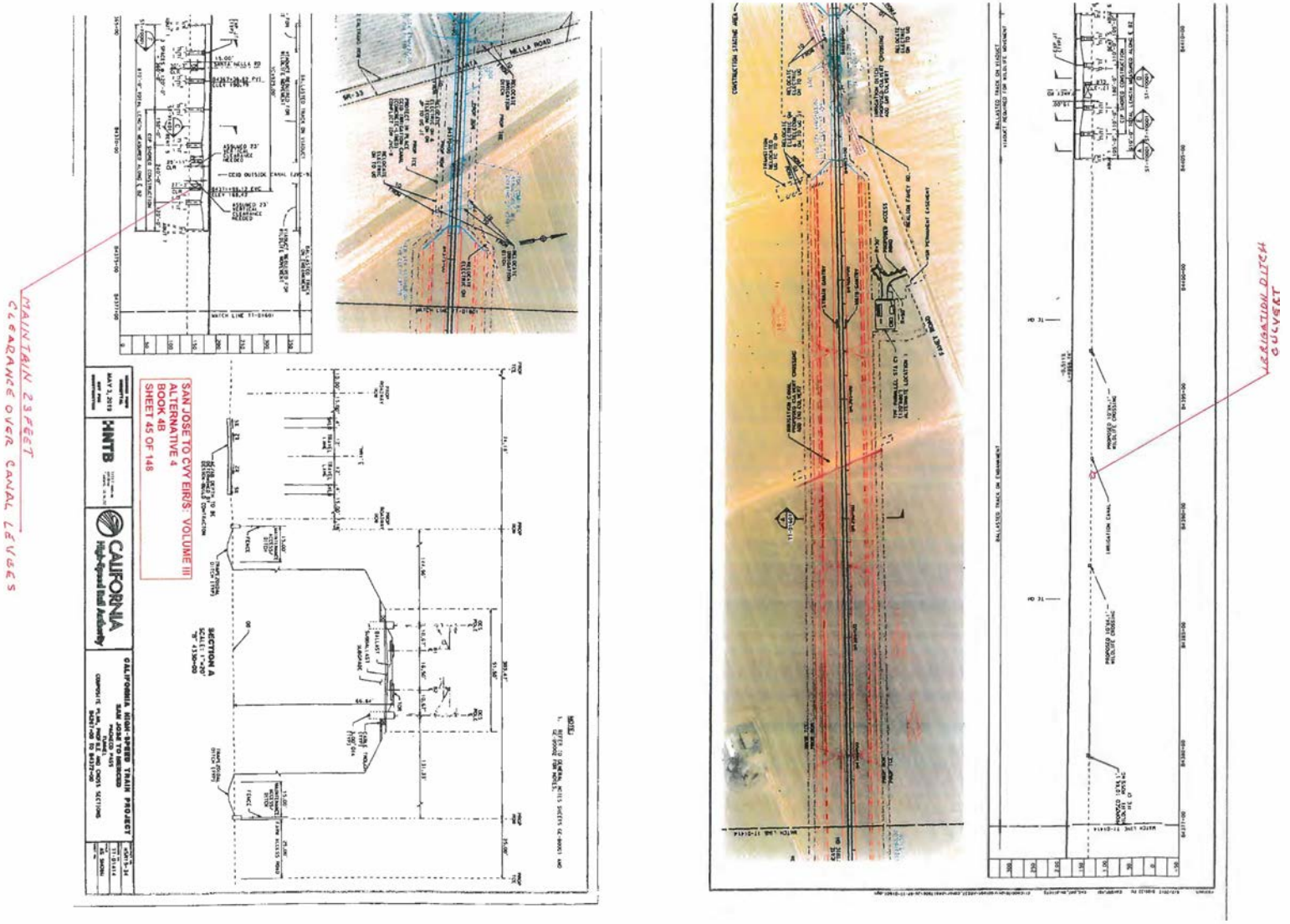
Attached are the draft civil plans on which we have provided our comments.

We look forward to working with you on your project. If you have any questions regarding this matter, you may contact our projects manager, Russell Landon, at (209) 826-1421.

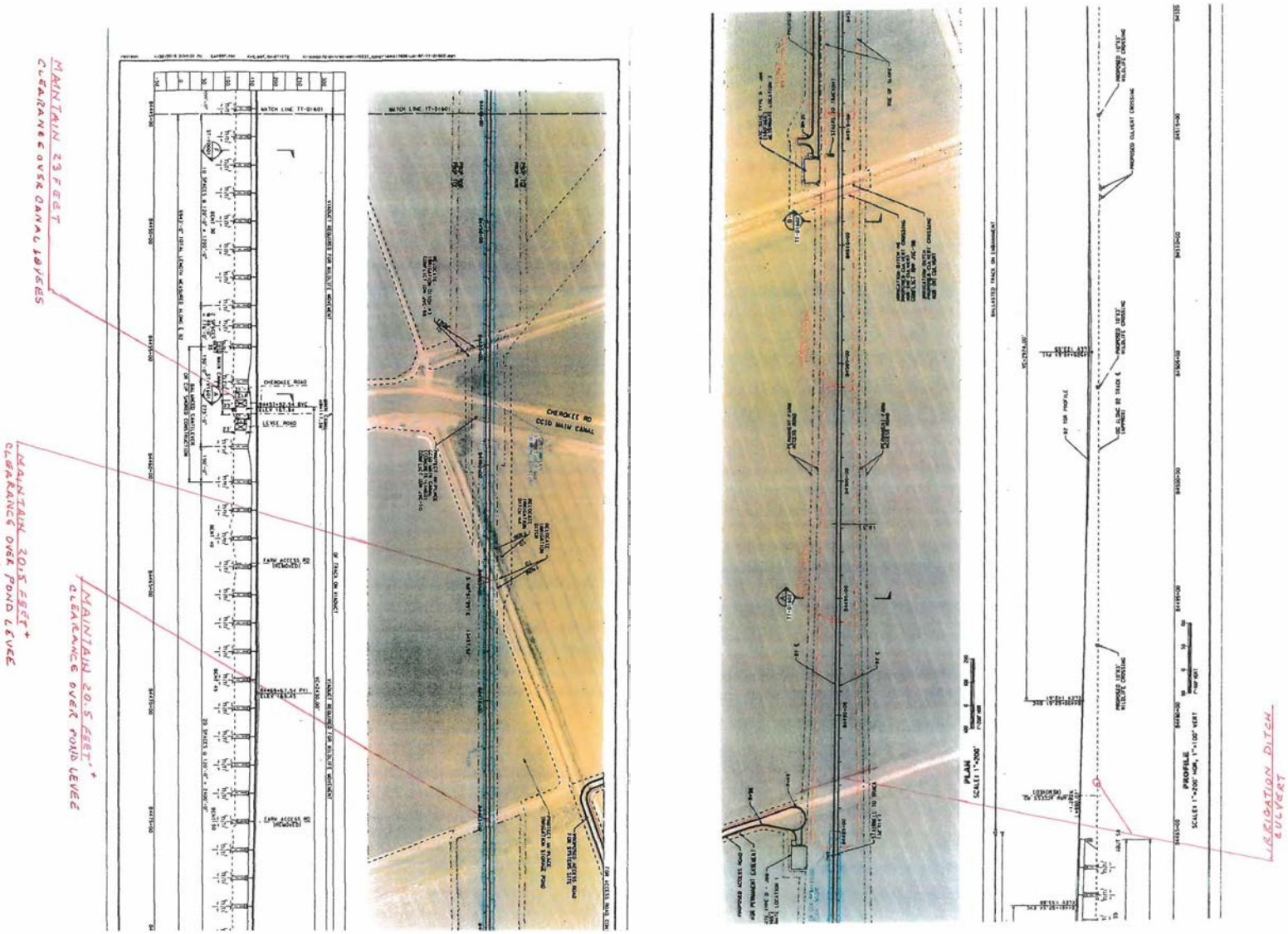
Very truly yours,

Jarrett Martin
General Manager

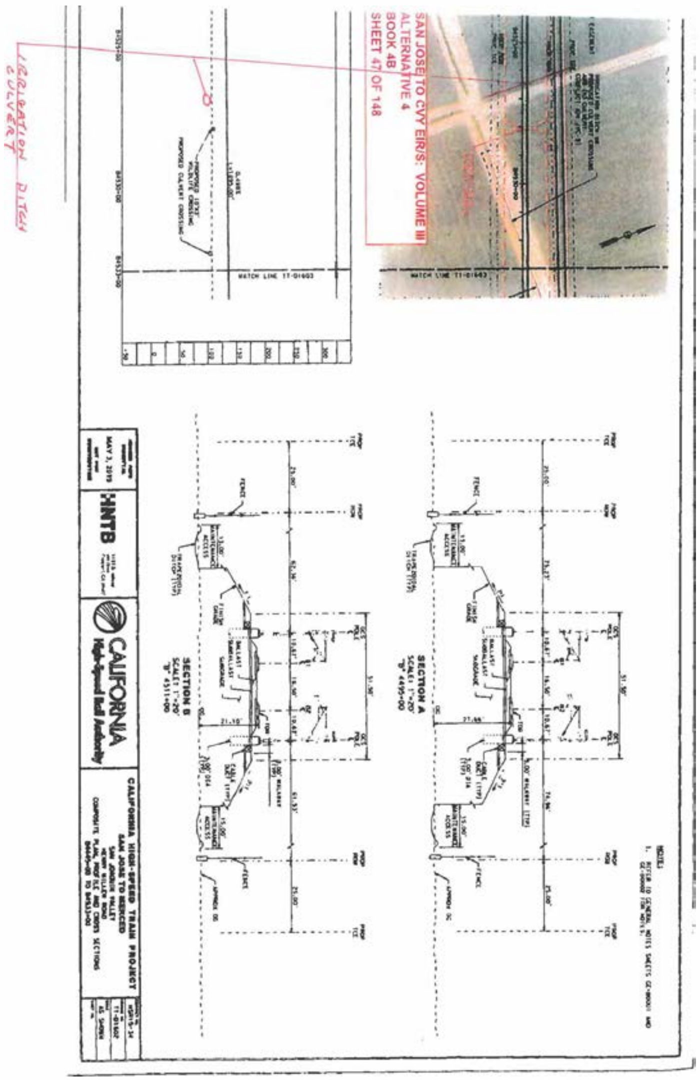
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued

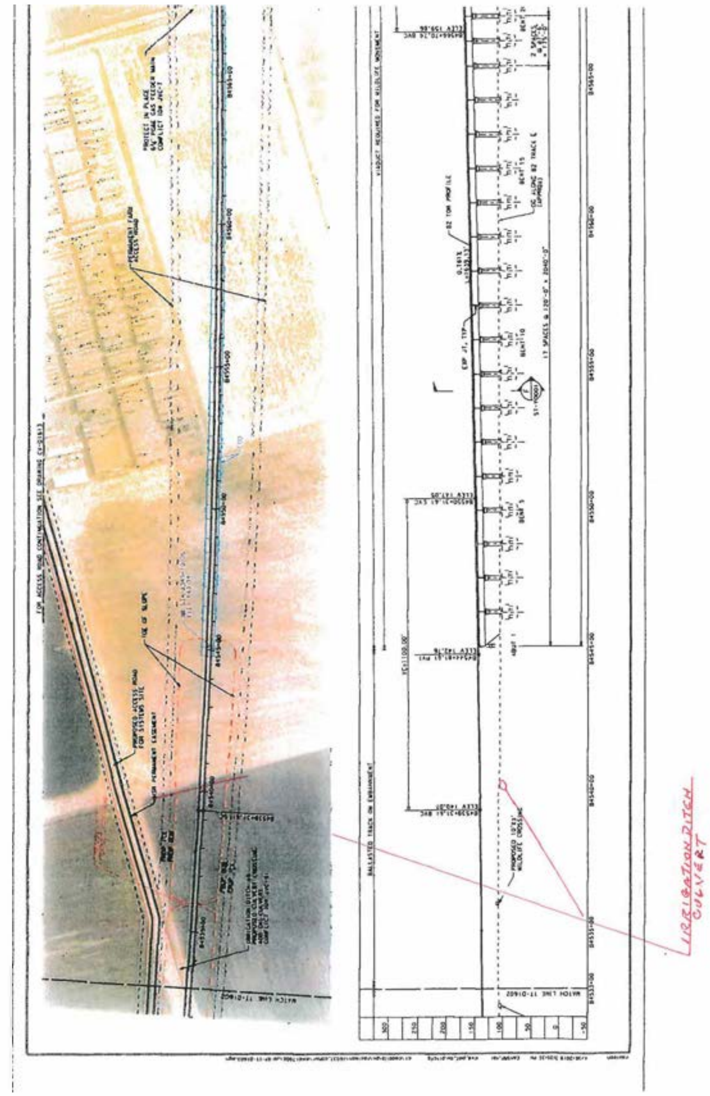


Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued

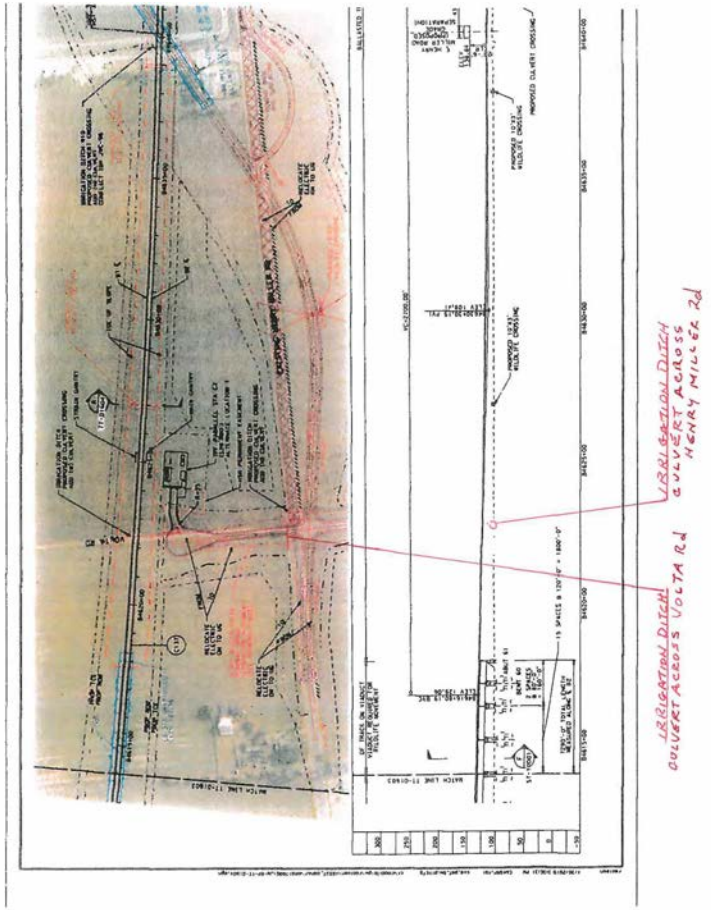


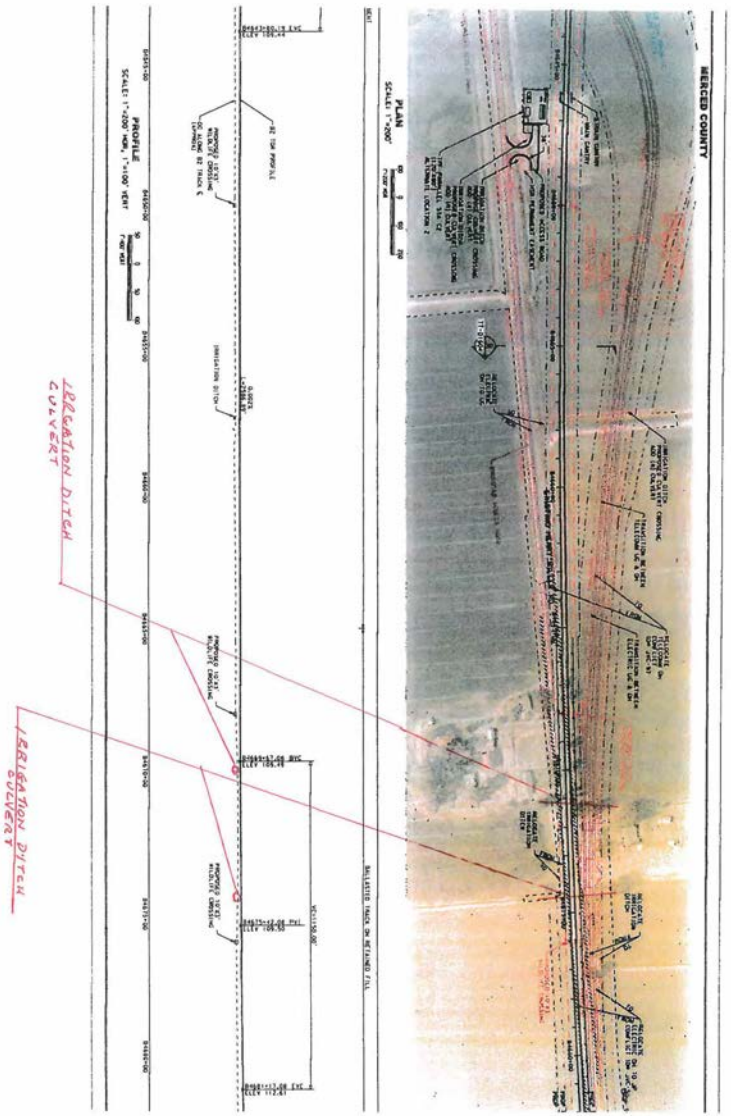
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



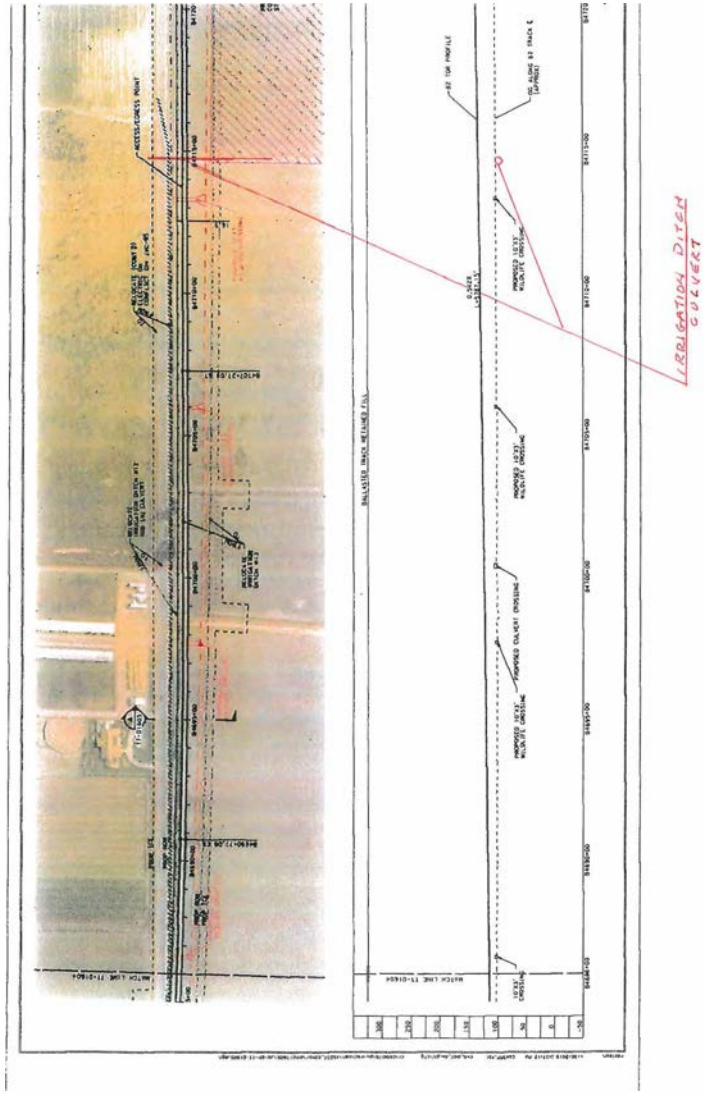


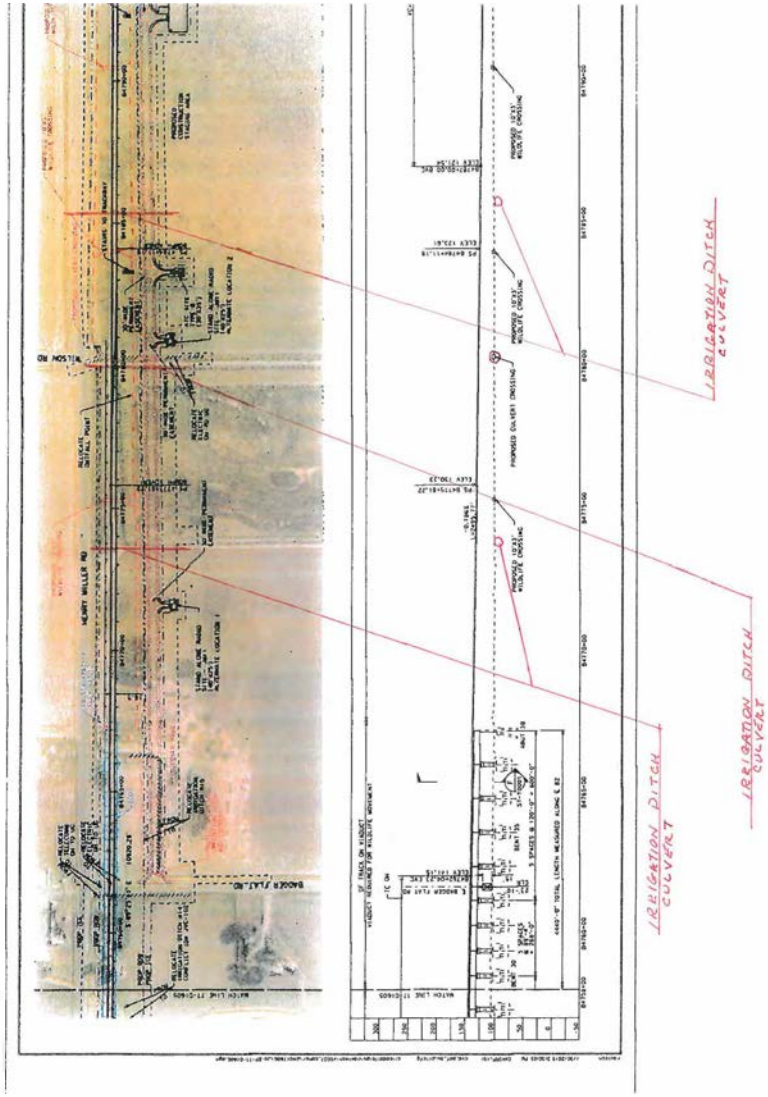
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



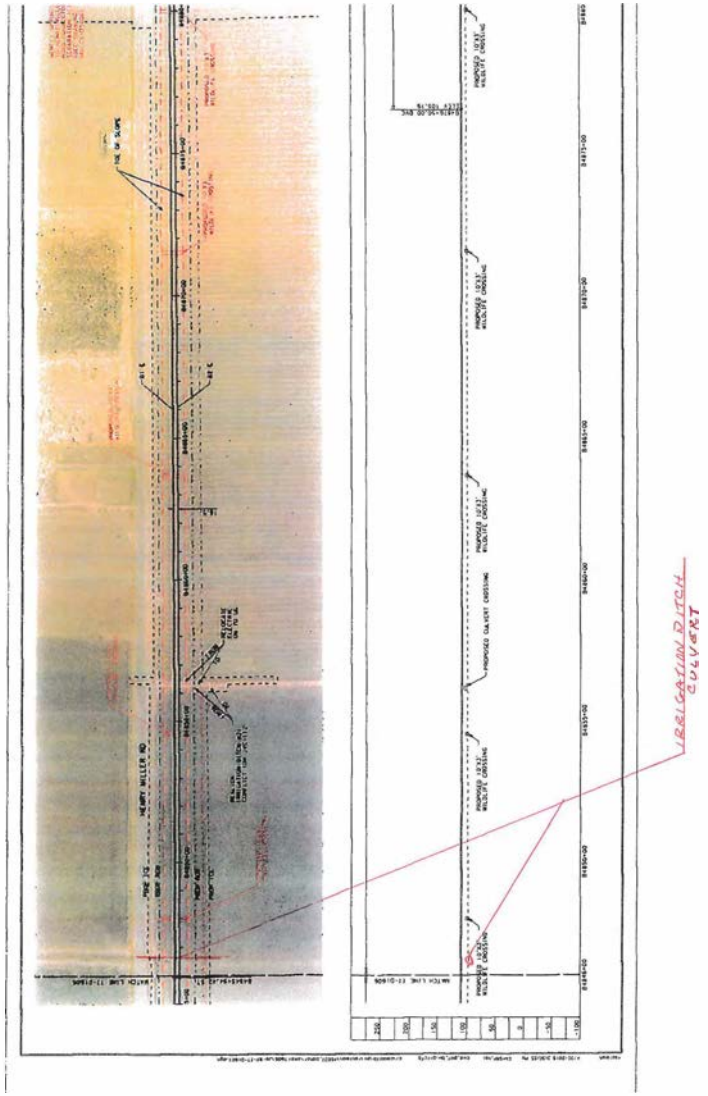


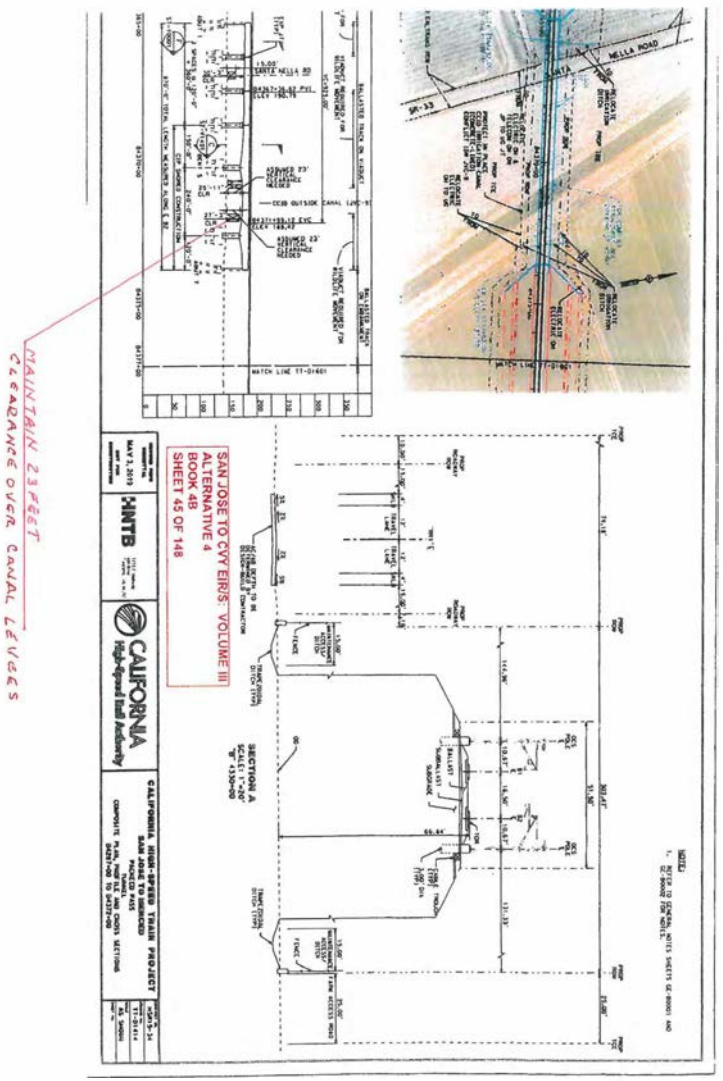
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



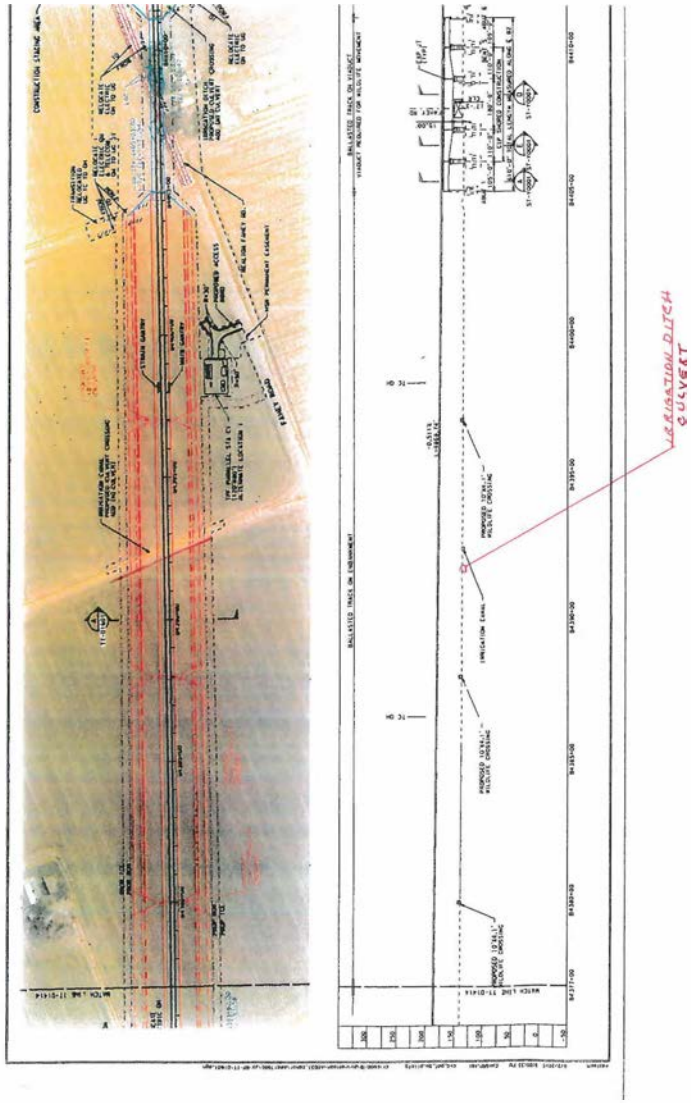


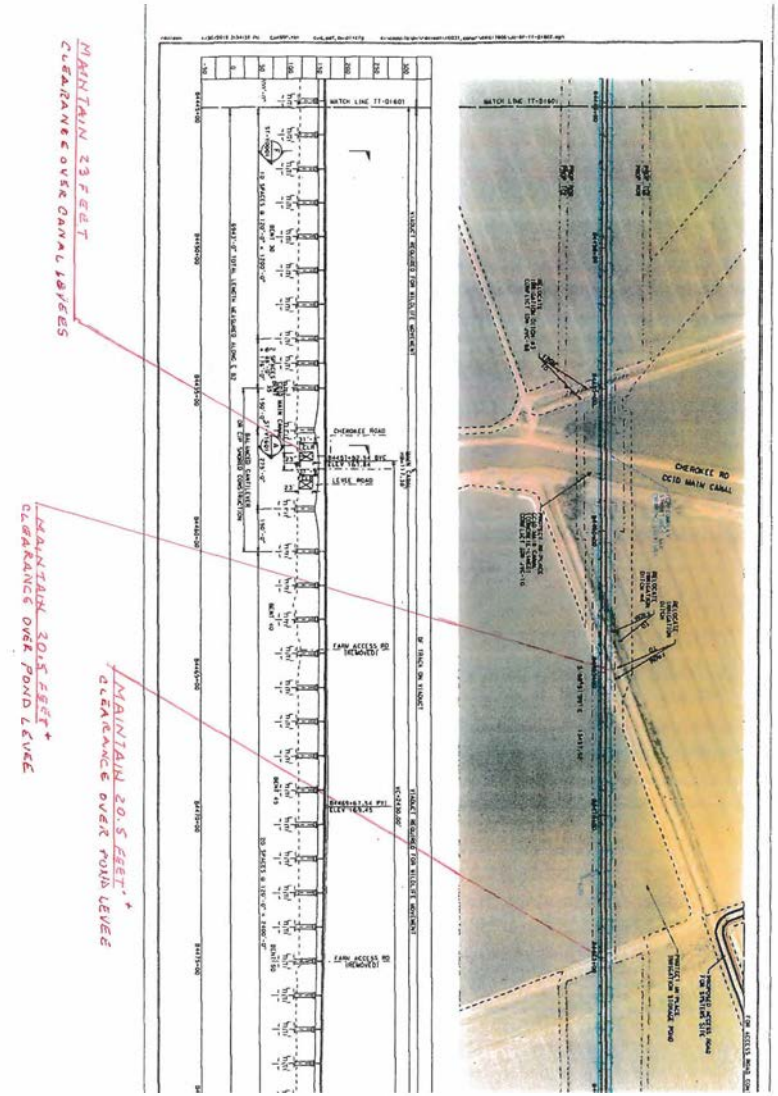
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



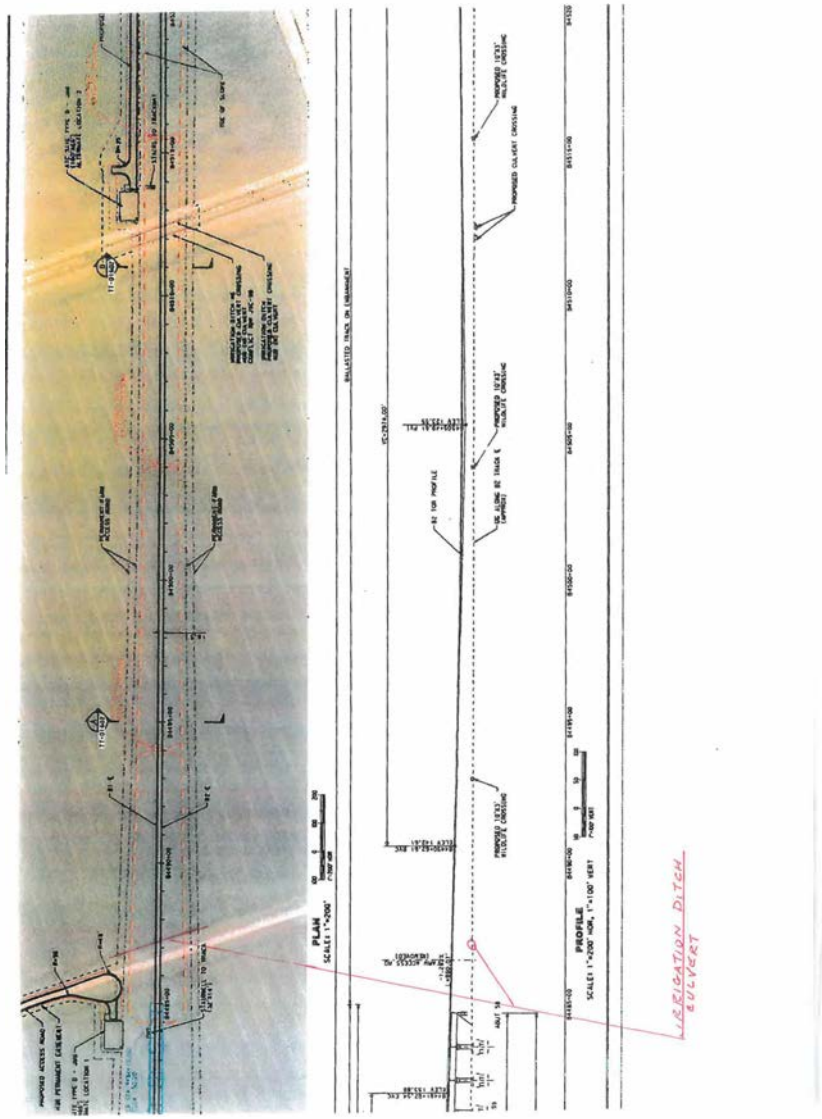


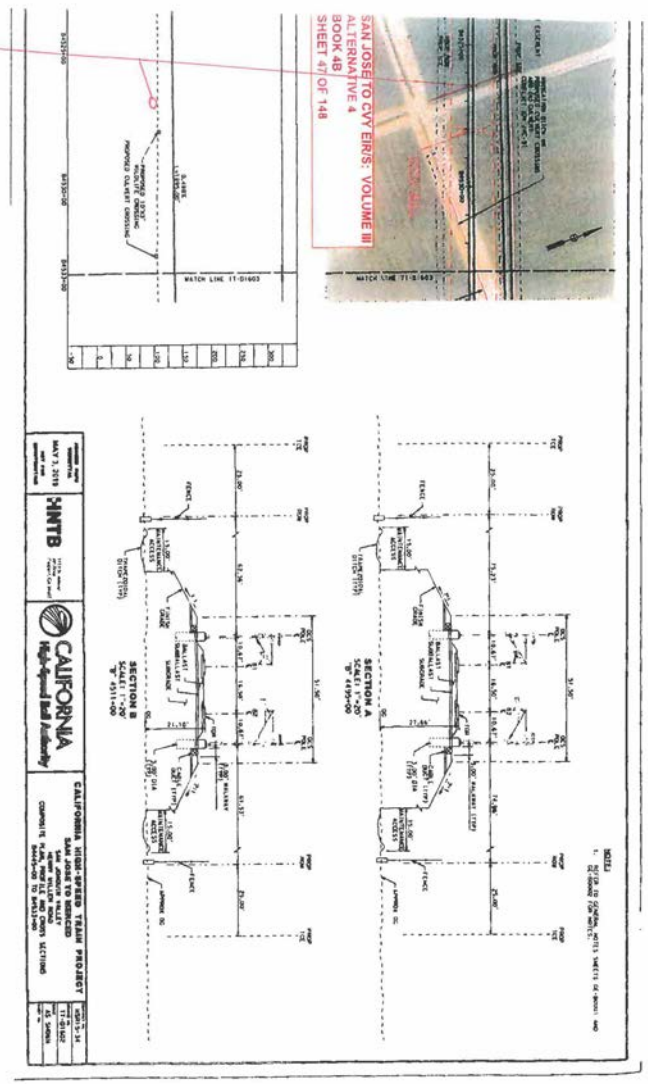
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



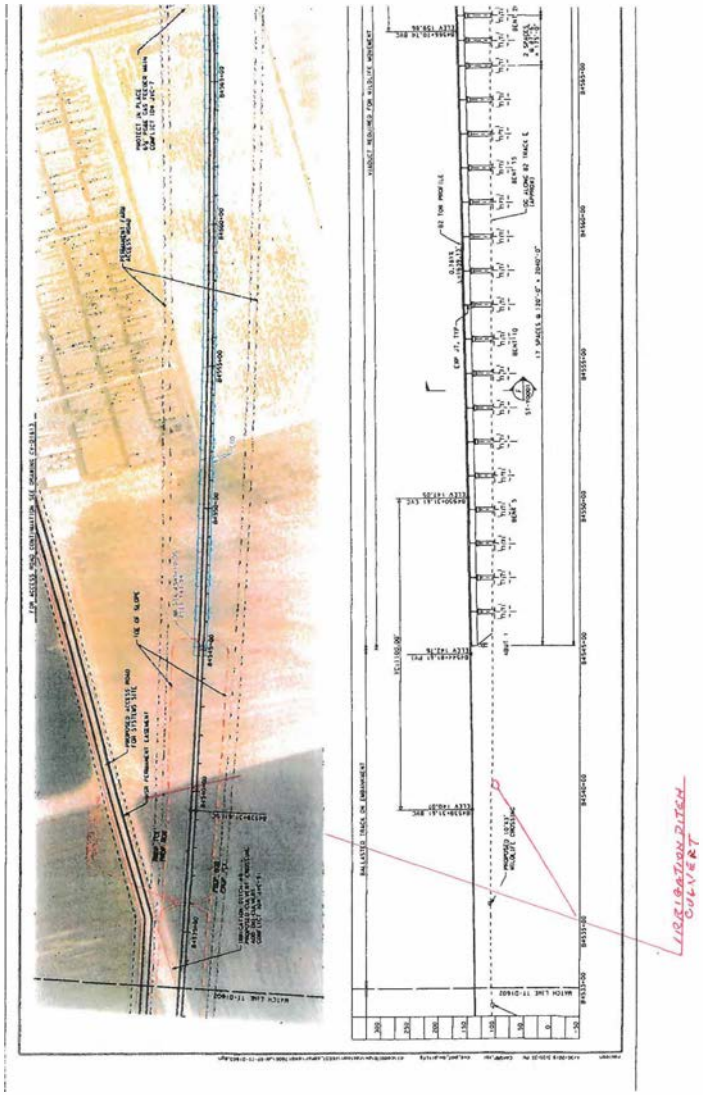


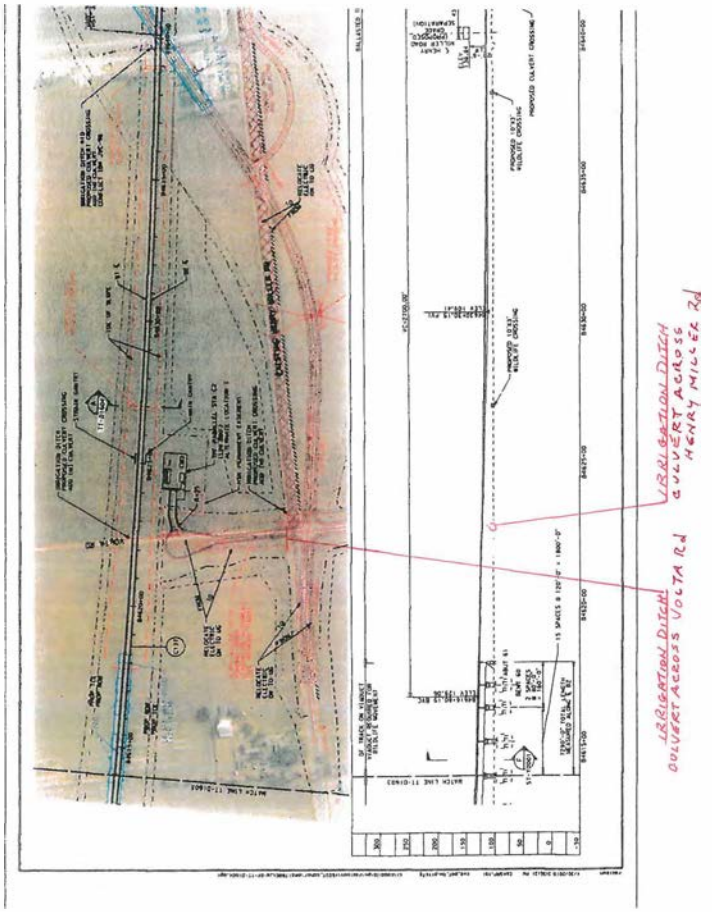
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



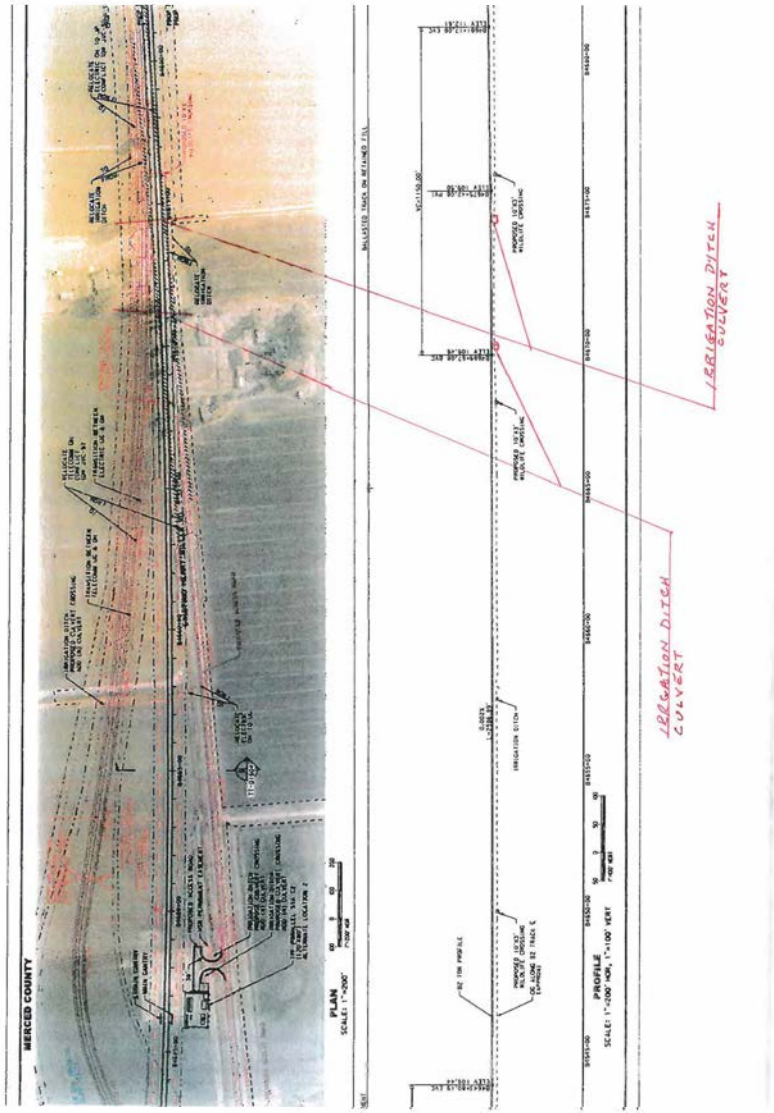


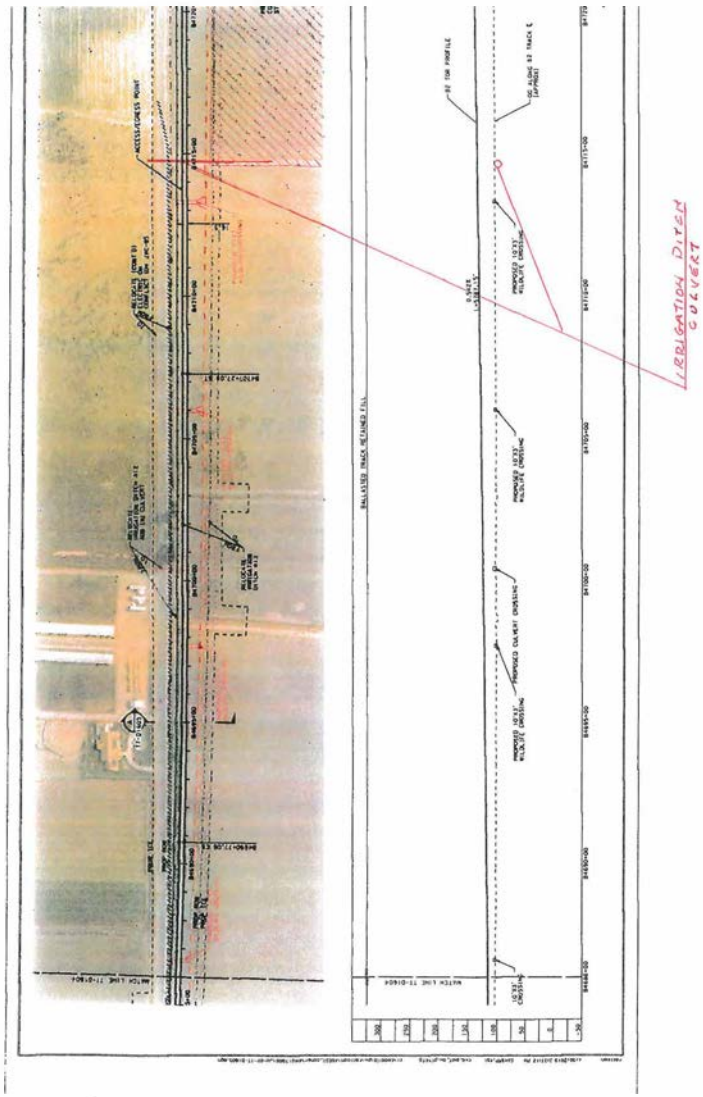
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued



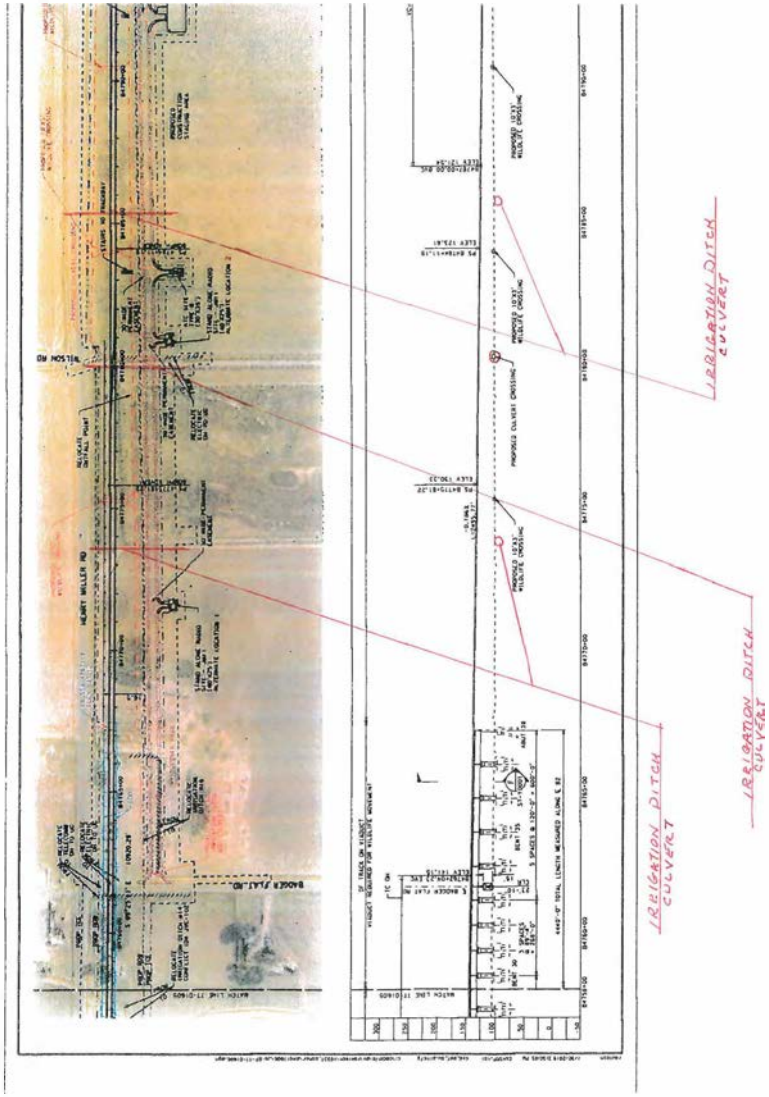


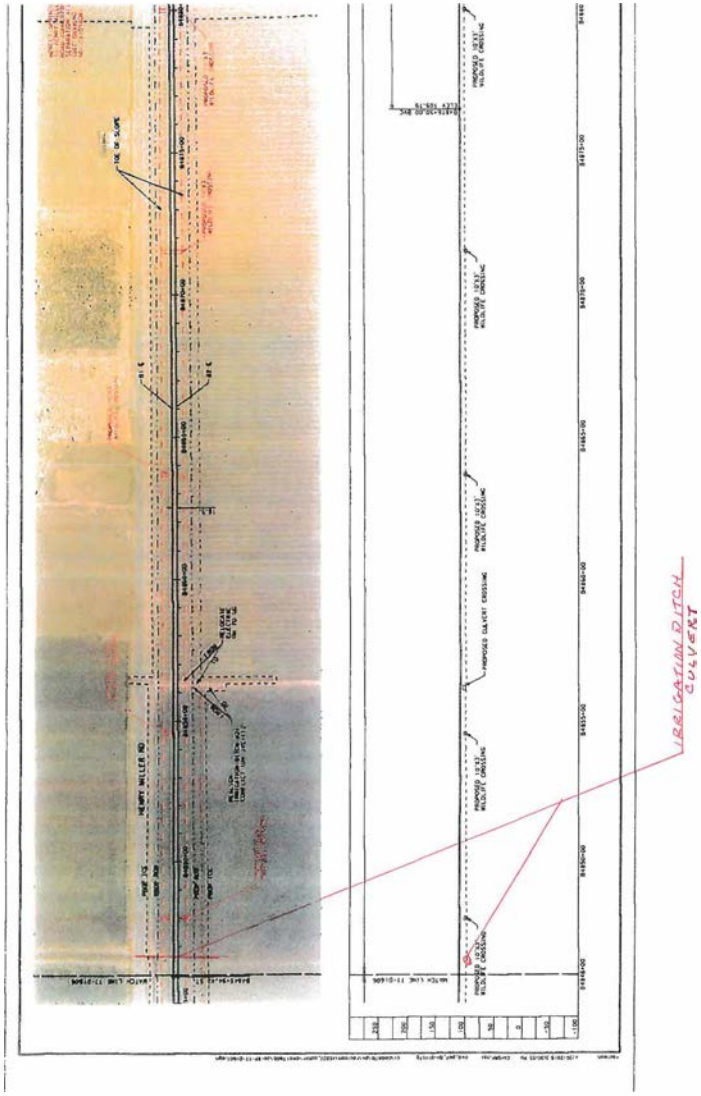
Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued





Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued





Response to Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020)

1472-582

Refer to Standard Response SJM-Response-AG-3: Wind Effects - Dust Deposition and Pesticide and Herbicide Drift on Adjacent Important Farmland.

The comment noted that application of pesticides and herbicides for weed control within the HSR right-of-way must be performed with best practices and that such application must be coordinated with the adjacent landowner and/or the Central California Irrigation District. Because application would comply with regulations and no pesticide drift is anticipated as a result of HSR-induced wind, no coordination above that required by regulations is required.

1472-583

Refer to Standard Response SJM-Response-AG-3: Wind Effects - Dust Deposition and Pesticide and Herbicide Drift on Adjacent Important Farmland.

1472-584

The EIR/EIS acknowledges that project construction could result in water pollution impacts. The project's stormwater treatment and management plan will be required to comply with all stormwater treatment requirements in applicable regional/local MS4 permits, Construction General Permit, conditions of the 401 Water Quality Certification, and TMDL requirements to ensure discharges from the Authority's right-of-way maintain high water quality in receiving waterbodies. However, the stormwater treatment and management plan as well as detailed grading and drainage plans are not currently available, because they will be prepared by the design-build contractor. During the development of the final design, the Authority will coordinate with local districts, such as CCID, to identify and evaluate impacts on existing drainage facilities. Please refer to the Volume 3 Roll Plots for the preliminary design, which was only of sufficient detail to understand the basic project features, including the alignment plan and profile, roadway-crossing footprints, basic estimates of construction means and method, and in some cases drainage facilities.

1472-585

Refer to Standard Response SJM-Response-AG-1: Temporary and Permanent Disruption of Agricultural Infrastructure Serving Important Farmland as a Result of Project Construction.

1472-586

The EIR/EIS acknowledges that project construction could result in water pollution impacts. As stated in response to a previous CCID comment (SJM-1472, comment 584), the project's stormwater treatment and management plan will be required to comply with all stormwater treatment requirements in applicable regional/local MS4 permits, Construction General Permit, conditions of the 401 Water Quality Certification, and TMDL requirements to ensure discharges from the Authority's right-of-way maintain high water quality in receiving waterbodies. During the development of the final design, the Authority will coordinate with local districts, such as CCID, to identify and evaluate impacts on existing drainage facilities and any planned discharges into CCID facilities.

1472-587

The comment noted that the Draft EIR/EIS does not address protection and cleanup of hazardous materials from spills into water channels or surface irrigation ditches. Please refer to Draft EIR/EIS Section 3.8, Hydrology and Water Resources, for the analysis of leaks or spills from equipment and materials that could be discharged to surface waterbodies. Additionally, rinse water from washout facilities is addressed in Impact HMW#6 (Draft EIR/EIS Section 3.10, Hazardous Materials and Waste). The Authority would require construction contractors to comply with BMPs established as part of an SPCC plan or SPRP (HMW-IAMF#6) to make certain that any release of hazardous materials is cleaned up; containers used to store hazardous materials are in good condition and not leaking; containers are kept closed except when adding or removing hazardous materials; hazardous materials storage and handling areas are away from natural watercourses, storm drains, and other sensitive receptors; and policies for cleaning up accidental spills are in place and enforced.

Response to Submission 1472 (Jarrett Martin, Central California Irrigation District, June 23, 2020) - Continued

1472-588

The Authority will coordinate in advance with water service providers, including CCID, concerning needs for water for construction and operation of the proposed project.

1472-589

Refer to Standard Response SJM-Response-ALT-1: Alternatives Selection and Evaluation Process, SJM-Response-OUT-2: Consultation with Local Agencies and Consistency with Local Regulations.

The Authority intends to coordinate with the Irrigation District with regard to post-ROD design issues.

1472-590

Refer to Standard Response SJM-Response-PUE-1: Major and High-Risk Utilities/Utility Infrastructure.

1472-591

Thank you for the comment. The Authority is aware of the shallow groundwater conditions within portions of the San Joaquin Valley, including within CCID's service area. Specific locations requiring dewatering, including the associated depths, durations, and volumes of dewatering, would be determined during final design. During the development of the final design, the Authority will coordinate with local districts, such as CCID, regarding the discharges of groundwater into drainage facilities.

1472-592

Refer to Standard Response SJM-Response-OUT-2: Consultation with Local Agencies and Consistency with Local Regulations.

The Authority intends to coordinate with the Irrigation District with regard to post-ROD design issues.

Submission 1281 (Jimmy Forbis, City of Gilroy, May 4, 2020)

City of Gilroy
7351 Rosanna Street
Gilroy, California
95020-6197

Telephone (408) 846-0202
Facsimile (408) 846-0500
http://www.cityofgilroy.org

Jimmy Forbis
INTERIM CITY ADMINISTRATOR

May 04, 2020

Mr. Brian Kelly
Chief Executive Officer
California High-Speed Rail Authority (HSRA)

Attn: Mr. Boris Lipkin
Northern California Regional Director
100 Paseo de San Antonio, Suite 300
San José, California 95113

Re: Request for Time Extension on the Draft Environmental Impact Report (EIR)/ Environmental Impact Statement (EIS) 45-day Comment Period

Dear Mr. Kelly,

Thank you for scheduling an introductory meeting with the City of Gilroy staff on April 29, 2020. The HSRA Northern California team provided a good overview of the draft EIR/EIS documents and additional resources the City and other stakeholders can use to review the document as well as to connect with the Authority.

1281-85

As you may know, the City of Gilroy, like many other agencies, is still dealing with the COVID-19 pandemic which has limited our ability to conduct normal business functions and operations. At the time of the writing of this letter, the City is still operating at limited capacity while also dealing with the unprecedented challenges of a Public Health emergency and Shelter-in-Place Order; as a result we are currently working on several backlogged items which we are hoping to get underway soon in light of the revised Santa Clara County Order.

In light of these circumstances, we would like to request an extension of the 45-day comment period which would not only allow Gilroy to perform a comprehensive review of the proposed improvements and associated impacts of the preferred alignment, but also would allow us to schedule at least one meeting with the City council prior to providing final comments to the Authority. We are hereby requesting the commenting period for the City of Gilroy to be extended by 15 calendar days.

Please feel free to call me with any questions or request for additional information.

Sincerely,

Jimmy Forbis
Interim City Administrator

Response to Submission 1281 (Jimmy Forbis, City of Gilroy, May 4, 2020)

1281-85

Refer to Standard Response SJM-Response-OUT-1: Public Outreach.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020)

City of Gilroy
7351 Rosanna Street
Gilroy, California
95020

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Facsimile (408) 846-0421
jimmy.forbis@cityofgilroy.org
http://www.cityofgilroy.org

Jimmy Forbis
Interim City Administrator

June 22, 2020

Boris Lipkin, Northern California Regional Director
Dave Shpak, Deputy Project Manager of San Jose to Merced
California High Speed Rail Authority
100 Paseo De San Antonio, #206
San Jose, CA 95113

Re: City of Gilroy Comments on Draft EIR/EIS for the San Jose-Merced Section of the California High Speed Rail Project

The City of Gilroy appreciates the opportunity to provide comments on the EIR/EIS for the San Jose-Merced segment of the California's High Speed Rail (HSR) program and the extension of the comment period. Based upon our review, we have a number of comments and suggestions concerning the adequacy of the EIR/EIS and accompanying mitigation measures.

To assist the City in the review process we have retained several firms to provide technical and peer-level review of the EIR/EIS and supporting documents. The firms assisting the City include: M-Group for general environmental and planning issues, Illingworth and Rodkin for noise and vibration issues, Evans and De Shazo for cultural resource issues, and Hexagon Transportation Consultants for transportation and circulation issues. Many of the issues raised in this comment letter are the same issues provided to the High Speed Rail Authority (HSRA) in a letter signed by Mayor Roland Velasco dated August 29, 2019. The comments by the City of Gilroy on the EIR/EIS for the San Jose-Merced Segment of the High Speed Rail Program are attached to this letter as Attachments 1 and 2.

1737-1056

As previously noted, the City Council supports the project and looks forward to working with the Authority. To facilitate HSRA's continuing project design efforts, the City is providing additional information on approved development projects adjacent to the proposed Alternative alignments as well as initial Public Works Department construction document comments and concerns. This additional information is downloadable from the following link: https://m-group.box.com/s/av823hmvpdaavq6xczn3k2p438wufgdc.

- Updated local development project information. The status of these projects range from pre-application review to completed or as-built project plans. Each of these projects could potentially be affected or altered by the proposed high speed rail project.

1737-1056

- Engineering Review of Alternative 4 Plans. The Public Works Department has conducted a review of the Composite Plan Profile - Cross Section and Parcel Plan Footprint documents available on the San Jose-Merced Project Section webpage. This information will assist the Authority in addressing City roadway, drainage, and utility issues in the future.

Thank you again for the opportunity to review the project documents. If you have any questions concerning this letter, please feel free to contact City Administrator, Jimmy Forbis.

Sincerely,

Jimmy Forbis
City Administrator, City of Gilroy

Attachment 1 – Comments on Draft EIR/EIS
Attachment 2 – Additional Transportation Comments

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

Attachment 1
Comments on Draft EIR/EIS for the
San Jose-Merced Section of the California High Speed Rail Project

General Comments

1737-1057

1. Poorly Presented Information. Much of the information contained in the EIR/EIS is at such a high-level, often consisting of highly generalized summary tables, that a meaningful review of potentially impactful project impacts is difficult (if not impossible). The information as presented in the document makes it virtually impossible to evaluate the project and its impacts at any level. Furthermore, this high-level view does not facilitate a more detailed analysis with regard to where impacts may occur or the effectiveness of the proposed mitigation measures.

   For example, the highly generalized discussions in the EIR/EIS often refer to technical appendices that contain even longer (though may be slightly less generalized) tables. However, to figure out exactly where described items are located (if they are in or adjacent to the proposed HSR lines) it is necessary to search through the Composite Plan Profile and Cross Sections documents in the Preliminary Engineering Plans folder. The EIR/EIS document would be easier for the public to review if more communicative visual information was provided in the Volume I document. This would enable reviewers to have a better understanding of the project in more urbanized settings.

1737-1058

2. There are inconsistencies within the provided documents that make it difficult to evaluate the effects of the project in terms of property acquisitions, local land use and road network, fiscal, and business relocation impacts. These inconsistencies do not give the City confidence that the underlying assumptions and analysis are correct. Around the Gilroy Station, the downtown station alternatives involve the relocation of the Caltrain staging yard to an area between the existing UPRR track location and Monterey Road, south of East 10th Street. In the EIR/EIS, Alternatives 1, 2 and 4 all show the new Caltrain facility in this area (see Figures 2-56, 2-59, and 2-66, respectively). However, these configurations do not match the proposed property acquisitions contained in Appendix 3.1-A. This incongruity adversely affects the City's ability to evaluate the project's impacts and affects. The specific incongruities are as follows:

   - For Alternative 1, see Page 24 in Appendix 3.1-A, no permanent property acquisitions are identified between the existing UPRR right-of-way and Monterey Road where the relocated Caltrain facility is shown in the project alternatives.
   - For Alternative 2 diagram, see Page 81 in Appendix 3.1-A, no permanent property acquisitions are identified between the existing UPRR right-of-way and Monterey Road where the relocated Caltrain facility is shown in the project alternatives.

   If the information provided to the public and affected agencies is inaccurate and internally inconsistent, it makes it difficult for everyone involved, including the High Speed Rail Authority's decision-makers to understand and evaluate the potential impacts of the different project alternatives.

1737-1059

3. Based upon the information contained in Appendix 3.1 and in Chapter 3.6 of the EIR/EIS it appears that the Authority is assuming that the City (or some other unspecified entity will be responsible for and for any perimeter and parking lot landscaping. The depiction of information in Appendix 3.1 shows that only the station area will be owned by the Authority. Also, in Chapter 3.6 (see City Comment #16) the EIR/EIS does not provide an estimate of the amount water to be used for landscape irrigation. These statements appear to indicate someone other than the Authority will be responsible for maintenance, graffiti removal, and landscape irrigation. Who will be responsible for these functions?

1737-1060

4. Section 1.1.5 (Lead Agencies, Cooperating Agencies, and Responsible Agencies) fails to include the City of Gilroy as a Responsible Agency. Section 15381 of the CEQA Guidelines defines a Responsible Agency as a public agency which is proposed to carry out or approve a project in which the Lead Agency has prepared an EIR. Since some of the project actions and mitigation measures require an approval or action by the City of Gilroy, the City should be identified and considered a responsible agency under CEQA for these actions.

1737-1061

5. General Comment. The EIR/EIS calls for the preparation of a number of special management plans, mitigation measures, and development plans throughout the process. However, the document fails to identify how the City would be involved in reviewing and approving plans that could affect the local jurisdiction. This information is vital to the City's understanding of the project and needs to be included in the EIR/EIS.

Project Alternatives

1737-1062

6. The City of Gilroy appreciates the four alternatives that the Authority has provided but believes that a hybrid alternative could be substantially superior at reducing or eliminating future noise, traffic, and pedestrian/public safety impacts on an area which is a disadvantaged community area within the City. This affected community is the area generally bounded by US 101, the UPRR tracks, Leavesley Road, and East 10th Street. This alternative would involve locating the viaduct structure in design Alternative 1 south of Leavesley Road within the UPRR right-of-way. This version is different from the Authority's Alternative 1 which was focused on avoiding conflicts with the UPRR right-of way. This City suggested alternative alignment would then transition back to the Authority's preferred alternative (Alternative 4) north of Leavesley Road. The City requests that the Authority evaluate this modified alternative to evaluate the potential to reduce some of the significant project impacts on the City's disadvantaged community, and downtown Gilroy.

Environmental Impact Report/Statement

1737-1063

7. Figure 1-6 (and elsewhere throughout the document). The document does not show the existing Amtrak passenger train service between San Luis Obispo and San Jose. This should be recognized within the document.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1064

8. Chapter 3.2, Transportation. The Peer Review of the Transportation Chapter and Technical Report contains a number of questions concerns regarding the methodology and results of the analysis which was used in the EIR/EIS. The technical review memorandum is attached to this comment letter as Attachment 2. Consider the questions, comments and concerns in that memorandum as formal comments on the EIR/EIS.

1737-1065

9. The proposed parking lot at the terminus of Alexander Street, across East 10th Street, is a half-mile from the Gilroy station. This distance, combined with the arterial street crossing, appear to make this an inefficient and inconvenient location for parking. Instead of this remote surface parking location, the City suggests that structured parking at the station site be provided instead. This more centralized parking could also provide additional downtown parking on weekend and holidays and would address one of the City's concerns about the amount of available downtown parking. Additionally, a significant portion of this remote parking site is currently under construction as a Nissan dealership. The Authority may wish to relocate this parking lot.

1737-1066

10. The EIR/EIS does not appear to recognize or acknowledge the plans of the Transportation Agency for Monterey County (TAMC) to extend Caltrain rail service from Gilroy toward Salinas and Monterey. This extension is funded for construction and is at a 75% design level. TAMC's plan is to add a third rail line south from Gilroy Station. These improvements need to be recognized in the Authority's plans and discussed within the environmental documents.

1737-1067

11. Chapter 3.2, Transportation. Some of the alternatives propose to eliminate some of the parking for three higher density residential projects in downtown Gilroy: The Cannery located on Lewis Street, the Alexander Station Apartments located at the corner of E. 10th Street and Alexander Street, and Gateway Senior Apartments on Monterey Road. How will the Authority provide replacement parking spaces for these recently approved/constructed projects to avoid overloading on-street parking in those areas?

1737-1068

12. Chapter 3.2, Transportation. Access to Agricultural Land. Alternatives 1, 2 and 4 all appear to cut off access to farmlands located south the Bloomfield Road and east of the existing UPRR tracks that are currently accessed from Sheldon Avenue (which will be blocked by a new HSR embankment). How will property owner access to these areas be provided?

13. Chapter 3.4, Noise and Vibration. The peer review of this chapter by Illingworth and Rodkin has identified a number of technical issues with the analysis.

1737-1069

A. Based on the EIR/EIS documents, ambient noise levels range from 58 to 68 dBA Ldn and from 66 to 70 dBA loudest hour Leq within the City boundaries and from 56 to 71 dBA Ldn. However, the calculation of Ldn at noise measurement location N128 appears to be a typo. The correct value should be approximately 67 dBA Ldn based upon a review of the data in the Noise and Vibration Technical Report.

1737-1070

B. Based on the Noise and Vibration Technical Report, noise measurement location N126 only has about 6 hours of data. It is unclear how an Ldn was calculated at this location from such limited data. In addition, noise measurement location N125 is

1737-1070

situated similarly to other locations with respect to the existing train and local traffic noise source. However, daily variations in train event and timing may have resulted in elevated Leq levels with respect to the Ldn.

1737-1071

C. The EIR/EIS states that "rail traffic along UPRR through downtown Gilroy consist of six Caltrain passenger trains, two Amtrak passenger trains, and approximately four freight trains per day". Since Ldn is a 24-hour daily average (with a penalty given to nighttime noise levels); the variation by 1 or 2 freight trains per day or the change between daytime and nighttime operation of a train would have a large effect on the calculation of the Ldn level. Many of the sites only offer 24-hours of data from which to calculate Ldn; given the variation in freight operations, this time period may not be sufficient to quantify ambient levels. Properly quantifying the existing noise levels is an important aspect of the assessment as impact is defined on the basis of increases in noise levels over the existing conditions. If the EIR/EIS noise assumes the most common number of freight trains per day, then the document should indicate that assumption.

1737-1072

14. Chapter 3.4, Noise and Vibration. The EIR/EIS documents identify mitigation measures to address the potential for structural damage through typical construction vibration mitigation measures. However, again, the document does not discuss or identify any historic or vibration sensitive structures that may be affected by project construction. These affects need to be described and assess to adequately evaluate the impacts of project construction on historic or vibration sensitive structures so that specific applicable mitigation measures can identified.

1737-1073

15. Chapter 3.4, Noise and Vibration. Annoyance would be anticipated to occur, particularly during nighttime construction and/or construction of major projects near residences. The EIR/EIS documents provide no mitigation for reducing this impact. As stated in the documents, the potential for noise impacts would be greatest where noise sensitive land uses are near major construction activities with a long duration (e.g., MOWF, passing tracks, viaduct, and station modifications) and nighttime construction activities (e.g., temporary passing tracks, parallel tracks, and roadway realignment).

1737-1074

The mitigation measures cited in the EIR/EIS are typical and appropriate for construction projects. However, their effectiveness will vary depending on the proximity of noise sensitive receptors, the equipment and operations, and the timing and duration of activities. Given that several major project components are included, it is likely that some sensitive receptors near these major projects and/or any nighttime construction activities would continue to be exposed to construction noise levels exceeding the Federal Railroad Administration criteria, even with the implementation of the cited mitigation. It is anticipated that these impacts would be significant and unavoidable even with the implementation of the identified mitigation measures. Provide details on all nighttime construction and major project component activities located in Gilroy, including location and timing of construction activities, specifications of equipment to be used, duration of construction, contact information in case of complaints, and any proposed mitigation measures.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1075

16. Chapter 3.4, Noise and Vibration. Based upon the analysis in the EIR/EIS, the preferred alternative (Alternative 4) has the greatest noise impacts through Gilroy because of the Federal Railroad Administration's requirements for trains to sound their horns at all at-grade crossings. From East 10th Street to Leavesley Road, there are four street crossings and the station within in a mile. This will create almost continued train horn noise between East 10th Street and Leavesley Road and will result in a significant impact. Please provide an analysis of what the noise environment will be like when these continuous train horn noise events occur at these closely space multiple at grade crossings. The City requested large scale maps or GIS layers of the noise impacts from the Authority on June 4th, 2020. None were available to be provided.

1737-1076

17. Chapter 3.4, Noise and Vibration. Figures 3.4-37 and 3.4-41 depict sound barriers (walls) for Alternatives 2 and 4, including through parts of downtown Gilroy. However, it is impossible to determine where those walls are proposed because the of small scale of the maps in the figures. Additionally, the sound barriers are not depicted on the Preliminary Engineering Plans in Volume 3 of the EIR/EIS. The only information provided is again in tabular form which requires crossing referencing with the preliminary engineering plans

1737-1077

(which do not show any sound barriers). For operational noise, the primary mitigation strategy within the City of Gilroy appears to be the use of sound walls at various locations for Alternative 2 and 4. No sound walls are proposed for Gilroy under Alternatives 1 and 3. The proposed sound walls were projected to reduce the number of moderate impacts of Alternative 2 by 356 in Gilroy and the number of severe impacts by 61. For Alternative 4, the moderate impacts are reduced by 55 and the severe impacts are reduced by 151. But it should be noted that the feasibility and reasonableness of these barriers have only been superficially discussed in the Noise and Vibration and not evaluated in the other chapters of the EIR/EIS.

1737-1078

The EIR/EIS contains insufficient detail to determine if the impacts in Alternatives 2 and 4 could be further lowered by increasing wall height, using absorptive facings, or more novel barrier designs, or if more receptors would be benefitted by the inclusion of additional noise barriers. The Alternative 4 plan and cross-section in the Preliminary Engineering Folder do not show sound walls in the downtown Gilroy. Provide detailed information to enable the City to assess the options for reducing operation noise on the surrounding community while maintaining community connectivity.

1737-1079

18. Chapter 3.4, Noise and Vibration. One of the proposed mitigating actions for train horn noise is the establishment of Quiet Zones. Please provide an analysis that the design of the proposed Quad Gates will fully comply with the requirements of the Federal Railroad Administration for the establishment of Quiet Zones, if the City chooses to request that Quiet Zones be established. If the project design fails to support a proposed mitigation measure, the measure ceases to mitigate any impacts and places the financial responsibility to implement on the mitigation measure on another public agency.

1737-1080

19. Chapter 3.6, Public Utilities and Energy. Impact PUE#4 (Existing Major Utilities Requiring Relocation or Removal), Paragraph 3, identifies the existing basins adjacent to the SWVWD water treatment plant south of the downtown. The paragraph describes

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1737-1080

them as "shallow earthen diked ponds, about 5 – 8 feet deep (berm height) with sloped sides, and unpaved service roads extending between them. As described under Section 3.6.5.1, Public Utilities, these ponds first percolate secondary treated effluent from the WWTP, which is then piped through a distribution network." The information is essentially incomplete. These facilities are part of the groundwater recharge facilities associated with Santa Clara Valley Water District's (SCVWD's) Groundwater Management Plan for the Llagas Groundwater Sub-Basin. The removal of any of these basins will have a significant adverse impact on the continuing recharge activities within the groundwater basin. In addition, if the Authority decides to remove any of these basins, PUE-MM#1 needs to be revised to make its implementation mandatory (through the use of "shall" rather than "would") and needs to identify when the installation of any replacement basins will be completed in the context of the proposed HSR construction.

1737-1081

20. Chapter 3.6, Public Utilities and Energy. Impact PUE#8 (Continuous Permanent Impacts from Water Use) states: "Approximately 10,500 gpd potable water would be used within the Downtown Gilroy Station and the remaining 5,330 gpd would be used outdoors." How were these volumes determined and do these project volumes include the use of water for landscape irrigation (as shown on the conceptual station plans)? Any water used for irrigating landscaping should comply with the water use targets contained in Article XXXVIII (Landscaping, Water Efficiency, and Storm Water Retention and Treatment) of the Gilroy Municipal Code.

1737-1082

21. Chapter 3.7, Biologic and Aquatic Resources. Section 3.7.7.2 (Special Status Species) refers to land acquisition goals of the Santa Clara Valley Habitat Agency. However, the other requirements and programs of the Agency are not discussed or addressed. The requirements of the Santa Clara Valley Habitat Conservation Plan (SCVHCP) include surveys and mitigation for impacts to specified plant and animal species along portions of the alignments. The EIR/EIS fails to include information on the presence or absence of these species of concern within the areas to be disturbed by construction or operation of the project and fails to identify how these requirements of the Habitat Agency will be met. Also, most of the biological resource-related mitigation measures propose to identify project impacts after the project is approved by the HSRA.

1737-1083

22. Chapter 3.8, Hydrology and Water Quality. Impact HYD#5 (Permanent Impacts on Surface Water Quality during Construction) indicates that the Contractor will "… prepare a stormwater management and treatment plan for Authority review and approval prior to construction (HYD-IAMF#1). The plan would include permanent stormwater BMPs to minimize the exposure of contaminants to stormwater runoff (site design and source control measures), reduce the quantity and improve the quality of stormwater runoff (treatment and low-impact development [LID] measures), and retain flows to prevent increases in flow rates and durations above pre-project conditions (hydromodification management)." However, this discussion fails to acknowledge that the City of Gilroy is responsible for reviewing and approving a stormwater management and treatment plan (under the requirements of the MS4 Permit) and that the Authority is responsible for the long-term operation and maintenance of the stormwater management and treatments

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Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1083

measures include in the plan. The discussions relating to water quality and stormwater management and treatment need to be revised to reflect these requirements.

1737-1084

In addition, Impact HYD#7 (Impacts on Surface Water Quality during Continuous Operations) identifies that water quality impacts from brake dust also may affect water quality and indicates that these potential impacts will be addressed through the stormwater management and treatment plan. The City will be expecting to see information on the character of these contaminants and an analysis of how the stormwater treatments prevent impacts to surface water quality.

1737-1085

23. Chapter 3.10, Hazardous Materials and Waste. Table 3.10-13 identifies public and private schools within a quarter mile of the proposed alignments. The following are corrections to the information displayed in the table.

    A. Elliot Elementary, Gilroy Adult Education Center, Gilroy Preparatory, and South Valley Middle School are not located within a quarter mile the alignment for Alternative 3.

    B. If Glen View Elementary (in Gilroy, west of Monterey Road) is within a quarter mile of Alternative 2; why isn't it listed as being within a quarter mile for Alternatives 1 and 4 which run in the same area?

    C. Pacific Point Christian School is located only within a quarter mile of Alternative 3.

    D. Christopher High School is not located within a quarter mile of any of the alternatives.

1737-1086

24. Chapter 3.10, Hazardous Materials and Waste. Mitigation Measure HMW-MM#1 (Limit use of extremely hazardous materials near schools during construction), a "proposed memorandum regarding hazardous materials BMPs related to construction activity for approval by the Authority" was identified. However, the mitigation measure does not go far enough, it should also be provided to the Gilroy Unified School District and local fire departments. These organizations also need to know about this information in the event of an unplanned release.

1737-1087

25. Chapter 3.10, Hazardous Materials and Waste. General comment. The EIR/EIS should also indicate that the Authority commits to the approval of the Hazardous Material Business Plans (HMBPs) after a consultation with local fire departments. HMBPs inform fire departments what hazardous materials may be located at a particular site and enable fire personnel to respond more safely and more effectively. In addition, the approved HMBPs need to be provided to local fire departments that might potentially respond to a fire or other emergency at an HSR facility if the Authority expects local fire departments to respond to emergency events along the tracks.

1737-1088

If the Authority is not intending or committing to provide the HMBPs to local fire departments, then IAMF#10 (Hazardous Materials Plans) is not operative and would not mitigate any the impacts since the organizations that would need the information in the event of emergency situation would not have access to it. In that situation, the EIR/EIS

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1737-1088

should identify those impacts "Significant and Unavoidable" since no effective mitigation measures are included as part of the project or proposed to address the impact.

1737-1089

26. Chapter 3.11, Safety and Security. Impact S&S#1 (Temporary Impacts on Emergency Access and Response Times from Temporary Roadway and Highway Closures, Relocations, and Modifications) SS-IAMF#1 states that prior to construction, the contractor would prepare a construction safety transportation management plan that includes the contractor's coordination efforts with local jurisdictions for maintaining emergency vehicle access during construction. The is concerned that the use of the term "consultation" does provide adequate assurances for the City that any temporary construction impacts will be addressed in a way that has the least effect on local citizens and municipal operations. IAMF#1 should, at a minimum, require local government concurrence with any plans to manage construction impacts and street closures within the City.

1737-1090

27. Chapter 3.11, Safety and Security. Emergency Access to Elevated Track Sections. The EIR/EIS fails to identify how emergency access will be provided to the elevated track sections. Specifically, what types of equipment will fire departments need to access a train stuck on elevated track sections? The document also fails to identify where that equipment is stationed and how it would physically access the elevated track sections. Finally, the EIR/EIS fails to identify where this emergency access is not possible for the types of anticipated equipment.

1737-1091

28. Chapter 3.11, Safety and Security. The EIR/EIS also fails to address the need for incident training for first responders, including an identification of the types of specialized equipment that may be needed to facilitate a response. The document should include a mitigation measure consisting of incident training with potentially affected fire departments prior to the operation of the HSR system.

1737-1092

29. Chapter 3.11, Safety and Security. The EIR/EIS does not explain the basis for using a 30-second increase in emergency vehicle response time as the threshold for significance. Please provide a rationale for the threshold of increase in delay. Additionally, no methodology is provided for how the potential impacts were modelled and the resulting delays calculated. Please provide additional detail on how the delay is calculated.

1737-1093

30. Chapter 3.11, Safety and Security. Significant Delays to Emergency Service Responses from At-Grade Crossings. The operation of the HSR will result in a 400% increase in At-Grade passenger service trips (from 8 weekday trips to 32 weekday trips) through Gilroy north of East 10th Street and an even larger percentage increase in passenger trips, 2 weekday trips to 26 weekday trips, at East 10th Street and East Luchessa Avenue when in the HSR is in operation. The potential for additional delays is further exacerbated by the increase in number of tracks crossing the streets; from two to three north of the Gilroy Station and two to four, south of the station. These increased trips will result in increased delay at all of the proposed at-grade crossings and will cause significant delays to police responses to areas east of the UPRR tracks and to fire responses to areas west of the UPRR tracks.

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Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1093

Impact S&S#4 (Continuous Permanent Impacts on Emergency Access and Response Times) does not address these impacts in the Gilroy area. The discussion includes 7 paragraphs and one table on the impacts in the San Jose area, and no paragraphs or tables on the potential impacts to the City of Gilroy. The only information provided on the City of Gilroy is in Table 3.11.-10 which provide only a very general, high level depiction of anticipated fire response delays at a scale which is so small that the information cannot be accurately evaluated and interpreted. Please provide reviewable information at a scale where effect can be evaluated against the existing street network. The paucity of information and relative ineffectuality of the mitigation measure indicate that this impact will significant and unavoidable with mitigation as proposed by the Authority.

Please note that the adoption of the City's modified project alternative would reduce these impacts to a less than significant level. Additional comments on mitigation measure SS-MM#4 is provided later in this letter.

1737-1094

31. Chapter 3.11, Safety and Security. The EIR/EIS fails to address the impacts to the community from increased incident response times created by the additional train traffic and increased delays crossing the UPRR and HSR tracks. Per EIR Table 2-14, in 2040 there will 148 HSR trips (half northbound and half southbound) between the hours of 7:00 am and 10:00 pm. This equates to an average of 9.87 trips/hour, or one trip every 6 minutes. If the proposed quad gates for the at-grade crossings are down for a minute and a half each time there is a train, an average hour for the preferred alternative would see Leavesley Road and E 10th Street closed for an additional 15 minutes each hour (9.87 trips X 1.5 minutes) to let these new trains pass through the at-grade crossings (this doesn't include the existing delay caused by Caltrain, Amtrak, and freight trips). This additional interruption has the potential to adversely affect public safety. This impact needs to be addressed in the EIR/EIS through at-grade crossings, at a minimum at the following four intersections.

- MH26. Monterey Road/Masten Avenue
- G15. Monterey Road (SR 152)/Welburn Avenue-Leavesley Road (SR 152)
- G36. Monterey Road/Tenth Street
- G43. Monterey Road/Luchessa Avenue

1737-1095

After the Authority has addressed this issue in the EIR/EIS, the City has a suggestion for a potential mitigation measure that could address the otherwise significant impacts. The mitigation measure would involve the creation of a virtual train location/quad gate closure reporting app that would be accessible to the Police Department. This system would remotely connect the patrol vehicles to a series of track and train location sensors which would allow a responding officer to know exactly where the trains were and which crossings would be open when they needed to cross the tracks on an emergency call. This type of mitigation measure would address the significant impacts that have not been addressed in the EIR/EIS.

1737-1096

32. Chapter 3.12, Socio-Economic and Communities. Page 3.12-24 identifies the Eagle Ridge development as the only city-designated neighborhood with the City of Gilroy. The development consists of large lot single family homes surrounding an 18-hole golf course. This development is located nearly two-miles from the UPRR right-of-way. Eagle Ridge is not a formal neighborhood that would be relevant to a discussion of socio-economic impacts. The area which would eventually become Eagle Ridge was identified in the City's Neighborhood District Policy. The Neighborhood District document is a policy-level planning document to facilitate a comprehensive approach to development in large areas within the City. Though not a formally designated neighborhood, the EIR/EIR fails to recognize that the defined area between US 101, the UPRR tracks, Leavesley Road, and East 10th Street is a clearly definable neighborhood. Given its location to the project, this are will be one of the most impacted areas in the community.

1737-1097

The analysis for SOCIO#1 (Temporary Disruption or Division of Established Communities) on Page 3.12-41, first paragraph, the EIR/EIS refers to the Eagle Ridge development to demonstrate that any impacts would be minimal. Given the distance from the UPRR tracks, it is highly unlikely that the residents of Eagle Ridge would hear, let alone experience, any noticeable impacts from project construction any more than most of the other fifty thousand residents. This discussion in the EIR/EIS needs to delete references to Eagle Ridge and address specific impacts on the downtown neighborhood as well as the more generalized impacts to City residents overall.

1737-1098

33. Chapter 3.12, Socio-Economic and Communities. Impact SOCIO#2 (Permanent Disruption or Division of Established Communities from Project Construction), Page 3.12-50 indicates that, "… and Alternative 4 would require closure of 6th Street and E. 7th Street." The permanent closure of East 6th Street from project construction is not indicated on the conceptual project plans or in the transportation analysis. Which information is correct; E. 6th Street remaining open or E. 6th Street to be closed after the project has been constructed? If the project has changed to include the closure of E. 6th Street, the transportation discussion in the EIR/EIS along with the technical report will need to be revised.

1737-1099

Also, the document accurately states in Paragraph 2, Page 3.12-51, that there are insufficient sites to relocate affected businesses. However, the document fails to identify this shortcoming as a significant impact. While not a traditional impact under CEQA, it is an impact that needs to be discussed and addressed under NEPA.

1737-1100

34. Chapter 3.12, Socio-Economic and Communities and Draft Relocation Impact Technical Report. The information included in both documents is at such a high-level that the it is impossible to determine the local effects of the project alternatives. Please provide more specific data on the actual relocation effects of the various alternatives (address, business size, and type by alternative). This level of information will assist the City in its update of the General Plan by identifying type of land uses the will enable relocated business and residents to stay local.

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1737-1101

35. Chapter 3.13, Station Planning, Land Use, and Development. Impact LU#1 (Temporary Alteration of Land Use Patterns from Land Use Conversion and Introduction of Incompatible Land Uses) states in the first sentence that that the main construction staging areas would occupy large areas for extended periods and could displace some business operations (refer to Table 2-21 in Chapter 2). However, there is no Table 2-21 in Chapter 2; the highest numbered table in Chapter 2 is 2-18. Please provide the information so that the City can review a complete version of the proposed EIR/EIS.

1737-1102

36. Chapter 3.13, Station Planning, Land Use, and Development. Impact LU#3 (Temporary and Permanent Alteration of Land Use Patterns from Permanent Roadway Closures and Modifications) fails to identify or discuss the impacts in Downtown Gilroy. All of the discussion appears to relate to the San Jose area. Please provide the information on the anticipated future land use changes and street closures along the HSR alignments in the Planning Area for the City of Gilroy.

1737-1103

37. Chapter 3.13, Station Planning, Land Use, and Development. Impact LU#7 (Permanent Induced Population Growth) indicates that there is an adopted station area plan for Gilroy. Previous work on the Downtown Gilroy Station Area Plan was placed on hold in early 2018 with only background studies and reports having been prepared. This effort will need to be restarted and completed prior to project approval. The comment includes addressing the existing historic train depot building that will be affected by the proposed downtown terminal complex.

1737-1104

38. Chapter 3.16, Aesthetic and Visual Quality. Page 3.6-2, the list of viewer groups should also include business owners and patrons, visitors to Gilroy, and travelers.

1737-1105

39. Chapter 3.16, Aesthetic and Visual Quality. Graffiti can have a negative impact on a community. The Authority needs to provide information on who will be responsible for graffiti removal along the HSR right-of-way and station areas. This concern was included in Mayor Roland Velasco's August 29, 2019 letter to the High Speed Rail Authority. This is related another concern of the City, that is who will be responsible for the maintenance of the New HSR Station facility and related landscaping. The City is still waiting for answers to some of these questions.

40. Chapter 3.17, Cultural Resources. The peer review of the Archeological Survey Report (2019) and this chapter by Sally Evans with Evans and De Shazo (EDS) has identified a number of technical issues with the analysis. A copy of the original peer review document can be provided to the Authority if requested.

1737-1106

A. General Format, Archeological Survey Report (ASR). Overall, the ASR appears to meet the formatting requirements set forth in the Section 106 PA. However, the report lacks an "Introduction" section that includes a discussion about the Section 106 PA and how it was followed in the document, and although this information can be found in the Summary of Findings on page 1-1, the "Introduction" section is an element of an ASR that is required by the Section 106 PA. EDS recommends

1737-1106

that the ASR include an Introduction section that includes a discussion about the Section 106 PA and how it was followed throughout the document.

1737-1107

B. Findings, Section 7 of the ASR. The background literature review (section 6.2.1 Background Literature Review) does not include a review of the Office of Historic Preservation's Archaeological Determinations of Eligibility (ADOE) list. While a review of the ADOE may not change the outcome of the findings, it is standard practice and should be included in the ASR as part of the background research. EDS recommends that the ASR include a review of the OHP's ADOE.

1737-1108

C. Page 7-1 of the ASR identifies the archaeological site P-43-000632 (CA-SCL-714/H) as being located adjacent to (within 20 feet of) the Archaeological APE. However, based on the DPR 523 form maintained in the digital library of EDS for this resource, it appears that the boundaries of the site extend across Frazier Lake Road and intersect with the Archaeological APE. This means that this archaeological site is within the Archaeological APE. EDS recommends removing P-43-000632 (CA-SCL-714/H) from Section 7.1.7 (Resources Immediately Adjacent to the APE) to Section 7.1.4 (Contact-Period Resources). EDS also recommends that P-43-000632 (CA-SCL-714/H) be included in Appendix C-Part 3, Site Records and Site Record Updates for Sites in the Archaeological APE of the San Jose to Central Valley Wye Project Extent. (This site also needs to be incorporated into the EIR/EIS since it is a known archaeological resources within the project area.)

1737-1109

D. Section 7.3 of the ASR. In accordance with the Section 106 PA, Archaeological resources that are not exempt from further study are assumed to be eligible for the purposes of the project until additional information (such as extended Phase I testing or other evaluation) provides demonstrative evidence to the contrary. Page 8 from the Section 106 PA states: "Known archaeological properties that cannot be evaluated prior to approval of an undertaking will be presumed NRHP eligible. Where archaeological testing to determine NRHP eligibility is feasible, project-specific MOAs may include a provision for treatment plans that include archaeological testing or use of a combined archaeological testing and data recovery program." Therefore, while the Section 106 PA allows for a phased approach to the identification, evaluation, assessment of effects, and the resolution of affects to archaeological resources, the archaeological resources should be evaluated prior to approval of the project whenever feasible.

The archaeological site P-43-000417 (CA-SCL-412) extends into the Archaeological APE and is located in an area where ICF received permission to enter (PTE) for the archaeological field survey. This suggests that it is feasible to evaluate this site for NRHP prior to approval of the undertaking. EDS recommends that the portion of P-43-000417 (CA-SCL-412) that extends into the Archaeological APE be evaluated to determine eligibility for listing on the NRHP prior to certification of the EIR/EIS.

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1737-1110

E. Section 3.17, page 3.17-23, of the EIR/EIS identifies archaeological resource P-43-000632 (CASCL-714/H) as being located within 50 feet of the project footprint. However, based on the DPR 523 form maintained in the digital library of EDS, the boundaries of the site extend across Frazier Lake Road and intersect with the Archaeological APE. EDS recommends that Section 3.17 of the EIR/EIS categorize P-43- 000632 (CA-SCL-714/H) as an archaeological resource located within the project footprint, and that the site be listed within Table 3.17-3 (Previously Identified Archaeological Resources in the APE).

1737-1111

F. Section 3.17.7.2 of the Draft EIR considers affects to both known and unknown archaeological resources within the Archaeological APE. Since the archaeological site P-43-000632 (CA-SCL-714/H) is not listed as a known archaeological site within the Archaeological APE, it is not included in the discussion of impacts to known archaeological resources. It is not included in the discussion of impacts because the site was identified in the ASR as being located adjacent to, and not within, the Archaeological APE. However, based on the DPR 523 form maintained in the digital library of EDS, the site boundaries intersect with the Archaeological APE. EDS recommends that Draft EIR/EIS include the archaeological site P-43-000632 (CA-SCL-714/H) within the discussion under Impact CUL#2 (Permanent Disturbance of a Known Archaeological Site) in the EIR/EIS.

1737-1112

G. On Page 3.17-59 of the Draft EIR, which discussers the summary of the impacts to known archaeological resources within the Morgan Hill and Gilroy Subsection, the Section 106 Findings for CA-SCL-412 (P-43-000417) state that for Alternatives 1, 3, and 4, there would be no effect, and for Alternative 2, implementation of project features would minimize some potential adverse effects, but they would not avoid all effects on this archaeological site, and the effect would remain adverse under Section 106; however, it appears that Alternative 3 would impose these effects, and not Alternative 2. This appears to be a typo. EDS recommends that it be verified which alternative (Alternative 2 or Alternative 3) would impose these effects on CA-SCL-412 (P-43-000417).

1737-1113

41. Cultural Resources. The peer review of the San Jose to Merced Historic Architectural Survey Report (HASR) by Stacey De Shazo with Evans and De Shazo (EDS) has identified a number of technical issues with the analysis. A copy of the original peer review document can be provided to the Authority if requested. These items also need to be incorporated into Chapter 3.17 of the EIR/EIS.

The findings of the peer review determined that the most substantial issue with the HASR and subsequently the Draft EIR/EIS is that the document has not addressed effects to identified historic districts within the Historic Architectural APE. These district resources were identified within a planned survey contract by the City of Gilroy and documented on HRI forms and although the historic district have not been formally listed at the local, state, or federal level, they cannot be discounted, unless a preponderance of evidence indicates otherwise (PRC Section 5024.1, 14 CCR § 4850), which was not provided by

1737-1113

ICF. As such, and in the absence of such information, it is not known if historical resources within the City of Gilroy Historic Architectural APE will be affected by development of the project. Therefore, the findings in the documents reviewed cannot be concurred with or addressed further at this time. This issue is further discussed under Comment M below.

1737-1114

A. General Format. The format of the HASR is guided by details within Attachment C of the Section 106 PA. The overall format of the HASR is in compliance with the Section 106 PA format as detailed within Attachment C of the Section 106 PA. However, and although not significant, there is an alternating style of left and right justified formatting within the titles and section/page of each page of the HASR and Draft EIR/EIS. This appear to be a style preference; however, format guidelines set forth by CEQA Guidelines §15140 encourages formatting consistency. As such, EDS encourages consistency of the formatting style on each page, instead of the current alternating left and right justified title and section/page.

1737-1115

B. Summary of Findings. For the purpose of the HASR, IFC used the term "historic built resources", defined "to indicate buildings, engineering structures, or landscapes that were created during the historic era (built in 1966 or earlier), as well as districts or groupings of such resources", Page 1-1; paragraph 2. The term is "historic built resources" is later referred to on page 4-1 with the context of the APE as "historic built resources includes parcels containing buildings, structures, linear features, or objects…". The Section 106 PA states that "historic architectural properties" include historic buildings, structures, objects, sites, landscapes, and districts. EDS recommends the use of this term as defined within the Section 106 PA, instead of historic built resources. In addition, EDS recommends that ICF review the document for the use of the term "properties", and "cultural resources" for consistency and usage.

1737-1116

C. Summary of Findings. Pages 1-1 to 1-3, includes a summary of the entire San Jose to Central Valley Wye Project Extent findings for the project. As such, specific details associated with the City of Gilroy are not included in this section. However, on page 1-1, second paragraph, ICF states, "The term historic built resources is used to indicate buildings, engineering structures, or landscapes that were created during the historic era (built in 1966 or earlier), as well as districts or groupings of such resources." It appears that outreach and research for the City of Gilroy Historic Architectural APE began as early as 2010 and continued through 2018, and the architectural field surveys were conducted in 2017 and 2018. As such, the historic built environment is either 1967 or earlier or 1968 or earlier, which would cover the 50 years, at the time of the intensive survey is required under the Section 106 PA, which states on page B-2 that, "The APE for historic architectural properties includes all properties that contain buildings, structures or objects more than 50 years of age at the time the intensive survey is completed by the QIs…". As such, and since the most recent surveys were conducted in 2018,

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1116

EDS recommend a date of 1968 or earlier, which will ensure compliance with Section 106, related to the 50-year threshold requirement.

Therefore, based on the current HASR, EDS recommends that ICF review of the City of Gilroy Historic Architectural APE to determine if any additional buildings, constructed in 1968 or earlier, need review or if they are exempt. In addition, the date range of 1968 or earlier should also be included in the Methods Section, Page 6-1, of the HASR or any other sections as a result of this recommendation.

1737-1117

D. Table 1-1, Summary of Evaluation Efforts in the Historic Architectural Survey Report states, "Exempt properties: properties exempt from evaluation because they are less than 50 years of age or they meet one or more of the criteria for exempt properties as stated in the Section 106 PA". EDS recommends that the date ranged of 1968 or earlier be included within the table or be footnoted.

1737-1118

E. Section 1.1, Section 106 and CEQA Cultural Resources, Page 1-3, states that there are "638 properties containing buildings or structures", constructed in 1966 or earlier within the project APE. EDS recommends that ICF review the "time" of the intensive surveys to ensure that the requirement of the 50 years threshold is meant under Section 106 PA.

1737-1119

F. Section 1.2, first sentence, within Section 1.2 CEQA-Only Cultural Resources, page 1-4, references "survey population". EDS recommends that ICF provide a footnote for the definition of term "survey population" or use a substitute term such as cultural resources, properties, or resources, if appropriate.

1737-1120

G. Regulatory Setting. Page 2-2; paragraph 2 states "For the HSR project, including the project, the Section 106 process is defined in the Section 106 PA." EDS recommends this sentence be modified to be clearer.

1737-1121

H. Area of Potential Effects. According to the HASR, on Page 4-1, Establishing the Built Resource Area of Potential Effects, "The APE for historic built resources includes parcels containing buildings, structures, linear features, or objects 50 years of age or older in 2016 when research, fieldwork, and preliminary analysis resumed". EDS recommends a review of page B-1 of the Section 106 PA, which states that "The APE for historic architectural properties includes all properties that contain buildings, structures or objects more than 50 years of age ***at the time the intensive survey is completed by the QIs***, as follows".

1737-1122

I. Identification Efforts and Methods. The Information Centers are listed within the Table 6-1 Record Searches for the Project. On Page 6-1 of the HASR lists the "Northwest" as the Information Center; however, the formal name is Northwest Information Center and the acronym is NWIC. EDS also recommends ICF review the names of the Information Centers as well to provide the complete and accurate names.

1737-1123

J. Identification Efforts and Methods. Section 6.1.4.3 Local Registers of Historical Resources, City of Gilroy, Page 6-14, states "QIs contacted the City of Gilroy January 9, 2018 to inquire about the status of its local register. The City of Gilroy Planning Department confirmed that the City's local register of historic resources is the City of Gilroy's Historic Sites (Evanson 2018). In contrast, the City's "Downtown Historic District" was established as part of the Specific Plan to develop incentive for businesses in downtown Gilroy and to promote adaptive reuse of existing buildings. Although the designation includes the term historic, the district does not constitute, nor is intended to constitute, an historic district in accordance with the NRHP and CRHR and is not included in the City of Gilroy's Historic Sites register." EDS is the on-call Architectural Historian firm for the City of Gilroy and as such, we have access to current local, regional, and state repository documentation, as well as GIS data layers that provide additional details regarding the historic architectural properties within the City of Gilroy.

As such, EDS has determined that there are seven identified historic districts within the City of Gilroy, and it appears that there are at least four identified districts are adjacent to or partially within the current City of Gilroy Historic Architectural APE. Each of these seven districts have been documented on HRI forms, and the district boundaries delineated and are available at the NWIC. These identified districts include:

- Monterey Street Downtown District; OHP Property Number - 013664; OHP Property Reference Number (PRN) - 5020-0222-9999, NR status code: 7N. Identified in an HRI in 1986.
- Bungalow Residential District; OHP Property Number - 013495; OHP PRN - 5020-0213-9999; NR status code: 7N. Identified in an HRI in 1986.
- Craftsman Bungalow District; OHP Property Number - 013503; OHP PRN - 5020-0214-9999; NR status code: 5S2. Identified in an HRI.
- Fifth Street Historic District; OHP Property Number - 013556; OHP PRN - 5020-0216-9999; NR status code: 5S2. Identified in an HRI.
- Alexander Street Residential District; OHP Property Number - 013575; OHP PRN - 5020-0218-9999; NR status code: 5S2. Identified in an HRI.
- Forest Street Bungalow District; OHP Property Number - 013587; OHP PRN - 5020-0219-9999; NR status code: 5S2. Identified in an HRI.
- Pioneer Row Historic District; OHP Property Number - 013604; OHP PRN - 5020-0221-9999; NR status code: 3S. Identified in an HRI.

These previously identified historic districts cannot not be discounted or determined ineligible for effects without being evaluated or addressed as not being within the APE. As such, and in accordance with CEQA, properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1123

resources inventory may be eligible for listing in the California Register and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1, 14 CCR § 4850). Therefore, the current Record Search Results within Section 6 of the HASR are incomplete. Consequently, the historic architectural properties within the City of Gilroy Historic Architectural APE have not been adequately addressed by ICF. In addition, the DPR documents all need to be reviewed and any contributing resources must be updated to include their listing as contributors to an identified historic district and include the HRI PRN and the district Status Code. Once the HASR has been updated, the Draft EIR/EIS must be updated as well to include these resources. Additional research, and survey efforts will be required to address the effects to identified historic properties within the context of the districts.

1737-1124

K. Identification Efforts and Methods. 6.3 Field Identification Methods, Page 6-16 states, "QIs for historic built resources conducted intensive-level field surveys and field research for preparation of this HASR intermittently in 2008–2012 and 2016–2017". The DPR forms for the City of Gilroy include 2018 as survey dates. EDS recommends that ICF check these dates for accuracy.

1737-1125

L. Historic Context. Gilroy, Page 7-13, provides a brief history of Gilroy and the surrounding area. However, Gilroy had a large and robust Chinese population in the 1870s, who worked in the agricultural fields. There was also a small but bustling Chinatown within the downtown on Monterey. EDS recommends that ICF update the context for Gilroy to include more diverse history that reflects the historic populations and cultural history of Gilroy.

1737-1126

M. Properties Identified – Findings. Based on the comments and analysis of Section 6 of the HASR, the findings in both the HASR and the Draft EIR/EIS are incomplete related to the City of Gilroy Historic Architectural APE. In addition, some DPR forms already competed for Gilroy are missing details related to the districts they have identified within or adjacent to the project. Based on the current project alternatives, there appear to be two approaches that the Authority, as the Lead Agency, could take to address deficiencies within the analysis and findings.

- The first approach involves the review and evaluation of the identified districts within the City of Gilroy Historic Architectural APE, details, of which, can be obtained at the NWIC. The HASR and Draft EIR/EIS will need to be updated after additional surveys and documentation efforts are completed to address the identified historic districts within the Architectural History APE so that the effects of the project on these historic architectural properties can be fully accessed.
- The second approach involves that the Authority, in lieu of an updated district documentation and evaluation, can instead consider the resources (i.e. the districts) to be potentially eligible for the California Register. However, the

1737-1126

HASR, EIR/EIS, and the DPRS documents must be updated to include the districts and effects accessed based conclusion by the lead agency that the district that will be affected by the project are historical resources.

EDS recommends that the second approach be considered in consultation with the SHPO and the district forms are included within the DPR appendix for CRHR eligible resources.

Mitigation Measures

1737-1127

42. Measure TR-MM#1 (Potential Mitigation Measures Available to Address Traffic Delays) proposes to close/relocate streets or intersections and make other changes to the operation of City streets but is not proposing to obtaining local approval or concurrence to implement any these changes. The measure also implies that additional undefined, unspecified changes will be made to the project or the surrounding area, but fails to identify a process to develop, review or approve they changes. The City of Gilroy is concerned that the lack of a collaborative process to alter, potentially in a substantial manner, the local road network will result in significant project impacts. The EIR/EIR needs to evaluate the effects of implementing the suggested mitigating actions.

1737-1128

43. Measure TR-MM#2 (Install Transit Signal Priority) proposes to alter traffic signal timing through the installation of bus transit signals between East 7th and 10th Streets along Monterey Road and Alexander Road. Any changes to the operation of traffic signals will need to be closely coordinated and approved by the Responsible Agency (the City of Gilroy). As part of a complete mitigation measure, the description of the measure needs to include the process and approval of any responsible agencies involved in modifying either transit routes or local road system. Also, since there are currently no bus routes using Alexander Street, how long is the Authority proposing to be responsible for funding any proposed modifications to the City"s road network in this area?

1737-1129

44. Measure NV-MM#1: Construction Noise Mitigation Measures. The measure as proposed fails to "connect the dots" between a complaint over project construction noise and the Contractor making the noise. Since the Contractor is the Authority"s agent and entity responsible for generating the noise that triggered the complaint, the mitigation measure needs to include a process why which the Contractor is immediately notified of the complaint so that steps can be taken to reduce the noise on the affected population. Keeping a log of noise complaints does not mitigate a noise impact.

1737-1130

45. Measure NV-MM#2 (Construction Vibration Mitigation Measures) makes the assumption that pile driving will only affect buildings within 50 feet of a structure. While this may be applicable in many soil conditions for modern structures; there are many older structures, some of them historic, where this assumption may be nor be valid. What is the timing and process for determining how structures will be assessed for their susceptibility to damage prior to starting nearby construction and which agency is responsible for approving the technical validity of the result of this process.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1130

Also, when a structure is damaged by construction who would be responsible for ensuring that the property owner is satisfied with the Contractor"s offer, and what assurances is the Authority providing that construction will be halted in the vicinity of the affected structures until an agreement between the property owner and Contractor. These features need to be incorporated in the mitigation measure.

1737-1131

46. Measure NV-MM#4 (Support Potential Implementation of Quiet Zones by Local Jurisdictions) isn"t really a mitigation measure since the process of complying with 49CFR222 and 229 requires action by the City public agency to fund any improvements that establishing a quiet zone would necessitate. The measure as written, doesn"t really mitigate any impacts because the decision to initiate the mitigation involves a request and approve which do not involve the Authority unless the Authority is guaranteeing that the proposed project improvements (particularly the design of the Quad Gates) will meet the requirements of the Federal Railroad Authority.to approve a quiet zone.

1737-1132

47. Measure PUE-MM#1 (Replace Percolation Ponds at SCRWA Treatment Plant) fails to identify when the replacement basins would be completed and in operation. The proposed replacement basins would need to be completed prior to construction impacts to the existing basins.

1737-1133

48. Measure HMW-MM#1 (Limit use of extremely hazardous materials near schools during construction) fails include the notification of schools, and relevant school districts, in addition to the Authority. Just notifying the Authority fails to get the information to the organizations that need to know what hazardous materials are in use near the school. Erecting a sign is not the same as formally notifying the appropriate school district or facility. Also, the mitigation measure fails to connect the suggested Contractor monitoring with the entity receiving the monitoring reports and the affected local government and school district.

1737-1134

49. Mitigation Measure SS-MM#4 (Install Emergency Vehicle Response Improvements) has elements that are applicable to the City of Gilroy. The mitigation measure proposes three steps. Step 1, the Contractor will develop an emergency vehicle priority plan and install unspecified emergency vehicle priority treatments without City or Authority input or approval. Step 2, after the project is completed, the Authority will conduct a study to determine if there are really any delays greater than 30 seconds in emergency response. (The preliminary analysis identifies potential delays of three minutes or more.) Step 3, the Authority will make an in-lieu capital improvement contribution payment to one or more of the emergency vehicle priority treatment strategies.

However, the type of emergency vehicle treatment actions that the Authority has identified as possible mitigation does not address the identified impact, significant delays to Fire Department response times. The EIR/EIS identified the following actions as possible solutions in the mitigation measure.

- Emergency vehicle pre-emption equipment at traffic signals.

1737-1134

City Response: Except that unless the signal pre-emption is to stop the train to keep the roadway open, this action does not address the delay impacts created by the at-grade crossings.

- Route-based traffic signal priority control systems.

  City Response: This does not address the delays/conflicts created by the at-grade crossings.

- Emergency vehicle and transit queue bypass lanes.

  City Response: This does not address the delays/conflicts created by the at-grade crossings.

- Roadway capacity and operational improvements to facilities paralleling the rail line to improve access to adjacent grade-separated rail crossings.

  City Response: This does not address the delays/conflicts created by the at-grade crossings.

- Construction of new fire stations to reduce fire station response times in affected areas.

  City Response: The construction of a new fire station does not solve the problem since the existing Chestnut Street station also provides fire service protection to areas east of US 101. Reconstructing the station to someplace west of the UPRR tracks creates a new impact by reducing fire protection to areas east of the UPRR tracks. Constructing another fire station west of the tracks would require the City to purchase and staff an additional fire engine for the new station. The ongoing cost of staffing an additional station is not feasible for the City at this time and would have the effect of the City of Gilroy mitigating the impact created by the HSR project.

- Expansion of existing fire stations to reduce fire station response times in affected areas.

  City Response: Expanding one of the existing stations does not address the delays created by the at-grade crossings.

- Increase in contracted first responder ambulance services to reduce first responder ambulance response times in affected areas.

  City Response: This does not address the delays/conflicts created by the at-grade crossings.

As demonstrated above, the proposed mitigation measure does not address the impacts to emergency fire response times and has the appearance of both deferring and limiting the mitigation of inadequately described impacts. The most effective mitigation for this impact would be the adoption of the City"s modified project alternative suggestion in Comment #6.

1737-1135

50. Measure AVQ-MM#5 (Replant Unused Portions of Lands Acquired for the HSR) does not provide direction on the need to utilize native plant species in wildland areas. This needs to clarified in the mitigation measure.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1136

51. Mitigation Measure LU-MM#1 (HSR Station Area Development: General Principles and Guidelines: As previous mentioned under a general comment, the EIR/EIS does not include City review and approval of many of the plans and programs that will directly affect the City of Gilroy. Specifically, this mitigation does not provide the City an opportunity to meaningful input to the HSR Station Area Development General Principles and Guidelines. This mitigation measures needs to be revised to recognize the City's authority to allow the City to provide meaningful input/approval.

Attachment 2 - Additional Transportation Comments

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

HEXAGON TRANSPORTATION CONSULTANTS, INC.

1737-1142

Memorandum

1737-1143

Date: June 2, 2020

To: Mr. David Hogan, M-Group

From: Gicela Del Rio, T.E.

Subject: High-Speed Rail EIR/EIS Review on Behalf of The City of Gilroy

Executive Summary

1737-1144

Hexagon Transportation Consultants, Inc. has reviewed the High-Speed Rail (HSR) Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) on behalf of the City of Gilroy, California. Our findings and recommendations on the peer review are summarized below:

1737-1137

Station Trip Generation Finding: Hexagon's daily vehicle trip generation estimates (based on information presented in the EIR/EIS) represent approximately twice the number of daily vehicle trips utilized in the analysis of the project.

1737-1145

1737-1138

In addition, trip associated with passenger trips to off-site parking facilities and rental car facilities were not included in the analysis. These passengers represent shuttle trips at the station level and, once they reach their off-site parking lot or rental car facility destination, would become vehicular trips added to the roadway network.

1737-1146

1737-1139

VMT Analysis Comment: The VMT values in the analysis represent annual VMT. VMT and interregional VMT projections are reported within the same context, without further discussing the differences between the two values. Measures of VMT per job and/or VMT per population should be presented to be able to draw a conclusion of the analysis. The large annual VMT values provided by themselves are inconclusive.

1737-1140

No Project Roadway Network Finding: The recently completed City of Gilroy 2040 General Plan Update transportation analysis does not include the following roadway improvements, which were assumed as part of the City's future (2040) roadway network in the analysis:

1737-1147

- Monterey Road Widening
- Camino Arroyo Extension

1737-1141

Freeway Analysis Comment: The Transportation Report/EIR should include an explanation of the assignment of station traffic to the freeway.

Hexagon compared the 2040 no project conditions freeway volumes with 2040 General Plan conditions freeway volumes from the Gilroy 2040 General Plan Update transportation study. The 2040 General Plan peak-hour traffic volumes are larger than 2040 No Project conditions volumes by at least 1,000 vehicles at four of the five Gilroy freeway segments during at least one of the peak hours. The 2040 No Project peak-hour traffic volumes for the US 101 segment between SR 25 and Monterey Road has traffic volumes that are from 2,500 to 3,000 vehicles larger than those presented in the General Plan analysis.

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No Project Conditions Level of Service Finding: The existing, 2029, and 2040 No Project conditions level of service results were compared to the intersection level of service results for existing and 2040 General Plan conditions presented in the City of Gilroy 2040 General Plan Update transportation analysis. The comparison showed twelve of the study Gilroy intersections have considerably different level of service results between the two different analyses.

Alternative 4 Transportation Impacts Comment: Nine Gilroy intersections are identified in the Transportation Report (Table 5-19) as being affected by the project under 2040 Plus Project conditions. However, based on the identified criteria of LOS E or F and an increase in delay of 4 or more seconds from No Project conditions, five additional intersections should have been identified as impacted intersections:

G25. Monterey Road/IOOF Avenue – LOS F, AM peak-hour
G30. Railroad Street/Sixth Street – LOS F, AM and PM peak hours
G34. Alexander Street/Old Gilroy Street – LOS E, AM peak-hour; LOS F, PM peak-hour
G.54 Frontage Road/Lewis Street – LOS F, AM peak-hour; LOS F, PM peak-hour
G.55 Railroad Street/Lewis Street – LOS F, PM peak-hour

Additionally, the level of service at the intersection of Monterey Road/Cohansey Avenue (G47) also is shown to improve (from LOS E to LOS D) under 2040 Plus Project conditions compared to 2040 No Project conditions. This improvement is not clear since this intersection is expected to experience increased delays as the result of the proposed four-quadrant gate at this location.

Level of Service Impact Mitigations : Hexagon recommends a grade separation at a minimum of two intersections: Monterey Road/Masten Avenue (MH26) and Monterey Road (SR 152)/Welburn Avenue-Leavesley Road (G15), since these intersections are two of the three main entries to Gilroy and provide east-west access across US 101.

Queueing at At-Grade Crossings: The blended service tracks have the capacity to accommodate at most 24 trains per peak hour, with eight HSR trains and four Caltrain trains in each direction. That calculates to an average of one train every 2-1/2 minutes. The estimated 95th percentile gate-down time for intersections in Gilroy (intersections near HSR station) would be 68 seconds per single-train event. That means that at full capacity, there would be less than 1-1/2 minutes between gate down events, on average, and the gates would be down about 50 percent of the time during the peak-hour.

The increased gate-down times and events could be problematic in particular along major roadways, such as Masten Avenue, Leavesley Road, and Tenth Street, which serve as major entries into Gilroy. The gate-down times would reduce capacity along the roadway approaches by almost 50%, resulting in longer delays and vehicular queue lengths along these roadways.

Emergency Response Times Findings: With implementation of the HSR Alternative 4, response times for all four of the existing Gilroy fire stations could be increased by 120 up to 180 seconds. The exact scope of the potential impact would be determined before HSR service begins. Mitigation is stated as requiring new vehicle detection equipment, new responder equipment installed at existing fire stations, new fire stations, and additional ambulance services, with funding from HSR Authority.

The recently completed City of Gilroy Fire Department *2019 Master Plan Update* (dated November 14, 2019, by Citygate Associates, LLC, and updated from the previous 2004 Master Plan) identifies a best practice performance goal for total response time of 7:30 minutes or less (which includes a **4:00-minute travel time**), 90 percent of the time.

Overall, the findings in the Master Plan state that, currently, the first-due call-to-arrival performance for the City is 16 percent (about 1:13 minutes) slower than the recommended 7:30-minute goal for urban areas. The Master Plan also shows that the City is geographically too large to be served by the existing

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1147

fire stations, with areas in the southwest of Gilroy where new residential and commercial development is planned, being outside of the 4:00-minute recommended emergency response travel time. The Master Plan shows that the planned Glen Loma Station would provide service to the southwest part of Gilroy within the recommended response time.

Emergency Response Times Mitigations: In order to mitigate intersection level of service and emergency response time impacts, Hexagon recommends a grade separation at the following locations:

MH26. Monterey Road/Masten Avenue
G15. Monterey Road (SR 152)/Welburn Avenue-Leavesley Road (SR 152)
G36. Monterey Road/Tenth Street
G43. Monterey Road/Luchessa Avenue

Hexagon also recommends grade separation at Sixth Street. Sixth Street is one of five overpass facilities that provide access between the east and west sides of town across US 101. Due to its close proximity to the proposed Downtown Gilroy HSR Station, however, this grade separation may not be feasible.

1737-1148

Hexagon recommends a study be conducted, in collaboration with the Gilroy Fire Department, to evaluate the effects of the HSR preferred alignment on Fire Department service areas and emergency response time and identify the best possible mitigation measures to meet the Department's best practice response time.

1737-1149

Station Parking Comment: The proposed Chestnut Street parking facility would be located approximately half of a mile south of the station and would be accessible via Alexander Street. However, a half-a-mile walk to the station from the parking facility may be considered a long walking distance by some, resulting in secondary trips to the station made by shuttle or other modes.

Introduction

The peer review presented within this memo is mainly focused on the *Transportation Resources Technical Report* (dated September 2019) and corresponding Appendix 2-A (dated April 2020) prepared for the *San Jose to Merced Project Section Draft Environmental Impact Report/Environmental Impact Statement*, prepared by the California High-Speed Rail Authority, dated April 2020. For ease of reference, the Transportation Resources Technical Report will also be referred to as the Transportation report within this document. Other chapters of the EIR/EIS, documents, and maps included in the peer review include:

Chapter 2: Alternatives
Chapter 3, Section 3.2: Transportation
Chapter 8: Preferred Alternative
Appendix 2-E: Impact Avoidance and Minimization Features (IAMF)
https://maphsrnorcal.org/sanjose-merced/

Project Background

The HSR EIR/EIS identifies four project alignment alternatives. HSR Authority has identified Alternative 4 to be the preferred alternative. The four alignment alternatives are described below and shown on Figures 1, 2, 3 and 4. The four station plans are shown on Figures 5-8. Alternative alignments and station features are summarized in Table 1.

Figure 1
High Speed Rail Alternative 1 Alignment

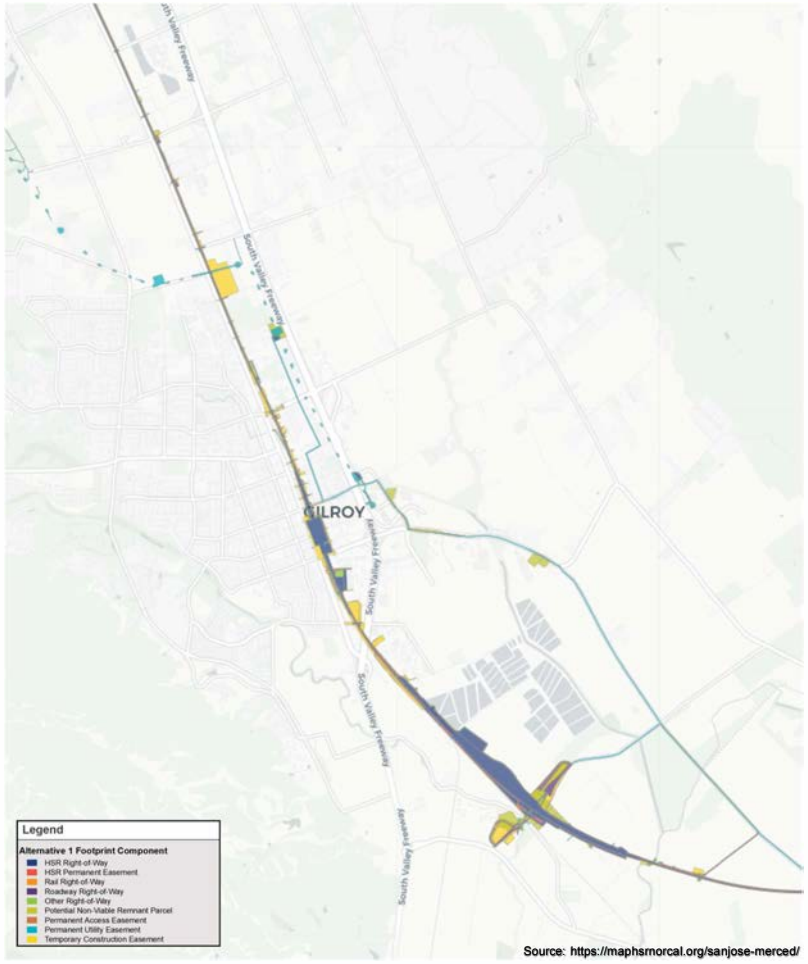

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Figure 2
High Speed Rail Alternative 2 Alignment

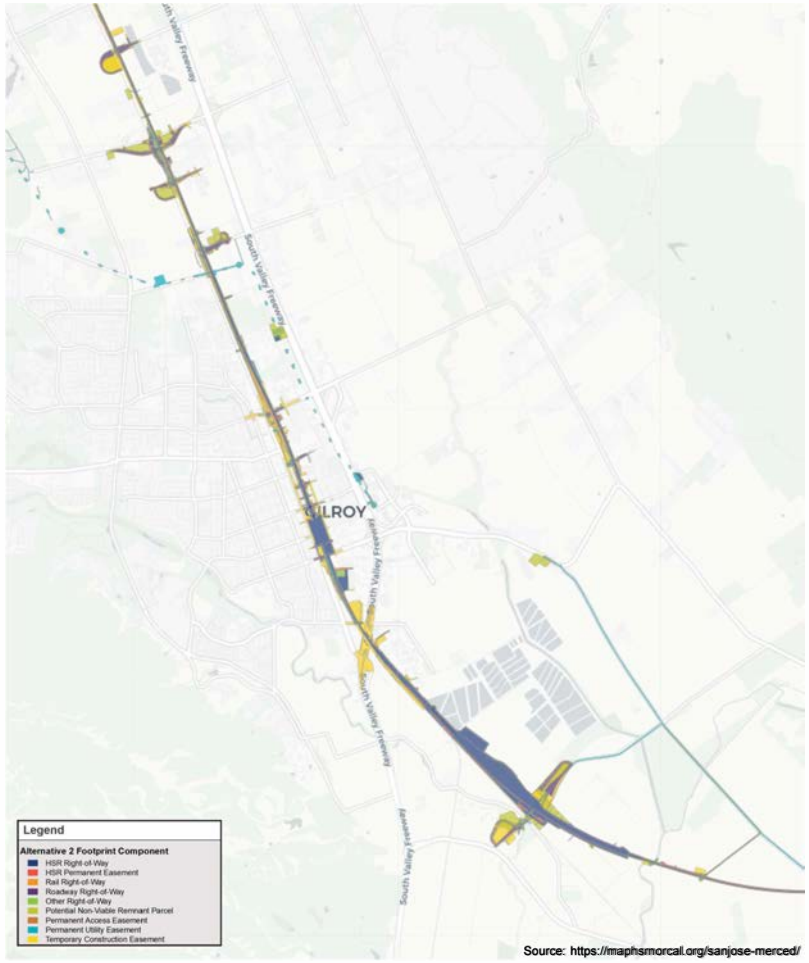

Figure 3
High Speed Rail Alternative 3 Alignment

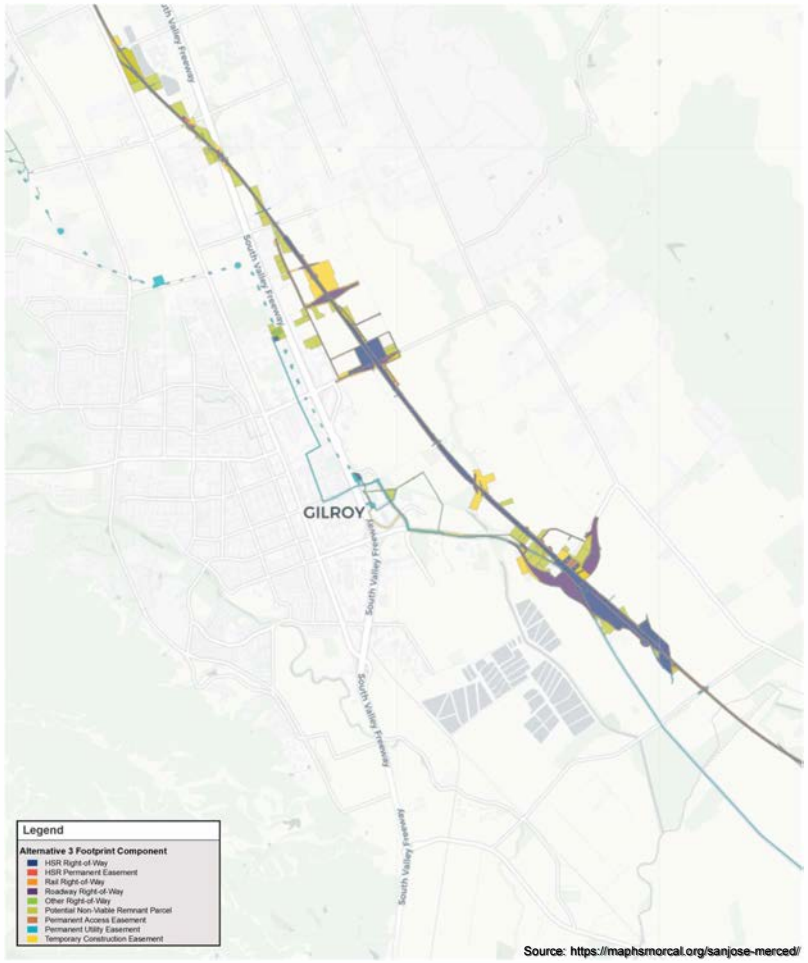

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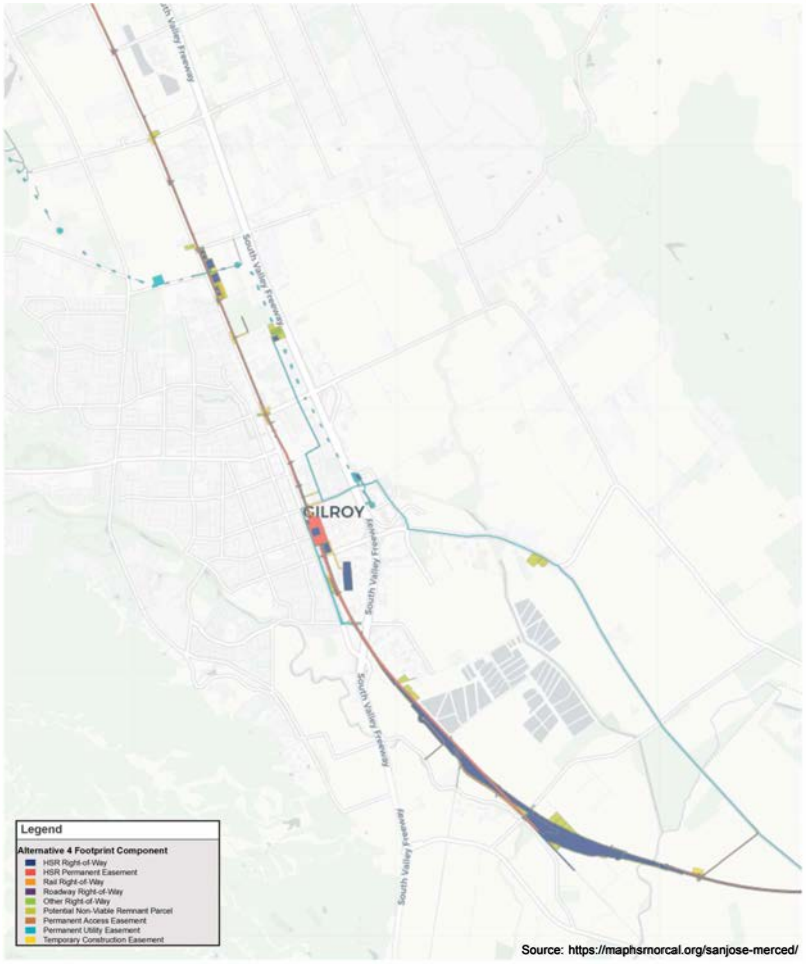
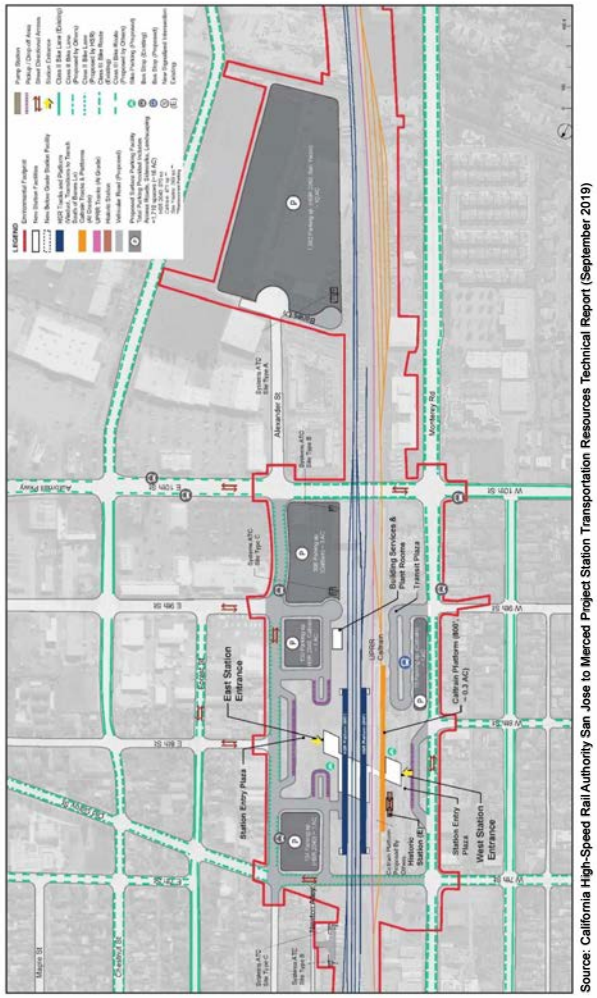
Figure 4
High Speed Rail Alternative 4 Alignment



Source: https://maphsrnorcal.org/sanjose-merced/

Figure 5
Conceptual Downtown Gilroy Aerial Station Plan (Alternative 1)



Source: California High-Speed Rail Authority San Jose to Merced Project Station Transportation Resources Technical Report (September 2019)

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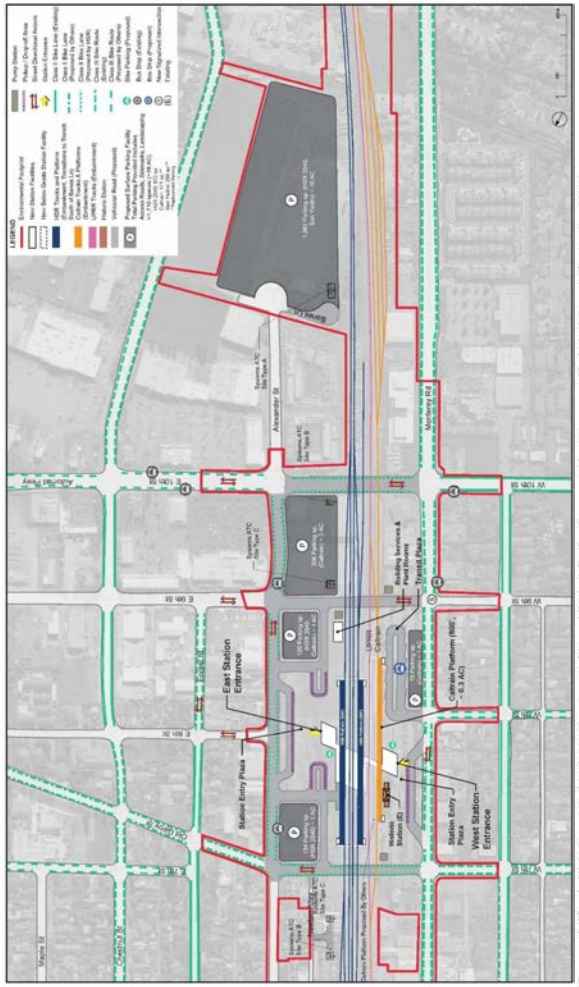
Figure 6
Conceptual Downtown Gilroy Embankment Station Plan (Alternative 2)



Source: California High-Speed Rail Authority San Jose to Merced Project Section Transportation Resources Technical Report (September 2019)

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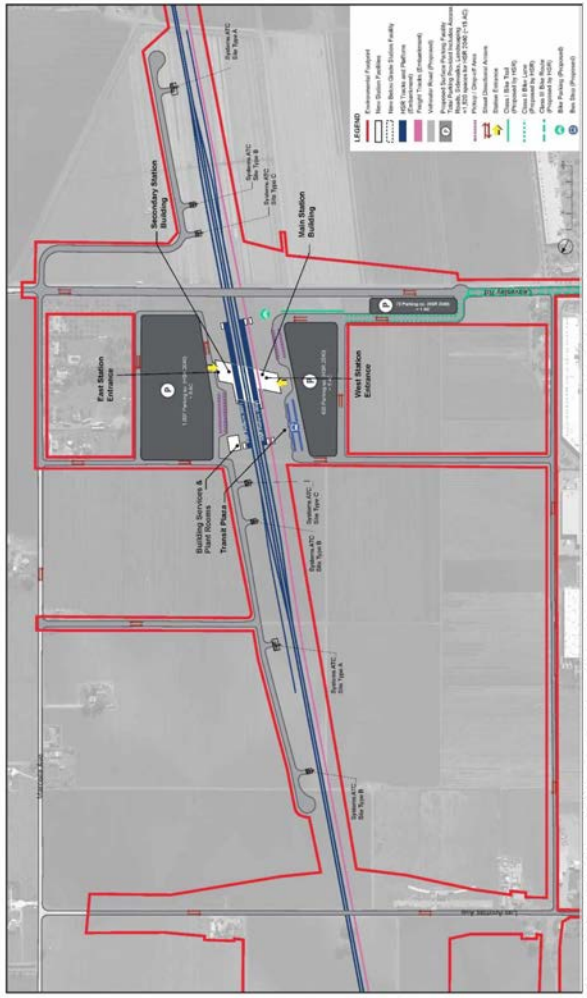
Figure 7
Conceptual East Gilroy Station Plan (Alternative 3)



Source: California High-Speed Rail Authority San Jose to Merced Project Section Transportation Resources Technical Report (September 2019)

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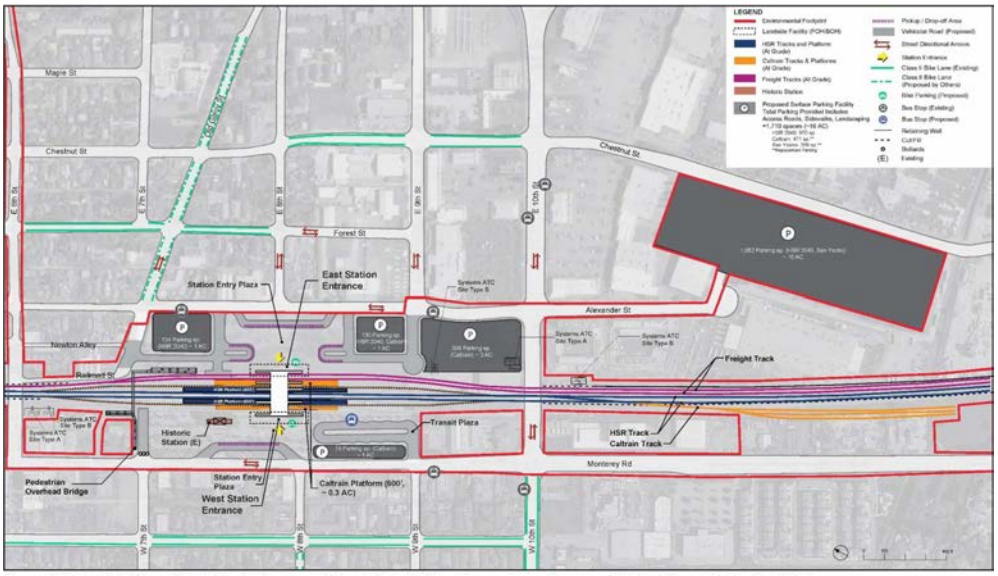
Figure 8
Conceptual Downtown Gilroy At-Grade Station Plan (Alternative 4)



Source: California High-Speed Rail Authority San Jose to Merced Project Station Transportation Resources Technical Report (September 2019)

Table 1
High Speed Rail Alignment Alternatives Summary

Alternative	Design Option	Gilroy Station	Parking [1]	Bicycle Facility	Roadway Closures/Realignments	MOWF Location [2]
Alternative 1	Viaduct	Aerial Downtown Gilroy	740 - existing 970 - HSR demand Total: 1,710	4,000 s.f.; Bike lanes on 7th and Alexander Streets	Realignment of Old Gilroy/7th Street	South Gilroy, between Carnadero Road and Bloomfield Road
Alternative 2	Embankment	Embankment Downtown Gilroy	Same as Alt. 1	4,000 s.f.; Bike lanes on 7th, 10th, and Alexander Streets	9th Street goes thru Station; Realignment of Old Gilroy/7th Street	Same as Alt. 1
Alternative 3	Viaduct	Embankment East Gilroy	1,520	Class I: adjacent to parking, connects to bike station Class II: station entrance to parking Class III: outlet mall to station entrance	Cohansey Avenue and Holsclaw Road would be closed. Levee Road would be realigned south of Llagas Creek	West of the HSR mainline, south of Gilroy near the intersection of SR 152/Frazer Lake Road
Alternative 4 (Preferred Alternative)	Blended	At-grade Downtown Gilroy	Same as Alt. 1	4,000 s.f.; Existing bicycle facilities	Old Gilroy/7th Street crossing closed	Same as Alt. 1

Source: *San Jose to Merced Project Section Draft Environmental Impact Report/Environmental Impact Statement*, prepared by the California High-Speed Rail Authority, dated April 2020.
[1] Parking is the amount of proposed parking to service future the station, based on year 2040 demand projections.
[2] MOWF = maintenance of way facility.

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Alternative 1: Viaduct with Downtown Gilroy Station

The proposed high-speed rail tracks would run along a viaduct, running adjacent to US 101 in Morgan Hill and rejoining Monterey Road and the UPRR corridor in San Martin and continuing south to downtown Gilroy. This alternative would enter the Downtown Gilroy Station on aerial structure. South of the Downtown Gilroy Station, the alignment would continue on viaduct over East Tenth Street.

Alternative 2: Embankment with Downtown Gilroy Station

The proposed high-speed rail tracks would run on an embankment along the east side of the Union Pacific Railroad (UPRR) alignment arriving at the Downtown Gilroy Station embankment. A pedestrian underpass would replace Martin Street across the rail alignment.

Alternative 3: Viaduct with East Gilroy Station

The proposed high-speed rail tracks would run on a viaduct, as proposed in Alternative 1, however, it would bypass downtown Gilroy to an East Gilroy Station, minimizing interface with the UPRR corridor in comparison to Alternative 1.

Alternative 4 (Preferred Alternative): Blended with Downtown Gilroy Station

In September 2019, the HSR Authority Board of Directors confirmed Alternative 4 as the State's Preferred Alternative for purposes of the Draft EIR/EIS and serves as the CEQA proposed project.

This alternative would be blended service with Caltrain and would consist of an at-grade alignment that would operate on two electrified (overhead) passenger tracks and one conventional freight track located predominantly within the existing Caltrain and UPRR rights-of-way. This alternative would include an at-grade Downtown Gilroy Station. All current at-grade crossings would be maintained with enhanced safety measures including four-quadrant barrier gates. The Gilroy Caltrain Station would be reconstructed, and the blended service would end just south of the Downtown Gilroy Station. A new pedestrian overpass would be provided between East and West 7th Street.

City of Gilroy Input

City of Gilroy Council

City Council Staff Report 2373 (Direction on the High-Speed Rail Preferred Alternative for the California High-Speed Rail Authority Northern California Alignment, August 19, 2019), provides City input on the proposed HSR alignments and concludes that Alternative 4 has the least amount of impacts to property and businesses and will likely cause less disruption to the downtown area during construction of the HSR project. Therefore, Alternative 4 is recommended as the most viable alternative. The report also requests that the HSR Authority conducts a comprehensive traffic study to identify potential impacts and mitigation measures to address the proposed roadway closures (7th Street) and its effect on the citywide and downtown roadway network, the loss of parking in the downtown area, and the significant implications on response time and station coverage for the Fire Department as the result of the increased gate down times associated with Alternative 4. The Fire Department will require a Standard of Coverage (SOC) study be completed to thoroughly analyze the impacts to response time and station coverage associated with the construction and operation of the HSR project.

The City Council Staff Report is included in the Appendix.

Letter from City of Gilroy Mayor to the California High Speed Rail Authority

In a letter from the City of Gilroy Mayor Roland Velasco to Mr. Brian Kelly (HSR Authority) dated August 27, 2019, Mayor Velasco states that the City believes the preferred blended at-grade alternative (Alternative 4) presents the least amount of impacts to property and businesses, and will cause the

least disruption during construction, however, the City has some concerns that need to be addressed, including safety (for vehicles, pedestrians, and bicyclists), fire station access and response time (conduct or update current Standard of Cover study), downtown impacts to parking and Seventh Street closure (conduct traffic study), and traffic impacts on Leavesley Road due to gate-down events with preferred alternative (identify mitigation measures – grade separation an option).

The letter from Mayor Velasco to the HSR Authority is included in the Appendix.

Review of Transportation Resources Technical Report

The following sections summarize the review of the transportation analysis presented in the Transportation Resources Technical Report and all other relevant information presented in the HSR EIR/EIS. The review is based on Hexagon's knowledge and experience conducting transportation analyses for project in the City of Gilroy, including previous evaluations and collaborations of the HSR project for the City of Gilroy, and other recently completed transportation studies, including the City of Gilroy 2040 General Plan transportation analysis (dated May 2020 completed by Hexagon).

Comments/questions/findings on specific sections will be discussed following the section.

Analysis Scenarios, Methodologies, and Measures of Effectiveness

Study Scenarios

The analysis of the HSR project was conducted for the following scenarios:

Existing conditions – 2016 conditions

Existing plus project conditions – includes all transportation network modifications necessary to construct the project; however, the project would not provide rail service under existing conditions, therefore, ridership at stations is not reflected under this scenario.

2029 No Project conditions – year 2029 transportation conditions, including foreseeable land use changes and transportation network modifications, not including the HSR project.

2029 Plus Project conditions – 2029 baseline conditions with project ridership anticipated in the 2029 horizon year.

2040 No Project conditions – year 2040 transportation conditions, including foreseeable land use changes and transportation network modifications, not including the HSR project.

2040 Plus Project conditions – full potential effects of the project on 2040 baseline conditions; anticipated 2040 ridership and all transportation network modifications necessary to construct the project are reflected in this scenario.

Traffic Volume Projections

Traffic volumes and station projections used in the analysis were derived from various sources:

Existing conditions traffic counts. Unspecified.

Comment: The Transportation report does not make mention of the source of the existing conditions traffic volumes. It only refers to existing conditions as 2016 baseline conditions (page 4-2).

Ridership forecasts. Ridership forecasts for the HSR system were developed using the latest version of the statewide *California High-Speed Rail Ridership and Revenue Model, Business Plan Model Version*

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3 (Authority 2016a). The model incorporates socioeconomic growth assumptions consistent with the California Statewide Travel Demand Model and adjusts them for 2029 and 2040 forecasts years.

Question: How were the socioeconomic growth assumptions adjusted?

Mode of access forecasts. Provided by the HSR Authority.

1737-1150

Vehicle trips forecasts. Estimated based on the analysis of comparable systems, the local context at each HSR station, existing conditions and constraints, planned land uses, transportation facilities and services, vehicle parking availability, and the mode of access forecasts.

VMT forecasts. The Ridership and Revenue Model was used to forecast annual VMT for Santa Clara County under 2029 and 2040 No Project and Plus Project conditions.

Vehicles on freeways/roadways forecasts. Forecasts of vehicles that would travel on freeways and roadways were developed using a version of the Santa Clara County Valley Transportation Authority (VTA) model developed by VTA staff for the San Mateo City/County Association of Governments (considered the most appropriate forecasting tool for the project because it was used to develop Caltrain ridership forecasts and includes all study facilities as well as San Mateo and San Francisco Counties.) In order to develop vehicle forecasts for the analysis of the project, the VTA model was enhanced to include HSR by adding a new transit line along the planned alignment with the four HSR stations in the Bay Area (San Francisco, Millbrae, San Jose Diridon, and Gilroy). The model was further adjusted to match the HSR ridership and mode of access forecasts.

1737-1151

Question: How was the model adjusted to match the HSR forecast?

2029/2040 traffic volumes. 2029/2040 No Project traffic volumes were developed using City-specific growth factors obtained from the VTA travel demand model. The growth factors were applied to the existing volumes to develop at the 2029 and 2040 No Project volumes for the study intersections. Vehicular trips generated by the HSR stations and MOWF alternatives were manually added to the 2029/2040 No Project volumes based on distribution data derived from the VTA model to estimate the project-related traffic volumes.

1737-1152

Question: (1) Were the growth factors developed from VTA model runs for different years and then interpolated to 2019? (2) Were the citywide factors applied to all study facilities (freeways, roadways, intersections)? For example, were all volumes in the City increased by the same rate? (3) Vehicles generated by the HSR stations include HSR passengers that park or are dropped-off at the stations. Under No Project conditions, most of those travelers would likely drive (or take Caltrain). Were those no-project vehicle trips removed from the network under Plus Project conditions?

HSR Station-Generated Traffic

1737-1153

Station vehicle trip generation was estimates based on passenger trip generation estimates (station boardings and alightings) and the vehicle access/egress mode forecasts (Table 4-2 of the Transportation Report). The station mode-of-access and egress forecasts were applied to the passenger trip projections to estimate the number of trips by mode at the station (Table 4-3 of the Transportation Report).

Passenger trips were converted to vehicular trips by applying an average vehicle occupancy factor for each of the passenger vehicle mode of access/egress at the station (vehicle occupancy factor for all vehicular mode of access/egress are listed on Table 4-4). Furthermore, it was assumed that passenger trips associated with off-site parking facilities and rental car facilities were included as shuttle trips at the station. Parked car trips would represent one vehicle trip per boarding or alighting while drop-off/pick-up and taxi/transportation network company trips would represent two vehicle trips per boarding

or alighting (one inbound and one outbound trip). Additionally, it is specified that peak-hour vehicle trips were calculated by applying a peak-hour conversion factor of 10 percent (%) to the daily vehicular trips.

Table 4-5 of the Transportation Report presents the estimated daily vehicle trips and AM and PM peak hour trips.

Finding: Based on the above information, Hexagon estimated the number of daily vehicular trips and peak-hour trips for both proposed Gilroy Stations. Our estimates show that passengers associated with park on-site cars, drop-off/pick-up, and taxi/TNC mode of access/egress represent a total of 9,018 and 9,995 daily vehicular trips at the Downtown and East Gilroy Station, respectively, under 2040 conditions. Our daily vehicle trip generation estimates represent approximately twice the number of daily vehicle trips utilized in the analysis. Applying a 10% peak-hour factor to the daily vehicular trips yields 902 and 1,000 peak-hour vehicular trips at the Downtown and East Gilroy Station, respectively, under 2040 conditions. Table 2 below shows the trip generation calculations prepared by Hexagon.

In addition, it should be noted that the above trip generation calculations do not include the vehicular traffic associated with passenger trips to off-site parking facilities (for the East Gilroy Station under 2040) and rental car facilities. Even if these passengers represent shuttle trips at the station level, the shuttle trips created by these passengers are not included in the trip generation estimates for the station presented in the report or calculated above. These passengers, once they reach their off-site parking lot or rental car facility destination, would become vehicular trips added to the roadway network. Based on the description of project trips presented in the Transportation Report, the traffic analysis did not include the effect of these trips on the transportation network.

Roadway, Freeways, and Intersection Analyses Methods

The analyses presented in the Transportation Report for roadways, freeways, and intersections are based on delay and Level of Service (LOS), based on the *Highway Capacity Manual* (HCM) (Transportation Research Board 2010). Traffic conditions evaluation methods and significance thresholds were identified by the HSR Authority.

Freeway Segments

Freeway segments that would serve 100 or more project-generated vehicle trips during the peak-hour were evaluated. An effect to a freeway segment was deemed to occur if the project would cause the volume to capacity ration (V/C) to increase by 0.04 (4%) or more.

Comment: Methodology and impact criteria differs to those implemented by Santa Clara County CMP Traffic Impact Analysis Guidelines for the evaluation of freeway segments.

Intersections

Intersection level of service analysis presented in the Transportation Report was based on the 2010 HCM. Synchro, SimTraffic, or VISSIM software packages were utilized to calculate the intersection levels of service. Project effects on intersections were identified as LOS E or F conditions and average traffic delay increase of 4 seconds of more over No Project conditions.

Comment: Methodology and impact criteria differs to adopted City of Gilroy and Santa Clara County CMP level of service analysis methodology and impact criteria.

Other Analyses

Other analyses include:

- Effects on parking by project construction and operations.
- Effects on emergency vehicle response time.

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Table 2
Gilroy HSR Station Trip Generation Estimates

Station	Total Daily Passengers	Daily Passenger Trips by Mode of Access/Egress								Table 4-5	
		Parked Car: On-site [1]	Parked Car: Off-Site [2]	Drop-off/ Pick-Up [3]	Taxi/TNC [3]	Rental Car Shuttle [2]	Bus/Rail	Walk/Bike	TOTAL DAILY [4]	Total Peak-Hour Trips [5]	Daily Vehicle Trips	Total Peak-Hour Trips [6]
2029 Trips												
Passenger Trips:												
Downtown Gilroy	5,900	1,000	0	1,000	1,300	940	1,100	500	5,840			
East Gilroy	5,900	1,600	0	880	1,600	1,500	280	60	5,900			
Vehicular Trips: [1]												
Passengers per Vehicle:		1.31		1.46	1.29	1.51						
Downtown Gilroy		763		1,370	2,016	623			4,209	421	2,000	360
East Gilroy		1,221		1,205	2,481	993			4,967	497	2,100	410
2040 Trips												
Passenger Trips:												
Downtown Gilroy	12,400	2,100	0	2,200	2,800	2,000	2,300	1,050	12,450			
East Gilroy	12,400	2,700	600	1,900	3,400	3,200	560	130	12,490			
Vehicular Trips: [1]												
Passengers per Vehicle:		1.31	?	1.46	1.29	1.51						
Downtown Gilroy		1,603		3,014	4,341	1,325			9,018	902	5,200	690
East Gilroy		2,061	?	2,603	5,271	2,119			9,995	1000	5,400	750

Source: Tables 4-3, 4-4, 4-5 in the *San Jose to Merced Project Section Transportation Resources Technical Report*, September 2019.
Numbers shaded in Gray were obtained from the above tables.
Unshaded numbers were calculated by Hexagon, based on the numbers and information provided in the above tables and section 4.2.2 of the above technical report.
[1] Cars parked on-site represent one daily trip (either inbound or outbound).
[2] Passenger trip to off-site parking facilities and car rental facilities were included as shuttle trips in the analysis. These trips (numbers in red) were NOT included in the estimate of total daily vehicular trips.
[3] Passengers dropped-off/picked-up at the station (by private vehicle or taxi) represent two trips: one inbound and one outbound.
[4] Total Daily (Vehicular) trips include all vehicular trips (no shuttle trips) plus 60 daily trips associated with employees.
[5] Total Peak-Hour Trips were calculated by applying a peak-hour conversion factor of 10 percent (%) to the total daily trips, as assumed in the technical report. These trips include both inbound and outbound trips.
[6] Vehicular trips were calculated by dividing the projected passenger trips by the number of passengers per vehicle for each mode of access/egress category.

1737-1154

1737-1155

1737-1156

- Effects on transit facilities and operations, including bus service and passenger rail service, by project construction and operations.
- Effects on nonmotorized transportation facilities, including pedestrian and bicycle, by project construction and operations.

Project Effects Analyses

Analyses included in the evaluation of the HSR project include a VMT analysis, freeway segment level of service analysis (20 total study segments, five segments located in the vicinity of Gilroy HSR Station and referred to in this review as the Gilroy freeway segments), and an intersection level of service analysis (total of 67 intersections located within the City of Gilroy and/or Gilroy's Sphere of Influence). The VMT analysis, freeway level of service analysis, and No Project conditions intersection level of service analysis are discussed below. The Plus Project intersection level of service analysis, and other analyses described above, are discussed in the following sections under each of the HSR alternatives.

Vehicle Miles Traveled

Vehicle miles traveled (VMT) projections, presented on page 5-1, include annual existing (2015) and future (2029 and 2040) VMT projections for Santa Clara County and interregional VMT for San Benito and Merced Counties.

Comment: The VMT values in the analysis represent annual VMT. VMT and interregional VMT projections are reported within the same context, without further discussing the differences between the two values. Measures of VMT per job and/or VMT per population should be presented to be able to draw a conclusion of the analysis. The large annual VMT values provided by themselves are inconclusive.

No Project Roadway Network

Future transportation improvements in the Bay Area, including Gilroy, have been identified to increase transportation network capacity and accommodate projected population growth. These planned improvements are assumed in place as the baseline 2029 and 2040 future conditions transportation network.

A total of seven roadway improvements were assumed to be implemented in the City of Gilroy by the year 2029 and/or 2040. These improvements, listed on Table 5-7, are based on information obtained from the City of Gilroy 2020 General Plan.

Finding: The recently completed City of Gilroy 2040 General Plan Update transportation analysis does not include the following roadway improvements, which were assumed as part of the City's future (2040) roadway network in the analysis (listed on Table 5-7):

- Monterey Road Widening
- Camino Arroyo Extension

Freeway Level of Service Analysis

One of the five study freeway segments located in the vicinity of Gilroy currently (2016 conditions) operates at a LOS E during the AM (in the northbound direction) and PM (in the southbound direction) peak hours.

Under Existing Plus Project conditions, under Alternatives 1, 2, and 3, the proposed narrowing of Monterey Road in San Jose would result in a shift in traffic from Monterey Road to US 101. However, no impacts were identified.

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1737-1156

Under 2029 No Project and Plus Project conditions, all Gilroy freeway segments are projected to operate at an acceptable LOS D or better; no impacts were identified.

Under 2040 No Project conditions, two of the study Gilroy freeway segments are projected to operate at LOS E during the AM peak-hour. However, the additional traffic to US 101 with the implementation of the project would not result in an impact to any of the study Gilroy segments.

Comments: the freeway level of service analysis was review for consistency within the different scenarios analyzed and with other freeway segments analysis conducted previously. The review showed the following:

- Added peak-hour traffic on the freeway as the result of Alternatives 1, 2, and 3 was the same under Existing, 2029, and 2040 conditions. Additionally, Alternative 4 resulted in no change to the Existing Plus Project freeway volumes and only increased freeway volumes by an average of less than 100 peak-hour trips under 2029 and 2040 Plus Project conditions. It is expected that traffic generated by the HSR project also would utilize the freeway to access the stations, however, the freeway volumes utilized in the analysis cannot confirm this. The Transportation Report should include an explanation of the assignment of station traffic to the freeway.
- Hexagon compared the 2040 no project conditions freeway volumes with 2040 General Plan conditions freeway volumes from the Gilroy 2040 General Plan Update transportation study. The 2040 General Plan peak-hour traffic volumes are larger than 2040 No Project conditions volumes by at least 1,000 vehicles at four of the five Gilroy freeway segments during at least one of the peak hours. The 2040 No Project peak-hour traffic volumes for the US 101 segment between SR 25 and Monterey Road has traffic volumes that are from 2,500 to 3,000 vehicles larger than those presented in the General Plan analysis.
- Two freeway segments analyzed (Monterey Road to SR 152, northbound direction during the PM peak-hour, and SR 25 to Monterey Road, southbound direction during the PM peak-hour) show no volume increases between the No Project and With Project scenarios.

1737-1157

No Project Conditions Intersection Levels of Service

The existing intersection level of service results (Table 5-5) show that three of the study Gilroy intersections currently (2016 traffic conditions) operate at LOS E or F during at least one of the peak hours.

Under 2029 and 2040 No Project conditions, five and seven Gilroy study intersections, respectively, are projected to operate at LOS E or F during at least one of the peak hours.

Finding: The existing, 2029, and 2040 No Project conditions level of service results were compared to the intersection level of service results for existing and 2040 General Plan conditions presented in the City of Gilroy 2040 General Plan Update transportation analysis. The comparison is presented on Table 3 below.

Table 3
No Project Level of Service Comparisons

Intersection		Peak Hour	Existing Conditions		Future No Project Conditions		
			HSR	GP	2029 HSR	2040 HSR	2040 GP
MH26	Monterey Road/Masten Avenue	AM	D	C	E		C
		PM	E	D	F		D
MH27	Manna Way/Masten Avenue	AM			B		A
		PM			E		B
G1	Monterey Road/Buena Vista Avenue	AM	A	F	E	B	F
		PM	A	F	C	A	F
G2	US 101 SB Ramps/Buena Vista Avenue	AM				A	F
		PM				A	F
G8	San Ysidro Avenue/No Name Uno-Las Animas Avenue	AM				B	F
		PM				B	F
G20	Arroyo Circle/Leavesley Road	AM			B	A	D
		PM			C	B	C
G22	Cameron Boulevard (Ext.)/Leavesley Road	AM				B	C
		PM				B	F
G25	Monterey Road/IOOF Avenue	AM			B	D	E
		PM			A	A	F
G39	US 101 SB Ramps/Tenth Street (SR 152)	AM				A	C
		PM				A	C
G45	Monterey Road/Bolsa Road/US 101 NB Ramps	AM			B	B	F
		PM			B	B	E
G46	Monterey Road/Las Animas Avenue	AM			B	C	C
		PM			B	B	E
G47	Monterey Road/Cohansey Avenue	AM			D	E	F
		PM			C	C	F

Source: HSR = San Jose to Merced Project Section Transportation Resources Technical Report, September 2019.
GP = City of Gilroy 2040 General Plan Transportation Analysis, May 2020.

Alternative 1: Viaduct to Downtown Gilroy

With Alternative 1, the proposed high-speed rail tracks would run on a viaduct along the center median on Monterey Road. Prior to arriving at the Downtown Gilroy Station, the viaduct would cross the Gilroy Prep School/South Valley Middle School sports fields, a portion of the Gilroy Prep School campus and Upper Miller Slough before crossing over IOOF Avenue, Lewis Street, Martin Street, East 6th Street, and 7th Street. This alternative would enter the Downtown Gilroy Station on aerial structure. South of the Downtown Gilroy Station, the alignment would continue on viaduct over East Tenth Street. Changes to the Transportation System would be as follows:

- Leavesley Road would be widened
- Railroad Street would be closed from Lewis Street to 7th Street
- Old Gilroy Street would be closed from Alexander Street to Monterey Road
- East 7th Streets/Old Gilroy Street would be realigned
- Banes Lane would be extended to access new parking and cul-de-sac
- SR 152/Pacheco Pass Highway would be widened to provide additional turn out and transition lanes

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Transportation Impacts

The level of service results show that existing no project and existing plus Alternative 1 conditions would essentially be the same, with three intersection operating at LOS E or F and no intersection impacts. Under 2029 plus project conditions, eleven intersections would operate at LOS E or F and seven of those intersections would have a project impact. Under 2040 plus project conditions, eleven intersections would operate at LOS E or F and six intersections would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

G36. Monterey Road/Tenth Street – LOS F, PM peak-hour
G37. Alexander Street/Tenth Street – LOS F, PM peak-hour
G38. Chestnut Street/Tenth Street – LOS F, PM peak-hour
G50. Monterey Road/Ninth Street – LOS F, PM peak-hour
G51. Alexander Street/Ninth Street – LOS E, PM peak-hour
GM4. SR 25/Bloomfield Avenue – LOS F, AM and PM peak hours

Construction Impacts

Under Alternative 1, limited roadway closures would be necessary during the construction of the project, including US 101 just south of downtown Gilroy. Temporary construction related impacts would be addressed with the implementation of a construction transportation plan (CTP), restrictions on construction hours, designated construction truck routes, and providing off-street parking for construction related vehicles.

Emergency Response Times

Travel time in and around construction areas could increase during construction activity, resulting in increased emergency response times. Prior to construction, the contractor would prepare a Construction Safety Transportation Management Plan (SS-IAMF#1) that includes the contractor's coordination efforts with local jurisdictions for maintaining emergency vehicle access during construction. A Construction Transportation Plan (CTP, TR-IAMF#2) also would be prepared to identify when and where temporary roadway closures and detours would occur.

Bicycle, Pedestrian, and Transit Impacts

It is anticipated that construction activity also could increase delay times at intersection, affecting transit services. No major disruptions to passenger rail service is anticipated at the Gilroy Station except while relocating the UPRR tracks, which may result in several days of disruption to Caltrain and Amtrak service. Construction activities also will result in temporary closures of pedestrians and bicycle facilities.

To minimize effects on bicycle and pedestrian facilities, the contractor would prepare construction management plans to maintain pedestrian access (TR-IAMF#4), maintain bicycle access (TR-IAMF#5), and maintain pedestrian and bicycle safety (TR-IAMF#12).

Property Access

Lane closures under Alternative 1 would include Railroad Street, from Lewis Street to Seventh Street, and Old Gilroy Street, from Alexander Street to Monterey Road. Access to Monterey Road from Old Gilroy Street would be provided via Sixth Street and Tenth Street.

In addition, Leavesley Road, between Monterey Road and Forest Street, Monterey Road and Alexander Street, from south of First Street to Tenth Street, and the US 101 interchange at Monterey Street would have temporary construction easements. Detours and alternative access points would be provided by the contractor to mitigate access interruptions.

Alternative 2: Embankment to Downtown Gilroy

With Alternative 2, the proposed high-speed rail tracks would run on an embankment along the east side of the Union Pacific Railroad (UPRR) alignment. Monterey Road would be reconstructed to shift the right-of-way to the east. Within the City of Gilroy, the HSR and UPRR would be on embankment (approximately 15-25 feet high) and cross over Leavesley Road, Casey Street, IOOF Avenue, Lewis Street, East 6th Street, and the realigned East 7th Street/Old Gilroy on bridges before arriving at the Downtown Gilroy Station embankment (approximately 16 feet high). Additional changes to the transportation system would be as follows:

- Masten Avenue/Fitzgerald Avenue would be grade separated and realigned to access Monterey Road
- Rucker Avenue would be grade separated and realigned to access Monterey Road from the opposite side
- Monterey Road would be depressed to conform with Buena Vista Avenue grade separation
- Denio Avenue would be converted to a cul-de-sac
- Buena Vista Avenue would be realigned and widened to accommodate grade separation (underpass). T-intersection with realigned Monterey Road on the west side of the road.
- Cohansey Avenue would become a new underpass
- Las Animas Avenue would be grade separated and realigned to merge with Cohansey Avenue
- Leavesley Road would be grade separated (underpass)
- Casey Street would be grade separated (underpass)
- Wheeler Street would be shortened and converted to a cul-de-sac
- IOOF Street would be grade separated (underpass)
- Lewis Street would be grade separated (underpass)
- Martin Street would be shortened and converted to a cul-de-sac
- Railroad Street would be closed from Lewis Street to 7th Street
- E 6th Street would be grade separated (underpass) and realigned
- E 7th Street would be grade separated, realigned and extended to Alexander Street
- E 9th Street would be grade separated (underpass) and extended to connect from Alexander Street to Monterey Road
- E 10th Street would be grade separated (underpass)
- Banes Lane would be extended to access new parking and cul-de-sac
- SR 152/Pacheco Pass Highway would be widened to provide additional turn out and transition lanes

Transportation Impacts

The level of service results show that existing no project and existing plus Alternative 2 conditions would essentially be the same, with the exception of the intersections of Monterey Road/IOOF Avenue and Monterey Road/Las Animas Avenue where level of service conditions are project to deteriorate under existing plus project conditions. Three study intersections would operate at LOS E or F and no intersections would have a project impact under existing plus project conditions.

Under 2029 plus project conditions, nine intersections would operate at LOS E or F and seven of those intersections would have a project impact. Under 2040 plus project conditions, twelve intersections would operate at LOS E or F and eight intersections would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

G1. Monterey Road/Buena Vista Avenue – LOS F, PM peak-hour
G36. Monterey Road/Tenth Street – LOS F, PM peak-hour

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G37. Alexander Street/Tenth Street – LOS F, PM peak-hour
G38. Chestnut Street/Tenth Street – LOS F, PM peak-hour
G46. Monterey Road/Las Animas Avenue – LOS F, AM and PM peak hours
G50. Monterey Road/Ninth Street – LOS F, PM peak-hour
G51. Alexander Street/Ninth Street – LOS E, PM peak-hour
GM4. SR 25/Bloomfield Avenue – LOS F, AM and PM peak hours

Comment: Under Alternative 2, roadway improvements associated with the construction of the HSR include grade separation at various locations, including Buena Vista Avenue and Las Animas Avenue. It is not clear in the analysis presented in the Transportation Report how the grade separation of Buena Vista and Las Animas Avenues, in addition to the implementation of the project, affect intersection operating conditions at their intersections with Monterey Road (the intersection level of service results show to deteriorate from acceptable, low-delay levels of service under no project conditions to excessive delays under with project conditions). The Transportation Report (and/or EIR) should explain all impacts in detail and describe what the proposed mitigations would be.

Construction Impacts

Alternative 2 would have the greatest construction effect. Reconstruction of the roadways necessary for grade separations under this alternative would require either new temporary facilities or roadway closures. Both of these options would cause temporary increases in travel times and delay.

During construction of Alternative 2, the Gilroy Caltrain Station would be temporarily relocated. Relocation of the station and tracks would result in temporary disruptions of Caltrain, ACE, Capitol Corridor, and Amtrak transit services.

Emergency Response Times

Travel time in and around construction areas could increase during construction activity, resulting in increased emergency response times. Prior to construction, the contractor would prepare a Construction Safety Transportation Management Plan (SS-IAMF#1) that includes the contractor's coordination efforts with local jurisdictions for maintaining emergency vehicle access during construction. A Construction Transportation Plan (CTP, TR-IAMF#2) also would be prepared to identify when and where temporary roadway closures and detours would occur.

Bicycle, Pedestrian, and Transit Impacts

Roadway changes and construction on Monterey Road would be expected to cause delay for VTA Route 68 due to reduced travel lanes between Capitol Expressway and Blossom Hill Road in San Jose. Additional delay could be expected for transit in Gilroy as a result of higher overall intersection delays. This alternative includes the temporary relocation of the Gilroy Caltrain Station.

Construction activities will result in temporary closures of pedestrians and bicycle facilities. To minimize effects on bicycle and pedestrian facilities, the contractor would prepare construction management plans to maintain pedestrian access (TR-IAMF#4), maintain bicycle access (TR-IAMF#5), and maintain pedestrian and bicycle safety (TR-IAMF#12).

Property Access

1737-1158

Properties on Martin Street would lose access to Monterey Road and would need to use Alexander Street to access Monterey Road. Properties along the planned slopes of grade separations would require alternate access routes.

In addition, Welburn Avenue/Leavesley Road, between La Coche Way and Murray Avenue, and Monterey Road and Alexander Street, between Seventh Street/Old Gilroy Street and Tenth Street,

would have temporary construction easements. Detours and alternative access points would be provided by the contractor to mitigate these access interruptions.

Alternative 3: Viaduct to East Gilroy

The proposed high-speed rail tracks would run on a viaduct, as proposed in Alternative 1, however, it would bypass downtown Gilroy to an East Gilroy Station, minimizing interface with the UPRR corridor in comparison to Alternative 1. Alternative 3 would diverge east from Alternative 1 north of Gilroy, near the intersection of Monterey Road and Church Avenue. The HSR alignment would cross over Masten Avenue, US 101, Rucker Avenue, Denio Avenue, and Buena Vista Avenue on viaduct before descending onto embankment into the Station. At the south end of the station, Leavesley Road would be raised on a bridge over the HSR embankment. Continuing south, the alignment would cross over Gilman Avenue on viaduct and on embankment approaching the maintenance of way facility (MOWF) site near SR 152. Additional changes to the transportation system would be as follows:

- Cohansey Avenue would be closed
- Las Animas Avenue would be grade separated and realigned to merge with Cohansey Avenue
- Marcella Avenue would be a new roadway north and parallel to Leavesley Road connecting to the station
- New road north and parallel to Leavesley Road west of HSR
- New road parallel to Marcella Avenue connecting Leavesley Road to Las Animas Avenue
- Leavesley Road would be widened
- Gilman Road would be grade separated over the HSR tracks
- Holsclaw Road would be closed and converted to a cul-de-sac on both sides of the HSR tracks
- Holsclaw Road would be realigned to connect with the SR 152 grade separation
- Frazier Lake Road would be grade separated and realigned to connect to SR 152
- SR 152 would be grade separated (overpass) and realigned with on-ramp access from Holsclaw Road and Frazier Lake Road
- SR 152/Pacheco Pass Highway would be widened to provide additional turn out and transition lanes

Transportation Impacts

The level of service results show that existing no project and existing plus Alternative 3 conditions would essentially be the same, with the exception of the intersections of Frazier Lake Road/Pacheco Pass Highway (SR 25) where level of service conditions are project to improve under existing plus project conditions compared to existing not project conditions. Three study intersections would operate at LOS E or F and no intersections would have a project impact under existing plus project conditions.

Under 2029 plus project conditions, five intersections would operate at LOS E or F and two of those intersections would have a project impact. Under 2040 plus project conditions, seven intersections would operate at LOS E or F and one intersection would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

GM4. SR 25/Bloomfield Avenue – LOS F, AM and PM peak hours

Comment: Alternative 3 would have the least effects on intersections since its alignment would bypass the downtown area. The level of service results under 2040 Plus project conditions show minimum to no delay increases at the study facilities when compared to 2040 No Project conditions. The Transportation Report (and/or EIR) should explain how project traffic was assigned to the roadway network, all impacts in detail, and describe what the proposed mitigations would be.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

Construction Impacts

Alternative 3 would be similar to Alternative 1, however, because Alternative 3 would be routed through east Gilroy, it would affect fewer and less traveled roadways. Overall, no major construction disruption is anticipated under Alternative 3.

Emergency Response Times

Since construction in the City of Gilroy would be limited under Alternative 3, there would be no impacts to emergency response times.

Station Parking

The total number of parking spaces required to serve the East Gilroy HSR Station was calculated to be 1,242 spaces for 2040 conditions. The project proposes to provide a total of 1,520 parking spaces to serve the East Gilroy Station 2040 projected demand. The proposed parking spaces would be provided in three separate parking areas, all adjacent to the East Gilroy HSR Station.

Bicycle, Pedestrian, and Transit Impacts

Alternative 3 would have not major disruptions to transit, including the existing passenger rail services, bicycle, or pedestrian facilities.

It is projected that the HSR project would generate approximately 10 peak-hour nonmotorized trips to the East Gilroy Station in 2040. In the East Gilroy Station area, bike lanes would be provided on Leavesley Road from the outlet mall to Marcella Avenue. The planned bicycle and pedestrian facilities in the station area would adequately serve nonmotorized trips.

Property Access

Since HSR alignment under Alternative 3 would bypass the downtown Gilroy area, minimal disruption to access is anticipated. The US 101 interchanges at Masten Avenue, southbound ramps, would have temporary construction easements. Detours and alternative access points would be provided by the contractor to mitigate these access interruptions.

Alternative 4: Blended, At-Grade (Preferred Alternative)

With Alternative 4, the proposed high-speed rail tracks would run at-grade in blended service with Caltrain in the existing UPRR right-of-way. All current at-grade crossings would be maintained with enhanced safety measures such as four-quadrant barrier gates, access-restriction fencing, roadway lane channels, and railroad trespass deterrents at all public road grade crossings (Masten Avenue, Rucker Avenue, Buena Vista Avenue, Cohansey Avenue, Las Animas Avenue, Leavesley Road, IOOF Street, Lewis Street, Martin Street, 6th Street, E 10th Street, Luchessa Avenue, and Bloomfield Avenue). Additional changes to the transportation system would be as follows:

- Casey Lane pedestrian crossing would close
- Old Gilroy Street would be closed between Alexander Street and Monterey Road; A new pedestrian overcrossing would be installed
- E 7th Street would be closed and new pedestrian overcrossing would be installed
- Banes Lane would be extended to access new parking and cul-de-sac
- Carnadero Avenue would be closed
- SR 152/Pacheco Pass Highway would be widened to provide additional turn out and transition lanes

Four-Quadrant Barrier Gates

Commuter service trains operate at a maximum speed of 79 miles per hour. Since HSR trains would operate at a maximum speed of 110 miles per hour between San Jose and Gilroy, safety improvements at the at-grade crossings would be required. Two gate arms would extend across all lanes of travel, with one gate on each side of the roadway, on both sides of the tracks. This would prevent drivers from attempting to travel around the lowered gate arms, making the four-quadrant barrier gates safer than two-quadrant barrier gates. Gate arms would also be present across pedestrian pathways on both sides of the roadway and on both sides of the tracks. The 95th percentile gate-down time is estimated to be 54 seconds per single-train event for intersections away from HSR stations and 68 seconds for intersections near HSR stations.

Transportation Impacts

The level of service results show that existing no project and existing plus Alternative 4 conditions would essentially be the same, with the exception of the intersections of Monterey Road/Sixth Street, Railroad Street/Sixth Street, and Monterey Road/Seventh Street where level of service conditions are project to deteriorate at the Sixth Street intersections and the Monterey Road/Seventh Street intersection would be eliminated under existing plus project conditions. Five study intersections would operate at LOS E or F under existing plus project conditions and two intersections would have a project impact.

Under 2029 plus project conditions, nine intersections would operate at LOS E or F and seven of those intersections would have a project impact. Under 2040 plus project conditions, seventeen intersections would operate at LOS E or F and nine intersections would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

MH26. Monterey Road/Masten Avenue – LOS F, PM peak-hour
G15. Monterey Road (SR 152)/Welburn Avenue-Leavesley Road – LOS E, AM peak-hour
G29. Monterey Road/Sixth Street – LOS F, AM and PM peak hours
G33. Monterey Road/Seventh Street – LOS F, AM peak-hour
G35. Monterey Road/Eight Street – LOS F, AM peak-hour
G53. School Access/IOOF Avenue – LOS F, AM peak-hour
G58. Alexander Street/Sixth Street – LOS F, AM and PM peak hours
G60. Chestnut Street/Luchessa Street – LOS E, PM peak-hour
GM4. SR 25/Bloomfield Avenue – LOS F, AM and PM peak hours

Comment: Table 5-19 of the Transportation Report identifies the above intersections to be impacted under 2040 Plus Project conditions, based on the identified criteria of LOS E or F and an increase in delay of 4 or more seconds from No Project conditions. Based on these criteria, five additional intersections should have been identified as impacted intersections:

G25. Monterey Road/IOOF Avenue – LOS F, AM peak-hour
G30. Railroad Street/Sixth Street – LOS F, AM and PM peak hours
G34. Alexander Street/Old Gilroy Street – LOS E, AM peak-hour; LOS F, PM peak-hour
G.54 Frontage Road/Lewis Street – LOS F, AM peak-hour; LOS F, PM peak-hour
G.55 Railroad Street/Lewis Street – LOS F, PM peak-hour

The level of service at the intersection of Monterey Road/Cohansey Avenue (G47) also is shown to improve (from LOS E to LOS D) under 2040 Plus Project conditions compared to 2040 No Project conditions. This improvement is not clear since this intersection is expected to experience increased delays as the result of the proposed four-quadrant gate at this location.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

Mitigations

Although not stated in the Transportation Report, it is assumed that most of the above intersection impacts would be due to increased gate-down time at the study intersections. The EIR does not provide any specific mitigation for these impacts stating that project effects on intersection delay are not considered a significant impact under CEQA, and therefore, no mitigation measures are required. These impacts could be mitigated with grade separations. Hexagon recommends a grade separation at a minimum of two intersections: Monterey Road/Masten Avenue (MH26) and Monterey Road (SR 152)/Welburn Avenue-Leavesley Road (G15), since these intersections are two of the three main entries to Gilroy and provide east-west access across US 101.

Queueing at At-Grade Crossings

The EIR analysis was based on an expected total of 18 trains per peak hour, with seven HSR trains traveling in each direction and four Caltrain trains traveling in one direction. However, the blended service tracks have the capacity to accommodate at most 24 trains per peak hour, with eight HSR trains and four Caltrain trains in each direction. That calculates to an average of one train every 2-1/2 minutes. The estimated 95th percentile gate-down time for intersections in Gilroy (intersections near HSR station) would be 68 seconds per single-train event. That means that at full capacity, there would be roughly less than 1-1/2 minutes between gate down events, on average, and the gates would be down about 50 percent of the time during the peak-hour. 1737-1159

The increased gate-down times and events could be problematic in particular along major roadways, such as Masten Avenue, Leavesley Road, and Tenth Street, which serve as major entries into Gilroy. The gate-down times would reduce capacity along the roadway approaches by almost 50%, resulting in longer delays and vehicular queue lengths along these roadways.

Construction Impacts

The construction of the four-quadrant barrier gates would require temporary roadway detours and relocations, resulting in temporary increases in travel time and delay.

The Gilroy Station would be rebuilt and service would be temporarily relocated during construction. Relocation of the station and tracks would result in temporary disruptions of Caltrain, ACE, Capitol Corridor, and Amtrak transit services. 1737-1160

To minimize construction impacts, a Construction Transportation Plan (CTP, TR-IAMF#2) would be prepared to identify when and where temporary roadway closures and detours would occur. Restriction on construction hours (TR-IAMF#6), identification of construction truck routes (TR-IAMF#7), and provision of off-street parking for all construction vehicles (TR-IAMF#3) also would be implemented.

Emergency Response Times

Emergency response times on roadways along the rail alignment could be increased during construction activities. Emergency vehicles could also expect delays due to increased gate-down time on roadways with at-grade crossings. With implementation of the HSR Alternative 4, response times for all four of the existing Gilroy fire stations (10810 No Name Uno, 880 Sunrise Drive, 8383 Wren Avenue, and 7070 Chestnut Street) could be increased by 120 up to 180 seconds. The exact scope of the potential impact would be determined before HSR service begins. Mitigation is stated as requiring new vehicle detection equipment, new responder equipment installed at existing fire stations, new fire stations, and additional ambulance services, with funding from HSR Authority. 1737-1161

Findings

The recently completed City of Gilroy Fire Department *2019 Master Plan Update* (dated November 14, 2019, by Citygate Associates, LLC, and updated from the previous 2004 Master Plan) provides an assessment of the response time performance for the various existing fire stations in the City of Gilroy, identifying locations that do not meet the best practice response time.

The report identifies a best practice performance goal for total response time (from the time the dispatch center answers the 9-1-1 call to the arrival of first-due response resource) of 7:30 minutes or less (which includes a **4:00-minute travel time**), 90 percent of the time.

Overall, the findings in the Master Plan state that, currently, the first-due call-to-arrival performance for the City is 16 percent (about 1:13 minutes) slower than the recommended 7:30-minute goal for urban areas. The Master Plan also shows that the City is geographically too large to be served by the existing fire stations, with areas in the southwest of Gilroy where new residential and commercial development is planned, being outside of the 4:00-minute recommended emergency response travel time. The Master Plan shows that the planned Glen Loma Station would provide service to the southwest part of Gilroy within the recommended response time.

Mitigations

In order to mitigate intersection level of service and emergency response time impacts, Hexagon recommends a grade separation at the following locations:

MH26. Monterey Road/Masten Avenue
G15. Monterey Road (SR 152)/Welburn Avenue-Leavesley Road (SR 152)
G36. Monterey Road/Tenth Street
G43. Monterey Road/Luchessa Avenue

Hexagon also recommends grade separation at Sixth Street. Sixth Street is one of five overpass facilities that provide access between the east and west sides of town across US 101. Due to its close proximity to the proposed Downtown Gilroy HSR Station, however, this grade separation may not be feasible.

Hexagon recommends a study be conducted, in collaboration with the Gilroy Fire Department, to evaluate the effects of the HSR preferred alignment on Fire Department service areas and emergency response time and identify the best possible mitigation measures to meet the Department's best practice response time.

Station Parking

The total number of parking spaces required to serve the Downtown Gilroy HSR Station was calculated to be 966 spaces for 2040 conditions. The project proposes to provide 970 new parking spaces for a combined total of 1,710 parking spaces to serve the Downtown Gilroy Station 2040 projected demand.

Comment: parking would be provided within four separate parking areas: three of them located Alexander Street and the station area and a fourth one and largest located on Chestnut Street, south of Tenth Street. The proposed Chestnut Street parking facility would be located approximately half of a mile south of the station and would be accessible via Alexander Street. However, a half-a-mile walk to the station from the parking facility may be considered a long walking distance by some, resulting in secondary trips to the station made by shuttle or other modes.

Bicycle, Pedestrian, and Transit Impacts

Bus transit in Gilroy could expect delays as a result of increased gate-down time at the at-grade railroad crossings.

Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1166

It is projected that the HSR project would generate approximately 110 peak-hour nonmotorized trips to the Downtown Gilroy Station in 2040. Sidewalks are provided along both sides of Monterey Road in the Downtown Gilroy Station area. However, sidewalks are currently missing along parts of Alexander Street and some uncontrolled intersections in the downtown area have no marked pedestrian crossings. To maintain pedestrian and bicycle access, the contractor would provide a technical memorandum (TR-IAMF#12) describing how pedestrian and bicycle accessibility would be provided and maintained across the HSR corridor, to and from stations, and on station property. A new pedestrian overhead bridge also is proposed at Seventh Street/Old Gilroy Street.

1737-1167

Since high-speed rail trains would operate faster than Caltrain and no siding tracks would be installed, Caltrain would need to maintain speeds by implementing a skip-stop pattern between Gilroy and the Tamien Station. A skip-stop pattern would mean that trains skip over more stations than originally scheduled so that HSR may operate efficiently. In an effort to maintain the same number of stops at each station, Caltrain would need to increase the number of trains from three to six trains traveling in the peak direction during the morning and evening. The blended operations would have the capacity to accommodate up to four trains per peak hour in the peak directions for Caltrain service. Based on the *Caltrain 2040 Long Range Service Vision,* Caltrain would provide two trains per hour per direction between the Gilroy and Blossom Hill Stations. Therefore, HSR would have the capacity to accommodate the increase in Caltrain service.

1737-1168

1737-1169

Property Access

Since Alternative 4 would operate in the existing UPRR right-of-way, no access issues for properties in Gilroy are anticipated. However, with the proposed closure of Seventh Street between Monterey Road and Old Gilroy Street, traffic access between Monterey Road and Old Gilroy Street would be provided via Tenth Street and Sixth Street.

Summary of Findings and Recommendations

Below is a summary of the finds and recommendations on the peer review of the HSR EIR/EIS.

1737-1162

Station Trip Generation Finding: Hexagon's daily vehicle trip generation estimates represent approximately twice the number of daily vehicle trips utilized in the analysis of the project.

1737-1170

1737-1163

In addition, trip associated with passenger trips to off-site parking facilities and rental car facilities were not included in the analysis. These passengers represent shuttle trips at the station level and, once they reach their off-site parking lot or rental car facility destination, would become vehicular trips added to the roadway network.

1737-1164

No Project Roadway Network Finding: The recently completed City of Gilroy 2040 General Plan Update transportation analysis does not include the following roadway improvements, which were assumed as part of the City's future (2040) roadway network in the analysis:

- Monterey Road Widening
- Camino Arroyo Extension

1737-1165

No Project Conditions Level of Service Finding: The existing, 2029, and 2040 No Project conditions level of service results were compared to the intersection level of service results for existing and 2040 General Plan conditions presented in the City of Gilroy 2040 General Plan Update transportation analysis. The comparison showed twelve of the study Gilroy intersections have considerably different level of service results between the two different analyses.

1737-1166

Level of Service Impact Mitigations: Hexagon recommends a grade separation at a minimum of two intersections: Monterey Road/Masten Avenue (MH26) and Monterey Road (SR 152)/Welburn Avenue-

Leavesley Road (G15), since these intersections are two of the three main entries to Gilroy and provide east-west access across US 101.

Queueing at At-Grade Crossings: It is estimated that at full capacity, there would be roughly less than 1-1/2 minutes between gate down events, on average, and the gates would be down about 50 percent of the time during the peak-hour.

The increased gate-down times and events could be problematic in particular along major roadways, such as Masten Avenue, Leavesley Road, and Tenth Street, which serve as major entries into Gilroy. The gate-down times would reduce capacity along the roadway approaches by almost 50%, resulting in longer delays and vehicular queue lengths along these roadways.

Emergency Response Times Findings: With implementation of the HSR Alternative 4, response times for all four of the existing Gilroy fire stations could be increased by 120 up to 180 seconds.

The recently completed City of Gilroy Fire Department *2019 Master Plan Update* identifies a best practice performance goal for total response time of 7:30 minutes or less (which includes a **4:00-minute travel time**), 90 percent of the time.

Emergency Response Times Mitigations: In order to mitigate intersection level of service and emergency response time impacts, Hexagon recommends a grade separation at the following locations:

MH26. Monterey Road/Masten Avenue
G15. Monterey Road (SR 152)/Welburn Avenue-Leavesley Road (SR 152)
G36. Monterey Road/Tenth Street
G43. Monterey Road/Luchessa Avenue

Hexagon also recommends grade separation at Sixth Street. Sixth Street is one of five overpass facilities that provide access between the east and west sides of town across US 101. Due to its close proximity to the proposed Downtown Gilroy HSR Station, however, this grade separation may not be feasible.

Hexagon recommends a study be conducted, in collaboration with the Gilroy Fire Department, to evaluate the effects of the HSR preferred alignment on Fire Department service areas and emergency response time and identify the best possible mitigation measures to meet the Department's best practice response time.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020)

1737-1056

Thank you for your comment and for providing this information. The status of these projects has been updated in Appendix 3.19-A, Cumulative Nontransportation Plans and Projects List and Appendix 3.19-B, Cumulative Transportation Projects Lists, as applicable, in the Final EIR/EIS.

1737-1057

The comment suggests that the Draft EIR/EIS is insufficiently detailed. The Draft EIR/EIS analyzes the environmental impacts, both adverse and beneficial, of implementing the HSR between San Jose and Merced at an appropriate level of detail. This EIR/EIS is based on detailed project planning and design specific to the San Jose to Merced Project Section. The impacts analysis therefore provides site-specific information about the potential environmental impacts of the San Jose to Merced Project Section of the HSR System.

For a linear project crossing three counties, it is not possible to include a descriptive parcel-by-parcel impacts discussion in the main text of the EIR/EIS. To do so would result in an environmental document that would be so large and unwieldy that it would not serve its information value. For this reason, and consistent with the focus of both CEQA and NEPA that an EIR/EIS serve as an informational tool for the public and decision makers, the impacts analysis in Volume 1 of the EIR/EIS includes summarized technical information sufficient to allow a full assessment of the significant environmental impacts of the project. Additional details are provided in Volume 2 appendices, as well as in detailed technical reports that were identified and referenced within the EIR/EIS Volume 1 text and which were available upon request during the public comment period for the Draft EIR/EIS.

1737-1058

The comment states that there are inconsistencies between Chapter 2 and Appendix 3.1-A. The comment identifies figure numbers in the Draft EIR/EIS related to specific locations that don't match the published document. This may be why the commenter believes there is an inconsistency. The new Caltrain storage tracks south of 10thStreet in orange, illustrated on Figures 2-57 and 2-60 in the Draft EIR/EIS, are also shown on Appendix 3.1-A, page 24 and 81 respectively in light green as Rail Right-of-Way, a permanent impact. There are additional temporary modifications within existing rail right-of-way that are shown in yellow. In Alternative 4, the new Caltrain tracks are shown as HSR right-of-way as it will become part of the blended corridor. Appendix 3.1-A, Parcels within the HSR Project Footprint, is consistent with the proposed station diagrams shown for the Downtown Gilroy Station.

1737-1059

Impact PUE#8 in Section 3.6.6.2, Public Utilities, of the Draft EIR/EIS provides estimates of water consumption for HSR station operations that include estimates of water consumption for indoor and outdoor use, including station restroom facilities, drinking water fountains, landscaping irrigation and other outdoor uses, and cleaning and station maintenance activities. The text has been modified in the Final EIR/EIS to clarify that landscaping irrigation is included as one of the outdoor uses.
For the purposes of the analyses in the EIR/EIS, the Authority assumed that perimeter parking and landscaping maintenance would be the responsibility of the Authority. The Authority would provide for continuous maintenance with appropriate irrigation systems, and the Authority's contractor would install the irrigation system within the planting areas.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1060

Section 1.1.5, Lead Agencies, Cooperating Agencies, and Responsible Agencies, of the Draft EIR/EIS only includes agencies with discretionary authority to approve or permit aspects of the HSR project, consistent with CEQA's definition of "responsible agency." (CEQA Guidelines, Section 15381.) While the City of Gilroy is a key local agency, and the Authority has in the past engaged and is committed to continuing engagement with the City of Gilroy, it is not considered a "responsible agency" in the sense of the CEQA Guidelines, Sections 15381, 15096 or 15220 et seq.

However, the Authority recognizes that the HSR system can be most successful when designed in a manner that is as sensitive as possible to the local environment through which it must travel, while still meeting the unique design constraints of HSR service. Through meetings with local agency staff and direct discussions with individual local government officials and staff, the Authority has endeavored to develop a project design that minimizes local impacts and is made as consistent with local plans as possible.

1737-1061

The City of Gilroy is a key local agency, and the Authority has engaged and is committed to continuing engagement with the City of Gilroy including during the construction process. With respect to specific logistics for construction to take place within the jurisdiction, the Authority's standard process to date has involved third-party agreements. Third-party agreements are arranged with the Authority prior to construction and outline the relationship between the Authority, the selected contractor, and local jurisdiction. The agreements with local jurisdictions detail the submittal and review process for the local jurisdiction. These agreements also include reviewing and approving actions by the local jurisdiction for design plans, including detour routes and construction staging. Similar third-party agreements with local jurisdictions would be expected for construction of the San Jose to Merced Project Section. As set forth in TR-IAMF#2, the Construction Transportation Plan would be developed and implemented in close consultation with affected jurisdictions, offering ample opportunity for local jurisdictions' concerns to be understood and incorporated. With respect to any generalized approval role for the City, however, it is not the case that the City has an approval role with respect to all aspects of the HSR project that may affect the City, because the Authority is not required to comply with local land use and zoning regulations. The San Jose to Merced Project Section of the statewide HSR system is being undertaken by the California High-Speed Rail Authority. Through the California High-Speed Rail Act (Pub. Utilities Code, § 185000, et seq.), the Legislature established the Authority as a state agency and charged it with responsibility for directing the development and implementation of intercity HSR service that coordinates with the state's existing transportation system. The California High-Speed Rail Act vests the Authority with the legal authority to take various steps needed to implement the HSR system. This legal authority includes acquisition of rights-of-way for the system, including through eminent domain, and authority to enter into cooperative or joint development agreements with local governments and private entities. The HSR system as a whole, and individual project sections like the San Jose to Merced Project Section, must conform to the policies and objectives of the statutes and regulations under which the Authority operates, including both state and federal laws. Since an agency of the State of California is the project proponent, however, the project is not subject to local government general plan policies or zoning regulations. The state's immunity from local regulations is an extension of the concept of sovereign immunity. The Authority, as the proponent of a "sovereign activity of the State," is not subject to local land use

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1061

regulations (see, e.g., Town of Atherton v. Superior Court (1958)159 Cal.App.2d 417, 428, citing to Hall v. Taft (1956) 47 Cal.2d 177,183; Lawler v. City of Redding (1992) 7 Cal.App.4th 778, 784.) Unless the Legislature expressly waives this immunity in a statute, which it has not done here, the general rule is that a local agency cannot regulate State activities (See Del Norte Disposal, Inc. v. Department of Corrections (1994) 26 Cal.App.4th 1009, 1013). Consistent with CEQA and National Environmental Policy Act (NEPA) requirements, the project's consistency with local general plans and zoning regulations is discussed in the EIR/EIS in Section 3.13, Station Planning, Land Use, and Development, and further in Appendix 2-K, Policy Consistency Analyses. Where the project is inconsistent with a local land use plan, Appendix 2-K also contains a discussion of the extent to which the Authority would reconcile the project with the plan as required by 40 C.F.R. 1506.2(d).

1737-1062

Refer to Standard Response SJM-Response-ALT-1: Alternatives Selection and Evaluation Process.

The comment suggests a hybrid alternative could be substantially superior at reducing or eliminating future noise, traffic, and pedestrian/public safety impacts within the city of Gilroy. The alternatives screening process is described in Chapter 2, Alternatives, and in more detail in Appendix 2-I, Alternatives Considered During Alternatives Screening Process (located in Volume 2, Technical Appendices), of the Draft EIR/EIS. As the City notes, the intention of Alternative 1 was to avoid conflicts with the UPRR right-of-way. Alternative 4 was designed to be within the UPRR right-of-way. These alternatives were analyzed to show the impacts associated with both options. While the impacts of a viaduct in the UPRR right-of-way are not expressly analyzed, Alternative 4 is a proxy for this information.

With the City's proposed hybrid alternative, combining aspects of Alternatives 1 and 4 would result in a larger footprint, the need to acquire more right-of-way, and additional impacts on resources, as there would need to be a grade transition from a viaduct to at-grade to connect the alignment of Alternative 4 with Alternative 1. This would either require embankment or retaining walls and affect UPRR operations. The transition would likely occur at Las Animas, where it is closest to the UPRR alignment. From Las Animas to 10th Street, under the City's suggested hybrid alternative, there would be many more property acquisitions than required under Alternative 4. Moreover, this hybrid alternative is not feasible. UPRR won't allow longitudinal encroachments (i.e., viaduct in its right-of-way) as it would significantly disrupt existing operations.
The Authority will continue to engage jurisdictions and stakeholders through the design process, construction, and operation of the project. As discussed in Chapter 5, Environmental Justice, where some disproportionately high and adverse project effects would remain even after the application of mitigation measures, the Authority will continue to engage with communities wherein minority populations and low-income populations would be disproportionately affected to identify measures to minimize harm associated with residual project effects.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1063

Please refer to Section 1.2.4.1, Travel Demand and Capacity Constraints, of the Draft EIR/EIS. Several pages following Figure 1-6, there is a narrative description of the existing passenger train services in the study corridor, including Amtrak.

1737-1064

Comment noted. Thank you.

1737-1065

The comment suggests an alternative solution for parking at the Downtown Gilroy Station. Some of the parking provided at the location at the terminus of Alexander Street is to replace affected parking at the Alexander Station Apartments and needs to be located close to the apartment complex, which is the reason for selection of this location. As noted in Chapter 2, Alternatives, of the Draft EIR/EIS, the existing 471 Caltrain parking spaces on the west side of the station would be replaced 1:1 by either reconfiguring parking on the west side of the station or relocating it to the east side of the station. The existing 269 San Ysidro housing development parking spaces would be replaced 1:1 with new surface parking at the south end of Alexander Street. By 2040, projected HSR parking demand would require 970 spaces. The station site plan provides 970 new parking spaces among five sites, for a total of 1,710 parking spaces in 2040. One site would be west of the station along Monterey Road at 9th Street. The other four sites would be east of the station along Alexander Avenue at 7th Street, 9th Street, 10th Street, and Banes Lane. A multimodal access plan would be developed prior to design and construction of the station. The plan would be developed in coordination with local agencies and would include a parking strategy that would confirm the location, phasing, and other specific details with respect to parking.

1737-1066

The comment noted that the Draft EIR/EIS should acknowledge and include a discussion of the Transportation Agency for Monterey County's plans to extend Caltrain to Salinas. Please refer to Table 3.2-16 in Section 3.2, Transportation, of the Draft EIR/EIS for a discussion of this extension.

1737-1067

The comment stated that the Draft EIR/EIS should identify locations for replacement parking for three residential projects in downtown Gilroy. Please refer to Impact TR#9 in Section 3.2, Transportation, of the Draft EIR/EIS for a description of the project's anticipated impacts on parking. Regarding the Cannery, under Alternative 1, the design of the HSR viaduct would maintain the existing parking under the viaduct structure at a 1:1 replacement level. Under Alternatives 2 and 4, the parking displaced by the project would be replaced along Railroad Street between Lewis Street and Martin Street within parcels that are fully acquired by the project or by constructing a parking deck over the existing parking. At Alexander Station Apartments, any displaced parking would be accommodated at the Downtown Gilroy Station's proposed lot south of Tenth Street. This would be 1:1 replacement parking within the parking lot dedicated to the apartments. Only Alternative 4 would impact Gateway Senior Apartments. Replacement parking (1:1) would be provided through modifications to the stormwater detention facility in an adjacent property that is fully acquired by the project. All replacement parking would occur on a 1:1 replacement level on land acquired by the project and would not result in increases in off-street parking in the area.

1737-1068

The comment stated that the Draft EIR/EIS should clarify access to farmlands located south of Bloomfield Road and east of the existing UPRR tracks that are currently accessed from Sheldon Avenue. Please refer to Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS drawings of this area (specifically drawingsMY-B0906 and MY-D4101). Under Alternatives 1 and 2, access to the remaining parcel(s) would be provided via a connection to Davidson Avenue within parcels that are fully acquired by the project. Under Alternative 4, access to the remaining parcel(s)would be maintained via Davidson Avenue or Sheldon Avenue. Access would not be provided for parcels that are fully acquired by the project. Please also refer generally to Section 3.14, Agricultural Farmland, of the Draft EIR/EIS for a discussion of impacts on agricultural lands.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1069

The noise measurement data in Appendix B to Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS) for noise measurement location N128 was incorrect in the Draft EIR/EIS; this typographic error and the data plots have been corrected in the Final EIR/EIS. The actual measured Ldn at location N128 was 82 dBA Ldn, and the loudest hour Leq was 79 dBA. There is no change to any of the impact conclusions as a result.

1737-1070

At some noise measurement locations, ambient noise levels were measured for less than 24 hours. At these locations, consistent with FRA methodology, the Ldn was estimated following the procedures in Appendix B of the FRA High-Speed Ground Transportation Noise and Vibration Impact Assessment manual (FRA 2012, as cited in Section 3.4, Noise and Vibration, of the Draft EIR/EIS).

Please refer to Section 3.4, Noise and Vibration, of the Draft EIR/EIS and Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for detailed discussion regarding ambient existing noise measurements and the noise modeling approach, specifically Section 5.1.1.2 of Appendix 3.4-A. Daily fluctuations in ambient noise are common. Appendix B of Appendix 3.4-A shows the measured daily noise level fluctuations. Any variations in daily train events and timing are accounted for with the existing noise modeling. The ambient noise monitoring results provided a baseline for establishing existing noise levels at sensitive receptors. Analysts prepared detailed models of the existing conditions, which included existing rail operations and noise from major roadways. The existing noise model was calibrated with the noise measurement results. Through this method, accurate existing noise levels were calculated at all receptors, allowing for comparison with future predicted noise levels, which were then compared to the impact criteria.

1737-1071

The existing noise levels were properly quantified through the use of an existing noise model. Please refer to Section 3.4, Noise and Vibration, of the Draft EIR/EIS and Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for detailed discussion regarding ambient existing noise measurements and the noise modeling approach, specifically Section 5.1.1.2 of Appendix 3.4-A. Any variations in daily train events and timing are accounted for with the existing noise modeling. Analysts prepared detailed models of the existing conditions, which included existing rail operations and noise from major roadways. The existing noise model was calibrated with the noise measurement results. Through this method, accurate existing noise levels were calculated at all receptors, allowing for comparison with future predicted noise levels, which were then compared to the impact criteria. At some noise measurement locations, ambient noise levels were measured for less than 24 hours. At these locations, consistent with FRA methodology, the Ldn was estimated following the procedures in Appendix B of the FRA High-Speed Ground Transportation Noise and Vibration Impact Assessment manual (FRA 2012, as cited in Section 3.4, Noise and Vibration, of the Draft EIR/EIS). The existing noise model uses typical daily rail operations listed in Table 4-8 of Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS).

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1072

In Section 3.4, Noise and Vibration, of the Draft EIR/EIS, Impact NV#9 discusses construction vibration impacts, and NV-MM#2 discusses construction vibration mitigation measures. Sensitive buildings within 50 feet of pile driving would be identified by the contractor prior to construction. A vibration technical memorandum documenting how the construction vibration criteria would be met and including suggested mitigation measures would be submitted to the Authority prior to construction.

The construction vibration analysis follows the methodology established by the FRA, and the level of detail is standard for this phase of a transportation project. It is not standard to identify specific buildings for potential construction vibration impact at this phase.

In Section 3.17, Cultural Resources, of the Draft EIR/EIS, Impact CUL#5 concludes that construction activities would not generate sufficient vibration to cause impacts on historical resources under Alternatives 1 and 4. Under Alternatives 2 and 3, there is potential for construction activities to adversely affect one resource, but project features address this issue, and the conclusion is that there would be no adverse effect.

1737-1073

Construction noise impacts would be mitigated through the implementation of mitigation measure NV-MM#1, discussed in Section 3.4.7, Mitigation Measures, of the Draft EIR/EIS. The factors mentioned by the commenter that contribute to the potential for noise impacts are analyzed as part of Section 3.4, Noise and Vibration, of the Draft EIR/EIS, including Impact NV#1. However, this particular impact is considered significant and unavoidable under CEQA.

1737-1074

In Section 3.4, Noise and Vibration, of the Draft EIR/EIS, NV-MM#1 discusses construction noise mitigation measures. Section 3.4.8.1, Construction Noise, of the Draft EIR/EIS summarizes the noise impacts from construction. NV-MM#1 would be implemented to reduce construction noise impacts; however, some construction noise impacts would remain after mitigation. Details on specific construction activities and timing are not known at this time and would be determined by the contractor. The contractor would be required to prepare a noise control plan prior to construction to ensure that construction of the project would comply with FRA construction noise limits where feasible through the use of mitigation measures. This plan would include the timing of construction activities, specifications of equipment to be used, duration of construction, contact information in case of complaints, and any proposed mitigation measures.

1737-1075

Analysis and impact conclusions concerning train horn noise are included in Section 3.4, Noise and Vibration, of the Draft EIR/EIS. Train horn noise is discussed in detail in Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS) in Sections 3.1.3.3, Locomotive Horn Rule (49 C.F.R. Part 222 &Part 229), and 4.1.5.2, Operations Noise, under a subsection titled Horn Noise. FRA regulations state that trains approaching at-grade crossings must sound the horn for a minimum of 15 seconds and a maximum of 20 seconds in advance of crossings. The noise analysis includes all train operations in the project corridor, including HSR, Caltrain, Amtrak, and other passenger and freight trains.

Please refer to new Appendix 3.4-C, Noise Impact Locations (located in Volume 2), in the Final EIR/EIS, which includes figures showing the location of noise impacts and proposed noise barriers in greater detail. The 2040 Plus Project noise impacts for Alternative 4, the Authority's Preferred Alternative, for the area between East 10th Street and Leavesley Road in Gilroy are shown on Figures C-74 (without mitigation), C-99 (with only noise barriers as mitigation), and C-110 (with a combination of quiet zones and noise barriers). The Draft EIR/EIS analyzes Impact NV#2, which does indicate there would be a significant impact under all alternatives. While mitigation is available, there would still be a significant and unavoidable impact as a result of noise from train operations.

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1737-1076

Please refer to new Appendix 3.4-C, Noise Impact Locations (located in Volume 2, Technical Appendices), in the Final EIR/EIS, which includes figures showing the location of noise impacts and proposed noise barriers in greater detail.

1737-1077

The criteria for feasibility and reasonableness of noise mitigation measures are discussed in detail in Appendix 3.4-B, Noise and Vibration Mitigation Guidelines (located in Volume 2, Technical Appendices, of the Draft EIR/EIS).

Noise barriers are addressed and, in some cases, evaluated in Section 3.7, Biological and Aquatic Resources; Section 3.12, Socioeconomics and Communities; Section 3.13, Station Planning, Land Use, and Development; Section 3.15, Parks, Recreation, and Open Space; Section 3.16, Aesthetics and Visual Quality; Section 3.17, Cultural Resources; Section 3.19, Cumulative Impacts; Chapter 4, Section 4(f)/6(f) Evaluation; Chapter 5, Environmental Justice; and Chapter 8, Preferred Alternative, of the Draft EIR/EIS.

1737-1078

The Authority's noise mitigation guidelines are included in Appendix 3.4-B, Noise and Vibration Mitigation Guidelines (located in Volume2, Technical Appendices, of the Draft EIR/EIS). These guidelines specify that barrier heights up to a maximum of 14 feet would be considered, as stated inNV-MM#3. Table 3.4-24 in Section 3.4, Noise and Vibration, of the Draft EIR/EIS lists the heights of the three proposed noise barriers in the City of Gilroy under Alternative 2. Proposed barriers 9 and 11 are the maximum height. Proposed barrier 10 is 5 feet above top of rail, which is sufficient to mitigate the noise impacts. Table 3.4-26 in Section 3.4 of the Draft EIR/EIS lists the heights of the eight proposed noise barriers in the City of Gilroy under Alternative 4. Proposed barrier 31 is the maximum height. Proposed barriers26 through 28 and 30 are 10 feet above top of rail, and proposed barriers 29,32, and 33 are 12 feet above top of rail, which is sufficient to mitigate the noise impacts. Proposed barriers are identified in the new Appendix 3.4-C, Noise Impact Locations (located in Volume 2 of the Final EIR/EIS); please refer to Figure C-90 for Alternative 2 and Figure C-99 (with noise barriers alone) and Figures C-110 and C-111 (with noise barriers and quiet zones) for Alternative 4. All noise barriers meeting the criteria in Appendix 3.4-B, Noise and Vibration Mitigation Guidelines (located in Volume 2 of the Draft EIR/EIS) have been proposed. While additional noise barriers that do not meet the criteria in Appendix 3.4-B may benefit receptors, they would not be considered a reasonable and feasible mitigation measure. Absorptive treatments on noise barriers would not further reduce the number of noise impacts, as they would only reduce noise reflected off of the barriers to the opposite side of the tracks.

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1737-1079

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

The noise mitigation analysis in Section 3.4, Noise and Vibration, of the Draft EIR/EIS calculates noise impacts for scenarios without any noise mitigation, with noise barriers as mitigation, and with a combination of quiet zones and noise barriers. The analysis with a combination of quiet zones and noise barriers assumes that train horns would not be sounded approaching at-grade crossings. NV-MM#4 states that the Authority would assist with the preparation of technical analysis and provide input for the Quiet Zone application, which local communities could then use as part of their application to FRA to establish quiet zones.

1737-1080

In Section 3.6.6.2, Public Utilities, Impact PUE#4 has been revised in the Final EIR/EIS to clarify the description of the SCVWD percolation basins. In Section 3.6.7, Mitigation Measures, PUE-MM#1 has been revised to clarify the timeframe for implementation of this mitigation measure. Under PUE-MM#1, the replacement percolation ponds would be of equivalent functional capacity and would be commissioned and placed into service prior to closure of the existing percolation ponds. The word "would" is preferred to "shall" in the environmental document to reflect that the project is not yet approved. If the project is approved, these mitigation measures would be adopted as part of a mitigation, monitoring, and enforcement plan that the Authority must implement as a condition of approval.

1737-1081

As described in Section 3.3.4.3, Methods for Impact Analysis, within Section 3.3, Air Quality and Greenhouse Gases, of the Draft EIR/EIS, analysts calculated the annual amount of water that would be consumed by HSR stations based on the building square footage, existing water consumption rates, and CalEEMod. This information is also described in Section 3.6.4.3 in Section 3.6, Public Utilities and Energy. Water consumption estimates in Impact PUE#8 in Section 3.6, Public Utilities and Energy, of the Draft EIR/EIS include water that would be needed for irrigation. The text in this impact discussion has been revised in the Final EIR/EIS to clarify that the estimates include water consumption needed for irrigation purposes. The Authority also notes that, as a state agency, it is not required to comply with local water use targets in the Gilroy Municipal Code. Appendix 2-J of the Draft EIR/EIS reviews relevant portions of the City of Gilroy's Municipal Code; no inconsistencies were identified in Appendix 2-K.

1737-1082

The Authority was not a participating agency under the SCVHP and thus cannot legally participate in nor obtain coverage under the habitat plan. Under CEQA, a lead agency must determine if the proposed project would conflict with the provisions of an adopted HCP. While a particular HCP has numerous species specific requirements that apply to activities conducted by the habitat agency, the lead agency must assess the impacts of their own project and apply mitigation accordingly. The Draft EIR/EIS does, however, assess all actions, goals and objectives of the SCVHP to determine if the project would result in a conflict with any of those stated goals or objectives. As noted in Impact BIO#53 in the Draft EIR/EIS, three actions where identified as representing potential conflicts and one of these actions was found to represent a conflict with the HCP, requiring additional mitigation. The commenter also asserts that the Authority has failed to identify project impacts until after the project is approved. The Authority respectively disagrees with this assertion. Throughout the Draft EIR/EIS, the document provides a clear description of the assessments and description of the assumptions that constitute the impacts analysis. Specific effects and amounts of potential effects are provided in the impact analysis. Consequently, the Draft EIR/EIS does identify project impacts.

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1737-1083

The Authority will coordinate with local agencies, including the City of Gilroy, regarding the construction and maintenance of project features, such as stormwater management features, outside of the Authority's right-of-way. Impact HYD#5 of the Final EIR/EIS now reflects the Authority's intent to coordinate with local agencies. However, as a state agency, the Authority is not required to obtain the approval of local agencies to construct the project. Nevertheless, the Authority recognizes that the project will be most successful if designed in a manner that is as sensitive as possible to the local environment through which it must travel. As a result, the Authority is committed to working cooperatively with local government agencies, including the City of Gilroy, through design and implementation of the project.

1737-1084

The actual composition of the brake pads that would be used by the project will only be known once a manufacturer is under contract with the Authority to provide these materials, but the Authority will share this information with the City after final design. The discussion presented in Impact HYD#7 contains a list of constituents that have been detected in the environment as a result of the abrasion of locomotive brake pads. A review of additional documentation indicates the following materials are used to manufacture brake pads: copper, iron, ferromanganese, silica, silicon-dioxide, molybdenum disulphide, aluminum oxide, boron nitride, graphite, and polycrylonitrile fiber (Beijing Railway Star Fortune High-Tech Company 2011). Per the typical approach to designing stormwater treatment BMPs, constituents of concern would be identified during the design phase and appropriate BMPs would be selected accordingly. If required as part of the permitting process, the Authority will disclose the components of the brake pads.

1737-1085

The comment noted that several schools listed in Draft EIR/EIS Table 3.10-13 were incorrectly identified as being within the schools RSA. Specifically, the comment states that certain schools are not within a quarter mile of the proposed alignments. However, the schools RSA is defined as 0.25 mile on either side of the project footprint. The project footprint is defined as "the area encompassing the entirety of HSR facilities and construction-related ground disturbance associated with a given project alternative" (see Draft EIR/EIS Chapter 13, Glossary of Terms); the project footprints include the EINU features of each alternative. Review of Draft EIR/EIS Table 3.10-13, GIS for schools within the RSA, and the project footprints of the alternatives confirms that the schools listed in Draft EIR/EIS Table 3.10-13 are correct.Therefore, no changes to the Final EIR/EIS were made in response to this comment.

1737-1086

As stated in mitigation measure HMW-MM#1 in Section 3.10, Hazardous Materials and Waste, of the Draft EIR/EIS, the contractor will prepare a memorandum regarding hazardous materials BMPs related to construction activity for approval by the Authority prior to construction. The stipulations of this mitigation measure are consistent with California Public Resources Code Section 21151.4. Implementation of mitigation measure HMW-MM#1 would reduce the quantities of extremely hazardous materials used near schools during project construction to below the state threshold quantity given in subdivision (l) of Section 25532 of the Health and Safety Code. The required memorandum would be publicly available upon request. Other project features and mitigation measures involve notifying the public, including local school districts and emergency responders, about construction activities. As indicated in Impact HMW#12, in accordance with California Public Resources Code Section 21151.4, the Authority has and will continue to consult with the school districts for schools within the schools RSA. The affected schools will have an opportunity to express concerns that may result in prescriptive actions to be included in the memorandum, such as limits on the materials used, restrictions on the transport and storage of such materials, and notification of the timing and use of such materials.

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1737-1087

Refer to Standard Response SJM-Response-OUT-2: Consultation with Local Agencies and Consistency with Local Regulations.

The Authority will coordinate with local fire departments in the development of relevant and implementable Hazardous Material Business Plans.

1737-1088

Refer to Standard Response SJM-Response-OUT-2: Consultation with Local Agencies and Consistency with Local Regulations.

The Authority will coordinate with local fire departments in the development of relevant and implementable Hazardous Material Business Plans.

1737-1089

The Authority has endeavored to develop a project design that minimizes local impacts and is made as consistent with local plans as possible. Transportation management requirements applicable to the project are described in Section 3.2, Transportation, of the Draft EIR/EIS, including in particular TR-IAMF#2. TR-IAMF#2 specifically states that the CTP (which includes controls not only for effects on roadways, but also for pedestrian and bike facilities per the requirements of TR-IAMF#4 and TR-IAMF#5) will be prepared "in close consultation with the local jurisdiction having authority over the site".

1737-1090

The exact types of emergency access equipment, locations where such equipment will be stored, and access limitations are not known at this time, however these details will be coordinated with local emergency response organizations prior to operation of the HSR system.

Please refer to SS-IAMF#2 that discusses fire/life safety and security program in system design, construction, and operation. The fire and life safety program would be coordinated with local emergency response organizations. The Authority would establish fire/life safety and security committees (FLSSCs) throughout the HSR Project Section composed of representatives from fire, police, and local building code agencies. The purpose of the FLSSC would be to review issues that are critical to fire and life safety and security, to acquire input and concurrence from the state and local authorities having jurisdiction over the proposed designs to meet code requirements, and to comply with state and local fire code standards or fire/life safety hazard mitigation measures during the design phase. The fire and life safety program would include regional FLSSCs that would focus on the fire and life safety characteristics specific to each HSR Project Section, including underground and elevated structures, access methods, terminals, and maintenance facilities, to provide input on local building codes or requirements that are in line with the emergency response characteristics and capabilities of the local agencies. Representation and operation of the statewide FLSSC and regional FLSSCs would be coordinated with local emergency response organizations to provide an understanding of the HSR system, facilities, and operations and to obtain their input for modifications to emergency response operations and facilities.

Please also refer to SS-IAMF#3 that discusses the Authority's hazard management program which includes the identification of hazards, assessment of associated risk, and application of control measures (mitigation), to reduce the risk to an acceptable level. Hazard assessment includes a preliminary hazard analysis (PHA) and threat and vulnerability assessment (TVA). During design and construction, the Contractor would conduct site-specific PHA and TVA assessments to apply the programmatic work to their specific project designs.

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1737-1091

This comment is understood as suggesting a new mitigation measure that would mitigate for impacts on community safety and security, including from rail-related hazards. However, the Draft EIR/EIS does not identify a significant impact under CEQA, and, accordingly, no mitigation is required. Furthermore, the comment requests information regarding specific types of specialized equipment that may be needed to respond to emergency situations. The exact types of emergency access equipment, locations where such equipment will be stored, and access limitations are not known at this time, however these details will be coordinated with local emergency response organizations prior to operation of the HSR system.

Please refer to submission SJM-1737, comment 1090, for a discussion regarding the fire/life safety and security program that would be coordinated with local emergency response organizations and the Authority's hazard management program.

1737-1092

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment asserts that the Draft EIR/EIS does not explain the basis for using a 30-second increase in emergency vehicle response time as the threshold of significance. Please refer to Draft EIR/EIS Section 3.11.4.5, Method for Determining Significance Under CEQA (specifically, footnote 9 on page 3.11-16 of the Draft EIR/EIS). For the purposes of the analysis, inadequate emergency access was defined as either a substantial blockage of physical access for emergency response purposes or a substantial increase in emergency response times (defined as greater than 30 seconds). While there are local standards for emergency vehicle response time, there are no established state or federal emergency vehicle response time standards, and analysts were not able to identify specific thresholds previously used under CEQA to evaluate this effect. The 30-second criterion was selected on the basis of several considerations: (1) Analysts reviewed local emergency management agency standards for response times (as discussed in Section 3.11, Safety and Security, of the Draft EIR/EIS), of which the more conservative were around 5 minutes. Thirty seconds—or 10 percent of 5 minutes (300 seconds)—was considered to represent a substantial delay in emergency response time. (2) NEPA effects are identified in Section 3.2, Transportation, of the Draft EIR/EIS for signalized intersections with congested conditions (defined as LOS E or F) where the project would result in 4 seconds of additional delay. Because an emergency vehicle route across the railroad is likely to encounter anywhere from two to six intersections affected by gate-down time, a 30-second delay would include the collective effects of up to seven intersections.

Regarding the method for conducting the analysis, this is explained under Impact S&S#4 on page 3.11-53 of the Draft EIR/EIS as follows: "The Authority evaluated potential impacts on emergency response times through a geospatial assessment of fire station/first responder response times along both sides of the rail corridor. The screening used ArcGIS to evaluate the potential impact on travel time between 0.25-mile grid cells and the nearest fire station under a worst-case scenario that every responding fire station vehicle or first responder ambulance was required to take an alternate route via an existing grade-separated crossing because of added gate down time at at-grade crossings. Figure 3.11-10 illustrates the results of the screening analysis, including

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1092

areas that would experience added response times of 1 second or more under the full closure scenario."

1737-1093

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

Regarding the evaluation of emergency vehicle response times in Gilroy, as explained in Impact S&S#4 on page 3.11-53 of the Draft EIR/EIS, the Authority evaluated potential impacts on emergency response times through a geospatial assessment of fire station/first responder response times along both sides of the rail corridor. The screening used ArcGIS to evaluate the potential impact on travel time between 0.25-mile grid cells and the nearest fire station under a worst-case scenario that every responding fire station vehicle or first responder ambulance was required to take an alternate route via an existing grade-separated crossing because of added gate-down time at at-grade crossings. Figure 3.11-10 illustrates the results of the screening analysis, including areas that would experience added response times of 1 second or more under the full closure scenario. The analysis specifically considered potential project-related delays at the at-grade crossings in or near Gilroy, including at Masten Avenue, Rucker Avenue, Buena Vista Avenue, Cohansey Avenue, Las Animas Avenue Leavesley Road, IOOF Avenue, Lewis Street, Martin Street, East 6th Street, East 10th Street, East Luchessa Avenue, and Bloomfield Road (the 7th Street crossing would be eliminated with Alternative 4), and the local fire stations at 880 Sunrise Drive, 8383 Wren Avenue, and 7070 Chestnut Street, as well as the South Santa Clara County Fire Department station at 10810 No Name Uno Road. Specific delay in emergency-vehicle response times greater than 30 seconds were identified for portions of the service areas for the fire stations at 10810 No Name Uno Road, 880 Sunrise Drive, 8383 Wren Avenue, and 7070 Chestnut Street. The specific areas of effect are described on page 3.11-56 and shown in general in Figure 3.11-10 of the Draft EIR/EIS.

The analysis in the Draft EIR/EIS was a worst-case analysis done assuming gates at the at-grade crossings were all down at the same time, which is an overly conservative assumption since the gates will come up after the train crosses, leaving more opportunities for emergency vehicle transit across the tracks between trains.

As described for Mitigation Measure SS-MM#4, the Authority is committed to doing preoperational and operational monitoring of emergency vehicle response movements in order to identify the specific character of actual effects of the project and to

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1093

implementing remedial measures to address the identified delays. The Emergency Vehicle Priority Treatment Plan will be prepared in consultation with local authorities, including the City of Gilroy.

Regarding Gilroy's request for a modified project alternative, please see the response to submission SJM-1737, comment 1062. The analysis in the Draft EIR/EIS was a worst-case analysis assuming gates at the at-grade crossings were all down at the same time, which is an overly conservative assumption since the gates will come up after the train crosses, leaving more opportunities for emergency vehicle transit across the tracks between trains.

1737-1094

Refer to Standard Response SJM-Response-GEN-1: Opposition and Comments on the Merits of the Project, SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times, SJM-Response-TR-3: Gate-Down Time Calculation Details.

The single-train gate-down time assumption used for the traffic analysis for crossings near stations (which includes IOOF, Lewis Street, Martin Avenue, 6th Street,10th Street, and Luchessa Avenue in Gilroy; the 7th Street crossing will be eliminated with Alternative 4) would be 68 seconds. For at-grade crossings not near stations, the estimated gate-down time used for the analysis was 54 seconds. During peak hours, the analysis assumed up to 8 trains per direction per hour; assuming no trains cross a crossing at the same time (a so-called 2-for-1 event), this would be up to 16 additional crossings per hour during peak hours. However, 2-for-1 events are a common event with frequent rail service, and this was taken into account in the traffic analysis for the project. Not assuming 2-for-1 events, gates could be down 14 to 18 minutes during peak hours when service levels reach 8 trains per peak hour in both directions.

As discussed in the response to submission SJM-1737, comment 1093, the analysis did consider the specific at-grade crossings cited in this comment. In addition, as also noted in the response to submission SJM-1737, comment 1093, the analysis in the Draft EIR/EIS represents a worst-case analysis assuming gates at the at-grade crossings were all down at the same time during an emergency response, which is an overly conservative assumption since the gates will come up after the train crosses, leaving more opportunities for emergency vehicle transit across the tracks between trains. As a result, the Draft EIR/EIS has considered the effect of emergency vehicle response delay due to gates being down.

In addition, as explained in revisions in Section 3.11, Safety and Security incorporated into the Final EIR/EIS, the Authority has included certain site-specific traffic mitigation measures as mitigation for delays to emergency vehicle response vehicle at at-grade crossings in the event that the other identified mitigation measures S&S-MM#3 and S&S-MM#4 do not fully address response time delay.

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1737-1095

The comment suggests a reporting system to disclose to police department the location of trains and whether crossing gates are open or closed as a mitigation measure to help with emergency response impacts.

The Authority cannot provide a direct link to the train control system that will be used to operate the HSR trains (and which will be integrated with at-grade crossing gate system) due to data security requirements.

However, the Authority has modified Mitigation Measure SS-MM#4 in Section 3.11, Safety &Security, in response to this comment. For the Authority-owned railroad operations involving at-grade operations between CP Lick in San Jose to Gilroy, this measure will also include Authority partnership with local public emergency service providers and local jurisdictions to provide real-time information regarding train location and at-grade crossing gate operations to facilitate better emergency response route planning. This may be facilitated through one-way data output from the HSR operational control center and/or through installation of trackside equipment and hardwire connections. Implementation of any physical installations of trackside equipment or communication connections will be via Authority funding of local jurisdictions to install such equipment or communication connections and associated software.

1737-1096

To address this comment, the Eagle Ridge development has been removed from the discussion of neighborhoods in Section 3.5.12.2 and Impact SOCIO#1 in Section 3.12, Socioeconomics and Communities, of the Final EIR/EIS. The text has been revised to clarify that within each of the cities and communities within the Morgan Hill and Gilroy Subsection, distinct neighborhoods have formed on each side of the UPRR corridor and US 101 and are currently physically separated by these transportation corridors.

1737-1097

To address this comment, the Eagle Ridge development has been removed from the discussion of affected cities and communities in Section 3.12, Socioeconomics and Communities, of the Final EIR/EIS, and the discussion has been revised to focus more broadly on impacts on Gilroy as a whole and either downtown Gilroy or east Gilroy depending on the alternative.

Impact SOCIO #1 in Section 3.12, Socioeconomics and Communities, of the Draft EIR/EIS considers impacts on Gilroy as a whole as well as specific impacts on downtown Gilroy for Alternatives 1, 2, and 4, and East Gilroy for Alternative 3.

1737-1098

The comment correctly identified an error on page 3.12-50 with respect to the discussion of road closures in Gilroy associated with Alternative 4. To address this comment, text in Impact SOCIO #2 and other text in Section 3.12, Socioeconomics and Communities, of the Final EIR/EIS has been revised to clarify that "Alternative 4 would require closure of E. 7th Street." Under Alternative 4, four-quadrant gates would be installed at 6th Street, and the road would remain open. With this correction with respect to text changes discussing E. 7th Street in Section 3.12, no additional revisions were required to Section 3.2, Transportation in the Final EIR/EIS.

1737-1099

The comment noted that the Draft EIR/EIS needs to discuss the insufficiency of relocation resources for businesses under NEPA. Please refer to Impact SOCIO#7 in Section 3.12, Socioeconomics and Communities, of the Draft EIR/EIS for disclosure of this information for the purposes of NEPA. Additionally, we have added these conclusions of insufficient relocation resources within certain cities and communities to the text and table under Section 3.12.8, Impact Summary for NEPA Comparison of Alternatives, of the Final EIR/EIS.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1100

The commenter has requested a greater level of detail on relocation effects of the project alternatives.

The Draft Relocation Impacts Report (Authority 2019b, as cited in Section 3.12, Socioeconomics and Communities, of the Draft EIR/EIS) identifies by city and alternative the 12 types of businesses affected (see Table 5-23). This information represents the worst-case scenario that could occur, and refinement of the selected alternatives would be expected to determine if some of these identified displacements could be property acquisitions and not full displacements. Also refer to Figures 3.13-2 through -3.13-3b in Section 3.13, Station Planning, Land Use and Development, of the Draft EIR/EIS for land uses within the project footprint for Alternatives 1, 2, and 4 and to Figures 3.13-4 and 3.13-5 for Alternative 4. These figures show color coding for the existing land uses within the project footprint.

Business displacements within Gilroy would vary substantially by alternative. Alternatives 1 and 2 would displace 90 and 122 commercial and industrial businesses in Gilroy, while Alternative 3, which extends east of Gilroy, would only have 2 business displacements in northern Gilroy. Alternative 4, which would be blended and at grade through Gilroy, would displace 29 businesses.Business displacements under Alternatives 1 and 2 would consist of automotive repair and services, retail and wholesalers, manufacturing, construction, transportation and warehousing, health care and social assistance, and vacant buildings. These displacements would occur primarily north and south of Leavesley Road, north of the existing Gilroy Caltrain Station, and in the industrial portions of southern Gilroy.

1737-1101

The comment notes that the reference to Table 2-21 in Chapter 2, Alternatives, is incorrect. To address this comment, this reference in Section 3.13, Station Planning, Land Use, and Development, of this Final EIR/EIS, has been corrected to instead refer to Table 2-17, Construction Staging and Precasting Yards by Alternative.

1737-1102

To address this comment, the Authority has added additional discussion of anticipated future permanent roadway closures and access modifications within the Morgan Hill and Gilroy Subsection to Impact LU#3 in Section 3.13, Station Planning, Land Use, and Development, of this Final EIR/EIS. Impact LU#3 is focused on alteration of land use patters from permanent roadway closures. The added text does specifically address changes in Downtown Gilroy and notes that under each project alternative, permanent changes to the roadway network would not substantially alter land use patterns because alternate routes would be provided to allow continuation of existing uses. See also the discussion under Impact LU#4 for an assessment of the permanent alteration of land use patterns associated with land use conversion and the introduction of incompatible uses. Impact LU#4 discusses land use changes resulting from the proposed project, and specifically addresses land use conversion impacts in downtown Gilroy. As noted under Impact LU#4, LU-IAMF#1 would apply to the Downtown Gilroy Station area and would avoid the potential for land use incompatibility in the station area.

1737-1103

The commenter states the reference to an adopted station area plan for Gilroy is inaccurate as the effort was placed on hold in early 2018. To address this comment, the Authority has revised the discussion of the Gilroy Station Area Plan in Section 3.13.5.2, Planned Development, of this Final EIR/EIS, to clarify that planning for the Downtown Gilroy Station Area Plan commenced in 2015 and remains under development. In addition, the discussion under Impact LU#7 in Section 3.13, Station Planning, Land Use, and Development, of this Final EIR/EIS, has been revised to clarify the status of these station planning efforts. Note that the station plan evaluated in this EIR/EIS provides for the basic layout and functions. This allows for an analysis of impacts from this facility while allowing flexibility for the planning process.

Please refer to Section 3.17, Cultural Resources, of the Draft EIR/EIS for an evaluation of impacts of the project alternatives on the existing historic train depot building (Southern Pacific Train Station, Resource ID 3610). This resource is described in Section 3.17.6.2, Historic Resources, and the effects are presented under Impact CUL#4: Permanent Demolition, Destruction, Relocation, or Alteration of Built Resources or Setting.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1104

Table3.16-1 in Section 3.16, Aesthetics and Visual Quality of the Draft EIR/EIS, lists the viewer groups used in the aesthetic analysis. The analysis follows the Authority's analysis follows a specific methodology, which is based on the FHWA's methodology that is a widely applied approach to assessing visual quality for transportation projects. Based on that methodology, "bBusinessowners" are not listed as a distinct viewer group, because the methodology analyzes it is the action of the viewer activity and their exposure to and view ofto the project that is analyzed. A bFor visual sensitivity, business owners wcould fall in the retail neighbor or commercial neighbor viewer group, where the visual preference includes heightened visibility free of competing visual intrusions, visual clarity to guide customers to their destination and good cultural order and natural harmony for attracting shoppers. have the same sensitivity as a retail viewer, commercial viewer, traveler, or even residential viewer, based on the business owner's view of the project and how long they are exposed to that view. Business owners are also limited in number, with their patrons, customers, or clients outnumbering them. Similarly, tThe visual preferences categories of "patrons" and "visitors to Gilroy" are covered by the categoriegroups of recreational viewer, retail viewer, or commercial viewer, depending on the viewer's specific activities. "Traveler" is a viewer group used in the analysis.

1737-1105

Aesthetic and visual resources mitigation measures AVQ-MM#4, AVQ-MM#5, and AVQ-MM#6 describe actions that will be undertaken by the Authority to address ongoing maintenance of landscaping, structures, and stations. These measures include commitments to initial landscape installation, irrigation, and ongoing maintenance (AVQ-MM#4 and AVQ-MM#5), and maintenance of structures, including graffiti removal (AVQ-MM#6).

1737-1106

Refer to Standard Response SJM-Response-CUL-2: Changes to the Archaeological Survey Report.

1737-1107

Refer to Standard Response SJM-Response-CUL-2: Changes to the Archaeological Survey Report.

Although not explicitly stated in the Draft EIR/EIS or in the ASR, analysts did perform a review of the ADOE list during the records reviews. This was the basis for reporting archaeological resource eligibility status in both documents.

1737-1108

Methods for evaluating impacts to cultural resources are described in Section 3.17.5. There are two separate APEs for built and archaeological resources. The literature review methods used to gather baseline data for archaeological sites is standard practice for archaeological technical reports and was based on the best available information. DPR forms from the NWIC were referenced for all sites including P-43-000632. It is not clear from the comment if the source data was obtained before or after the baseline for this analysis. Both the ASR and the Archaeological Treatment Plan have been drafted to ensure that if new resources are identified, the Authority will manage them. As a result, no changes were made to the Final EIR/EIS to address this comment.

1737-1109

Refer to Standard Response SJM-Response-CUL-2: Changes to the Archaeological Survey Report.

The P-43-000417 (CA-SCL-412) vicinity was accessible and surveyed for this project. During the survey, a single isolated artifact was identified within the APE, but no other deposits or artifacts were identified. The survey did not formally evaluate the resource and the resource remains unevaluated. Nothing is explicitly stated about next steps in the ASR, but it least appears that there was a paucity of deposits associated with the site in the accessible portion of the APE, and that the lack of deposits in this portion of the APE would have made it a poor basis for evaluating the resource's significance.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1110

Methods for evaluating impacts to cultural resources are described in Section 3.17.5. There are two separate APEs for built and archaeological resources. The literature review methods used to gather baseline data for archaeological sites is standard practice for archaeological technical reports and was based on the best available information. DPR forms from the NWIC were referenced for all sites including P-43-000632. It is not clear from the comment if the source data was obtained before or after the baseline for this analysis. Both the ASR and the Archaeological Treatment Plan have been drafted to ensure that if new resources are identified, the Authority will manage them. As a result, no changes were made to the Final EIR/EIS to address this comment.

1737-1111

The literature review methods used to gather baseline data for archaeological sites is standard practice for archaeological technical reports. DPR forms from the Central California Information Center for Merced County and the NWIC were referenced for all sites including P-43-000632, and the SHPO has concurred with the findings in the ASR and therefore, the ASR will not be revised with a different site boundary. Thus, the EIR/EIS will remain as-is pertaining to archaeological resource P-43-000632.

1737-1112

The comment correctly notes that Alternative 3 would impose effects attributed to Alternative 2. The language in the Section 106 Findings on Page 3.17-59 has been revised to reflect correction of this typo and the correct effects on CA-SCL-412.

1737-1113

Districts noted on the City of Gilroy's planning website were appropriately reviewed in the HASR, as concurred by SHPO. See HASR Section 8.2, Properties Eligible for Listing in the NRHP/CRHR, regarding methods for reviewing historic districts. Consultation with the City of Gilroy regarding its qualified local register of historic resources and its planning districts is reported in multiple sections of the HASR. See HASR Section 5.1.1, Responses Received; Section 6.1.4.3, Local Registers of Historical Resources; Section 6.3.1.3, Downtown Gilroy Resources; and Section 8.2 regarding consultation with the City of Gilroy. The preponderance of evidence indicated that those areas are not CEQA historical resources and do not meet the requirements for analysis as historic districts. See HASR Section 2.5, California Register of Historical Resources (Cal. Public Res. Code, §5024.1 and Cal. Code Regs., tit. 14, §4850), for the CEQA historical resources regulations and Section 6.1.4, CEQA Historical Resources, for CEQA historical resources identification methods. See HASR Sections 8.1, Properties Listed in the NRHP/CRHR, and 8.2 for properties listed or eligible for listing in the CRHR or NRHP, as concurred by SHPO.

1737-1114

This comment is in regard to the HASR format. The technical documents do not share the format requirements of the EIR/EIS, and therefore the format of the HASR does not require revision.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1115

The comment is in regard to the HASR. The comment recommends that the NHPA Section 106 term historic property should be substituted for and consistently used throughout the HASR's cultural resources assessments. Historic property is an NHPA Section 106 term that describes cultural resources that are listed in or eligible for listing in the NRHP. See HASR Section 2.1, National Historic Preservation Act (54 U.S.C. §300308). Historical resource is a CEQA term that is defined in Section 15064.5 of the CEQA Guidelines, and thus is not interchangeable with the term historic property. See HASR Section 2.5, California Register of Historical Resources (Cal. Public Res. Code, §5024.1 and Cal. Code Regs., tit. 14, §4850). The HASR uses the term historic built resources to describe all built environment cultural resources that were reviewed and/or included in the survey, and thus is not interchangeable with the term historic property. Therefore, it would be inappropriate to substitute the term historic property for cultural resources assessments throughout the HASR.

1737-1116

Refer to Standard Response SJM-Response-CUL-1: Baseline for Identification of Historic Properties.

1737-1117

Refer to Standard Response SJM-Response-CUL-1: Baseline for Identification of Historic Properties.

1737-1118

Refer to Standard Response SJM-Response-CUL-1: Baseline for Identification of Historic Properties.

1737-1119

Please see HASR Section 6.3.1, Establishing the Survey Population, for a definition of the term survey population.

1737-1120

Refer to Standard Response SJM-Response-CUL-3: Changes to the Historic Architectural Survey Report.

1737-1121

Refer to Standard Response SJM-Response-CUL-1: Baseline for Identification of Historic Properties.

1737-1122

In particular, Table 6-1 column Information Center names "Northwest" and "Central California" to delineate the NWIC and the CCIC. There is no inaccuracy in names in the table, and changing one of the information center names in the table per the comment's recommendation would create a new inconsistency in the table. No revision to the HASR is appropriate in response to this comment.

1737-1123

Districts noted in surveys and on the City of Gilroy website were appropriately reviewed in the HASR, as concurred by SHPO. See HASR Section 8.2, Properties Eligible for Listing in the NRHP/CRHR, regarding methods for reviewing historic districts. Consultation with the City of Gilroy regarding its qualified local register of historic resources and its planning districts is reported in multiple sections of the HASR. See HASR Section 5.1.1, Responses Received, Section 6.1.4.3, Local Registers of Historical Resources, Section 6.3.1.3, Downtown Gilroy Resources, and Section 8.2 regarding consultation with the City of Gilroy. The preponderance of evidence indicated that those areas are not CEQA historical resources and do not meet the requirements for analysis as historic districts. See HASR Section 2.5, California Register of Historical Resources (Cal. Public Res. Code, §5024.1 and Cal. Code Regs., tit. 14, §4850), for the CEQA historical resources regulations and Section 6.1.4, CEQA Historical Resources, for CEQA historical resources identification methods. See HASR Sections 8.1, Properties Listed in the NRHP/CRHR, and 8.2 for properties listed or eligible for listing in the CRHR or NRHP, as concurred by SHPO.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1124

The Project continued to conduct outreach with the City of Gilroy after the intensive surveys were completed in 2017 (see HASR Appendix C Correspondence: Page 17). As a result, additional field data was gathered in 2018 (see HASR Chapter 1 Summary of Findings Page 1-1 and DPR 523-series forms in the report appendices).

1737-1125

The project's historic context was designed to address resources that are located in the APE, and is not necessarily comprehensive for the City of Gilroy's history. No revision to the HASR has been made based on this comment.

1737-1126

In particular, districts noted in surveys and on the City of Gilroy website were appropriately reviewed in the HASR, as concurred by SHPO. See HASR Section 8.2, Properties Eligible for Listing in the NRHP/CRHR, regarding methods for reviewing historic districts. Consultation with the City of Gilroy regarding its qualified local register of historic resources and its planning districts is reported in multiple sections of the HASR. See HASR Section 5.1.1, Responses Received; Section 6.1.4.3, Local Registers of Historical Resources; Section 6.3.1.3, Downtown Gilroy Resources; and Section 8.2 regarding consultation with the City of Gilroy.The preponderance of evidence indicated that those areas are not CEQA historical resources and do not meet the requirements for analysis as historic districts. See HASR Section 2.5, California Register of Historical Resources (Cal. Public Res. Code, §5024.1 and Cal. Code Regs., tit. 14, §4850), for the CEQA historical resources regulations and Section 6.1.4, CEQA Historical Resources, for CEQA historical resources identification methods. See HASR Sections 8.1, Properties Listed in the NRHP/CRHR, and 8.2 for properties listed or eligible for listing in the CRHR or NRHP, as concurred by SHPO.

1737-1127

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Gilroy. To implement improvements to facilities owned and operated by the City of Gilroy, the contractor and Authority would need to seek and obtain the approval of the City.

1737-1128

The comment noted that Draft EIR/EIS Mitigation Measure TR-MM#2 would need to be coordinated with and approved by the agency responsible for the intersection and physical infrastructure to be modified. Installation of Mitigation Measure TR-MM#2, discussed in Section 3.2, Transportation, of the Draft EIR/EIS, is required prior to operations; it would be funded by the Authority and installed by the contractor. Prior to installation of the mitigation measure, the approval of the City of Gilroy would be required for any modifications to equipment owned and operated by the City. As the mitigation is required to be implemented prior to operations, the contractor/Authority is responsible for funding the proposed modifications in the period of time leading up to the implementation of service.

1737-1129

As described in mitigation measure NV-MM#1, the Authority would establish and maintain in operation until completion of construction a toll-free "hotline" regarding the project construction activities. The Authority would arrange for all incoming messages to be logged (with summaries of the contents of each message) and for a designated representative of the Authority to respond to hotline messages within 24 hours (excluding weekends and holidays). The Authority would make a reasonable good-faith effort to address all noise concerns during construction.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1130

The project would incorporate NV-IAMF#1, which would require the contractor to prepare and submit to the Authority prior to construction a noise and vibration technical memorandum documenting how FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is conducted within 1,000 feet of sensitive receptors. As stated in Section 3.4.4.3, the construction vibration assessment is based on the FRA guidance manual (FRA 2012, as cited in Section 3.4 of the Draft EIR/EIS), which covers potential impacts on buildings and potential annoyance to building occupants. As stated in NV-MM#9, building damage occurs when construction activities produce vibration in the ground that is strong enough to potentially cause cosmetic or structural damage. Pile driving very close to buildings (within 50 feet) would potentially exceed the 0.2inch/second PPV threshold and cause building damage at wood-framed residential buildings with plaster. For modern, reinforced concrete buildings, building damage would potentially exceed the 0.5 inch/second PPV threshold within 30 feet. There are two modern style buildings within 30 to50 feet of construction of the Julian Street overpass under Alternative 4with the DDV. The nearest building would be demolished as part of the DDV construction (and thus would not be damaged by vibration), and the second building is more than 30 feet from the overpass construction area with the DDV. Thus, no additional building damage due to pile-driving vibration during construction is expected. As stated in NV-MM#2, when a construction scenario has been established, the contractor would conduct pre-construction surveys at locations within 50 feet of piledriving to document the existing condition of buildings in case damage is reported during or after construction. The contractor would arrange for the repair of damaged buildings or would pay compensation to the property owner. The Authority retains responsibility for coordination with property owners and ensuring that issues are satisfactorily resolved.

Additionally, in Section 3.17, Cultural Resources, of the Draft EIR/EIS, Impact CUL#5 concludes that construction activities would not generate sufficient vibration to cause impacts on historical resources under Alternatives 1 and 4. Under Alternatives 2 and 3, there is potential for construction activities to adversely affect one resource, but project features address this issue, and the conclusion is that there would be no adverse effect.

1737-1131

As indicated in NV-MM#4, the Authority would assist with the preparation of technical analysis and provide input for the Quiet Zone application, which the local communities could then use as part of their application to FRA. If quiet zones are not used, then significant noise impacts would be reduced or mitigated through the implementation of NV-MM#3, NV-MM#5, NV-MM#6, and NV-MM#7. The primary noise mitigation measure would be noise barriers. Additional noise mitigation measures would include building sound insulation and noise easements.

1737-1132

In Section 3.6.7, Mitigation Measures, PUE-MM#1 has been revised to clarify the timeframe and the requirements for implementation of this mitigation measure. Under PUE-MM#1, the replacement percolation ponds would be of equivalent functional capacity and would be commissioned and placed into service prior to closure of the existing percolation ponds.

1737-1133

See response to Comment 1086.

1737-1134

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times.

Regarding the City's proposed hybrid alternative, please refer to the response to submission SJM-1737, comment 1062.

1737-1135

Mitigation measure AVQ-MM#5 includes language to exclude species listed by the Invasive Species Council of California from being planted. The mitigation measure covers the full extent of the project, so it is written to be flexible to situations where decorative, non-native species might be a preferred replacement in some areas. BIO-IAMF#5 includes provisions for revegetating permanently and temporarily disturbed areas using native plant species to the extent practicable.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1136

The commenter states mitigation measure LU-MM#1 does not provide the City of Gilroy an opportunity to provide input to the HSR Station Area Development General Principles and Guidelines and should be revised to allow the City to provide input. In response to this comment, reference to mitigation measure LU-MM#1 has been removed from Section 3.13, Station Planning, Land Use, and Development, of this Final EIR/EIS, as this project feature was already included as an IAMF. The Authority established LU-IAMF#1 as part of a series of project features designed to be applicable to the statewide HSR system as a whole. The full description of this IAMF is found in Appendix 2-E, Project Impact Avoidance and Minimization Features. While LU-IAMF#1 does not specifically include local jurisdiction review of the Authority's station area memorandums, the Authority is committed to continued coordination with local agencies. An example of ongoing coordination is the Authority's Station Area Planning agreement with the City of Gilroy, which funds planning activities focusing on HSR circulation, access, and economic development around the station. Consistent with LU-IAMF#2, the Authority also will document the coordination and planning with local agencies in a station area planning memorandum prepared for each HSR station.

1737-1137

The comment asserted that the trip generation analysis presented in the Draft EIR/EIS understates the number of vehicle trips that would travel to the San Jose Diridon and Gilroy Stations; the comment presents an alternative calculation of station-level trip generation for comparison. Please refer to Section 3.2.4.3, Methods for Impact Analysis, and Table 3.2-5 in Section 3.2, Transportation, of the Draft EIR/EIS for a discussion of the station-level vehicle trip generation calculations. The comment's alternative trip generation calculations were compared to the calculations presented within the Draft EIR/EIS. The following were the primary differences between the two calculations: (a) the comment assumed each Taxi/TNC passenger trip would generate two station area vehicle trips whereas the Draft EIR/EIS assumed one, (b) differences in accounting for the conversions of rental-car/remote parking lot vehicle trips to shuttle trips and the assignment of shuttle trips to the station area, and (c) differences inrounding methodologies. As a result of this review, a typographic error was identified within the Draft EIR/EIS. On page 3.2-10 of the Draft EIR/EIS, the following sentence appears: "Parked car trips result in one vehicle tripper boarding or alighting while drop off/pick up and taxi/transportation network company trips result in two vehicle trips (one trip entering the site and another leaving the site) per boarding or alighting." To address this comment, this sentence has been amended in the Final EIR/EIS to the following: "Parked car and taxi/transportation network company trips result in one vehicle trip per boarding or alighting while drop off/pickup trips result in two vehicle trips (one trip entering the site and another leaving the site) per boarding or alighting." Similar to many airports and major transportation hubs, the Authority plans to operate its stations in an efficient manner, particularly during peak hours of travel. Taxi and transportation network company pickup and drop-off areas would be configured and operated in a manner to facilitate both a pickup and drop-off within the same trip. It should also be noted that TNCs have become ubiquitous within the Project Section in recent years. Even if an individual TNC decides to not make both a pickup and drop-off at a particular station, other TNCs would be present nearby and would serve that trip. If the Draft EIR/EIS were to assign two trips for each TNC passenger into and out of the surrounding roadway network, it would vastly overstate the automobile mode share of the project. The correction of the referenced typographic error does not affect any of the analyses or conclusions of the Draft EIR/EIS.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1138

The comment noted that the Draft EIR/EIS did not include vehicle trips associated with passengers that would use remote off-site parking lots or rental car facilities within the station trip assignments. Please refer to Section 3.2.4.3, Methods for Impact Analysis, and Table 3.2-3 in Section 3.2, Transportation, of the Draft EIR/EIS for a description of the station trip generation and assignment methodologies and results. As noted by the comment, vehicles accessing off-site parking or rental car facilities would not drive directly to the stations. Within the station area intersection and roadway analyses, these passengers are represented and analyzed as traveling within shuttles. Shuttle trips are assigned to the station area roadway network and are reflected within the station area technical analyses.

1737-1139

See response to Submission 1737, Comment 1154, which raises the same issue.

1737-1140

The comment noted that the Draft EIR/EIS does not precisely reflect the roadway improvements included in City of Gilroy's recently completed 2040 General Plan transportation analysis. The Draft EIR/EIS transportation analysis assumes buildout of the City of Gilroy's 2020 General Plan, which was the most up-to-date information regarding future infrastructure and land use assumptions available at the time of NOP publication.

1737-1141

The comment stated that the freeway volumes presented in the Draft EIR/EIS do not match those presented in the City of Gilroy's recently completed 2040 General Plan transportation analysis. The forecasts performed for the Draft EIR/EIS were developed using the Santa Clara Valley Transportation Authority's travel demand model and the land use dataset available at the time of NOP publication. Those forecasts assumed buildout of the City of Gilroy's 2020 General Plan, which was the most up-to-date document at that time. As the land uses included in the Gilroy 2040 General Plan are different, differences in the results of the freeway volume forecasts are expected.

VTA's regional travel demand model has not yet been updated to reflect the new information referenced by the comment.

In addition, the City of Gilroy's General Plan's transportation analysis was conducted using the City of Gilroy's travel demand model, which is a different tool than VTA's regional model employed as part of the Draft EIR/EIS. Because different models, inputs, and assumptions were utilized in the two assessments, different results would be anticipated.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1142

The comment stated that the Draft EIR/EIS includes LOS results that are different than those reported in the City of Gilroy's 2040 General Plan Update transportation analysis. As the two documents use different counts and forecasting methods, differences in the results are expected. The forecasts performed for the Draft EIR/EIS were developed using the Santa Clara Valley Transportation Authority's travel demand model and the land use dataset available at the time of NOP publication. Those forecasts assumed buildout of the City of Gilroy's 2020 General Plan, which was the most up-to-date document at that time. As the land uses included in the Gilroy 2040 General Plan are different, differences in the results of the LOS analysis are expected. VTA's regional travel demand model has not yet been updated to reflect the new information referenced by the comment.

In addition, the City of Gilroy's General Plan's transportation analysis was conducted using the City of Gilroy's travel demand model, which is a different tool than VTA's regional model employed as part of the Draft EIR/EIS. Because different models, inputs, and assumptions were utilized in the two assessments, different results would be anticipated.

1737-1143

The comment stated that the Draft EIR/EIS should have identified additional adverse NEPA effects in the 2040 Plus Project analysis. Please refer to Table 16 of Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for a delineation and summary of effects in the 2040 Plus Project condition. As noted in Appendix 3.2-A (located in Volume 2 of the Draft EIR/EIS), the Draft EIR/EIS uses the following significance criteria: "An effect on signalized intersections was deemed to occur if the Plus Project condition would result in a LOS E or Fand an increase in average traffic delay of 4 seconds or more over the No Project condition. An effect on unsignalized intersections was deemed to occur if the Plus Project condition would have a LOS E or F and the project would result in an increase in traffic delay of 5 seconds or more (measured as average delay for all-way stop or worst-movement delay for side-street stop intersection), and if the intersection satisfies one or more traffic signal warrants for at least 1 hour of the day." The comment appears to have incorrectly applied the signalized intersection significance criteria to unsignalized intersections. The intersections referenced in the comment are unsignalized and do not meet the unsignalized significance criteria.

1737-1144

The comment noted that the Draft EIR/EIS identifies an intersection wherein the proposed project was found to reduce vehicle delay in the 2040 Plus Project condition. Please refer to Table 16 of Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for a summary of the conditions noted in the comment. The proposed project was found to reduce average vehicle delay at this location in the 2040 Plus Project scenario due to the following two factors: (a) train movements and gate-down time at this location serve to provide more signal green time to the intersection's dominant movements (through traffic on Monterey Road), thereby lowering average overall vehicle delay, and (b) installation and interconnection of the railroad crossing signal systems serves to modernize and optimize the operations of adjacent intersections.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1145

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include grade separations at the Monterey Road/Masten Avenue and Monterey Road (SR 152)/Welburn Avenue-Leavesley Road intersections as mitigation for LOS impacts. Please also refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation considered and proposed for the NEPA traffic delay effects.

1737-1146

Refer to Standard Response SJM-Response-TR-3: Gate-Down Time Calculation Details.

1737-1147

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment recommended that the Authority should install grade separations at a number of locations within the City of Gilroy as mitigation for project impacts on emergency vehicle response times; the City of Gilroy Fire Department's 2019 Master Plan Update is also referenced and discussed. Please refer to Mitigation Measure SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Gilroy. Mitigation Measure SS-MM#4 requires the contractor to prepare an emergency vehicle response plan and install emergency vehicle priority treatments and new traffic control devices to improve response times. The mitigation measure also requires before and after monitoring of travel times to assess the effectiveness of the improvements. If the monitoring finds that the mitigation measure does not mitigate the project's impacts on emergency vehicle response times, preparation of a subsequent emergency vehicle priority treatment plan is triggered. This plan could include additional improvements, including the construction of roadway capacity improvements and/or new fire stations.

1737-1148

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment recommended that the Authority should conduct a study in collaboration with the City of Gilroy Fire Department to evaluate the project's effects and develop mitigation measures related to emergency vehicle response times. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Gilroy. Mitigation Measure SS-MM#4 identifies that the contractor and Authority will coordinate with local authorities and local agencies in the development and deployment of physical changes to the transportation infrastructure to mitigate the project's impacts on emergency vehicle response times. For studies and improvements within the City of Gilroy, this coordination would include the Gilroy Fire Department and City of Gilroy staff.

1737-1149

The comment noted that the Draft EIR/EIS identifies project parking at the Downtown Gilroy Station in a parking lot located off Chestnut Street located a half-mile from the station; the comment further indicates that this walk distance may be uncomfortable to some and result in secondary trips via other modes, including shuttles. Shuttle service to the referenced parking lot is not included as part of the project and was not evaluated within the Draft EIR/EIS or found to be necessary as mitigation. The Draft EIR/EIS finds that patrons unwilling to walk a half-mile to the station from this parking lot would choose other parking locations or use other modes of travel (e.g., taxi/TNC, park-and-ride).

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1150

The comment noted that the trip generation analysis presented in the Draft EIR/EIS potentially mis-states the number of vehicle trips that would travel to the San Jose Diridon and Downtown Gilroy Stations; the comment presents an alternative calculation of station level trip generation for comparison. Please refer to Section3.2.4.3, Methods for Impact Analysis, and Table 3.2-5 in Section 3.2, Transportation, of the Draft EIR/EIS for a discussion of the station-level vehicle trip generation calculations. The comment's alternative trip generation calculations were compared to the calculations presented within the Draft EIR/EIS. The following were the primary differences between the two calculations:(a) the comment assumed each Taxi/TNC passenger trip would generate two station area vehicle trips whereas the Draft EIR/EIS assumed one, (b) differences in accounting for the conversions of rental-car/remote parking lot vehicle trips to shuttle trips and the assignment of shuttle trips to the station area, and(c) differences in rounding methodologies. As a result of this review, a typographic error was identified within the Draft EIR/EIS. On page 3.2-10 of the Draft EIR/EIS, the following sentence appears: "Parked car trips result in one vehicle trip per boarding or alighting while drop off/pick up and taxi/transportation network company trips result in two vehicle trips (one trip entering the site and another leaving the site) per boarding or alighting. "To address this comment, this sentence has been amended in the Final EIR/EIS to the following: "Parked car and taxi/transportation network company trips result in one vehicle trip per boarding or alighting while drop off/pick up trips result in two vehicle trips (one trip entering the site and another leaving the site) per boarding or alighting." Similar to many airports and major transportation hubs, the Authority plans to operate its stations in an efficient manner, particularly during peak hours of travel. Taxi and transportation network company pickup and drop-off areas would be configured and operated in a manner to facilitate both a pickup and drop-off within the same trip. It should also be noted that TNCs have become ubiquitous within the Project Section in recent years. Even if an individual TNC decides to not make both a pickup and drop-off at a particular station, other TNCs would be present nearby and would serve that trip. If the Draft EIR/EIS were to assign two trips for each TNC passenger into and out of the surrounding roadway network, it would vastly overstate the automobile mode share of the project. The correction of the referenced typographic error does not affect any of the analyses or conclusions of the Draft EIR/EIS.

1737-1151

The comment noted that the Draft EIR/EIS did not include vehicle trips associated with passengers that would use remote off-site parking lots or rental car facilities within the station trip assignments. Please refer to Section 3.2.4.3, Methods for Impact Analysis, and Table 3.2-3 in Section 3.2, Transportation, of the Draft EIR/EIS for a description of the station trip generation and assignment methodologies and results. As noted by the comment, vehicles accessing off-site parking or rental car facilities would not drive directly to the stations. The specific locations of off-site parking and rental car facilities are not known at this time, and thus vehicle trip assignments to these currently unidentified locations have not been made. Within the station area intersection and roadway analyses, these passengers are represented and analyzed as traveling within shuttles. Shuttle trips are assigned to the station area roadway network and are reflected within the station area technical analyses. The station area intersection level of service analysis reflects all vehicle trips anticipated to traverse the local roadway network.

1737-1152

The comment noted that the Draft EIR/EIS did not incorporate the methodology or impact criteria of Santa Clara County with respect to freeway analysis. Please refer to Draft EIR/EIS Sections 3.2.4.4, Method for Evaluating Impacts under NEPA, and 3.2.4.5, Method for Determining Significance under CEQA, for a description of the methods and impact criteria incorporated within the transportation assessment. As Lead Agency, the Authority developed the methodology and significance criteria used within the assessment in accordance with CEQA and NEPA guidelines.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1153

The comment stated that the Draft EIR/EIS did not incorporate the methodology or impact criteria of the City of Gilroy and Santa Clara County with respect to intersection LOS. Please refer to Draft EIR/EIS Sections 3.2.4.4, Method for Evaluating Impacts under NEPA, and 3.2.4.5, Method for Determining Significance under CEQA, for a description of the methods and impact criteria incorporated within the transportation assessment. As Lead Agency, the Authority developed the methodology and significance criteria used within the assessment in accordance with CEQA and NEPA guidelines. The Authority decided to apply a uniform set of criteria to identify NEPA adverse effects throughout the project section to ensure that impacts were identified in the same way in different locations instead of varying the criteria by different jurisdictions.

1737-1154

The comment asks for discussion of the differences in total VMT and interregional VMT, requests VMT/job or VMT/population estimates, and asserts the large annual VMT values are inconclusive.

"Total" VMT refers to all vehicle miles travelled within a specific geography. In this instance, as explained in Section 3.2.5.1 in Section 3.2, Transportation, total VMT was estimated for Santa Clara County.

"Interregional VMT" is a subset of total VMT and only includes VMT associated with travels between regions. Interregional VMT was estimates for San Benito County and Merced County. These descriptions have been added to Section 3.2.5.1.

Regarding VMT per job or per population, while this may be a metric that some agencies are using for analysis of land use projects, such as residential, commercial, or mixed-use development, this is not a common metric used for VMT for transportation projects. The most common approach for transportation projects is to disclose the effect on VMT of the project and whether it will increase, decrease, or stay the same. There are no published or adopted VMT thresholds for transportation projects using VMT/job or VMT/population as a metric. For example, the December 2018 Office of Planning and Research Technical Advisory on evaluating transportation impacts in CEQA does not include any such metrics.

The large annual VMT reduction due to the HSR project is conclusive and shows that the project will substantially reduce VMT overall in the project section area and throughout California.

No changes to the EIR/EIS are required in response to this comment.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1155

The comment stated that the Draft EIR/EIS does not reflect the roadway improvements included in the City of Gilroy's recently completed 2040 General Plan transportation analysis. The Draft EIR/EIS forecasts assume buildout of the City of Gilroy's2020 General Plan, which was the most up-to-date information regarding future infrastructure and land use assumptions available at the time of NOP publication. VTA's regional travel demand model has not yet been updated to reflect the new information referenced by the comment.

1737-1156

The comment noted that the freeway volumes presented in the Draft EIR/EIS do not match those presented in the City of Gilroy's recently completed 2040 General Plan transportation analysis; the comment also requests additional information regarding the assignment of project traffic to freeway segments within Gilroy. Please refer to Impact TR#3 and Impact TR#6 in Section 3.2, Transportation, of the Draft EIR/EIS for a discussion of the freeway impact analysis. The forecasts and project trip assignment used in the Draft EIR/EIS were developed using the Santa Clara Valley Transportation Authority's travel demand model and the land use dataset available at the time of NOP publication. Those forecasts assumed buildout of the City of Gilroy's 2020 General Plan, which was the most up-to-date document at that time. As the land uses included in the Gilroy 2040 General Plan are different, differences in the results of the freeway volume forecasts are expected. Trips were assigned by the model to multiple freeway interchanges within the City, including 10th Street, Leavesley Road, and Monterey Road. The narrowing of Monterey Road under Alternative 4 north of the City of Gilroy was not found to materially change freeway traffic within the City (i.e., little change identified within the Existing Plus Project scenario), although the model did reflect some shifts in travel behavior between the No Project and Plus Project scenarios. The comment did identify two typographic errors in Table 6 of Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Draft EIR/EIS). On the northbound segment of US 101 from Monterey Road to SR 152, the volume should be 4,490 and the v/c ratio 0.59 during the PM peak hour in the Plus Project scenario. On the southbound segment of US 101 from SR 25 to Monterey Road, the volume should be 6,310 and the v/c ratio 0.83 during the PM peak hour in the Plus Project scenario. These typographic errors have been corrected in the Final EIR/EIS. The LOS and findings of the document remain unchanged.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1157

The comment stated that the Draft EIR/EIS includes LOS results that are different than those reported in the City of Gilroy's 2040 General Plan transportation analysis. As the two documents use different counts and forecasting methods, differences in the results would be expected. The forecasts performed for the Draft EIR/EIS were developed using the Santa Clara Valley Transportation Authority's travel demand model and the land use dataset available at the time of NOP publication. Those forecasts assumed buildout of the City of Gilroy's2020 General Plan, which was the most up-to-date document at that time. As the land uses included in the Gilroy 2040 General Plan are different, differences in the results of the LOS analysis would be expected. VTA's regional travel demand model has not yet been updated to reflect the new information referenced by the comment.

In addition, the City of Gilroy's General Plan's transportation analysis was conducted using the City of Gilroy's travel demand model, which is a different tool than VTA's regional model employed as part of the Draft EIR/EIS. Because different models, inputs, and assumptions were utilized in the two assessments, different results would be anticipated.

1737-1158

The comment stated that the Draft EIR/EIS should explain how project traffic was assigned to the roadway network and document the project's impacts and mitigations; the comment also states that Alternative 3 would have the least effects on downtown Gilroy. The project's trip assignment was performed using information from the Santa Clara Valley Transportation Authority's travel demand model. Please refer to Section 3.2.4.3 Methods for Impact Analysis for a description of how project generated traffic was assigned to the local and regional roadway networks. Please refer to Section 3.2.6, Environmental Consequences, of the Draft EIR/EIS for a discussion of the project's impacts and Section 3.2.7, Mitigation Measures, of the Draft EIR/EIS for a discussion of the identified mitigation measures.

1737-1159

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include grade separations at the Monterey Road/Masten Avenue, Monterey Road (SR 152)/Welburn Avenue-Leavesley Road, Monterey Road/Tenth Street, Monterey Road/Luchessa Avenue, and Sixth Street intersections as mitigation for LOS and emergency vehicle response time impacts. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the mitigation identified for the NEPA LOS effects (site-specific traffic mitigation measures have been added to the Final EIR/EIS). Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Gilroy. Mitigation Measures SS-MM#3 and SS-MM#4 identify improvements other than grade separations as mitigation for emergency vehicle response time impacts.

1737-1160

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment recommended that the Authority should conduct a study in collaboration with the City of Gilroy Fire Department to evaluate the project's effects and develop mitigation measures related to emergency vehicle response times. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Gilroy. Revisions to Mitigation Measure SS-MM#4 in the Final EIR/EIS identify that the contractor and Authority will coordinate with local authorities and local agencies in the development and deployment of physical changes to the transportation infrastructure to mitigate the project's impacts on emergency vehicle response times. For studies and improvements within the City of Gilroy, this coordination would include the Gilroy Fire Department and City of Gilroy staff.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1161

The comment noted that the Draft EIR/EIS identifies project parking at the Downtown Gilroy Station in a parking lot located off Chestnut Street located a half-mile from the station; the comment further indicates that this walk distance may be uncomfortable to some and result in secondary trips via other modes, including shuttles. Shuttle service to the referenced parking lot is not included as part of the project and was not evaluated within the Draft EIR/EIS or found to be necessary as mitigation. The Draft EIR/EIS finds that patrons unwilling to walk a half-mile to the station from this parking lot would choose other parking locations or use other modes of travel (e.g., taxi/TNC, park-and-ride).

1737-1162

The comment asserts that the trip generation analysis presented in the Draft EIR/EIS understates the number of vehicle trips that would travel to the San Jose Diridon, Downtown Gilroy, and East Gilroy Stations; the comment presents an alternative calculation of station-level trip generation for comparison. Please refer to Section 3.2.4.3, Methods for Impact Analysis, and Table 3.2-5 in Section 3.2, Transportation, of the Draft EIR/EIS for a discussion of the station-level vehicle trip generation calculations. The comment's alternative trip generation calculations were compared to the calculations presented within the Draft EIR/EIS. The following were the primary differences between the two calculations:(a) the comment assumed each Taxi/TNC passenger trip would generate two station area vehicle trips whereas the Draft EIR/EIS assumed one, (b) differences in accounting for the conversions of rental-car/remote parking lot vehicle trips to shuttle trips and the assignment of shuttle trips to the station area, and(c) differences in rounding methodologies. As a result of this review, a typographic error was identified within the Draft EIR/EIS. On page 3.2-10 of the Draft EIR/EIS, the following sentence appears: "Parked car trips result in one vehicle trip per boarding or alighting while drop off/pick up and taxi/transportation network company trips result in two vehicle trips (one trip entering the site and another leaving the site) per boarding or alighting. "To address this comment, this sentence has been amended in the Final EIR/EIS to the following: "Parked car and taxi/transportation network company trips result in one vehicle trip per boarding or alighting while drop off/pick up trips result in two vehicle trips (one trip entering the site and another leaving the site) per boarding or alighting." Similar to many airports and major transportation hubs, the Authority plans to operate its stations in an efficient manner, particularly during peak hours of travel. Taxi and transportation network company pickup and drop-off areas would be configured and operated in a manner to facilitate both a pickup and drop-off within the same trip. It should also be noted that TNCs have become ubiquitous within the Project Section in recent years. Even if an individual TNC decides to not make both a pickup and drop-off at a particular station, other TNCs would be present nearby and would serve that trip. If the Draft EIR/EIS were to assign two trips for each TNC passenger into and out of the surrounding roadway network, it would vastly overstate the automobile mode share of the project. The correction of the referenced typographic error does not affect any of the analyses or conclusions of the Draft EIR/EIS.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1163

The comment noted that the Draft EIR/EIS did not include vehicle trips associated with passengers that would use remote off-site parking lots or rental car facilities within the station trip assignments. Please refer to Section 3.2.4.3, Methods for Impact Analysis, and Table 3.2-3 in Section 3.2, Transportation, of the Draft EIR/EIS for a description of the station trip generation and assignment methodologies and results. As noted by the comment, vehicles accessing off-site parking or rental car facilities would not drive directly to the stations. Within the station area intersection and roadway analyses, these passengers are represented and analyzed as traveling within shuttles. Shuttle trips are assigned to the station area roadway network and are reflected within the station area technical analyses.

1737-1164

The comment asserts that the Draft EIR/EIS does not precisely reflect the roadway improvements included in City of Gilroy's recently completed 2040 General Plan transportation analysis. The Draft EIR/EIS forecasts assume buildout of the City of Gilroy's 2020 General Plan, which was the most up-to-date information regarding future infrastructure and land use assumptions available at the time of NOP publication. VTA's regional travel demand model has not yet been updated to reflect the new information referenced by the comment.

In addition, the City of Gilroy's General Plan's transportation analysis was conducted using the City of Gilroy's travel demand model, which is a different tool than VTA's regional model employed as part of the Draft EIR/EIS. Because different models, inputs, and assumptions were utilized in the two assessments, different results would be anticipated.

1737-1165

The comment asserts that the Draft EIR/EIS includes LOS results that are different than those reported in the City of Gilroy's 2040 General Plan Transportation Analysis. As the two documents use different counts and forecasting methods, differences in the results would be expected. The forecasts performed for the Draft EIR/EIS were developed using the Santa Clara Valley Transportation Authority's travel demand model and the land use dataset available at the time of NOP publication. Those forecasts assumed buildout of the City of Gilroy's2020 General Plan, which was the most up-to-date document at that time. As the land uses included in the Gilroy 2040 General Plan are different, differences in the results of the LOS analysis would be expected.

1737-1166

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include grade separations at the Monterey Road/Masten Avenue and Monterey Road (SR 152)/Welburn Avenue-Leavesley Road intersections as mitigation for LOS impacts. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Gilroy.

1737-1167

Refer to Standard Response SJM-Response-TR-3: Gate-Down Time Calculation Details.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1168

As presented in Section 3.11.5.1, Emergency Services, in the Fire Station/First Responder Response subsection (starting on page 3.11-26) of the Draft EIR/EIS, the Authority reviewed available information concerning Gilroy Fire Department response and criteria. Table 3.11-3 identified the response criteria as within 5 minutes of dispatch. Per this comment, Section 3.11.5.1 and Table 3.11-3 have been updated in the Final EIR/EIS to reference the information described by the City in this comment from the 2019 Master Plan Update.

The addition of this information does not change the conclusion in Section 3.11, Safety and Security, as the Draft EIR/EIS used a delay threshold of any increase greater than 30 seconds due to the project as being significant, and those delays are still predicted to occur using the analysis in the Draft EIR/EIS. The Draft EIR/EIS analysis does not take into account the planned Glen Loma Station at this time. Although the City Council has approved plans for this station and initial estimates were that it would be completed by 2022, the construction has reportedly been tied to the housing market according to the development agreement for Glen Loma Ranch. If the Glen Loma Fire Station is built before HSR operations, this could help to reduce the identified impact shown in Figure 3.11-6 of the Draft EIR/EIS in the southwest part of Gilroy west of the railroad (because the impact in southwest Gilroy is due to the delay for emergency vehicle response travel from the 70709 Chestnut Street station westward across the tracks). As noted in Mitigation Measure SS-MM#4, preoperational monitoring of emergency vehicle response will be able to assess the effect of any new planned station when it is operational.

1737-1169

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include grade separations at the Monterey Road/Masten Avenue, Monterey Road (SR 152)/Welburn Avenue-Leavesley Road, Monterey Road/Tenth Street, Monterey Road/Luchessa Avenue, and Sixth Street intersections as mitigation for LOS and emergency vehicle response time impacts. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Gilroy. Mitigation Measure TR-MM#1v describes the proposed mitigation measure at the intersection of Monterey Road/10th Street. Mitigation measures are not proposed at the intersections of Monterey Road/Sixth Street or Monterey Road/Luchessa Avenue. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Gilroy. These measures identify improvements other than grade separations as mitigation for emergency vehicle response time impacts.

Response to Submission 1737 (Kyle Jordan, City of Gilroy, June 23, 2020) - Continued

1737-1170

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

Section 3.11, Safety and Security, of the Draft EIR/EIS describes the evaluation that was completed and described in the Draft EIR/EIS to identify the potential for effects on emergency vehicle response times due to increased gate-down time with Alternative 4 (as well as effects due to HSR station traffic), and mitigation measures are identified to address the identified significant impacts. As explained in Section 3.11, Mitigation Measure SS-MM#4 includes development of an Emergency Vehicle Priority Treatment Plan in coordination with local agencies, which will include the City of Gilroy and the Gilroy Fire Department.

Submission 1312 (Tiffany Brown, City of Morgan Hill, May 22, 2020)

San Jose - Merced - RECORD #1312 DETAIL

Status :	Action Pending
Record Date :	5/27/2020
Submission Date :	5/27/2020
Interest As :	Local Agency
First Name :	Tiffany
Last Name :	Brown

Stakeholder Comments/Issues :

Good Morning,
On behalf of the City Manager, the City would like of officially request an extension of time to the comment period for the Draft EIR/EIS on the San Jose to Merced project segment of the California High Speed Rail Alignment. The City, like many other public agencies, organizations and private individuals have endured disrupted work schedules and other complications from the current Shelter In Place order. The additional time will help our team allocate sufficient staff time to provide meaningful comments. Please find our attached letter.

Thank you,

Tiffany Brown
Associate Planner

1312-120

1312-121

CITY OF MORGAN HILL

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May 22, 2020

To: Boris Lipkin
Northern California Regional Director
California High Speed Rail Authority (CHSRA)
100 Paseo de San Antonio, #206
San Jose, CA 95113

Subject: Time Extension Request to San Jose to Merced Draft EIR/EIS

Mr. Lipkin,

Thank you for the California High Speed Rail Authority's ongoing efforts to engage, consult, and coordinate with the City of Morgan Hill (City) on the San Jose to Merced Draft EIR/EIS. Given the size and complexity of the project segment and the EIR evaluating it, the City respectfully requests an extension of time for the public comment period of the California High-Speed Rail Project - San Jose to Merced Project Section Draft EIR/EIS. As posted, the DEIR/DEIS is available for public review for 45 days, ending on June 8, 2020.

The City, like many other public agencies, organizations and private individuals throughout California, has had to endure disrupted work schedules and other complications from the current Statewide Shelter In Place (SIP) order. The City's primary interest is analysis pertaining to our geographic boundary. But at 2500 pages long and with several supporting technical reports (some of which are not available online and need to be requested separately), we have not been able to allocate sufficient staff time for an exhaustive review to provide meaningful comments.

The City formally requests that the public comment period for the San Jose to Merced Project Section DEIR/DEIS be extended by a minimum of 15 days beyond this initial 45-day comment period. This review period is consistent with CEQA Guidelines Section 15105(a) and would follow the 60-day review period provided in each instance by the HSR Authority for the Draft EIR/EIS prepared for the Merced to Fresno, Fresno to Bakersfield and the recently circulated Bakersfield to Palmdale segment.

Thank you very much for your consideration.

Sincerely,

Christina Turner
City Manager

Response to Submission 1312 (Tiffany Brown, City of Morgan Hill, May 22, 2020)

1312-120

Refer to Standard Response SJM-Response-OUT-1: Public Outreach.

1312-121

Refer to Standard Response SJM-Response-OUT-1: Public Outreach.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020)

San Jose - Merced - RECORD #1471 DETAIL	
Status :	Unread
Record Date :	6/23/2020
Submission Date :	6/21/2020
Interest As :	Local Agency
First Name :	Christina
Last Name :	Turner

Stakeholder Comments/Issues :

See attached comment letter from City of Morgan Hill

CITY OF MORGAN HILL

DEVELOPMENT SERVICES CENTER

17575 Peak Avenue Morgan Hill CA 95037 (408) 778-6480 Fax (408) 779-7236
Website Address: www.morgan-hill.ca.gov

June 22, 2020

Boris Lipkin, Northern California Regional Director
Dave Shpak, Deputy Project Manager of San Jose to Merced
California High Speed Rail Authority
100 Paseo De San Antonio, #206
San Jose, CA 95113

RE: SAN JOSE TO MERCED PROJECT SECTION DRAFT EIR/EIS

Dear Mr. Lipkin,

The City appreciates the opportunity to comment on the EIR/EIS and participate in the planning process for the San Jose to Merced Section. On behalf of our residents and businesses, we appreciate the time extension to 60-days, given the volume and complexity of the project and EIR/EIS, and the challenges posed while the City and public are operating under the COVID-19 shelter in place order.

Please consider and address the following comments and issues:

1471-1936

I. City is a Responsible Agency

The City understands that it will be a responsible agency, with varying levels of involvement depending on which Alternative is selected. Responsible agencies are listed in Chapter 9, Section 9.4.7, Pages 9-9, 9-10, but the City of Morgan Hill is not identified as a responsible agency. Please revise to include the City as a responsible agency. Upon the HSR Authority's selection of an Alternative for implementation, the City expects to be required to undertake certain actions and decisions that will be required to rely upon the EIR/EIS. These actions include but are not limited to cooperative agreements, rights of entry, land transactions, and maintenance agreements.

1471-1937

II. City's Preferred Alternative

The City continues to prefer an alignment that remains entirely within the U.S. Highway 101 right of way. Each of the four proposed alignments would have significant environmental, economic, and social impacts on the City of Morgan Hill, and mitigations measures proposed by the HSR Authority are inadequate to resolve those issues.

1

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1938

III. HSR Selected Alternative

All proposed alternatives for the HSR project have major implications for Morgan Hill residents and businesses, and the City bears the brunt of significant and widespread construction and operational impacts, and economic losses. But, unlike San Jose or Gilroy, Morgan Hill does not benefit from the opportunities that come from a station. With that in mind, the City requests that the HSR Authority select the Alternative with the least impacts on the City.

1471-1939

As is demonstrated by the Draft EIR/EIS and proposed project plans, Alternative 2 would have the most impacts, and would be devastating to Morgan Hill. On that basis, Alternative 2 should be rejected.

1471-1940

If Alternative 4 (Preferred Alternative) is ultimately selected for implementation, then the City requests inclusion of grade separations at Tilton Avenue, East Dunne Avenue, and Tennant Avenue, which have been conceptually evaluated for feasibility by consultants hired by the City (see attachment A). In particular, the grade crossings at E. Dunne Avenue and Tennant Avenue have the highest average daily trips in the entire segment (and are behind only Peninsula Avenue in Burlingame for the entire Caltrain corridor). The City requests an opportunity to engage with HSR staff to further develop and refine these grade separations so they can be included in Alternative 4. As discussed further below in more detail, grade separations at these crossings are the appropriate and necessary solutions to several environmental impacts specifically, but not limited to safety response times, circulation, and noise as disclosed in the EIR/EIS for which vague and unconvincing mitigation measures have been offered.

1471-1941

IV. Downtown Morgan Hill Caltrain Station Refinements

The UPRR/Downtown Alternatives (Alts. 2, 4) require modifications to the Downtown Caltrain Station. The station improvements as currently proposed are inadequate, and do not appear to meet the requirements of the Americans With Disabilities Act. The City has developed conceptual refinements to improve the experience of pedestrians and bicyclists while preserving parking to the extent possible (Attachment B). The following should be taken into consideration with the redesign of the station:

- Maximizes natural light –Consider open (uncovered) underpass when possible.
- Add stair access in addition to ramps at each access point.
- Width of walkways need to accommodate both pedestrians and cyclists (at a minimum of 16-feet wide for ramps and 20 for covered underpass).
- Add elevator for central ramp per Caltrain Design Criteria adopted in 2007 for grade changes that exceed 10-feet or more.
- Consider design that utilizes one centrally located platform for the Caltrain station.
- Create design features that provide a sense of place, with landscaping, night time lighting for ambiance in addition to safety.
- Incorporate infrastructure for telecommunications, seating, charging stations, and other features needed for a station.
- Replace impacted parking spaces at a 1:1 ratio.

1471-1941

- Develop a MOU for the on-going maintenance of the station by Caltrain or HSR.

1471-1942

V. Economic Concerns

The project will result in significant economic losses to the City due to acquisition of property, and loss of business from construction impacts. Under Alternatives 2 and 4, the City's Community and Cultural Center will be affected during construction. Alternative 2 would result in the permanent loss of 182 residential and 41 commercial properties. Alternative 3 would require the acquisition of residential properties, and will severely affect our local Honda Dealership, which is a major source of revenue for the City. These lost revenues directly impact the City's ability to provide services. The loss of revenue at the Community and Cultural Center would impact our ability to maintain this important community park and gathering space. A significant loss of general fund revenue will impact our ability to provide adequate police, fire and other City services.

Of the four proposed alternatives, only Alternative 4 provides some benefit to Morgan Hill by facilitating the electrification of Caltrain through Morgan Hill.

VI. Specific Environmental Issues

The following comments pertain to specific environmental sections of the EIR/EIS.

Sections 3.2 Transportation and 3.11 Safety

1471-1943

- Roadway Crossings –The City requests a table showing the complete list of all roadways within Morgan Hill crossed by HSR and whether they are at-grade or grade-separated under each of the four alternatives.

1471-1944

- Table 3.2-14 lists the many roadways that will be closed or modified by the project. The Draft EIR/EIS provides no analysis of the impacts of traffic being redistributed to other roadways. The only "analysis" is the following statement on page 3.2-50: "Permanent roadway closures and roadway modifications associated with project construction would cause shifts in travel patterns. Decreased capacity at key intersections and roadways, particularly on Monterey Road, would cause trips to shift from surface streets to freeways or other parallel roadway facilities."

  The anticipated redistribution of traffic onto other roadways must be disclosed, and the related environmental effects clearly disclosed, and mitigated where necessary.

1471-1945

- Tables 1 and 7-10 in Appendix 3.2-A present existing levels of service. No information is provided as to what year these data represent. The use of data more than a year old must be justified.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1946

- Pages 3.2-62 – 3.2-64 state that the project would result in adverse impacts at numerous intersections in the Diridon Approach, Monterey Corridor, and Morgan Hill-Gilroy Subsections, summarized as follows:

	2029				2040			
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 1	Alt 2	Alt 3	Alt 4
Diridon	14	14	14	9	26	26	26	11
Monterey	23	23	23	5	25	26	25	5
Morgan Hill-Gilroy	9	12	4	13	8	13	2	15

However, MM-TR-MM#1 on pages 3.2-94 – 3.2-95 provides no details on how these impacts will be mitigated. The City requests a detailed explanation of all proposed improvements to reduce identified impacts in Morgan Hill.

1471-1947

- The EIR/EIS does not explain the basis for using a 30-second increase in emergency vehicle response time as the threshold for significance. Please provide a rationale for that threshold of increase in delay. Has that threshold been used elsewhere in the HSR system?

1471-1948

The preferred alternative (Alternative 4) states that Morgan Hill would experience significant delays in safety response times. A 30-second delay in response time would be extremely detrimental to the already constrained Effective Response Force (ERF) expectations. Citygate Associates, LLC, a public sector consultant agency, conducted a Fire Services Hazard – Risk Assessment and Standard of Coverage Assessment for Morgan Hill in 2019 (see attachment C). The report identifies emergency response times to be achieved for Morgan Hill and emphasizes strategies to maximize staffing and coverage to achieve those response times. A 30-second delay would adversely impact emergency response time. Construction of a new fire station would have to include the cost associated with station operations, including staffing and equipment.
The City of Morgan Hill Police Department Public Safety Master Plan identifies *5 minute response time for a Priority 1* call (present imminent danger to life/in-progress crime/major loss of property) and *8 minutes for a Priority 2* call (injury/property damage/suspect still in area). Police Department response time goals are set by individual agencies and do not adhere to county or state standards.

During 2019 our average response for *Priority 1 calls was 3 minutes 25 seconds* and *Priority 2 was 4 minutes 31 seconds*. Therefore, a potential 30-second increase would significantly impede the City of Morgan Hill's ability to adequately respond to emergencies.

1471-1949

- SS-MM-#4 (begins on page 3.11-81): MM provides no concrete mitigation. The EIR/EIS states "*Prior to operations, to mitigate fire station/first responder emergency access*

1471-1949

impacts related to added travel time from increased gate down time at at-grade crossings, the Authority would conduct monitoring and make a fair-share contribution to implement phased emergency vehicle priority treatment strategies." Conducting future monitoring is an inadequate mitigation strategy under CEQA for emergency response times, as it concedes excessive delay could occur. Further, in this context it will come at the expense of life and property if emergency response is delayed. The effectiveness of this mitigation measure is in doubt, and the project would be improved with the addition of grade separations at several key intersections (Tilton, E. Dunne, and Tennant) that would allow emergency vehicles to cross the HSR tracks under Alternative 4 without delay.

1471-1950

- The EIR/EIS needs to clearly identify the total trains (both directions) in the year 2040 peak hour between San Jose and Gilroy. Include HSR, Caltrain, Amtrak, and freight as well as account for gate-down time caused by maintenance of the tracks. Without this information, the CHSRA cannot appropriately account for the cumulative impacts to intersections and safety response times.

The City of Morgan Hill further requests the following:

1471-1951

- The EIR should explain all project impacts to study intersections in detail and describe what the proposed mitigations would be.

1471-1952

- The analysis should note the new planned intersection at Dunne Avenue and Depot Street/Church Avenue per the 2030 General Plan and approved project.

1471-1953

- At future grade separations, the analysis should consider a road design speed lower than 45 mph to enable the underpasses to be shorter and not affect as many properties.

1471-1954

- The closure of Depot Street at Main Avenue under Alternative 2 would not align with Morgan Hill circulation goals, and would create additional unmitigated impacts.

1471-1955

- The closure of Saint Agatha Lane under Alternative 2 should be noted in the EIR.

1471-1956

- The HSR bridge over Monterey Road should be built to accommodate future widening of Monterey Road under Alternative 2 as per the *Morgan Hill 2035 General Plan* and incorporate a complete street design with sidewalks and bicycle paths.

1471-1957

- The City requests a grade separation at Dunne Avenue to address potential queuing issues, project impacts along Main Avenue, and emergency response time delays due to increased gate-down time under Alternative 4. Dunne Avenue is in close proximity to the Caltrain station, and has the highest traffic volume of any grade crossing in the

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1957

Project area. See attachment A developed by the City to show the conceptual feasibility of grade separating Dunne Avenue under Alternative 4.

1471-1958

- The City requests a grade separation at Tennant Avenue to address potential queuing issues and emergency response time delays due to increased gate-down time under Alternative 4. Tennant Avenue is the primary east-west route used by our Police Department, so increased gate-down time will significantly impact public safety response times.

1471-1959

- The City requests a grade separation at Tilton Avenue to mitigate the project impact at Monterey Road and Tilton Avenue under Alternative 4. Included in this separation should be the realignment of Burnett Avenue with Tilton to ensure the functioning of that arterial roadway with the grade separation. This mitigation should be prioritized over the Madrone Avenue grade separation identified, because the Tilton and Burnett roadway segments are existing arterial roadways within the City.

1471-1960

- Under Alternative 2, grade separation should be considered and evaluated at Tilton not Madrone. Tilton is an existing arterial roadway within the City, while the Madrone Grade Separation is only a component of future planning.

1471-1961

- Under Alternatives 2 and 4, the City requests mitigation through the expansion of the adjacent freeway in alignment with the State of California's US 101 South Comprehensive Corridor Plan for Caltrans District 4, specifically the construction of the improvements identified in the plan as "US 101 Express Lanes: Cochrane Rd. to Masten Ave.".

Please find the attached memorandum from Hexagon (Attachment D) for more comments related to Traffic/Circulation issues.

Chapter 3.4 Noise & Vibration

The ongoing operational noise impacts of the project under all alternative alignments is a primary concern of the City. Specific issues the City requests to be addressed include:

1471-1962

- Eleven noise monitoring locations were identified as being applicable to the City of Morgan Hill. Of these, only eight are actually in the City: N101 through N108. Two are problematic for assessing the existing levels: N100 and N109. Location N100 indicated considerably higher levels than the others, 81 dBA Ldn, compared to the range of 68 to 73 Ldn for the other measurement locations. N100 is approximately 3.7 miles from the City of Morgan Hill northwest boundary. Location N109, which was southeast of the city boundary and east of US 101, indicated considerably lower levels, 57 dBA, compared to the range. From the Noise and Vibration Technical Report, it cannot be determined if these data effected the estimation of the existing levels within the City of Morgan Hill. In

1471-1962

order to determine this, the City requests the results of existing noise level modeling done within Morgan Hill.

1471-1963

- Please state whether "moderate" impacts listed in Section 3.4 are considered less-than-significant impacts under CEQA and, therefore, mitigation is not required.

1471-1964

- Please provide a table similar to Table 3.4-17 that shows impacts assuming Quiet Zones are in place.

1471-1965

- The EIR should provide a discussion specific to the issues with train horn blasts sounding as each of the 176 HSR trains per day pass through intersections at-grade in Downtown Morgan Hill with Alternative 4. Given the need to sound the horn prior to crossing each at-grade intersection, and the speeds at which the trains are moving, the horns will be sounded nearly continuously as they pass through intersections a matter of seconds apart. This will apparently be unprecedented for any segment HSR has studied so far—to have so many at-grade crossings in a densely populated Downtown area and the need to sound horns at each crossing. The cumulative effect of this increased noise should be described over the course of a day on affected residences and businesses. Given the noise barriers are not present at intersections, this noise will escape into the adjacent neighborhood and business district. The EIR/EIS does not adequately disclose conditions under Alternative 4, assuming no Quiet Zone is in place and train horns will sound at each at-grade crossing. The cumulative impact of all trains blasting their horn, including Amtrak, UPRR and Caltrain should be incorporated into the analysis.

1471-1966

- Alt. 4 Noise operational impacts will be intolerable with train horn blasts at all at-grade crossings unless designated a Quiet Zone. The City requests a commitment from HSR for whatever technical support and financial support is needed for the City to submit an application for Quiet Zone with CPUC.

1471-1967

- The incorporation of several grade separations (Tilton, E. Dunne, Tennant) will also substantially reduce the need to sound train horns through the City.

1471-1968

- For operational noise, the primary mitigation strategy is the use of sound walls at various locations for Alternative 2 and 4. These reduce the number of moderate impacts of Alternative 2 to zero and the number of severe impacts to 26 in Morgan Hill. For Alternative 4, the moderate impacts are also zero and with only two severe impacts. There is insufficient detail to determine if the impacts in Alternatives 2 and 4 could be lowered by increasing wall height, using absorptive facings, or more novel barrier designs. The City requests this additional detail be provided in the Final EIR. For Alternative 4, the two severe impacts are eliminated with the use of a quiet zone. It

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1471-1968

should be noted that the feasibility and reasonableness of these barriers have only been initially evaluated and that these need to be re-evaluated in more detail before they are actually included in the project. The City requests a commitment from HSR to demonstrate the feasibility of these barriers prior to approving Alternative 4.

1471-1969

- Figure 3.4-41 shows ten noise barriers (heights of 10-14 feet) in the Morgan Hill area under Alternative 4. However, Figure 3.4-44 shows only four noise barriers (10-foot heights) in the Morgan Hill area under Alternative 4 with Quiet Zones in place. The City's understanding is that these "potential barriers" are not the same as the "proposed barriers" of Figure 3.4-41 and the City is responsible for initiating the quiet zones. Are the quiet zones in addition to the NV-MM#3 measure? The City requests HSR provide more information for the City to understand what actual mitigations are being proposed.

1471-1970

- Will HSR use track ballast containing shredded rubber tires (as does VTA light rail) to reduce vibration impacts? Explain what ballast assumptions were factored into the vibration analysis.

1471-1971

- In Table 1 of Attachment E of this letter, operational vibration impacts are noted in Alternatives 2 and 4. Mitigations are to be designed and implemented during the final design. The City of Morgan Hill requests the location of these impacts and specific mitigation would be applied. In several places in the documents, the EIR/EIS implies further analysis will be done for vibration as well as noise. The timing and extent of these evaluations must be clarified to the City.

Please find the attached memorandum from I&R (Attachment E) for more comments related to Noise issues.

Chapter 3.16 Aesthetics and Visual Quality

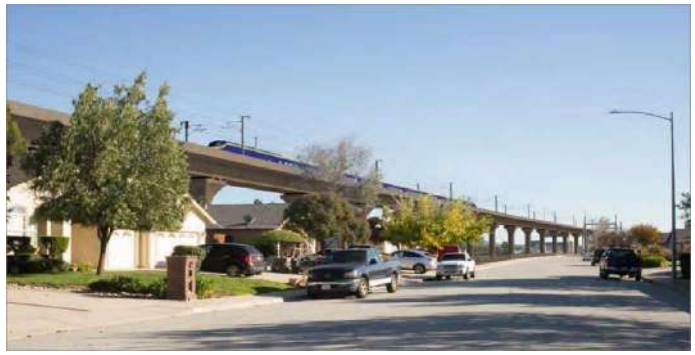
Given the EIR/EIS evaluates nearly 90 miles of HSR alignments, the analysis of aesthetics is at a very high level, and in Morgan Hill only two 'landscape units' and four 'Key View Points' (KVPs) are identified. The long-term visual impacts of the project under all alternative alignments is a primary concern of the City. Specific issues the City requests to be addressed include:

1471-1972

- **Walnut Grove Neighborhood Impacts**. Under Alternatives 1 and 3, the aerial structure would rise to heights of more than 60 feet above grade to pass over roads and interchanges and would be taller than surrounding homes, offices, and other buildings in the area. Alternatives 1 and 3 would traverse a residential neighborhood west of US 101 between the East Main Street overcrossing and East Dunne Avenue interchange, passing immediately adjacent to homes for about 0.5 mile. The height, length, and concrete construction of the aerial structure would contrast with the scale and materials

1471-1972

of the existing residential structures as illustrated on Figure 3.16-33, KVP 17, at Walnut Grove Drive in Morgan Hill.



KVP 17—Alternatives 1 and 3 Simulation

The aerial structure would remove half a block of homes and landscaping from the streetscape, affecting highly sensitive residential viewers and diminishing the residential character of the view, reducing the visual quality at KVP 17 from moderate to low. The EIR claims, however, the change in visual quality at this KVP is not typical of the changes to the visual quality for the US 101 Landscape Unit because residential views are present in less than 5 percent of the landscape unit, and therefore the impact is not significant. The City disagrees with this assessment, the limited extent of this impact when viewed over the 90-mile project area does not reduce the project's impact within that specific viewshed. For the localized area of the Walnut Grove neighborhood, the impact is clearly significant as demonstrated in the simulation showing the viaduct's hulking presence.

1471-1973

For Alternatives 1 and 3, the EIR claims the impact under CEQA would be less than significant because the introduction of aerial infrastructure would not substantially degrade the existing visual quality in the US 101 Landscape Unit. Although visual quality would decrease, the majority of viewers would be travelers with moderate viewer sensitivity who would not respond to the change in existing visual character or quality of the site and its surroundings. Therefore, the EIR claims the project does not require mitigation. Yet, the EIR, Pg. 3.16-159, acknowledges impacts would be greater where the HSR is on viaduct and the scale of the infrastructure dominates the existing landscape, which would certainly be true for the Walnut Grove neighborhood west of US 101. Therefore, mitigation appears warranted.

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1471-1974

The City disputes the EIR's conclusion as it pertains to the neighborhood along US 101 and requests design enhancements and additional landscaping that would be helpful in reducing the visual effects of the aerial viaduct on this neighborhood, which will be substantial, as the EIR concedes the visual impact by acknowledging the residential character will be 'low' as a result of the viaduct. The neighborhood west of 101 would be substantially affected visually, losing views of the Diablo range. The City disagrees with this conclusion as it pertains to Morgan Hill. To help mitigate the impacts to that neighborhood, the EIR should consider a landscaped neighborhood park that connects to City trails and construct the pedestrian overpass at Diana Avenue consistent with the Bikeways, Trails, Parks and Recreation Master Plan for the City of Morgan Hill. See attachment B developed by the City to show the conceptual of what that could look like. Additionally, for travelers passing through the City on US101, this structure will be a substantial part of their visual experience and feeling about the City, so it should be as attractive as possible if built. It should also be noted that the viaduct blocks potential consumers views from 101 to commercial businesses and should be addressed in the EIR as a loss to that property and prepare the proper mitigation.

1471-1975

- **Monterey Road Alternative 2 Embankment Impacts**. Under Alternative 2, the fill for the approaches where grade separations would pass over the HSR and UPRR would block views from adjacent property. The scale and size of roadway overcrossings would dominate and block some views. The addition of HSR to the east of the UPRR right-of-way would expand the rail corridor into some natural areas, requiring the removal of significant trees.

  EIR Figure 3.16-35, illustrates a view of Alternative 2 along Monterey Road in northern Morgan Hill at the KVP identified as 'Peebles Avenue'. All of the Keesling's Shade Trees have been removed for the HSR. The embankment for the HSR blocks views to the west, including views towards El Toro Peak. Inexplicably, the EIR claims the removal of buildings and trees and the introduction of the embankment for HSR would somehow *improve* the visual character of this area, claiming the visual quality increases to 'moderate'. The City disagrees with this conclusion given views west will be blocked by the solid embankment, and significant heritage trees are removed. Those are changes that degrade the local visual environment.

KVP 19—Alternative 2 Simulation

1471-1976

- The City requests additional measures to improve the visual quality of the embankment. The Keesling Trees, in particular, are a recognized visual resource along Monterey Road that links the City with Coyote Valley. The EIR should recognize this and their loss needs to be mitigated by relocation or replacement of trees in same size and species. Berm design should include landscaping and design embellishments to improve the aesthetic appeal of the HSR infrastructure, **Caltrain Station Embankment 2 Impacts**. At the Morgan Hill Caltrain Station KVP, Figure 3.16-36, KVP 20, illustrates a simulation of Alternative 2 through Morgan Hill. In the image, both the UPRR/Caltrain and high-speed railways would be elevated on a low retained berm. In some cases, the berm is up to 8 feet tall. The HSR would incorporate local design elements in landscaping and design embellishments to improve the aesthetic appeal of the HSR infrastructure (AVQ-IAMF#1). The view across the tracks would be blocked by the retaining wall, limiting views of the trees on the far side of the railway corridor, but still allowing distant views to the Diablo Range. Vines would climb the retaining wall, slightly softening its appearance. The EIR claims the retail viewers walking around the Downtown would experience a decline in visual quality from "moderately high" to "moderate" under Alternative 2 at the Morgan Hill Caltrain Station KVP 20.

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KVP 20—Alternative 2 Simulation

1471-1976

The retaining wall/embankment on which the HSR Alternative 2 would operate would be a significant visual change through the City. The City disagrees with the EIR/EIR's conclusion as it pertains to the Alternative 2 raised tracks through Morgan Hill, which create a significant visual barrier visible from Downtown streets, running through the City for several miles. The City requests design enhancements and landscaping that would be helpful in reducing the visual effects of the embankment beyond the planting of vines.

1471-1977

- **Alternative 4 Impacts**. The City concurs Alternative 4 has less impact on the visual character of the City than Alternative 2 given the tracks are at-grade, and the Keesling's Shade Trees would remain, separating the roadway from the rails, and there would be no changes to Monterey Road.

  Within the Caltrain Corridor portions of Alternative 4, noise barriers would be installed within the fenced areas of the existing Caltrain right-of-way, which is often shielded from view by fencing or landscaping. Per Mitigation Measure AVQ-MM#7, as part of the final design and construction management plan, the Authority would work with local jurisdictions to develop the appropriate noise barrier style and treatments for visually sensitive areas, to reduce the visual effect of barriers on adjacent land uses.

KVP 20—Alternative 4 Simulation

1471-1977

The City expects to work with the HSR Authority to develop appropriate noise barrier style and treatments. The CHSRA should work with the City on the design prior to preparation of construction documents. The EIR should address when this mitigation is to be completed.

1471-1978

- **Permanent Direct Impacts on Nighttime Light Levels from Trains.** Where HSR trains run elevated on viaducts adjacent to residential areas, the spillover of light from passing trains and maintenance equipment would increase nighttime light levels. Trains operating at night would contribute a regular and repeated source of light. Train lights would be directed toward the guideway. Nighttime maintenance activities along the alignment would introduce lighting from slow-moving maintenance vehicles. In residential areas, the HSR light sources would increase nighttime light levels.

  While contributing little to overall light levels, the moving lights would be evident where existing light levels are moderate to low and highly sensitive residential viewers are present. Alternatives 1 and 3, running on viaduct from west of US 101 in Morgan Hill, would have more light spillover into residential areas, resulting in more impacts from increased light levels than Alternatives 2 and 4, which would run at grade along the UPRR tracks where trains already are operating, and have train light spillover contained by existing vegetation and noise barriers. Alternative 4 would operate in blended service with Caltrain in urbanized areas, with lights from HSR similar to lights from existing passenger and freight service, resulting in the least impact of the four alternatives. The EIR concludes Alternatives 1, 2 and 3 would have a significant and unavoidable impact under CEQA because the spillover from HSR trains operating on elevated viaducts and embankments would create a new source of substantial light, increasing nighttime light levels in residential areas, and could be an annoyance to viewers. Mitigation measures to address this impact are identified in Section 3.16.9, CEQA Significance Conclusions. Section 3.16.7, Mitigation Measures, describes these measures in detail.

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1471-1978

Alternative 4 would have a less-than-significant impact for lighting because HSR would operate in blended service with Caltrain through residential areas. The lights from HSR trains would be similar to the existing light from UPRR and Caltrain operations. Existing landscaping and noise barriers would contain light, resulting in no change to nighttime light levels and no effect on residential viewers.

Chapter 3.17 Cultural Resources

Specific issues the City requests to be addressed include:

1471-1979

- **Villa Mira Monte,** 17860 Monterey Rd. Alternative 2 would include the following project components within and east of the existing rail right-of-way that forms the northeastern boundary of the legal parcel containing Villa Mira Monte: temporary construction easement (TCE) adjacent to the rear (east) of the legal parcel, which is the resource boundary; underground sewer utility relocation 40 feet from the resource; HSR right-of-way (ballasted track on retained fill, approximately 20 feet above grade, with additional 27-foot-tall OCS poles) 65 feet east of the resource boundary; and staging area 215 feet east of the resource. Under Alternative 2, no project components would occur within the historical resource boundary. While the HSR embankment would be visible from Villa Mira Monte, it would not hinder the resource's ability to convey its era of construction, associations with Diana and Hiram Morgan Hill, and distinctive and refined architectural style. The impact would be less than significant under CEQA for Alternative 2. The City disagrees with this statement. The size and nature of the HSR improvements are not appropriately considered in comparison to this resource and its current uses. Appropriate mitigation measures should be identified and agreed upon with the City of Morgan Hill and the Morgan Hill Historical Society, including the addition of walls, landscaping and/or other features consistent with maintaining the site's historical significance.

1471-1980

Under Alternative 4, the HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, which passes along the northeastern boundary of the legal parcel containing Villa Mira Monte. OCS poles 27 feet tall would be installed within the Caltrain and HSR right-of-way. The Caltrain right-of-way runs adjacent to the resource's eastern boundary. An area designated for temporary HSR access adjacent to the HSR right-of-way would extend approximately 20 feet into the resource boundary. However, the HSR access area would be in an area of the site that is currently undeveloped and is separated from the primary building by a distance of approximately 245 feet, such that it would not alter any of the resource's character-defining features. Sanitary sewer infrastructure would be relocated on the far side of the HSR right-of-way from the resource, approximately 60 feet northeast of the parcel containing Villa Mira Monte.

1471-1980

Under Alternative 4, the introduction of the HSR right-of-way and OCS poles within the existing Caltrain right-of-way, as well as the use of a limited and currently vacant portion of the resource for temporary HSR access, would represent a minor change in the characteristics and setting of Villa Mira Monte. The EIR/EIS concludes that the impact would be less than significant for Alternative 4. The City disagrees with this statement. The size and nature of the HSR improvements are not appropriately considered in comparison to this resource and its current uses. Appropriate mitigation measures should be identified and agreed upon with the City of Morgan Hill and the Morgan Hill Historical Society, including the addition of walls, landscaping and/or other features consistent with maintaining the site's historical significance.

1471-1981

Under all four alternatives, project construction activities would occur a minimum of 245 feet from the northeastern boundary of the legal parcel that contains Villa Mira Monte. Under all four alternatives, there would be no construction activities within 50 feet of the Villa Mira Monte; thus, the Draft EIR/EIS states that there would be no increased vibration that could cause substantial adverse change to this resource such that it would no longer qualify for the NRHP/CRHR. More information is needed to support this conclusion.

1471-1982

Villa Mira Monte is a historic asset within the City of Morgan Hill and serves as a museum and an event center. The house is a wooden structure that will be severely impacted by noise and vibration from the project. A structural analysis should be prepared to identify necessary mitigations to noise and vibration impacts.

1471-1983

Further, event center operations fund the maintenance of the site. Even if the Project does not directly impact the historic character of the property, impacts that reduce or eliminate the revenues needed to maintain the historic character of the site could result in the loss of this historic resource.

1471-1984

- **Cribari Winery,** 18980 Monterey Rd. Under Alternative 2, Monterey Road would be moved east in order to accommodate the HSR right-of-way (ballasted track on retained fill) within the current footprint of Monterey Road; a portion of the circa 1920 building on the parcel and the associated water tower would be within the path of the shifted Monterey Road right-of-way. As a result of the project under Alternative 2, the resource would be demolished, therefore, the impact under CEQA would be significant and unavoidable. With regard to construction vibration, under Alternative 2, the winery and water tower would be demolished, eliminating the possibility of having vibration impacts. The City requests that the feasibility of relocation of significant structures including the water tower be fully investigated prior to any decision to demolish this

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1471-1984

resource in connection with Alternative 2, consistent with "CUL-IAMF#4: Relocation of Project Features when Possible"

1471-1985

Chapter 3.19 Cumulative Impacts

Please provide a table showing the total number of daily trains between San Jose and Gilroy in 2040. Please include HSR, Caltrain, freight, and Amtrak as well as impacts from gate down time by required maintenance of tracks. Page 3.19-15 notes the proposed reintroduction of Coast Daylight Amtrak service of up to four trains daily and a growth in freight of 4% annually. This affects noise, daily circulation, and safety response times.

1471-1986

Chapter 4 Section 4(f) Public Facilities

Potentially Affected 4(f) properties in Morgan Hill

There are five properties identified as 4(f) facilities in Morgan Hill potentially affected by the HSR alignments. The EIR/EIS makes no apparent mention of the new Railroad Park located adjacent (west side) to the UPRR tracks with access off of Depot Street in Downtown Morgan Hill. This park resource would be significantly impacted under Alternatives 2 and 4. Please update the EIR/EIS's discussion of impacts to 4(f) facilities by including analysis of Railroad Park.

1471-1987

- **Morgan Hill Community and Cultural Center**. The 8.67-acre Morgan Hill Community and Cultural Center is located at 17000 Monterey Road in Morgan Hill. It is a multiuse community center featuring a community playhouse, multiuse rooms, and an outdoor amphitheater. The community playhouse, located on the western corner of the legal parcel, is housed within the Church of Christ, which has been determined eligible for listing in the NRHP.

  The impact under CEQA would be significant for Alternatives 2 and 4 at the Morgan Hill Community and Cultural Center. Construction noise would impair use of this resource for daycare and school operations, social gatherings, meetings, concerts, and other community center uses. Operational activities would also result in permanent effects from noise on Morgan Hill Community and Cultural Center under Alternative 2 and 4.

  At the Morgan Hill Community and Cultural Center, a small portion of the parking lot adjacent to Depot Street and along West Dunne Avenue as well as some landscaped areas along West Dunne Avenue would be permanently acquired under Alternative 2 for roadway right-of-way. The loss of this parking is a significant issue for the cultural center and must be offset by the HSR.

1471-1988

- **Villa Mira Monte.** The impact under CEQA would be significant for Alternatives 2 and 4 at the gardens at Villa Mira Monte. Construction noise would impair use of this resource. The Authority would implement NV-MM#1 to minimize the impact of construction noise and PR-MM#6 to minimize construction noise during special events at Villa Mira Monte. Accordingly, the EIR/EIS concludes this construction noise impact would not be of a severity that the protected activities, features, or attributes that qualify the center for protection under Section 4(f) would be substantially impaired. Therefore, a Section 4(f) use would not result at Villa Mira Monte. The EIR should also disclose the impacts on the use of this resource with the sounding of train horn blasts under Alternative 4, taking into account the number of trains throughout the day and frequency, as the horns would be sounded near the property as trains approach the Main Avenue at-grade crossing. The house is a historic wooden structure that will be severely impacted by noise and vibration from the project. A structural analysis should be prepared to identify necessary mitigations to noise and vibration impacts.

1471-1989

- **Madrone Underpass**. Alternative 4 would require demolition of the structure, resulting in a **significant** impact to a 4(f) facility. The HSR right-of-way would be placed on approximately 15-foot-high ballasted fill within the existing Caltrain right-of-way, which passes over the Madrone Underpass. To accommodate the new HSR right-of-way in this location, the Madone Underpass would be demolished and replaced by a new box girder overpass structure. The City requests markers and signage be included with the new overpass structure to commemorate the lost historic structure.

1471-1990

- **Sanchez Park.** Changes to the noise environment related to train operations would occur, including increased noise from horn sounding with Alternative 4. However, the EIR claims operation of Alternative 4 on embankment in these existing transportation corridors would not introduce substantial additional sources of train noise because train sounds already occur in this area. Since the park is currently near the railroad right-of-way, it is anticipated that increased noise resulting from HSR operations would have limited effect on the protected activities of Sanchez Park. Accordingly, the EIR concludes operational visual and noise impacts would not be of a severity that the protected activities, features, or attributes that qualify Sanchez Park for protection under Section 4(f) would be substantially impaired, and no constructive use would occur under Alternative 4. However, the City believes the substantial increase in train activity with up to 176 daily HSR trains would be disruptive to park users when trains are required to sound their horns at at-grade crossings. The EIR should disclose the impacts on the use of this 4(f) resource with the sounding of train horn blasts under Alternative 4, taking into account the number of trains throughout the day and frequency.

1471-1991

Chapter 3.6 Public Utilities and Energy

The City prepared comments to the Authority outlining water, sewer, and other utilities of significance that run along the Alternatives through Morgan Hill during the review of the PEPD drawings. The EIR should address the overall impact on the City's utility systems of such relocation and removal of utilities. The City believes the Hydrology and Water Resources section does not address the impacts on the City water supply and the potential removal and/or relocation of one of the City's groundwater wells. See attachment F for mapping of City facilities. The EIR should disclose these impacts to allow for review of appropriate mitigation.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1992

Chapter 5 Environmental Justice

The City requests the HSR provide a list of those locations in Morgan Hill where businesses and residences will be acquired, as that information was not readily apparent among the various documents posted at the HSR website.

The City met with the Authority to understand what projects qualify for mitigation of disproportionate effects to minority and/or low-income communities along the four alignments in Morgan Hill. The Draft EIR/EIS concurs with MTC and the County of Santa Clara Bureau of Land Management that the majority of the properties adjacent to the Alternatives are identified as part of the Community of Concern.

Communities of Concern 2017
This dataset represents the tracts selected as Communities of Concern for the 2017 Regional Transportation Plan. The dataset was developed using ACS 2010-2014 Data for Eight Variables Considered for MTC Communities of Concern.

County of Santa Clara, Bureau of Land Management, Esri, HERE, DeLorme, INCREMENT P, NGA, USGS

The City finds the following requests qualify and should be incorporated within the EIR as mitigation. If the Authority finds that one of the following does not apply, we would like a response as to why it does not qualify.

1471-1992

Potential enhancements to mitigate impacts	CHSRA Role	Benefits
1. Multimodal intersection improvements (bicycle /pedestrian improvements, Monterey Road – East Main to East Dunne, Cochrane/Monterey, East Main/Butterfield)	Fund Planning Studies; Funding	Circulation, traffic, connectivity
2. Pedestrian Overcrossings along new bridge at Monterey Road overpass	Funding	Circulation, traffic, connectivity
3. Multimodal intersection improvements (bicycle / pedestrian improvements, San Pedro Ave/ Butterfield Road, Dunne Ave.	Funding	Circulation, traffic, connectivity
4. Safe routes to schools (especially across Monterey)	Funding	Connectivity, safety
5. Funding for pedestrian underpass and station access planning for Caltrain station.	Funding	Connectivity
6. Bike lanes and trails (Burnett Ave., Tilton Ave., E. Main Ave., Butterfield Blvd., Monterey Road, Dunne Ave, under alignment (Alts. 1 and 3 only), Tennant Ave.)	Funding	Connectivity, recreation
7. Complete Streets, landscaping improvements along railway corridor and adjacent	Funding	Aesthetics, safety
8. Aesthetic treatments for viaduct (Alts. 1 & 3)	Funding	Aesthetics
9. In-language and ADA-compliant signage	Funding	Aesthetics, safety
10. Quiet zones (all at grade crossings).	Fund studies/Physical	Noise reduction
11. New High School Site Acquisition	Fund Planning Studies, Funding	Support education for Environmental Justice populations

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1992

12. Recycled water and internet access on Tennant Avenue	Funding	Water conservation, education, internet access to the census tract area that indicates low income population
13. Preferential hiring program	Support Creation/ Funding	Economic uplift
14. Sidewalks, curbs, and gutters along Railroad Avenue	Funding	Circulation, traffic, safety
15. Enhancements to affected basin on east side of tracks.	Funding	Water conservation and mitigation
16. Provide pedestrian connectivity by creation of trails to fill in gaps or enhance affected trails adjacent to tracks.	Funding	Circulation, traffic, safety
17. Sidewalk connections on Tennant just east of the tracks.	Funding	Circulation, traffic, safety
18. Purchase affected property north of the mobile home park and building out as a public park.	Funding	Aesthetics, Safety
19. Fix landscaping and develop park space adjacent to the trestle and fire station.	Funding	Aesthetics, Safety

GENERAL COMMENTS

The following are requirements of the City's Municipal Code and should be taken into consideration for the EIR as it relates to Morgan Hill.

1471-1993
1471-1994

1. All trees to be removed shall be replaced at a 2:1 planting ratio.
2. Fencing: Barbed wire, razor wire, chain link, and electric fences are prohibited within Morgan Hill. Materials for proposed fencing where a sound wall is proposed should provide a neighborhood friendly fence such as wood or tubular steel.

Thank you for your consideration of these comments and concerns. We appreciate the HSR staff's willingness to clarify the project design and objectives, and to discuss and resolve issues to achieve a project that completes the HSR Authority's mandate while minimizing impacts on the communities that will have to co-exist with the operating rail system long-term.

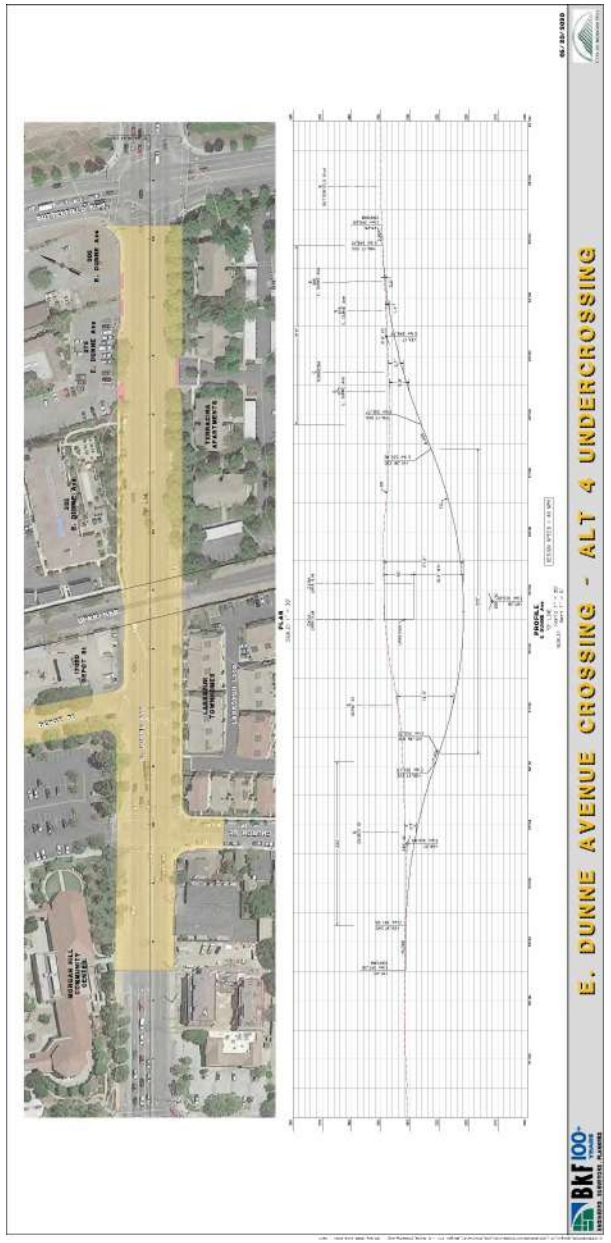
Sincerely,

Christina Turner, CPA
City Manager
City of Morgan Hill

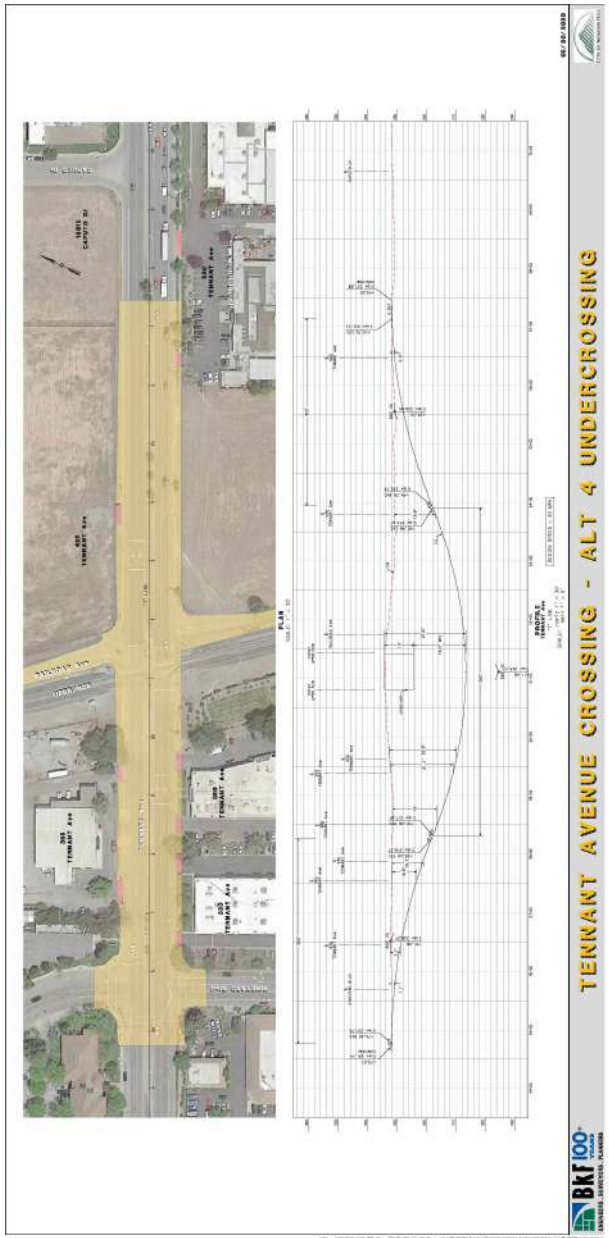
cc: City Attorney
Mayor
City Council

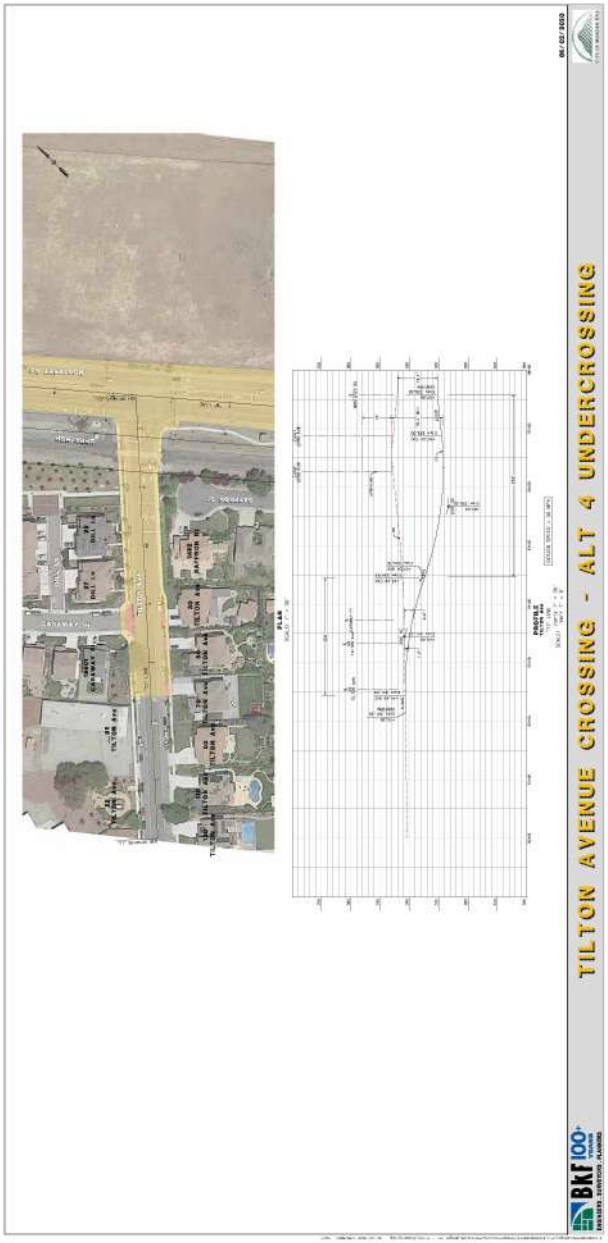
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Attachment A:
Conceptual Grade Exhibits



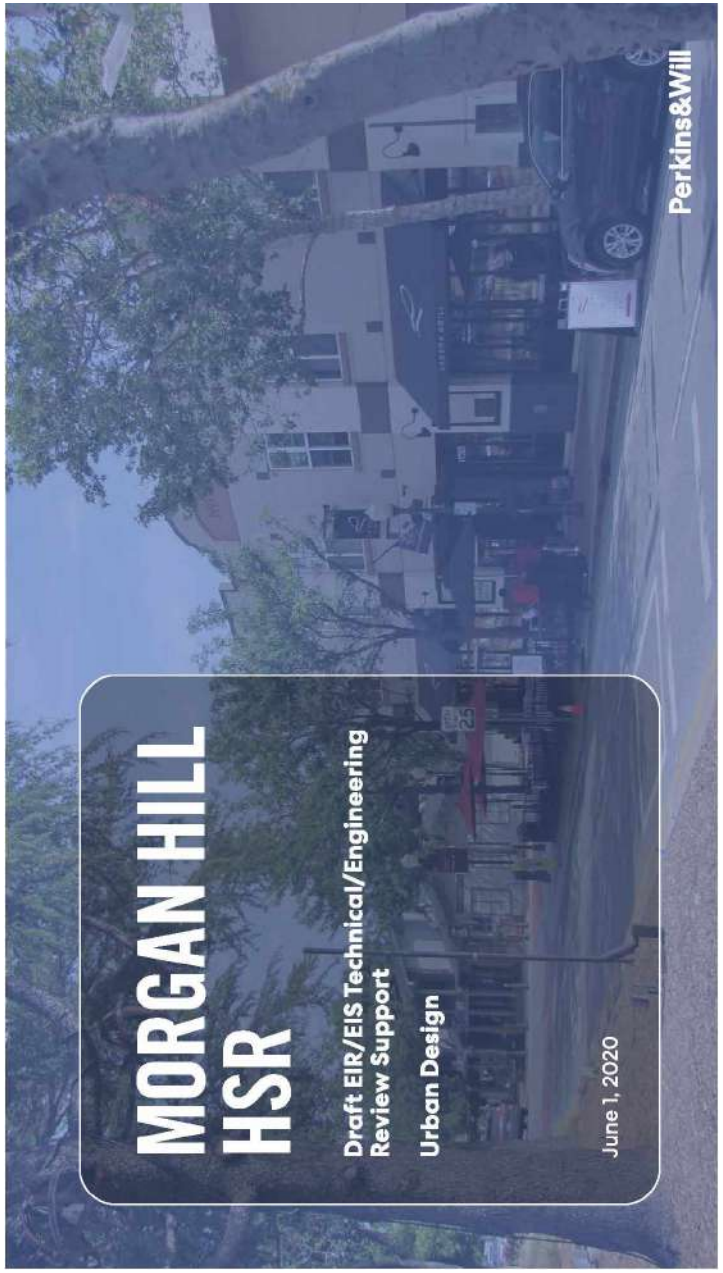
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Attachment B:
Conceptual Station Design and Urban Design Memo



Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

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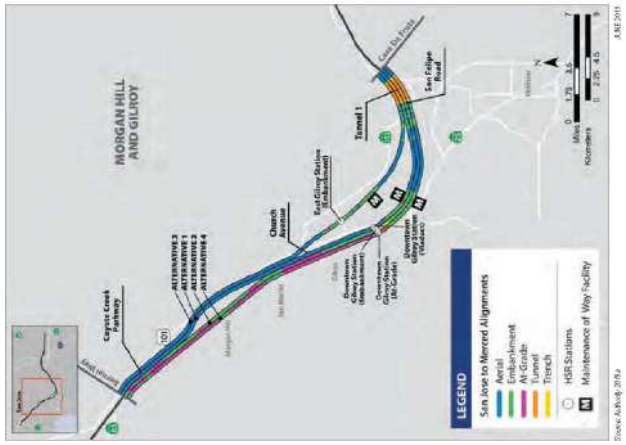
1. Assessment of the Alignments
2. Strategy Framework
3. Caltrain Station Access
4. Roadway Grade-Separation
5. US Route 101/Walnut Grove Placemaking Opportunity

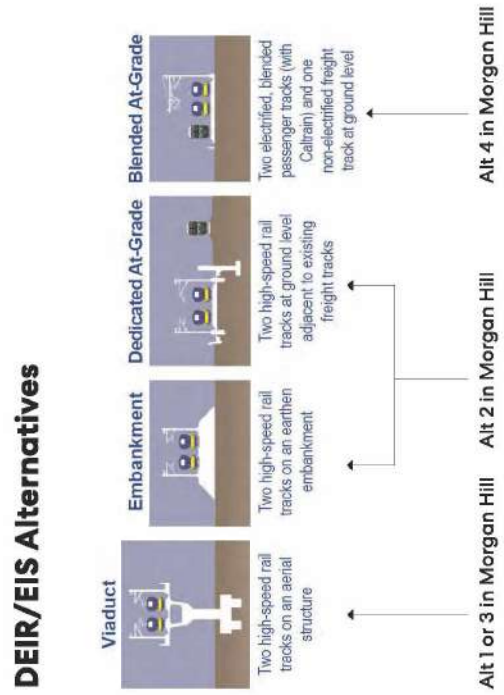
Perkins&Will

2



DEIR/EIS Alignments

3



DEIR/EIS Alternatives

Alternative 4 (blended, at-grade) vs. Alternative 2 (dedicated, on embankment)

Physical impact by HSR ROW

+ Alt 4 has less impacts on adjacent properties and buildings
- Alt 2 has a greater visual impact given the height of the tracks and fences

Impact on crossings & adjacent roadways

+ Alt 2 proposes below-grade crossings through Morgan Hill
- Alt 4 proposes at-grade crossings
+ Alt 4 has the flexibility to maintain some at-grade crossings while allowing for grade separation at strategic locations
- Alt 2 may exclude any potential at-grade or above-grade crossings. It also leads to the closure of Depot St. at Main Ave.

Caltrain Station improvement

+ Alt 4 proposes new platforms and an underpass
- Alt 2 does not propose any improvement to the station platform
- Alt 2 proposed underpass does not directly serve the station platform

Perkins&Will

DEIR/EIS Alignments 4

DEIR/EIS Alternatives

Alternative 1 or 3

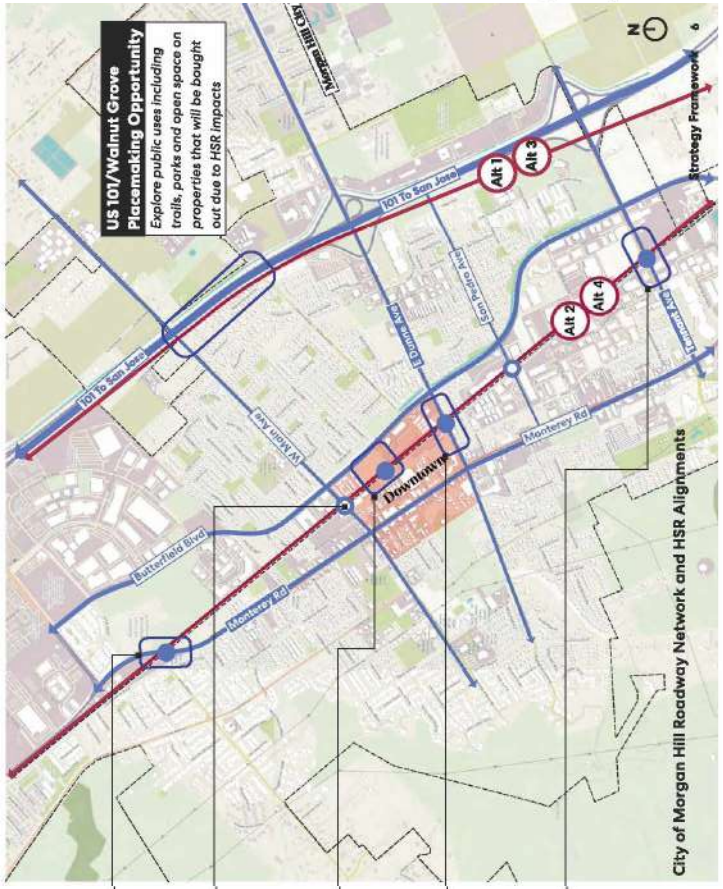
Pros:

+ No direct impact on downtown properties and character
+ No direct impact on streets

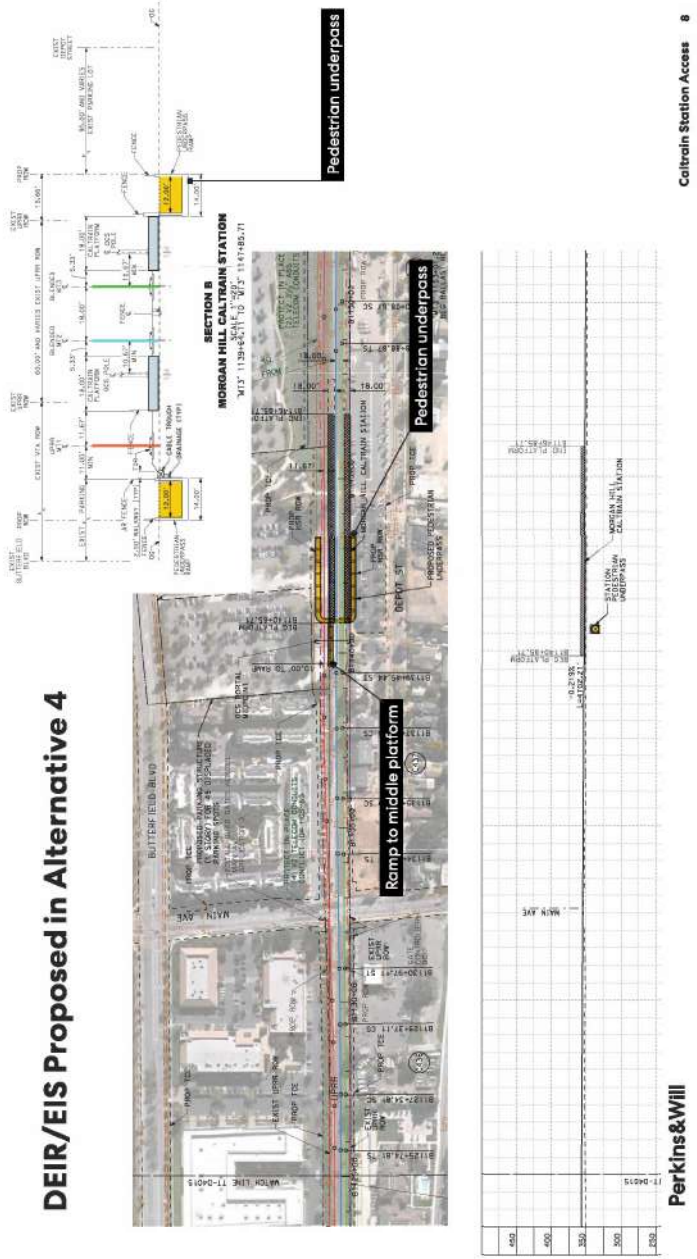
Cons:

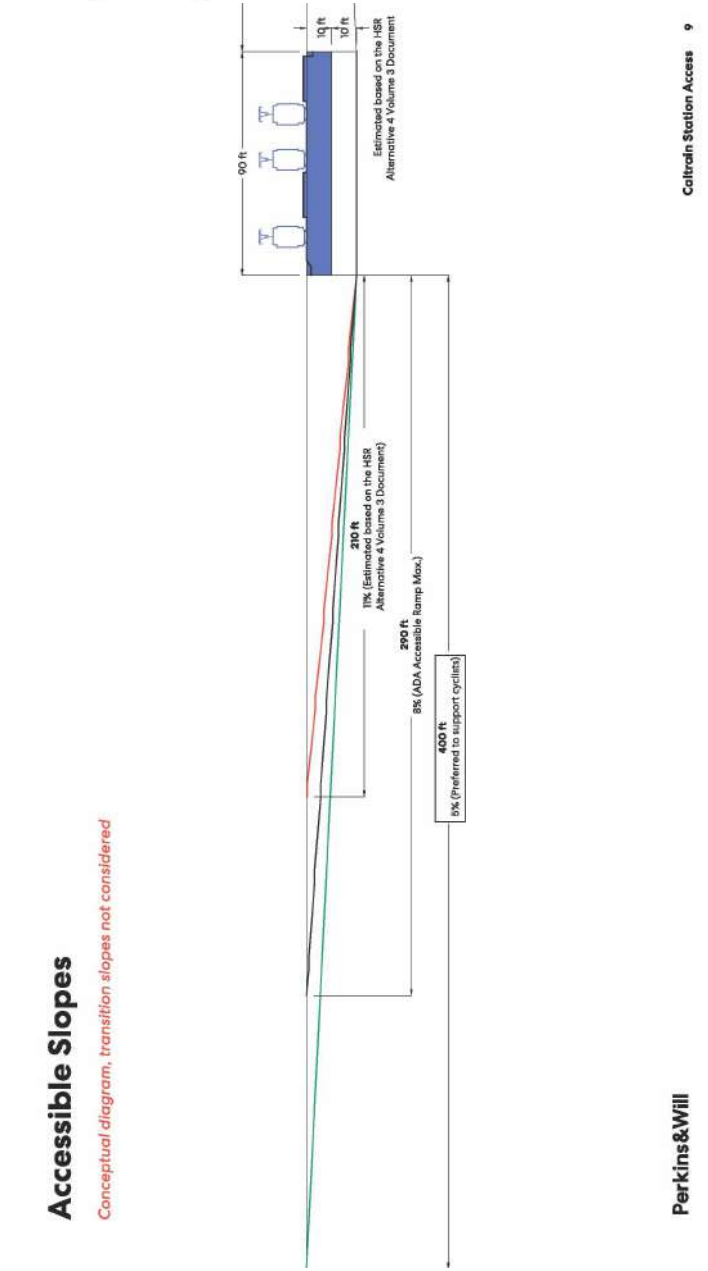
- Creates property & building impacts on residential community near US 101
- Viaduct creates a negative impact on the character of the residential neighborhood

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Underpass Width

HSR Alternative 4 Proposed

City Preferred Options

Perkins&Will

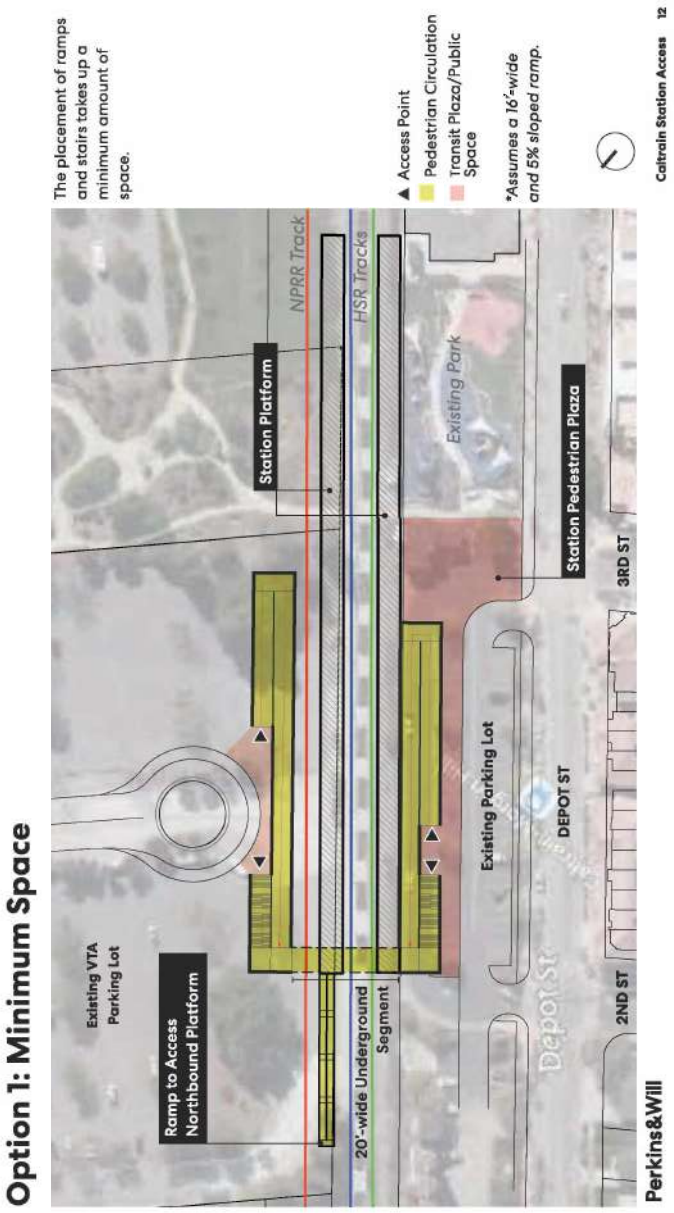
Caltrain Station Access 10

Examples of Underpass Width

Perkins&Will

Caltrain Station Access 11

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



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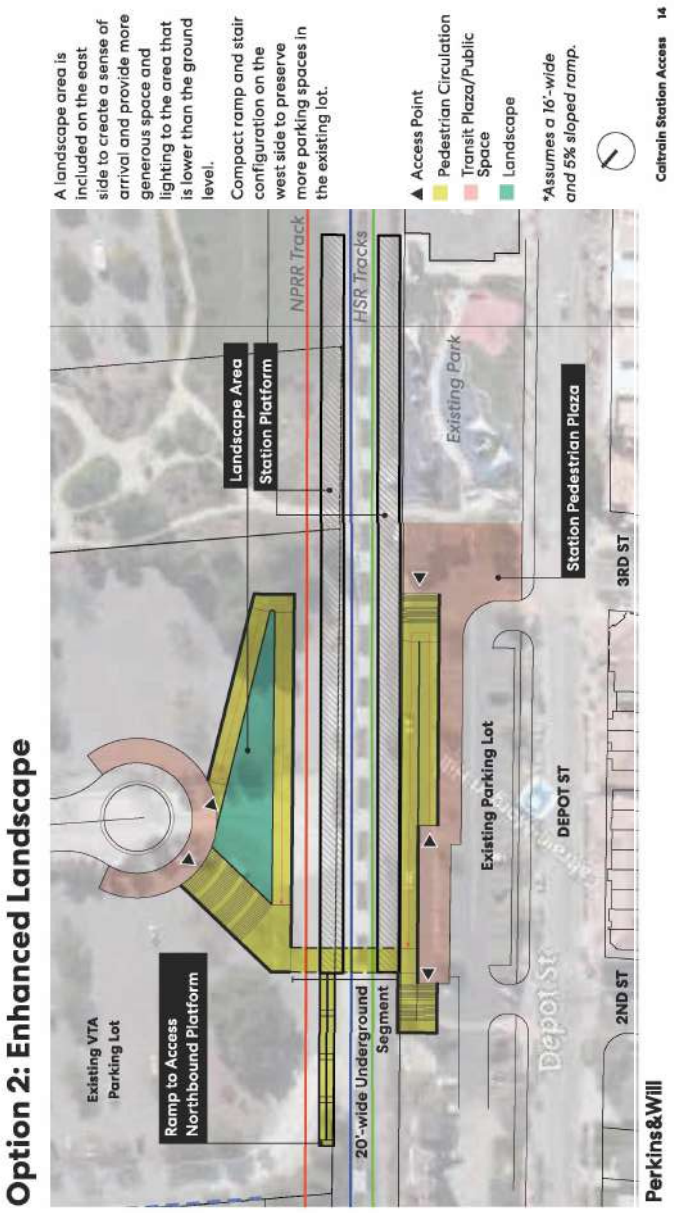
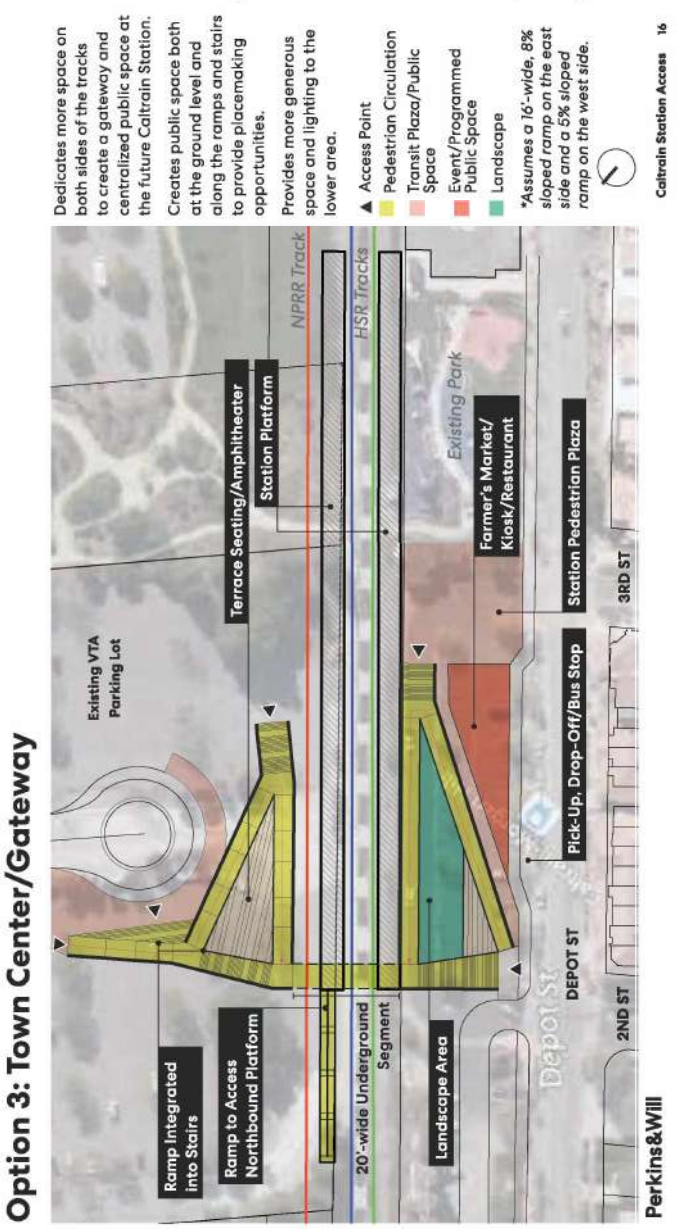
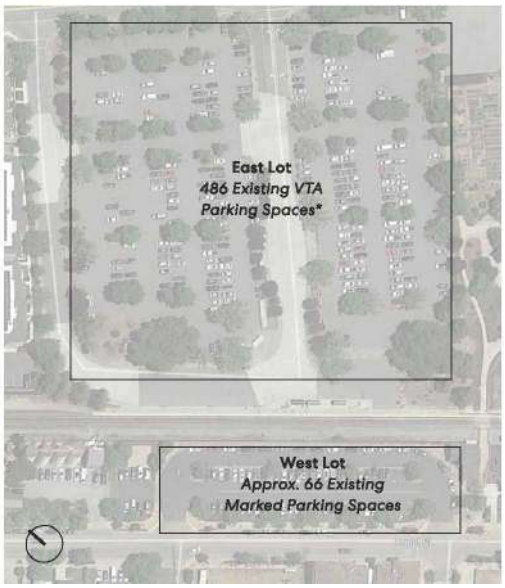


Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



Assessment of Parking Impact



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East Lot

Option 1:

- Detailed design needed to minimize the parking impact and provide spaces to compensate parking loss
- Impacts **approximately 20** existing parking spaces

Option 2 & 3:

- Detailed design needed to minimize the parking impact and provide spaces to compensate parking loss
- Impacts **approximately 45-55** existing parking spaces

West Lot

Option 1 & 2:

- Detailed design needed to minimize the parking impact and provide spaces to compensate parking loss
- Impacts **approximately half** of the existing parking spaces

Option 3:

- Detailed design needed to minimize the parking impact and provide spaces to compensate parking loss
- Impacts **60% to 100%** of the existing parking spaces

* Source: https://www.vta.org/go/stations/morgan-hill-caltrain

Caltrain Station Access Key Takeaways

Impacts

Maintaining an ADA accessible slope will **take up a significant amount of space**. The capacity for parking and/or future proposed uses on the station-adjacent parcels will be impacted.

Considerations

The underpass should meet **ADA accessible design standard** and support bicycle access.

The location of the pedestrian underpass should be considered with the **planning and design of pedestrian paths, access way, pick-up/drop-off, parking, and future development** on the adjacent properties.

The design should provide **adequate lighting and maximize natural light** to enhance security while ensuring energy efficiency.

Recommendations

The tunnel (under the tracks and platforms) should be, at a minimum, **20 feet wide and 10 feet tall** with ground texture or paving differentiating space dedicated to **pedestrians and bicycles**.

The access ramps and stairs should be **at least 16 feet wide**. Provide **a 5% slope** for a continuous access ramp where possible.

Provide adequate lighting in the pedestrian underpass. **Maximize exposure to daylight** through locating the ramps where opening to the sky is possible. Integrate **landscape features** into the design of the ramps to enhance the visual quality. Include artificial lighting and other safety and security elements as per Caltrain Design Criteria.

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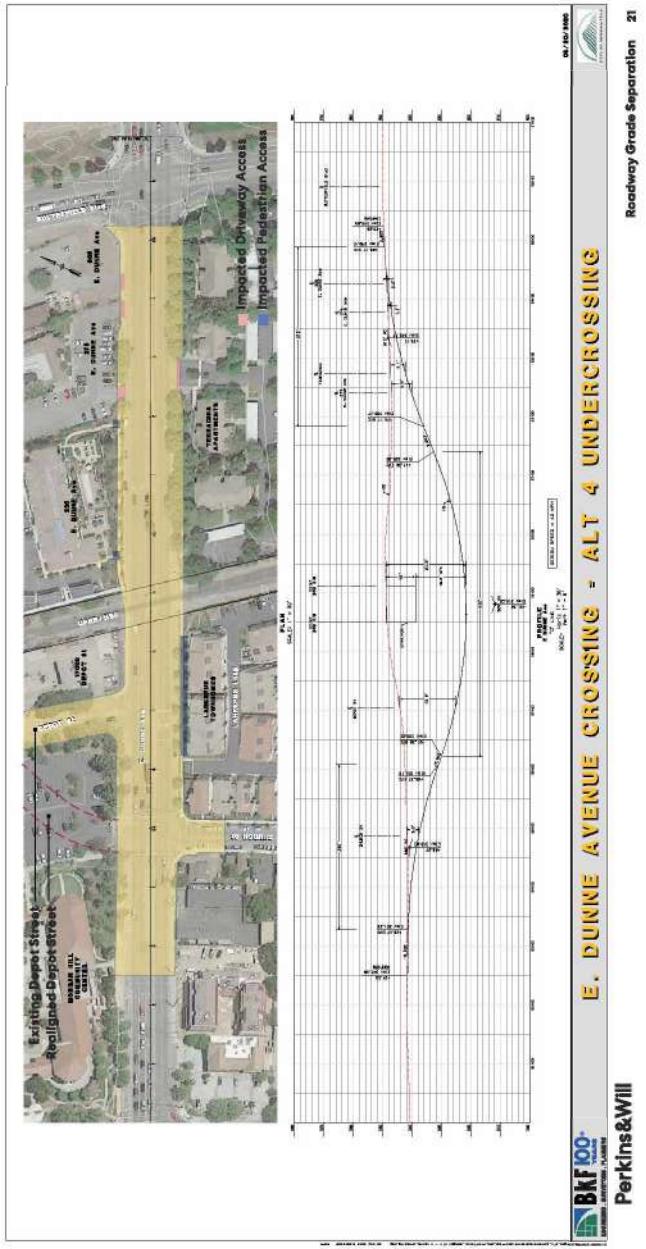
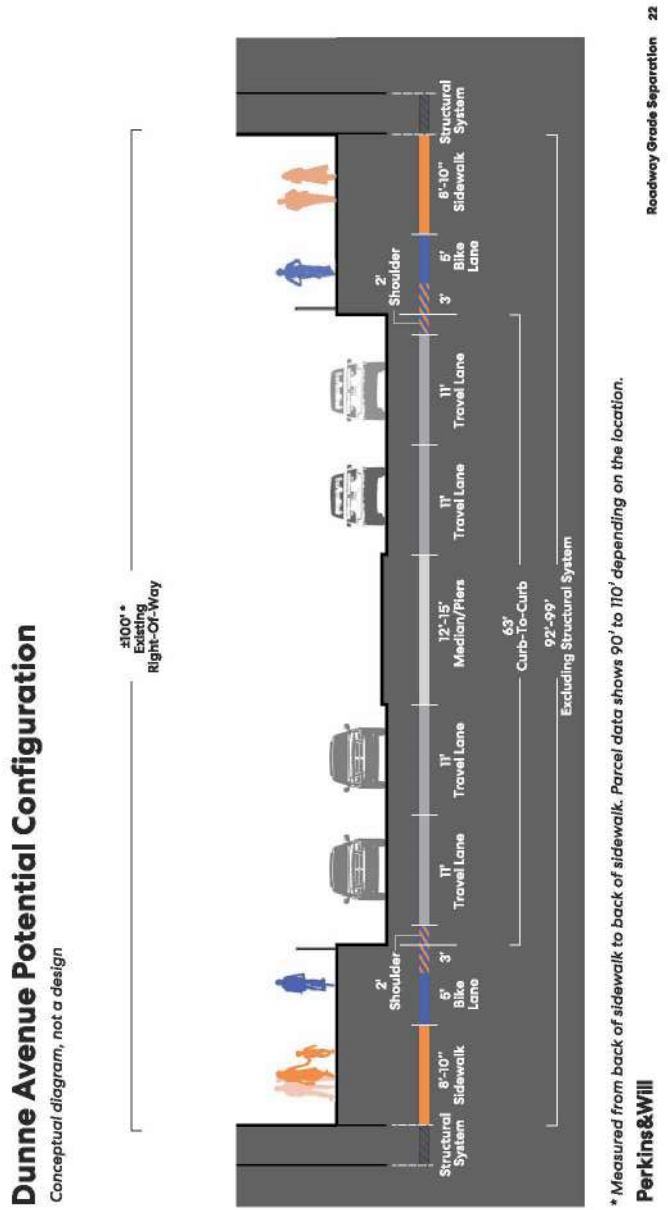
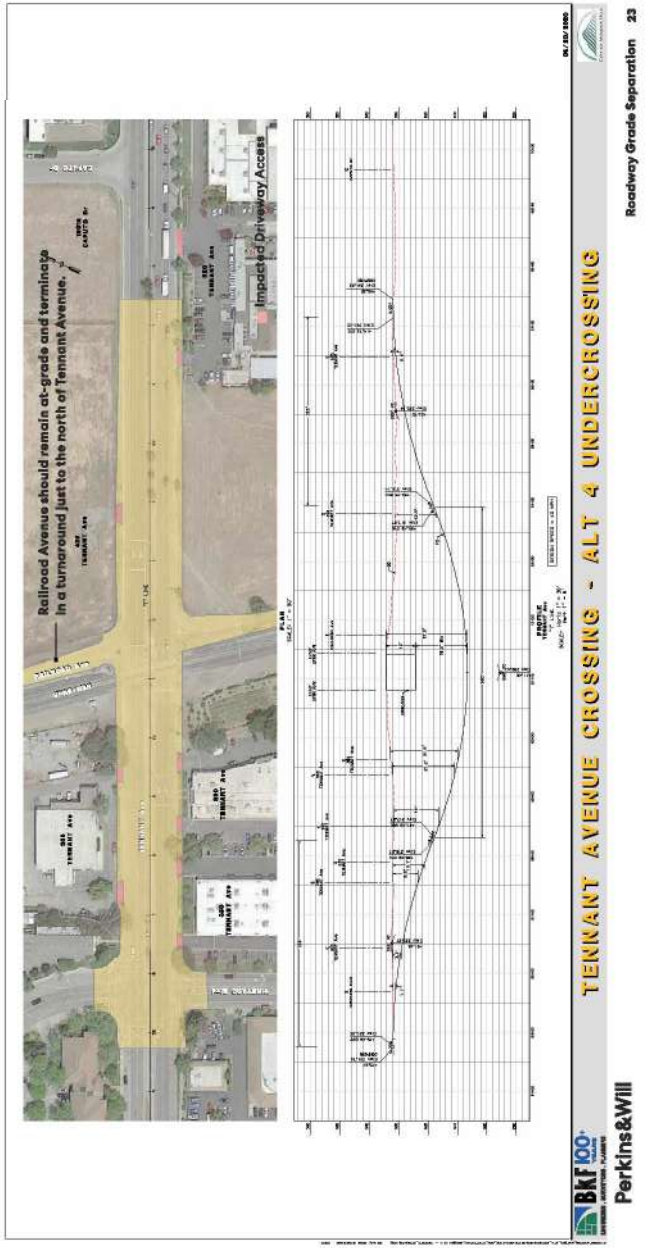
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



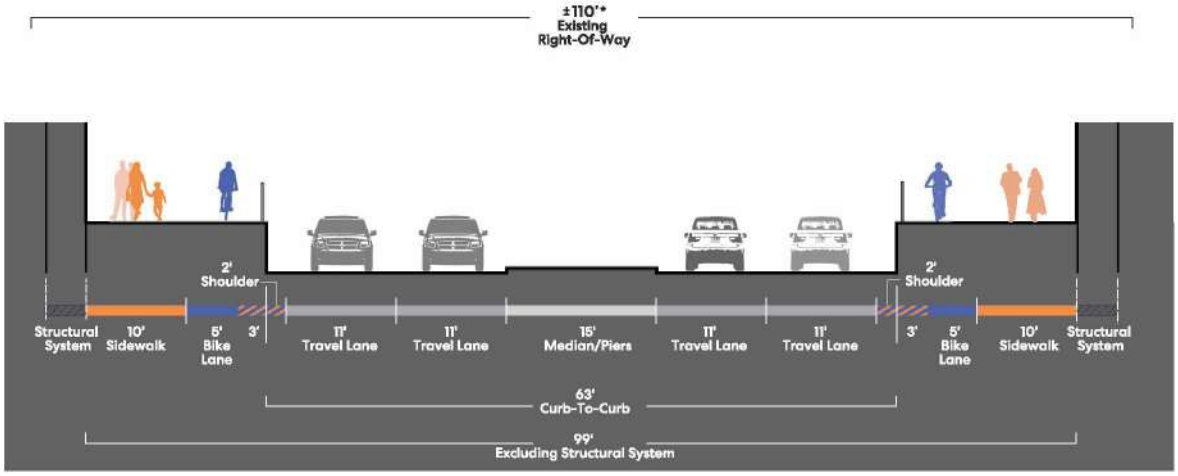
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Tennant Avenue Potential Configuration

Conceptual diagram, not a design



** Measured from back of sidewalk to back of sidewalk. Parcel data shows 110' to 120' depending on the location.*

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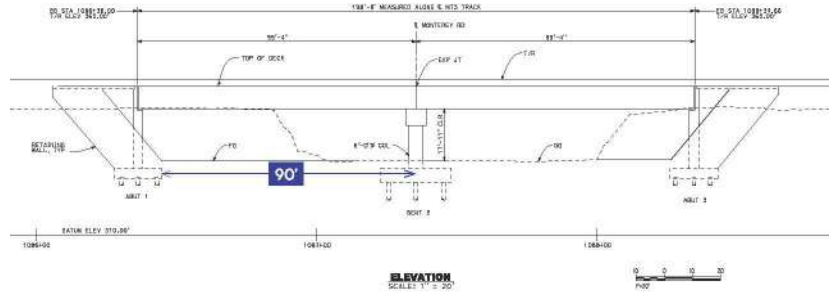
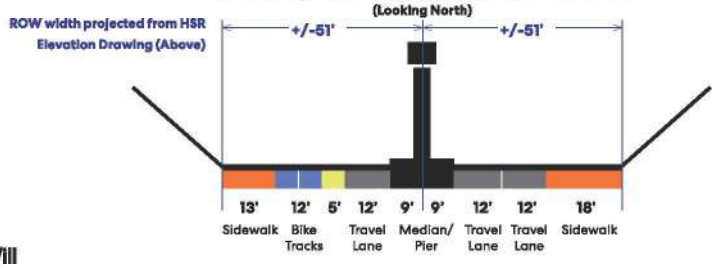
Roadway Grade Separation 24

Monterey Road Underpass - Potential Multimodal Configuration



ELEVATION

Potential Configuration of Monterey Road within HSR Proposed ROW
(Looking North)



Perkins&Will

Roadway Grade Separation 25

Roadway Grade Separation Key Takeaways

Impacts

Depressing Dunne and Tennant Avenues near the HSR tracks will **impact the existing intersections** at Depot Street, Church Street, Vineyard Boulevard, and Railroad Avenue.

Existing driveways and buildings accesses along Dunne and Tennant Avenues will be impacted by depressing the roadway profiles.

Pedestrian and bicycle experience will be impacted by the slopes.

Considerations

Design coordination needed between the Dunne Avenue grade separation and the **Depot Street realignment**.

Maintaining the Tennant-Railroad Avenue intersection below-grade would require a realignment of Railroad Avenue and cause **a significant amount of permanent land-take** in adjacent properties.

The **sidewalks and bike lanes** along Dunne and Tennant Avenues should be compliant with ADA standards.

Mitigation for **driveway and building access impacts** along Dunne and Tennant Avenues should be considered.

Recommendations

Bicycle lanes & sidewalks should be incorporated into the proposed section. Physical barriers are recommended between bikes lanes and travel lanes.

Railroad Avenue should **remain at-grade** and terminate in a turnaround just to the north of Tennant Avenue.

Create **a new easement or an alternative access point** to properties that currently can only be accessed from the depressed portion of Tennant Avenue. Create a **public pedestrian path at-grade** to preserve existing building access west of the tracks along Dunne Avenue.

Proposed section of Monterey Road Underpass should incorporate **sidewalks and bike lanes**.

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Roadway Grade Separation 26

U.S. 101 AREA/WALNUT GROVE PLACEMAKING OPPORTUNITY UNDER ALT 1 OR 3

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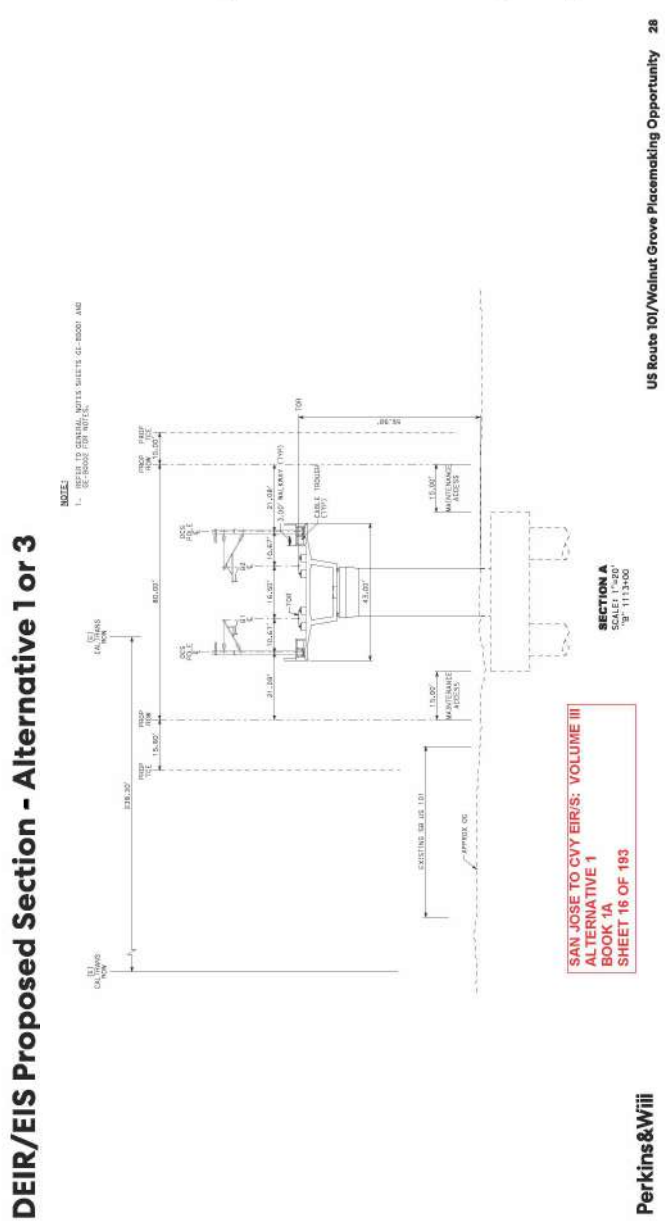
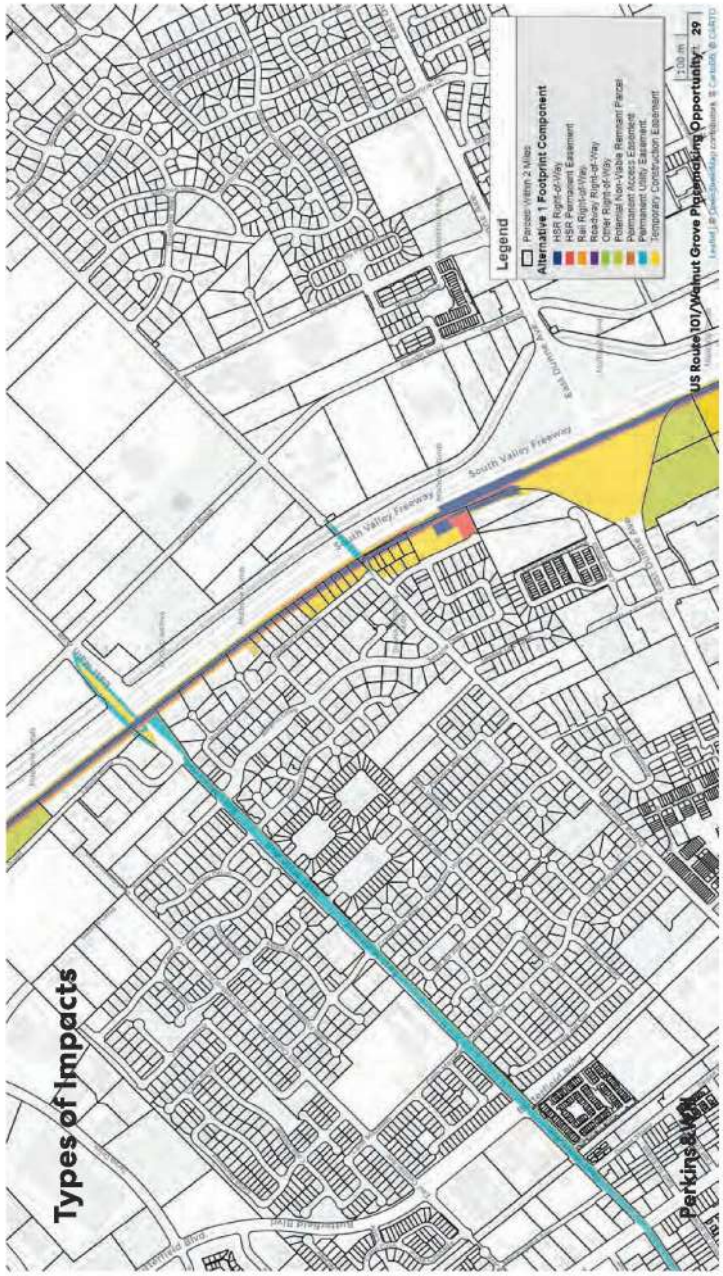
US Route 101/Walnut Grove Placemaking Opportunity 27

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





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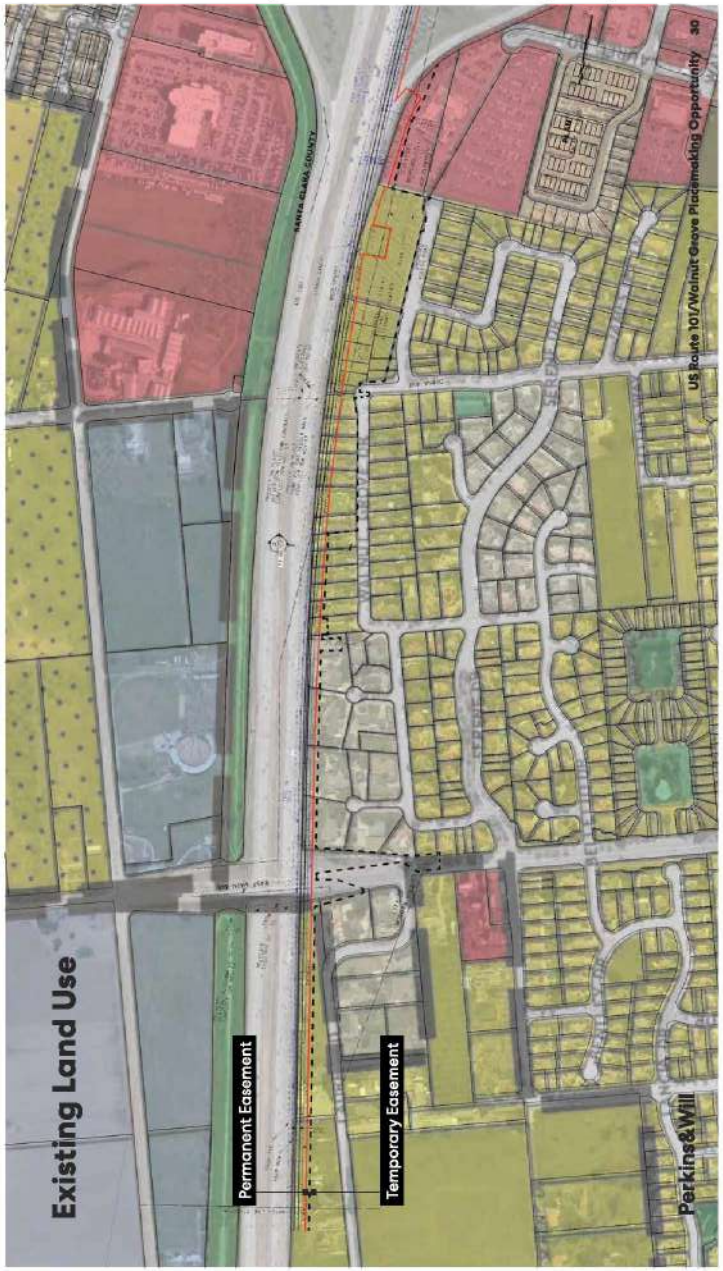

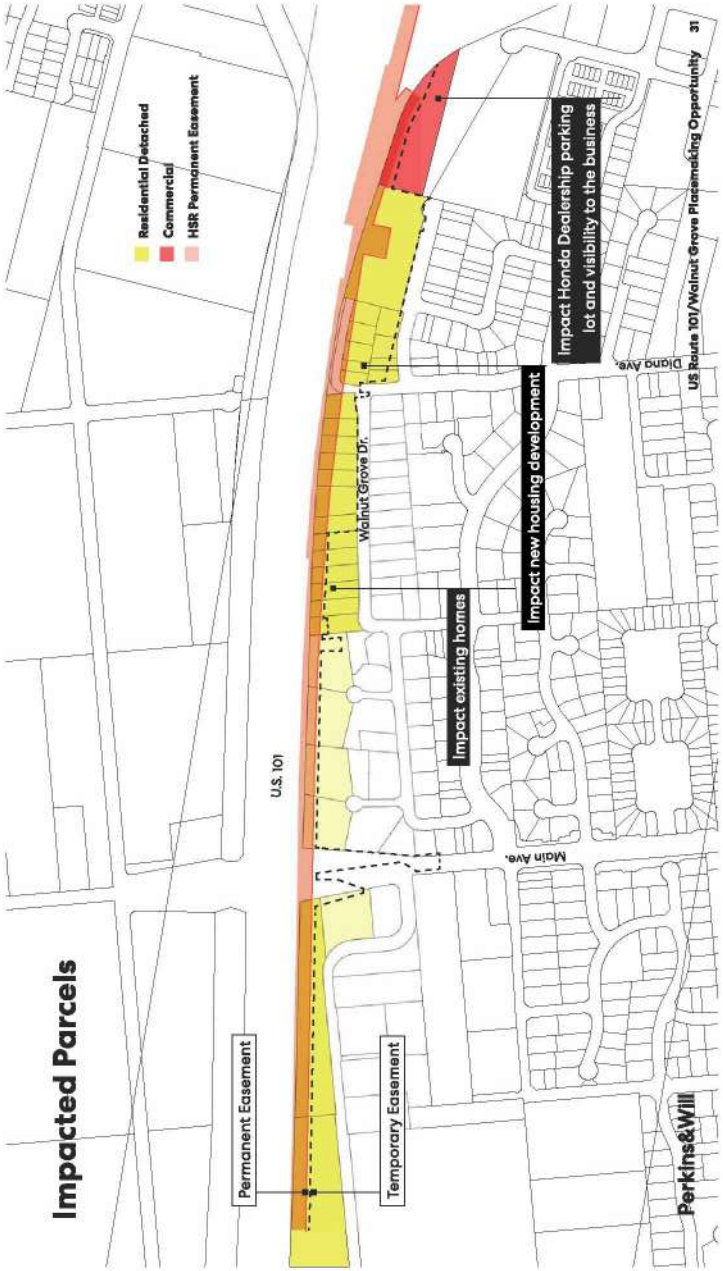

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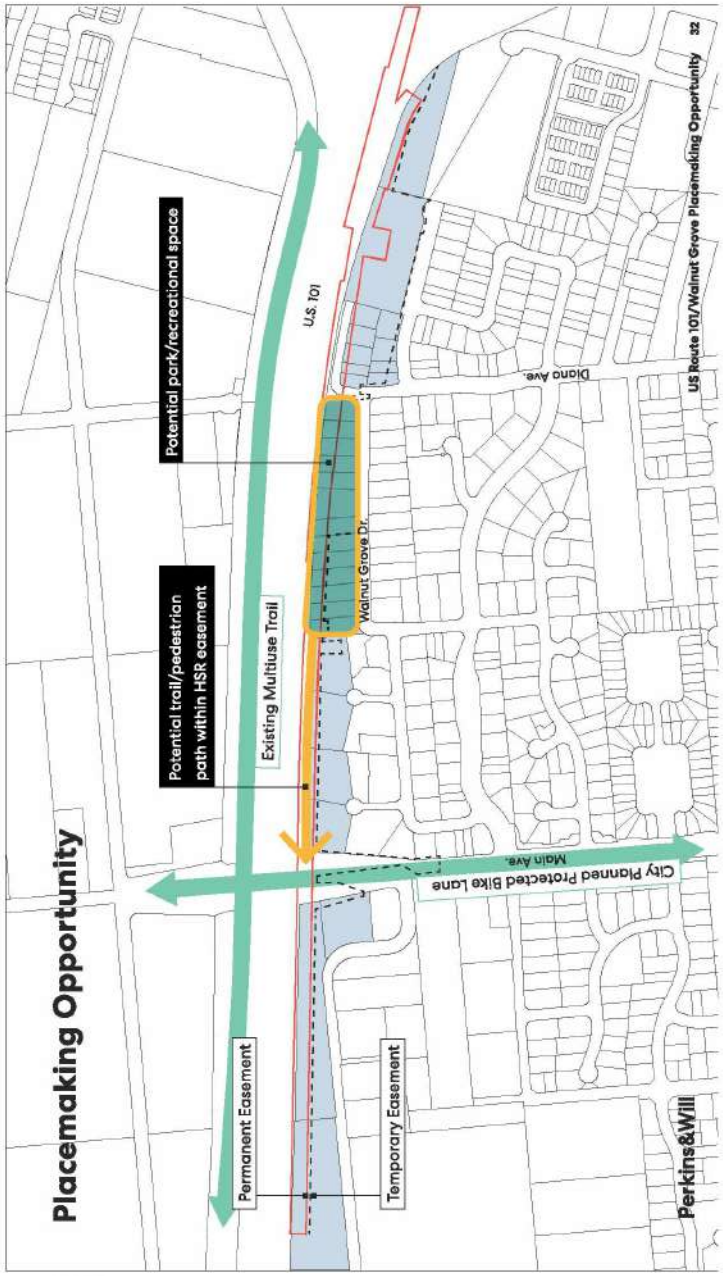

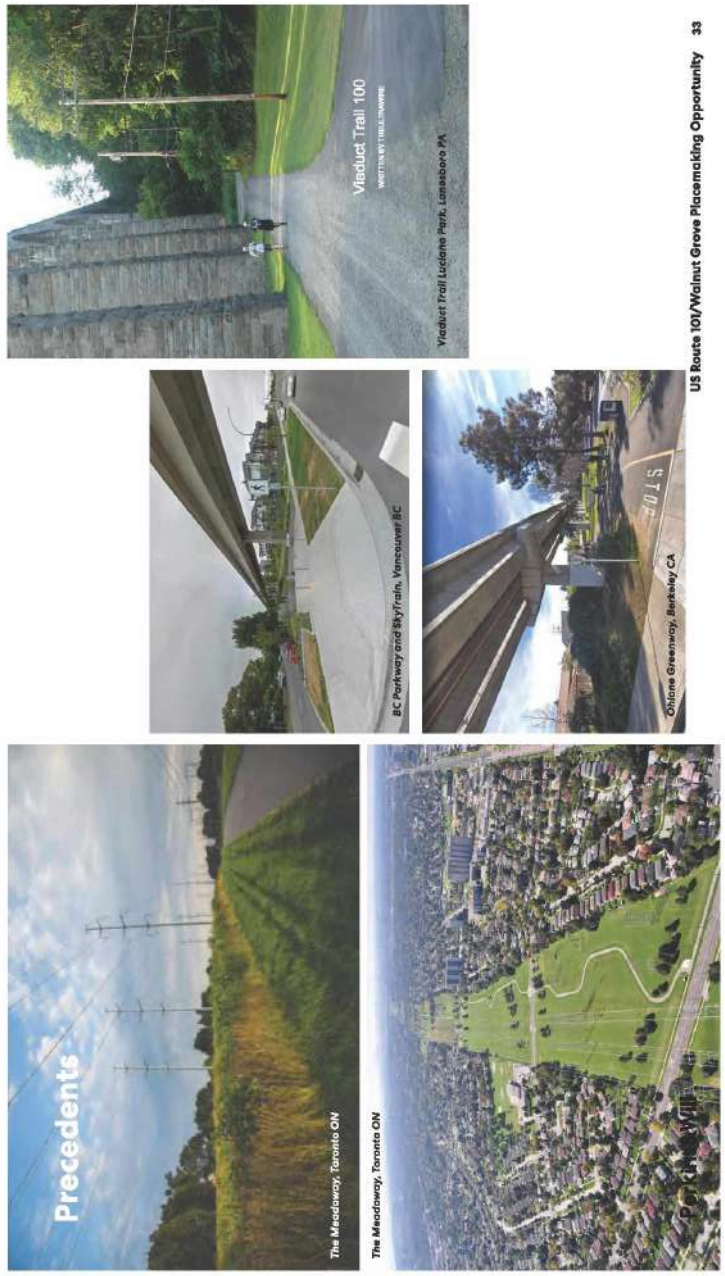

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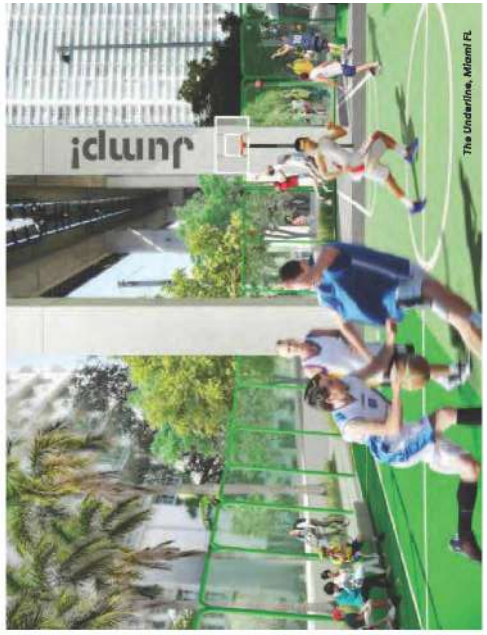
Precedents



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US Route 101/Walnut Grove Placemaking Opportunity 34

U.S. 101/Walnut Grove Area Key Takeaways

Impacts

HSR permanent and temporary easements impact **residential properties** along Walnut Grove Drive and **the Honda Dealership** parking lot.

Considerations

Some partial/temporary property impacts might lead to takings. Strategies to **repurpose parcels** affected by building impacts will need to be considered.

The City's proposed bikeway and trail network needs to be considered with respect to the HSR corridor and related public space/placemaking opportunities to ensure integration.

Recommendations

Consider opportunities for **a park, ball field, or open space** where a group of residential properties might be permanently impacted and become inappropriate for continued private ownership.

Consider **combining a trail/multiuse path with maintenance vehicle access** to provide residents a local amenity.

Integrate the proposed trail/multiuse path into the City's existing and planned network.

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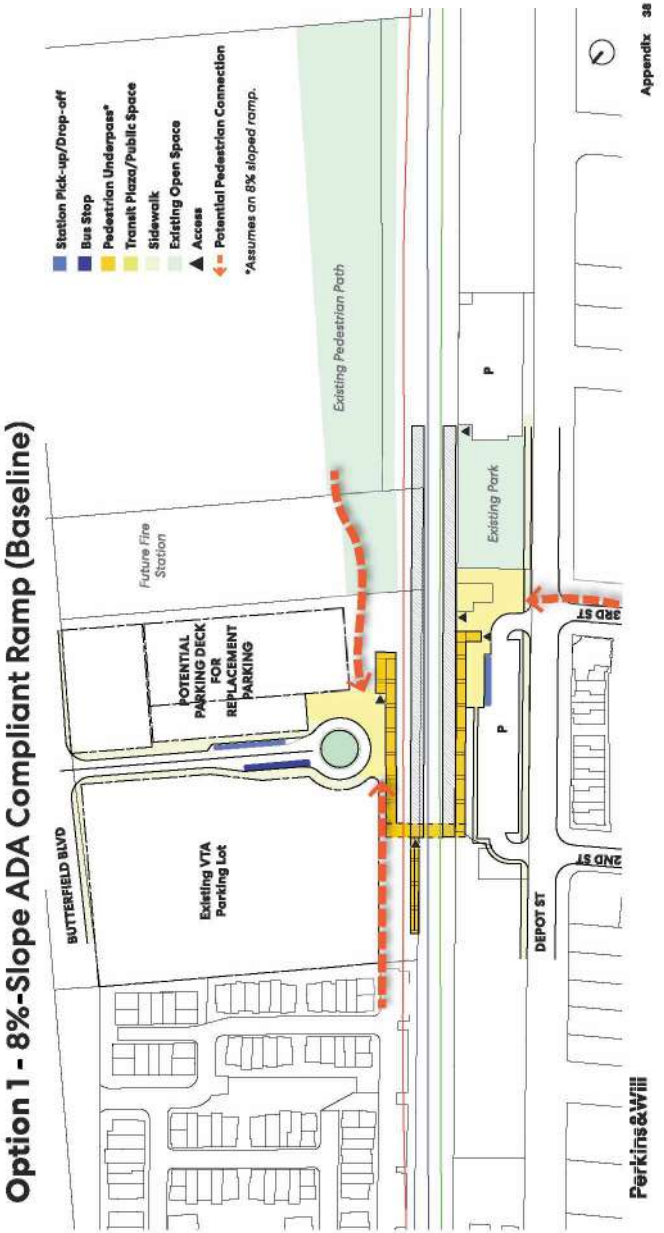
US Route 101/Walnut Grove Placemaking Opportunity 35

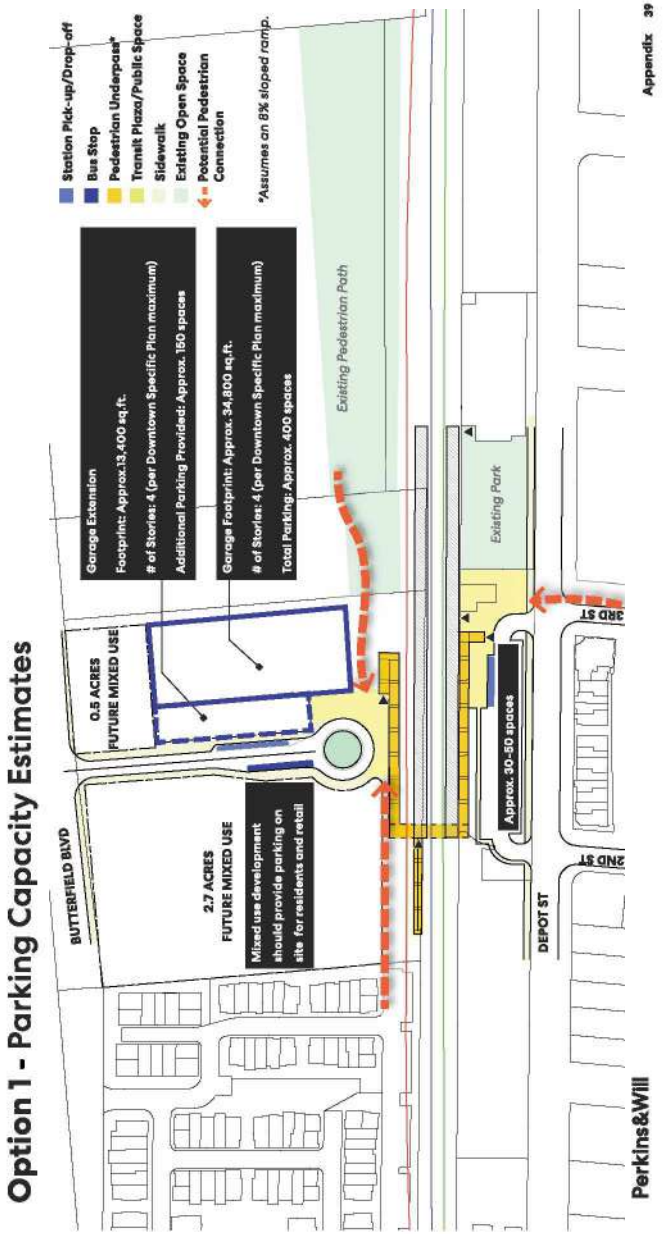
Appendix

Caltrain Station Access Options Assessed

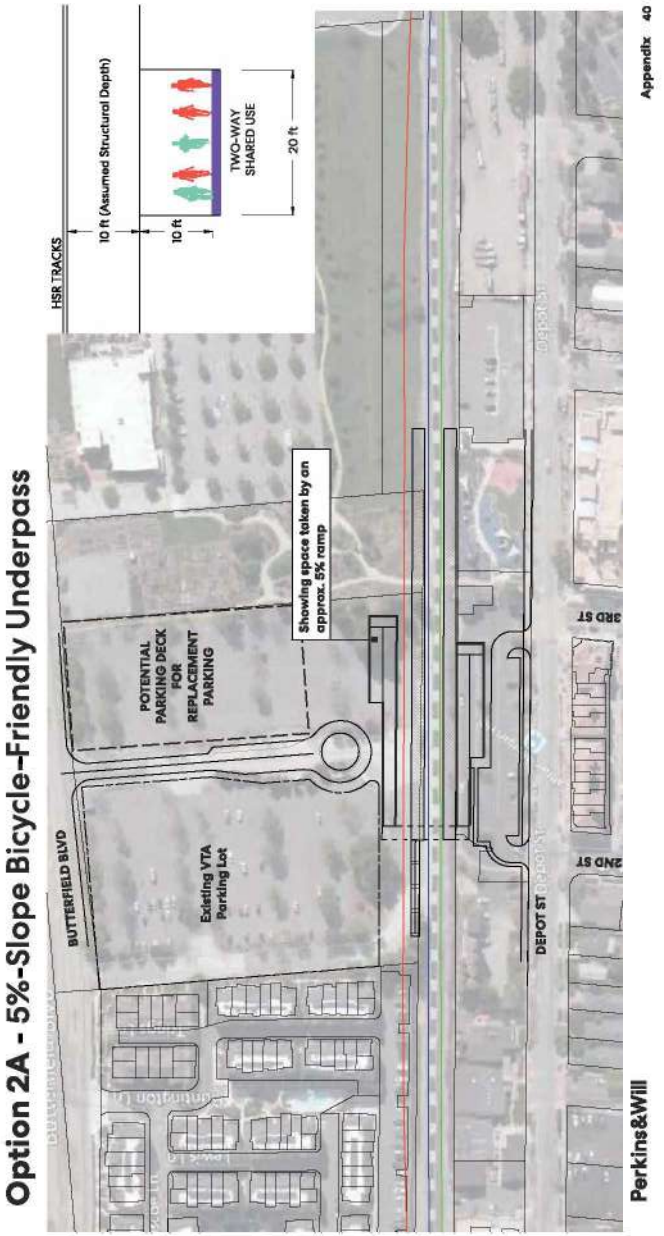
Option 1 - 8%-Slope ADA Compliant Ramp (Baseline)

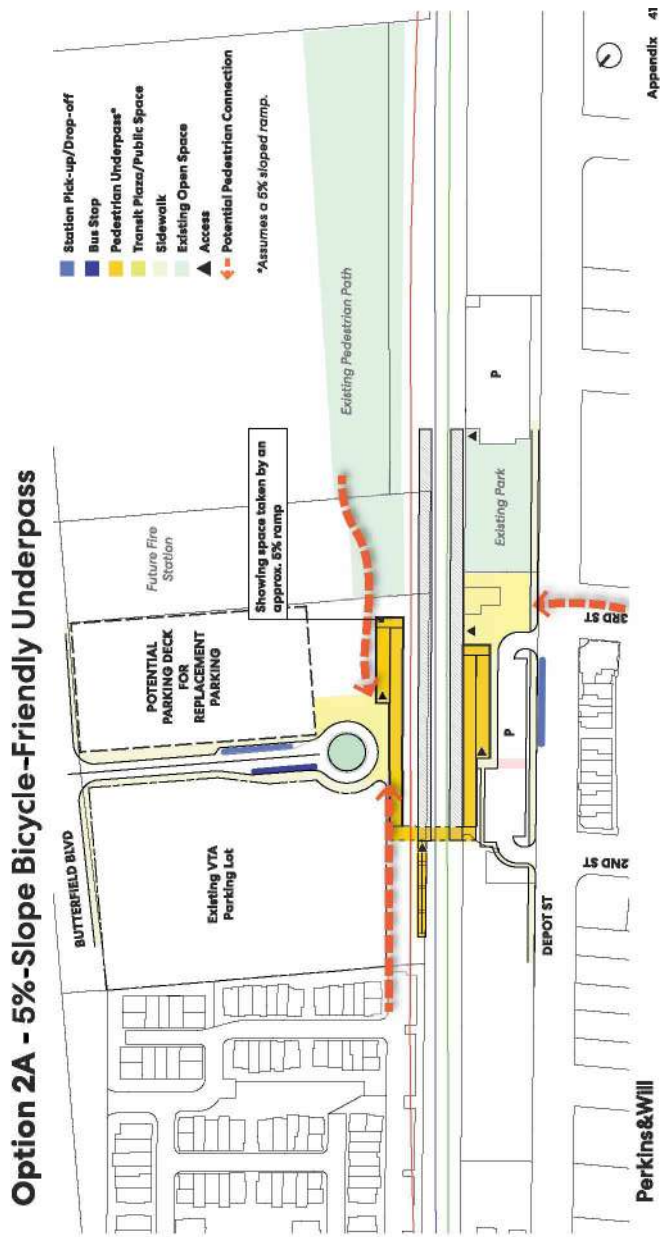
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





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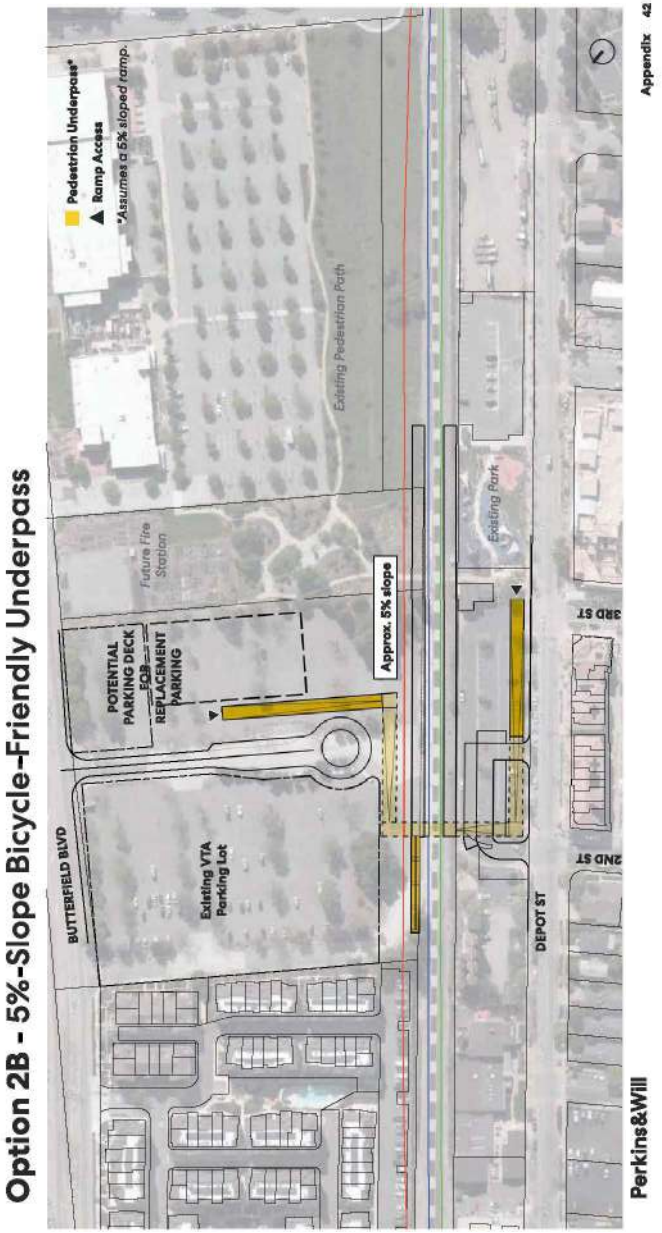

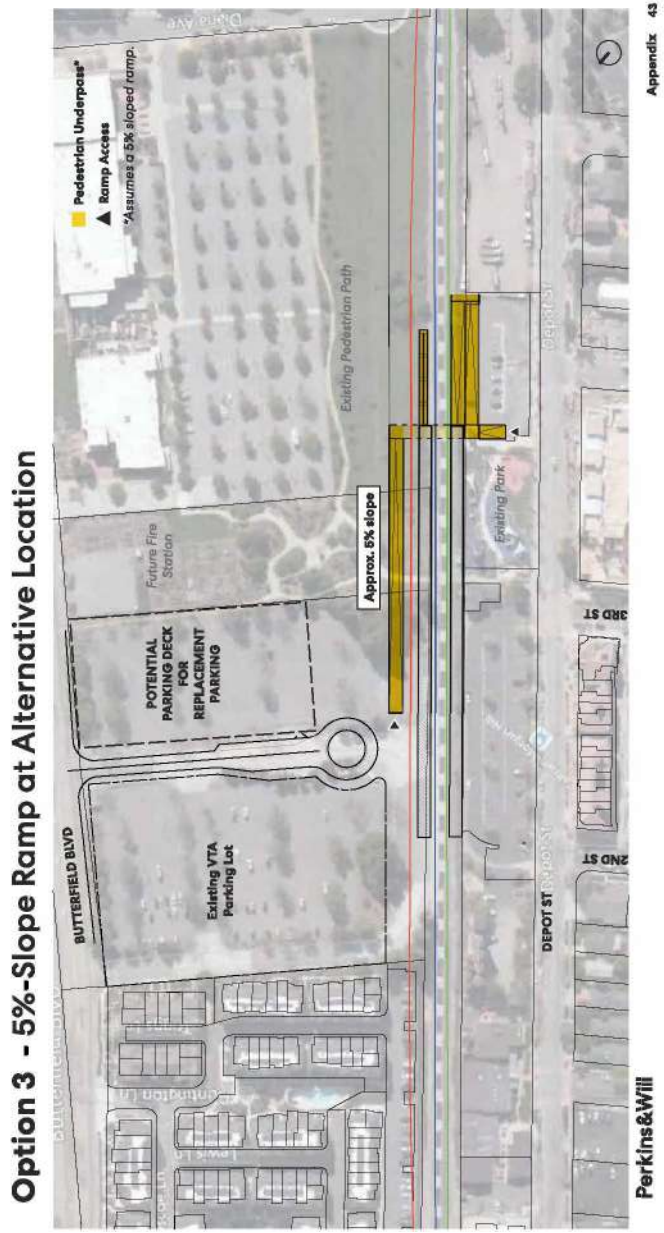

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

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CITY OF MORGAN HILL HSR ALIGNMENT ALTERNATIVES

DEIR/EIS TECHNICAL/ENGINEERING REVIEW SUPPORT MEMORANDUM

URBAN DESIGN

PREPARED FOR: CITY OF MORGAN HILL

5/15/2020

Perkins&Will

Perkins and Will (PW) has reviewed the four alignments proposed in the San Jose to Merced Draft EIR/EIS. Alternative 4, a blended at-grade alignment through the City of Morgan Hill, was identified by the California High-Speed Rail Authority (CHSRA) as their Preferred Alternative in this Draft EIR/EIS.

PW studied the context of existing conditions and known planned projects within Morgan Hill and assessed how well the proposed alternatives align with the City's planning visions and goals. The design elements of each alternative are also evaluated using best urban design practice in creating a safe, comfortable, beautiful and vibrant environment for pedestrian, cyclists and cars with a special emphasis on maintaining the existing and future vitality of the Downtown.

This memo focuses on urban design considerations related to Alternative 4, the CHSRA Preferred Alternative. Other alternatives are reviewed briefly in this urban design analysis due to the following considerations:

- Alternative 2 runs through Morgan Hill Downtown, similar to Alternative 4. However, its alignment and elevated berm requires additional right-of-way outside the existing UPRR right-of-way, causing more property and building impacts than Alternative 4. Furthermore, the raised tracks create a more significant visual barrier visible from downtown streets. Given a raised track profile, Alternative 2 largely excludes any potential at-grade crossings which would cause the closure of Depot Street at Main Avenue to accommodate the grade separation at Main Avenue.
- Alternative 1 and 3 both follow an alignment on a viaduct adjacent to U.S. Route 101 through Morgan Hill. These two alternatives will impact a swath of land including established residential properties along U.S. Route 101 near Walnut Grove Drive. The 60-foot high viaduct will create a negative impact on the character of the residential neighborhood.

1. ALTERNATIVE 4 (CHSRA PREFERRED ALTERNATIVE)

Alternative 4 runs at-grade through Morgan Hill downtown. It is located predominantly in the existing UPRR right-of-way.

Potential Urban Design Impact

- Pedestrian and bicycle access & connectivity
  - Alternative 4 proposes enhanced at-grade crossings at locations where streets are currently crossing the UPRR Corridor at grade. It also maintains the current pedestrian and bicycle infrastructure on existing streets. From a pedestrian and bicycle connectivity perspective, the at-grade crossings do not create significant impacts other than causing delays that could be more significant than existing conditions given the future frequency of service along this corridor. However, other concerns related to traffic and emergency response may drive a decision towards grade separation at Dunne Avenue and Tennant Avenue, which leads to a discussion below about potential design mitigation opportunities related to a grade-separated underpass at these locations.
  - The existing at-grade pedestrian railroad crossing at Caltrain Station and Morgan Hill Playground and Park will be replaced by a pedestrian underpass in Alternative 4. This will enhance safety and also allow for improved bicycle crossing conditions. A well-designed station underpass will not only service Caltrain passengers but also increase pedestrian foot traffic between Butterfield Boulevard and the Downtown.

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- Visual impact
  - Alternative 4 has less impact on the visual character of the Downtown than the other three alternatives.
  - Additional evidence is needed to justify CHSRA's statement regarding increased of visual quality in the Aesthetics and Visual Quality section.
- Property and building impacts
  - Alternative 4 has less impact on adjacent properties through Morgan Hill Downtown compared to Alternative 2, which has elevated tracks on a berm following the same alignment as Alternative 4. The slopes of the berm require permanent land-take from properties on both sides of the tracks.
  - Alternative 4 would cause property impacts primarily around the Caltrain Station where the right-of-way is expanded to accommodate an additional station platform. Parking spaces on the VTA lot and the residential property near E Main Avenue will also be impacted.
  - The proposed Caltrain Station pedestrian underpass and ramps with an ADA accessible slope will take up a significant amount of space. The capacity for parking and/or future proposed uses on the station-adjacent parcels will be impacted.

Potential Mitigation Opportunity, Consideration and Recommendation

1. ***Caltrain Station access***

1471-2130 *Considerations*

- The underpass serving Caltrain Station must meet ADA accessible design standards and support bicycle access.

1471-2131
- The location of the pedestrian underpass should be considered with the planning and design of pedestrian paths, access way, pick-up/drop-off, parking, and future development on the adjacent properties.

1471-2132
- The design should provide adequate lighting and maximize natural light to enhance security while ensuring energy efficiency. The length of actual tunnel should be minimized.

1471-2133 *Recommendations*

- The tunnel should be minimum 20 feet wide and 10 feet tall with a ground texture or pavers differentiating the zones dedicated to pedestrians and bicycles.

1471-2134
- A five percent slope is recommended for a continuous access ramp to improve ADA accessibility and to support cyclists.

1471-2135
- A compact design of the ramps is recommended to allow for future flexibility in the use of the public properties adjacent to the Caltrain Station.

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1471-2136
- Provide adequate lighting in the pedestrian underpass. Preserve maximum exposure to daylight through locating the ramps where opening to the sky is possible. Consider integrating landscape features into the design of the ramps to enhance the visual quality of the infrastructure.

2. ***Dunne Avenue potential grade separation***

1471-2137 *Considerations*

- Dunne Avenue is a primary connection close to Morgan Hill downtown – an integral part of the city's proposed Bikeway, Trails, Parks and Recreation System. A grade-separated underpass provides an opportunity to minimize disruption to pedestrian and bicycle flow.

1471-2138
- The sidewalks and bike lanes along Dunne Avenue should be compliant with ADA standards.

1471-2139
- Mitigation for driveway and building access impacts along Dunne Avenue should be considered.

Recommendations

1471-2140
- Proposed Dunne Avenue grade separation should be designed in coordination with the realignment of Depot Street to connect with Church Street.

1471-2141
- Bicycle lanes and sidewalks should be incorporated into the proposed section of the Dunne Avenue underpass. Physical barriers are recommended between bikes lanes and travel lanes. In the case that a grade difference is needed between the sidewalks and travel lanes in order to maintain ADA compliance, the bike lanes should be located at the sidewalk level.

1471-2142
- Consider creating a public pedestrian path at-grade to preserve existing building access to the homes along the north face of the Larkspur Loop block.

3. ***Tennant Avenue potential grade separation***

1471-2143 *Considerations*

- The proposed Tennant Avenue grade separation should be taken into consideration the existing Railroad Avenue – Tennant Avenue intersection. Maintaining the intersection below-grade would require a realignment of Railroad Avenue to intersect with the lowered intersection and cause a significant amount of permanent land-take in adjacent properties.

1471-2144
- The sidewalks and bike lanes along Tennant Avenue should be compliant with ADA standards.

1471-2145
- Mitigation for driveway and building access impacts along Tennant Avenue should be considered.

1471-2146 *Recommendations*

- Bicycle lanes and sidewalks should be incorporated into the proposed section of the Tennant Avenue underpass. Physical barriers are recommended between bikes lanes and travel lanes. In the case that a grade difference is

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1471-2146 needed between the sidewalks and travel lanes in order to maintain ADA compliance, the bike lanes should be located at the sidewalk level.

1471-2147
- Railroad Avenue should remain at-grade and terminate in a turnaround just to the north of Tennant Avenue. Although Railroad Avenue will no longer intersect with Tennant Avenue, given that Tennant Avenue will pass below the tracks, it will cause significantly less impact on adjacent properties.

1471-2148
- Create a new easement or an alternative access point to mitigate the impact to properties on the west side of the HSR corridor that currently can only be accessed from Tennant Avenue.

1471-2149
4. ***Monterey Underpass***

Recommendations

- Proposed section of Monterey Road Underpass should incorporate sidewalks and bike lanes.

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Attachment C:
Standards of Coverage Assessment volume 1 and Vomune 2

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CITYGATE ASSOCIATES, LLC
PUBLIC SAFETY SERVICES

NOVEMBER 14, 2019

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EXECUTIVE SUMMARY

The Cities of Gilroy and Morgan Hill (Cities) and the South Santa Clara County Fire District (Fire District), collectively referred to as the "Departments," jointly retained Citygate Associates, LLC (Citygate) to conduct a comprehensive Standards of Coverage (SOC) assessment to provide a foundation for future local and regional fire service planning. The goal of this assessment is to identify both current services and desired service levels and then to assess the partner fire agencies' ability to provide them. After understanding any possible gaps in operations and resources, Citygate has provided recommendations to improve regional operations and services over time.

This assessment is presented in several parts, including this Executive Summary outlining the most significant findings and recommendations, and the fire station/crew deployment analysis supported by maps and response statistics. A separate Map Atlas (**Volume 2**) contains all the maps referenced throughout this report. Overall, there are 40 findings and 10 specific action recommendations.

POLICY CHOICES FRAMEWORK

There are no mandatory federal or state regulations directing the level of fire service staffing, response times, or outcomes. Thus, the level of fire protection services provided is a *local policy decision.* Communities have the level of fire services that they can afford, which may not always be the level desired. However, if services are provided at all, local, state, and federal regulations relating to firefighter and citizen safety must be followed.

OVERALL DEPLOYMENT SUMMARY

Citygate finds that the three Departments are well organized to accomplish their mission to serve their respective populations over a varied land use pattern.

Simply stated, fire service deployment is about the *speed* and *weight* of the response. *Speed* refers to initial response (first-due) of all-risk intervention resources (engines, trucks, and/or ambulances) strategically deployed across a jurisdiction for response to emergencies within a time interval to achieve desired outcomes. *Weight* refers to multiple-unit responses (Effective Response Force (ERF) also commonly called a First Alarm) for more serious emergencies such as building fires, multiple-patient medical emergencies, vehicle collisions with extrication required, or technical rescue incidents. In these situations, enough firefighters must be assembled within a reasonable time interval to safely control the emergency and prevent it from escalating into a more serious event.

If desired outcomes include limiting building fire damage to only part of the inside of an affected building and/or minimizing permanent impairment resulting from a medical emergency, then

initial units should arrive within 7:30 minutes from 9-1-1 notification, and a multiple-unit ERF should arrive within 11:30 minutes of 9-1-1 dispatch center notification, all at 90 percent or better reliability. Total response time to emergency incidents includes three distinct components: (1) 9-1-1 call processing/dispatch; (2) crew turnout; and (3) travel. Recommended best practices for these response components are 1:30 minutes, 2:00 minutes, and 4:00/8:00 minutes respectively for first-due and multiple-unit ERF responses in urban areas.

Table 1 shows overall 90th percentile call-to-arrival performance for 2016-2018 by station. As Table 1 shows, none of the station response areas receive service close to the 7:30-minute best practice goal for urban/suburban population densities; however, the Fire District's Masten and Gilroy Gardens stations meet Citygate's best practice goal of 14:00 minutes or less for rural population densities.

Table 1—Call-to-Arrival Performance – 2016–2018 (Taken from Table 20)

Station	90th Percentile Performance
Overall	**9:15**
SC1 – Morgan Hill	9:25
SC2 – Masten[1]	12:34
SC3 – Gilroy Gardens[1]	14:06
MH4 – El Toro	8:31
MH5 – Dunne Hill	9:51
GY7 – Chestnut	8:55
GY8 – Las Animas	8:11
GY9 – Sunrise	8:34
GYSTR – Glen Loma	10:51

Source: Fire Departments' incident records
[1] 14:00-minute call-to-arrival goal for rural response areas

Call processing/dispatch performance is *excellent* for Morgan Hill and the Fire District; however, Gilroy's dispatch performance is about 1:00 minute (66 percent) *slower* than the best practice goal of 90 seconds or less at 90 percent or better reliability. The times in Table 1 also reflect a slower *travel* time than the preferred 4:00 minutes for 90 percent of the incidents in an urban population density, as summarized in Table 2.

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Table 2—First-Due Travel Time Performance – 2016–2018 (Taken from Table 19)

Station	90th Percentile Performance
Overall	**6:08**
SC1 – Morgan Hill	6:26
SC2 – Masten[1]	8:50
SC3 – Gilroy Gardens[1]	11:24
MH4 – El Toro	6:01
MH5 – Dunne Hill	7:25
GY7 – Chestnut	5:37
GY8 – Las Animas	5:06
GY9 – Sunrise	5:09
GYSTR – Glen Loma	7:39

Source: Fire Departments' incident records
[1] 10:30-minute travel time goal for rural response areas

The region-wide call-to-arrival response time of 9:15 minutes from 9-1-1 call answer is *significantly slower* than Citygate's recommendation of 7:30 minutes, due to multiple response time challenges in many of the fire station areas.

Overall, Citygate finds that the study partners are facing three primary challenges in the provision of fire services as follows:

Challenge #1—Daily Staffing Capacity

While Citygate considers the three jurisdictions' physical response resources appropriate to protect against the hazards likely to impact each respective jurisdiction, the daily staffing level in each City of 10-12 response personnel provides a total response force only minimally sufficient for a single emerging fire incident or a one- to three-patient emergency medical services (EMS) incident. Even with automatic aid from the Fire District, daily staffing in both Cities barely meets the recommended minimum of 15 personnel including at least one Chief Officer for incident command and safety. A major shopping holiday at the outlet mall or a downtown community event can significantly affect service demand. When high service demand occurs or incident needs require more than the 10-12 on-duty personnel, the Cities are *dependent* on the Fire District to provide both first-due and ERF response staffing capacity. Similarly, the Fire District is *dependent* on one or both Cities for first-due and ERF staffing capacity.

Given increasing annual service demand and the Cities' continuing growth, Citygate is concerned about overall daily staffing and the Cities' ability to respond with more *weight of response* and to

also have sufficient capacity for concurrent incidents. Thus, in Citygate's opinion, both Cities are *understaffed* to provide a suitable *weight of response* and capacity for concurrent incidents, and Citygate recommends that each City construct and staff an additional station as soon as fiscally feasible.

Challenge #2—Fire Station Locations

Overall longer-than-desired first-due *travel* times shown in Table 2 are due to current fire station spacing, the non-grid street network design in some areas of each jurisdiction, gated/limited access communities, topography, natural and built barriers (hills and the highways), simultaneous incidents at peak hours of the day, and traffic congestion.

If desired outcomes include limiting building fire damage to only part of the inside of an affected building and/or minimizing permanent impairment resulting from a medical emergency, then both Cities should have travel time coverage to provide a Citygate-recommended *total* response time goal of 7:30 minutes or less for the first-due unit, and 11:30 minutes or less for a multiple-unit ERF response, all from 9-1-1 dispatch notification at 90 percent or better reliability. As the geographic mapping discussed in Section 2.6.1 shows, the stations are appropriately located in all major neighborhoods; however, they are spaced too far apart to provide the desired first-due and ERF travel time coverage. Thus, in Citygate's opinion, the two Cities have grown past their current station spacing, and quicker dispatch processing and turnout times cannot resolve the longer-than-desired travel times and traffic congestion—only an additional fire station in each City can.

Gilroy has implemented a pilot Alternative Service Model (ASM) study that provides a two-person Type-1 ambulance or Type-6 wildland fire engine for EMS calls in the newly developing Glen Loma area of the City. Citygate recommends that the ASM be continued until the City constructs and staffs a permanent fourth fire station in that area as soon as fiscally feasible.

Citygate also recommends that Morgan Hill construct and staff a third fire station in the central section of the City as soon as fiscally feasible. Potential interim steps to this goal include staffing the truck with three additional personnel daily as a third City unit, and/or dynamic deployment of a two-person Type-6[1] all-risk unit in central Morgan Hill during peak service demand hours.

The Fire District's Station #3 at Gilroy Gardens is poorly located within the City of Gilroy to serve its primary first-due response area along the west Highway 152 corridor and northwest generally along the Watsonville Road corridor. Should the District decide to relocate this station to a more suitable location further west or northwest of Gilroy, it would significantly impact first-due and ERF capacity and travel time coverage for Gilroy. Because of this, Citygate strongly encourages

[1] 18,000- to 20,000-pound GVW truck chassis with utility body, fire pump, water tank, and hose. May also be equipped to provide ALS/BLS EMS and initial rescue services.

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the District and City to collaborate on future service delivery in this area of the City and District, including evaluating potential shared service opportunities such as cost-sharing a fire station to serve both jurisdictions similar to an arrangement between Morgan Hill and the Fire District.

While the Fire District's Masten station provides good first-due and ERF travel time coverage in all directions, an alternate location in the vicinity of the South Santa Clara County Airport would provide improved response time to the airport, San Martin, and Morgan Hill; however, it would increase response times into Gilroy and Fire District areas east of Gilroy. Any consideration to relocate this station should thus include both Cities.

CHALLENGE #3—MUTUAL AID ISOLATION

While the three fire agencies have automatic aid agreements that provide for the dispatch of the closest first-due and ERF response resource(s) regardless of jurisdiction, they are poorly located geographically for prompt additional mutual aid. Thus, mutual aid cannot realistically be provided in a timely manner by Watsonville or the Pajaro Valley Fire District from the west, Hollister or the Aromas Tri-County Fire District from the south, CAL FIRE (when available) from the east, or San Jose from the north unless southern San Jose units are available and do not encounter traffic congestion on southbound U.S. 101. The three jurisdictions are essentially self- or co-reliant to provide the resources needed to resolve all but the most catastrophic emergencies without outside assistance. Such physical isolation, combined with fiscal realities that prevent any one jurisdiction from being able to afford a service level providing enough resources and staffing to handle all calls for service without assistance, makes a cooperative service delivery model that maximizes utilization of the combined resources to provide optimal operational and fiscal effectiveness and efficiency the best long-term alternative for all three jurisdictions.

KEY FINDINGS AND RECOMMENDATIONS

Following are the key findings and all recommendations from this study. This is not a comprehensive list of each finding throughout the report, thus the finding numbers in this section are not continuous. A full list of all findings and recommendations can be found in Section 4 of this report.

Finding #14: First unit travel time for Gilroy is about 1:00 minute (25 percent) *slower* than a recommended best practice goal of 4:00 minutes or less for urban population densities, but only slightly (11-22 percent) slower than the Department's current 4:30-minute goal except for the Glen Loma / Santa Teresa area, where travel time is more than 3:00 minutes (67 percent) *slower* than the current 4:30-minute goal, and more than 3:30 minutes (87 percent) *slower* than the recommended 4:00-minute goal.

Finding #15: First unit travel time for Morgan Hill is 2:00-3:25 minutes (50-87 percent) *slower* than a recommended best practice goal of 4:00 minutes or less for urban population densities.

Finding #16: First unit travel time from the Fire District's Masten station meets a Citygate-recommended goal of 10:30 minutes or less for rural zones and is 1:00 minute (10 percent) *slower* than the goal from the Gilroy Gardens station. First unit travel time from the Morgan Hill station is 2:26 minutes (62 percent) *slower* than the 4:00-minute goal for urban/suburban population densities.

Finding #17: Call-to-arrival response performance in Gilroy, Morgan Hill, and the Fire District's Morgan Hill station is nine percent to 45 percent *slower* than Citygate's recommended 7:30-minute goal for urban/suburban response zones. Call-to-arrival performance from the Fire District's Masten and Gilroy Gardens stations *meets* Citygate's recommended 14:00-minute goal for rural areas.

Finding #18: Effective Response Force (ERF or First Alarm) call-to-arrival performance is *significantly slower* than the Citygate-recommended goal of 11:30 minutes for urban/suburban areas, except in the Glen Loma station area in Gilroy which is 9:38 minutes. Also, ERF performance *meets* the Citygate-recommended *rural* response goal of 19:30 minutes for the Fire District's Masten station response area.

Finding #19: Gilroy and Morgan Hill do not deploy enough firefighters daily to safely resolve even a single serious fire or EMS incident, nor to provide adequate capacity for simultaneous incidents.

Finding #20: Gilroy and Morgan Hill are dependent on Fire District resources to achieve a minimal Effective Response Force staffing of 14 personnel.

Finding #21: Gilroy and the Fire District receive mutual benefit from their current automatic aid agreement.

Finding #22: Morgan Hill and the Fire District receive mutual benefit from their current cost-shared engine and automatic aid agreement.

Finding #23: The three jurisdictions are poorly located geographically for prompt mutual aid other than from each other.

Finding #24: The three jurisdictions are essentially self- or co-reliant to provide the response resources to resolve all but the most catastrophic emergencies without outside assistance.

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Finding #28: Citygate projects service demand will continue to increase approximately 2-5 percent annually over the next 16-21 years (2035-2040), with EMS service demand increasing at a slightly higher 3-6 percent annually and comprising an increasing percentage of total service demand.

Finding #29: The City of Gilroy is geographically too large to effectively provide recommended service levels from its three existing fire stations and Fire District Station #3 at Gilroy Gardens.

Finding #30: A fourth fire station in southwest Gilroy would improve five deployment needs including first-due travel time coverage, daily Citywide staffing, multiple-unit Effective Response Force (ERF) staffing, travel time coverage during traffic congestion periods, and reduced dependence on the Fire District's Station #3 at Gilroy Gardens for first-due and ERF capacity and staffing.

Finding #31: If the Fire District relocates the Gilroy Gardens station further west, it will impact first-due and Effective Response Force capacity, staffing, and travel time coverage for Gilroy.

Finding #32: The City of Morgan Hill is geographically too large to effectively provide recommended service levels from its two existing fire stations and shared Fire District Station #1.

Finding #33: The risks in Morgan Hill, combined with projected future growth, justify a dedicated minimum daily City staffing level of nine personnel, with 12 total personnel daily including the Fire District's Morgan Hill engine.

Finding #34: A third fire station in central Morgan Hill would improve Citywide daily staffing capacity and both first-due and Effective Response Force travel time coverage.

Finding #37: Relocation of the Fire District's Masten station would result in both advantages and disadvantages relative to first-due and Effective Response Force response performance and automatic aid.

Finding #38: Relocation of the Fire District's Gilroy Gardens station would result in both advantages and disadvantages relative to first-due and Effective Response Force response performance and automatic aid.

Finding #39: A cooperative fire service model that maximizes utilization of the combined three fire agency jurisdictions' resources is the best alternative going forward for efficient and cost-effective delivery of fire services in south Santa Clara County.

Finding #40: Close collaboration between Gilroy, Morgan Hill, and the Fire District is critical to establishing and maintaining a cooperative regional fire service delivery model that maximizes utilization of the combined jurisdictions' resources to provide long-term operational and fiscal efficiencies.

Recommendation #1: **Adopt Updated Deployment Policies:** The Departments' elected officials should adopt *updated*, complete performance measures to aid deployment planning and to monitor performance. The measures of time should be designed to deliver outcomes that will save patients when possible upon arrival and to keep small but serious fires from becoming more serious. With this is mind, Citygate recommends the following measures:

1.1 Distribution of Fire Stations: In *urban/suburban* population density areas, to treat pre-hospital medical emergencies and control small fires, the first-due unit should arrive within 7:30 minutes, 90 percent of the time from the receipt of the 9-1-1 call at fire dispatch. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and a 4:00-minute travel time.

In rural population density areas, the first-due unit should arrive within 14:00 minutes from the receipt of the 9-1-1 call at fire dispatch at 80 percent or better reliability. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and a 10:30-minute travel time.

1.2 Multiple-Unit Effective Response Force (ERF) for Serious Emergencies: In *urban/suburban* population density areas, to confine building fires near the room of origin, keep vegetation fires under one acre in size, and treat multiple medical patients at a single incident, a multiple-unit ERF of at least 17 personnel, including two Battalion Chiefs, should arrive within 11:30 minutes from the time of 9-1-1 call receipt at fire dispatch 90 percent of the time. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and an 8:00-minute travel time.

For *rural* population density areas, a multiple-unit ERF of at least 13 personnel, including at least one Battalion Chief, should arrive within 19:30 minutes from the time of 9-1-1 call receipt at fire dispatch 80 percent of the time. This equates to a 90-second

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dispatch time, a 2:00-minute crew turnout time, and a 16:00-minute travel time.

1.3 Hazardous Materials Response: Provide hazardous materials response designed to protect the communities from the hazards associated with uncontrolled release of hazardous and toxic materials. The fundamental mission of the Departments' response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community. This can be achieved with a first-due total response time of 7:30 minutes or less to provide initial hazard evaluation and/or mitigation actions. After the initial evaluation is completed, a determination can be made whether to request additional resources from the regional hazardous materials team.

1.4 Technical Rescue: Respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue with a first-due total response time of 7:30 minutes or less to evaluate the situation and/or initiate rescue actions. Following the initial evaluation, assemble additional resources as needed within a total response time of 11:30 minutes to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

Recommendation #2: Gilroy needs to work to substantially lower dispatch processing times, and Morgan Hill and the Fire District need to work to lower crew turnout times.

Recommendation #3: The City of Gilroy should construct a fourth fire station in the southwest Glen Loma area of the City, and staff it with a full-time three-person crew as soon as fiscally feasible.

Recommendation #4: The City of Gilroy should continue the current pilot Alternative Service Model until such time as the Glen Loma station is constructed and staffed with a full-time crew.

Recommendation #5: The City of Gilroy and the Fire District should continue to provide shared services wherever feasible to enhance fire and EMS service delivery in both jurisdictions.

Recommendation #6: The City of Morgan Hill should construct and staff a third fire station in the central section of the City as soon as fiscally feasible; or incrementally staff the truck with three personnel as a fourth unit, or dynamically deploy a two-person Peak Activity Unit during peak service demand periods.

Recommendation #7: Morgan Hill and the Fire District should continue to collaborate to provide shared services wherever feasible to enhance fire and EMS service delivery in both jurisdictions.

Recommendation #8: The Fire District should collaborate closely with both Cities relative to any potential station relocations.

Recommendation #9: Gilroy, Morgan Hill, and Fire District leadership should establish desire and intent as soon as possible to provide cooperative fire services for many decades, perhaps through a formal Memorandum of Understanding.

Recommendation #10: Given the desire and intent to jointly provide cooperative fire services for many decades, the three jurisdictions should establish a joint strategic planning team with policy-level direction to evaluate potential cooperative service elements for approval by the respective policy bodies, and then to conduct the detailed implementation planning necessary.

NEXT STEPS

Citygate's recommended immediate next steps for Gilroy, Morgan Hill, and the Fire District are:

- Review and absorb the content, findings, and recommendations of this study
- Prepare a staff report and draft Resolution for each City Council and the Fire District Board of Commissioners to adopt the included recommended response performance goals
- Determine interest and intent to provide long-term joint cooperative fire services in south Santa Clara County
  - Consider a Memorandum of Understanding to memorialize such intent.

Recommended intermediate-term next steps include:

- Monitor response performance and unit workload at least annually

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- Establish a joint agency strategic planning team with policy-level direction to evaluate potential cooperative service opportunities, including, but not limited to, fire crew staffing, deployment, cost sharing, and fire dispatch services, with the intent to develop a mutually beneficial long-term commitment and solution that optimizes the use of all three jurisdictions' resources to provide efficient and cost-effective fire services in south Santa Clara County.

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SECTION 1—INTRODUCTION AND BACKGROUND

The Cities of Gilroy and Morgan Hill (Cities) and the South Santa Clara County Fire District (Fire District), jointly retained Citygate Associates, LLC (Citygate) to conduct a comprehensive Standards of Coverage (SOC) assessment to provide a foundation for future fire service planning. The goal of this assessment is to identify both current services and desired service levels, and then to assess the partner agencies' abilities to provide them. Citygate's scope of work and corresponding Work Plan were developed consistent with Citygate's Project Team members' experience in fire administration and deployment. Citygate utilizes various National Fire Protection Association (NFPA) and Insurance Services Office (ISO) publications as best practice guidelines, along with the self-assessment criteria of the Commission on Fire Accreditation International (CFAI).

1.1 REPORT ORGANIZATION

This report is organized into the following sections. **Volume 2** (Map Atlas) is separately bound.

Executive Summary: A summary of current services and significant future challenges, key findings and recommendations, and next steps.

Section 1 **Introduction and Background:** An introduction to the study and background facts about the three jurisdictions.

Section 2 **Standards of Coverage Assessment:** An overview of the SOC process and detailed analysis of existing deployment policies, outcome expectations, critical tasks, distribution and concentration effectiveness, reliability and historical response effectiveness, and overall deployment evaluation.

Section 3 **Future Service Needs and Alternative Service Models:** Quantification of future service demand and related service needs based on projected community growth and development, and identification and evaluation of potential alternative service delivery models.

Section 4 **Findings and Recommendations:** A comprehensive list of all findings and recommendations in this report.

Section 5 **Next Steps:** Recommended immediate and intermediate-term next steps.

Appendix A **Community Risk Assessment:** A comprehensive assessment of hazards likely to impact the community, probability of a hazard occurrence, likely impact severity resulting from a hazard occurrence, and overall risk by hazard type.

1.1.1 Goals of the Report

This report cites findings and makes recommendations, as appropriate, related to each finding. Findings and recommendations throughout this report are sequentially numbered. A complete list of these findings and recommendations is provided in Section 4.

This document provides technical information about how fire services are provided and legally regulated and how the three study partner agencies currently operate. This information is presented in the form of recommendations and policy choices for consideration by each respective City Council and the Fire District Board of Commissioners.

The result is a solid technical foundation upon which to understand the advantages and disadvantages of the choices facing the Cities" and Fire District's leadership regarding the best way to provide fire services and, more specifically, at what level of desired outcome and expense.

1.1.2 Limitations of Report

In the United States, there are no federal or state regulations requiring a specific minimum level of fire services. Each community, through the public policy process, is expected to understand the local fire and non-fire risks and its ability to pay, and then choose its level of fire services. *If* fire services are provided, federal and state regulations specify how to safely provide them for the public and for the personnel providing the services.

While this report and technical explanation can provide a framework for a discussion of how to best provide fire services in south Santa Clara County, neither this report nor the Citygate team can make the final decisions, nor can they cost out every possible alternative in detail. Once final strategic choices receive policy approval, City and Fire District staff can conduct any final costing and fiscal analyses as typically completed in their normal operating and capital budget preparation cycle.

1.2 PROJECT APPROACH AND SCOPE OF WORK

1.2.1 Project Approach and Research Methods

Citygate utilized multiple sources to gather, understand, and model information about the Cities and the Fire District. Citygate initially requested a large amount of background data and information to better understand current costs, service levels, history of service level decisions, and other prior studies.

In subsequent site visits, Citygate performed focused interviews of the project team members and other project stakeholders. Citygate reviewed demographic information about the Cities and Fire District, including the potential for future growth and development. Citygate also obtained map and response data from which to model current and projected fire service deployment with the goal

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to identify the location(s) of stations and crew quantities required to best serve the Cities and Fire District as they currently exist and to facilitate future deployment planning.

Once Citygate gained an understanding of the three service areas and their fire and non-fire risks, the Citygate team developed a model of fire services that was tested against the travel time mapping and prior response data to ensure an appropriate fit. Citygate also evaluated future growth potential and service demand by risk type and evaluated potential alternative emergency service delivery models. This resulted in Citygate proposing an approach to address current and long-range needs with effective and efficient use of existing resources. The result is a framework for enhancing fire services while meeting reasonable community expectations and fiscal realities.

1.2.2 Project Scope of Work

Citygate's approach to this SOC assessment involved:

- Reviewing information provided by the three jurisdictions and conducting listening sessions with project stakeholders
- Utilizing FireView™, a geographic mapping software program, to model fire station travel time coverage
- Using StatsFD™, an incident response time analysis program, to review the statistics of prior incident performance and plot the results on graphs and geographic mapping exhibits
- Identifying and evaluating future population and related development growth
- Identifying and evaluating potential alternative service delivery models
- Recommending appropriate risk-specific response performance goals.

1.3 Study Area Overview

The City of Gilroy, which incorporated as a charter city in March 1870, is located 70 miles south of San Francisco at the southern end of Santa Clara County. Best known as the Garlic Capital of the World and home to the annual Garlic Festival each July, the City encompasses 16 square miles with a 2017 population of just over 54,000, which is projected to grow by up to 10 percent over the next five years. While the City's economy has historically centered on agricultural products and processing, Silicon Valley technology has more recently expanded south to Gilroy. The City is also home to more than 145 Premium Outlet stores, as well as Gavilan Community College.[2]

[2] Reference: City of Gilroy website and 2020 General Plan

The City of Morgan Hill, incorporated in 1906, is located 12 miles north of Gilroy and 22 miles south of San Jose along U.S. 101. Known as one of the last communities in the region with a charming small-town atmosphere, Morgan Hill encompasses nearly 13 square miles with a 2017 population of just over 43,000 residents. The City's economy began transitioning in the 1950s from an agricultural center to more of a suburban residential community, although several technology companies as well as research and development firms and other industries are based in Morgan Hill.

The South County Fire Protection District of Santa Clara County, generally known as the South Santa Clara County Fire District, was formed in 1980 through consolidation of the Gilroy and Morgan Hill Rural Fire Districts. Encompassing approximately 432 square miles of unincorporated Santa Clara County in the areas of Gilroy, Morgan Hill, and San Martin, the Fire District serves a suburban/rural population of approximately 40,300. The Fire District is a dependent District of the County governed by the Board of Supervisors as the District Board of Directors, and a seven-member Board of Commissioners appointed by the Santa Clara County District 1 Supervisor.

1.4 Fire Agencies Overview

The Gilroy Fire Department, operating under authority of the Gilroy City Charter, provides all-risk fire, rescue, and Advanced Life Support (ALS) pre-hospital emergency medical services with a staff of 42 personnel, including a daily response force of nine personnel staffing three Type-1 structural fire engines and one Division Chief from the City's three fire stations. The Department's administrative staff consists of seven personnel including the Fire Chief, three Division Chiefs, an Administrative Fire Captain, a Management Analyst, and an Office Assistant as summarized in Figure 1.

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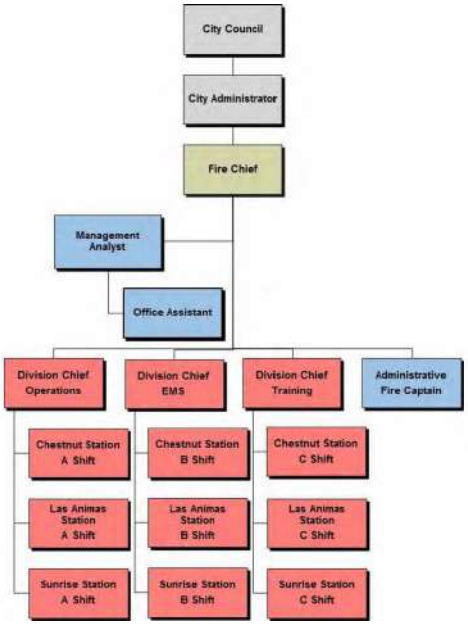
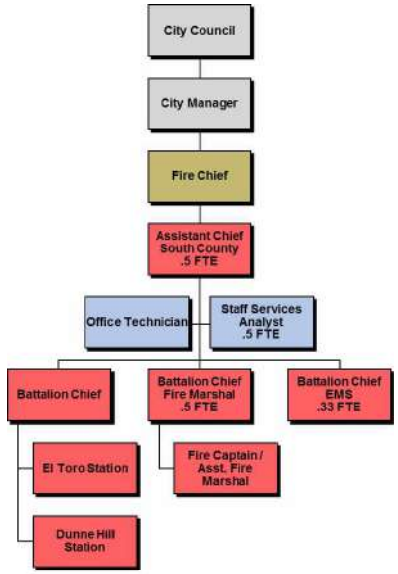
Figure 1—Gilroy Fire Department



The City of Morgan Hill contracts with the California Department of Forestry and Fire Protection (CAL FIRE) to staff and operate its Fire Department. Operating under authority of California Government Code Section 38611, the Morgan Hill Fire Department provides all-risk fire, rescue, and ALS pre-hospital emergency medical services with a staff of 27.33 personnel, including a daily response force of six personnel staffing two Type-1 structural fire engines and one Battalion Chief from the City's two fire stations. The Department's administrative staff consists of five personnel including a shared CAL FIRE Assistant Chief, one CAL FIRE Battalion Chief, a shared Battalion Chief/Fire Marshal, one Office Technician, and a shared Staff Services Analyst as summarized in Figure 2.

Figure 2—Morgan Hill Fire Department



The Fire District also contracts with the California Department of Forestry and Fire Protection (CAL FIRE) to staff and manage Fire District facilities and functions. Operating under authority of California Health and Safety Code Section 13800, known as the Fire Protection District Law of 1987, the Fire District provides all-risk fire, rescue, and ALS pre-hospital emergency medical services with a staff of 25.83 personnel, including a daily response force of nine personnel staffing three Type-1 structural fire engines and one Battalion Chief from the Fire District's three fire stations. The Fire District's administrative staff consists of five personnel including a shared CAL FIRE Assistant Chief, one CAL FIRE Battalion Chief, a shared Battalion Chief/Fire Marshal, one Office Technician, and a shared Staff Services Analyst as summarized in Figure 3.

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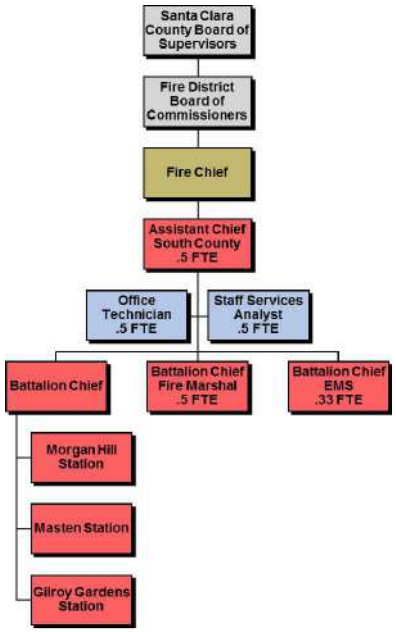
Figure 3—South Santa Clara County Fire District



Response personnel for all three agencies are trained to either the Emergency Medical Technician (EMT) level capable of providing Basic Life Support (BLS) pre-hospital emergency medical care, or the EMT-Paramedic (Paramedic) level capable of providing ALS pre-hospital emergency medical care. Ground Paramedic ambulance service is provided by Santa Clara County Ambulance, now a division of American Medical Response (AMR) (previously Rural/Metro), a private-sector ambulance provider operating under a non-exclusive operating area contract administered by the Santa Clara County Emergency Medical Services Agency. Air ambulance services, when needed, are provided by CALSTAR (Gilroy) and Life Flight (Palo Alto). Four area hospitals provide emergency medical services, including Saint Louise Regional Hospital in Gilroy, two in San Jose, and one in Palo Alto, all of which have trauma centers.

Response personnel are also trained to the U. S. Department of Transportation Hazardous Material First Responder Operational (FRO) level to provide initial hazardous material incident assessment, hazard isolation, and support for a regional hazardous material response team available to all three jurisdictions from the City of San Jose or Central Santa Clara County Fire District through mutual aid. Gilroy can also deploy a hazardous materials decontamination unit as needed in support of the regional Hazardous Materials Response Team.

Response personnel from all three Departments are further trained to Confined Space Awareness level, and the Fire District can deploy a Type-2 Urban Search and Rescue (USAR) Team from its Gilroy Gardens station as needed or requested through the County mutual aid system.

Table 3 summarizes total budgeted personnel by agency and function.

Table 3—Budgeted Personnel by Agency

Function	Budgeted Personnel			
	Gilroy	Morgan Hill[1]	Fire District[1]	Total
Administration	7.0	3.83	3.33	14.16
Operations	35.0	22.0	22.0	79.0
Fire Prevention	0	1.5	.5	2.0
Total	42.0	27.33	25.83	95.16

Source: Fire agencies
[1] Does not include state-funded Unit/Fire Chief

Gilroy personnel work a 48/96-hour shift schedule of two consecutive 24-hour days on duty, followed by four consecutive days off. Morgan Hill and Fire District personnel work a 72/96 schedule of three consecutive 24-hour days on duty, followed by four consecutive days off.

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SECTION 2—STANDARDS OF COVERAGE ASSESSMENT

This section provides a detailed analysis of the three fire agencies' current ability to deploy and mitigate emergency risks within their service area. The response analysis uses prior response statistics and geographic mapping to help each agency and the community visualize what the current response system can and cannot deliver.

2.1 STANDARDS OF COVERAGE PROCESS OVERVIEW

The core methodology used by Citygate in the scope of its deployment analysis work is *Standards of Cover*, fifth and sixth editions, which is a systems-based approach to fire department deployment published by the Commission on Fire Accreditation International (CFAI). This approach uses local risk and demographics to determine the level of protection best fitting a community's needs.

The Standards of Coverage (SOC) method evaluates deployment as part of a fire agency's self-assessment process. This approach uses risk and community expectations on outcomes to help elected officials make informed decisions on fire and emergency medical services deployment levels. Citygate has adopted this multiple-part systems approach as a comprehensive tool to evaluate fire station locations. Depending on the needs of the study, the depth of the components may vary.

Such a systems approach to deployment, rather than a one-size-fits-all prescriptive formula, allows for local determination. In this comprehensive approach, each agency can match local needs (risks and expectations) with the costs of various levels of service. In an informed public policy debate, a governing board "purchases" the fire and emergency medical service levels the community needs and can afford.

While working with multiple components to conduct a deployment analysis is admittedly more work, it yields a much better result than using only a singular component. For instance, if only travel time is considered, and frequency of multiple calls is not, the analysis could miss over-worked companies. If a risk assessment for deployment is not considered, and deployment is based only on travel time, a community could under-deploy to incidents.

Table 4 describes the eight elements of the SOC process.

Table 4—Standards of Coverage Process Elements

SOC Element		Description
1	Existing Deployment Policies	A review of the deployment goals/policies the agency has in place today.
2	Community Outcome Expectations	A review of the expectations of the community for responses to emergencies.
3	Community Risk Assessment	A review of the values to be protected from hazards in the community. (For this report, see Appendix A—Community Risk Assessment.)
4	Critical Task Analysis	A review of the tasks that must be performed and the personnel required to deliver the stated outcome expectation for the Effective Response Force.
5	Distribution Analysis	A review of the spacing of first-due response resources (typically engines) to control routine emergencies.
6	Concentration Analysis	A review of the spacing of fire stations so that more complex emergencies can receive sufficient resources in a timely manner (First Alarm Assignment or the ERF).
7	Reliability and Historical Response Effectiveness Analysis	An evaluation of prior response statistics to determine the percent of compliance the existing system delivers.
8	Overall Evaluation	Proposed Standard of Coverage statements by risk type, as necessary.

Source: CFAI *Standards of Cover*, Fifth Edition

Simply summarized, fire service deployment is about the *speed* and *weight* of the response. *Speed* refers to initial response (first-due), all-risk intervention resources (engines, trucks, and/or ambulances) strategically deployed across a jurisdiction for response to emergencies within a specified time interval to control routine to moderate emergencies without the incident escalating to greater size or severity. *Weight* refers to multiple-unit responses for more serious emergencies, such as building fires, multiple-patient medical emergencies, vehicle collisions with extrication required, or technical rescue incidents. In these situations, an adequate number of firefighters must be assembled within a reasonable time interval to safely control the emergency and prevent it from escalating into a more serious event. Table 5 illustrates this deployment paradigm.

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Table 5—Fire Service Deployment Paradigm

Element	Description	Purpose
Speed of Response	Travel time of initial response all-risk intervention units strategically located across a jurisdiction	To control routine to moderate emergencies without the incident escalating in size or complexity
Weight of Response	The number of firefighters in a multiple-unit response for serious emergencies	To assemble enough firefighters within a reasonable time frame to safely control a more complex emergency without escalation

Smaller fires and less complex emergencies require a single-unit or two-unit response (engine and/or specialty resource) within a relatively short response time. Larger or more complex incidents require more units and personnel to control. In either case, if the crews arrive too late or the total number of personnel is too few for the emergency, they are drawn into an escalating and more dangerous situation. The science of fire crew deployment is to spread crews out across a community or jurisdiction for quick response to keep emergencies small with positive outcomes, without spreading resources so far apart that they cannot assemble quickly enough to effectively control more serious emergencies.

2.2 CURRENT DEPLOYMENT

SOC ELEMENT 1 OF 8
EXISTING DEPLOYMENT POLICIES

Nationally recognized standards and best practices suggest using several incremental measurements to define response time. Ideally, the clock start time is when the 9-1-1 dispatcher receives the emergency call. In some cases, the call must then be transferred to a separate fire dispatch center. In this setting, the response time clock starts when the fire center receives the 9-1-1 call into its computer-aided dispatch (CAD) system. Response time increments include dispatch center call processing, crew alerting and response unit boarding (commonly called turnout time), and actual driving (travel) time.

At the time of this study, each agency's response time goals included:

2.2.1 City of Gilroy

> Chapter 7 of the City's General Plan 2020 states in *Policy 18.01 Standards of Service*, *"Continue to provide and maintain police and fire services that are adequate in manpower, equipment, and resources to respond to localized emergencies and calls for service within the City. The departments' current levels of service should be maintained or improved as the City continues to grow, with average emergency response times for police services of approximately 4.5 minutes and average emergency response times for fire services of less than 5.0 minutes."*

Other City documents reflect general wording about acceptable risk but do not really define what that means for various types of fire, medical, and technical emergencies. One of the City Council's 2018 Strategic Goals is to "Enhance Public Safety Capabilities."

The Gilroy Fire Department has operating goals to:

- Respond to emergency calls for service within 5:00 minutes 75 percent of the time
- Contain building fires to the room of origin 70 percent of the time
- Provide an effective response force (First Alarm) of 12-15 personnel within 10:00 minutes of initial dispatch for 95 percent of fires to contain the escalation of the emergency
- Have crew turnout time after notification be 60-80 seconds based on protective clothing needed and time of day

2.2.2 City of Morgan Hill

Chapter 9 of the City's General Plan states:

- *Goal SSI-11 Efficient police, fire and emergency medical response services, and access to local medical facilities*
- *Policy SSI-11.1 Staffing. Provide police and fire staffing and facilities as necessary to provide adequate public safety protection.*
- *Other policies cover access and preparedness, although in very general terms*

The Fire Department has a policy for EMS to arrive in urban and suburban (as defined by census data) areas in 7:59 minutes or less, and in rural areas in 11:59 minutes or less 95 percent of the time. These two measures come from the County's EMS system and ambulance provider plans.

For structural fires, the Department should deploy 12 firefighters plus two Chief Officers within 14:00 minutes 90 percent of the time.

2.2.3 South Santa Clara County Fire District

The Fire District has a policy for EMS to arrive in urban and suburban (as defined by census data) areas in 7:59 minutes or less, and in rural areas in 11:59 minutes or less 95 percent of the time. These two measures come from the County's EMS system and ambulance provider goals.

For structural fires, the Fire District should deploy 12 firefighters plus two Chief Officers within 14:00 minutes 90 percent of the time.

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None of these goals begin the time measure from the receipt of the 9-1-1 call, nor do they separate crew turnout time from actual driving time, which is a current best practice. They also do not address response performance to other risks within the jurisdictions, such as hazardous materials and technical rescue, as recommended by the CFAI. The three agencies do have a few goals and service-level histories that can be documented in response times, number of response companies, and minimum staffing. However, departmental goals are not adopted elected official policy direction as recommended by CFAI.

Currently, NFPA Standard 1710, a recommended deployment standard for *career* fire departments in urban/suburban areas, recommends initial (first-due) intervention units' arrival within a 4:00-minute travel time and recommends arrival of all the resources comprising the multiple-unit First Alarm within 8:00 minutes, at 90 percent or better reliability.[3]

The most recent published best practices by the NFPA for dispatching have increased the dispatch processing time up to 90 seconds and, if there are language barriers, 120 seconds. Further, for crew turnout time, 60-80 seconds is recommended, depending on the type of protective clothing that must be donned.

If the travel time measures recommended by the NFPA (and Citygate) are added to dispatch processing and crew turnout times recommended by Citygate and best practices, then a realistic 90 percent first unit arrival goal is now 7:30 minutes from the time of fire dispatch receiving the call. This is comprised of 90 seconds dispatch, 2:00 minutes crew turnout, and 4:00 minutes travel.

Finding #1: None of the three agencies have elected-official-approved response performance objectives meeting all best practice elements for time and desired outcomes. Some of the departmental policies have a portion of the elements of best practices-based response time and outcomes desired policies.

Finding #2: All three agencies have, over the last decade or more, completed a fire master plan, Standards of Response Cover assessment, or a contract for services agreement, yet the elected officials have not clearly adopted the response time policies as recommended in prior studies.

[3] NFPA 1710 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2016 Edition).

Cities of Gilroy and Morgan Hill and the South Santa Clara County Fire District
Standards of Coverage Assessment—Volume 1

2.2.4 Current Deployment Model

Resources and Staffing

Table 6 summarizes the current fire services deployment model in the joint south County service area:

Table 6—Agency Facilities and Response Resources

Station	Address	Assigned Apparatus	Minimum Staffing
South Santa Clara Fire District			**10**
Morgan Hill 1	15670 Monterey Road, Morgan Hill	**Engine 67** **Battalion Chief[1]**	**3** **1**
Masten 2	10810 No Name Uno, Gilroy	**Engine 68**	**3**
Gilroy Gardens 3	3050 Hecker Pass Hwy., Gilroy	**Engine 69**	**3**
City of Morgan Hill			**6**
El Toro 4	18300 Old Monterey Road	**Engine 57** **Truck 57**	**3**
Dunne Hill 5	2100 E. Dunne Avenue	**Engine 58**	**3**
City of Gilroy			**10**
Chestnut 7	7070 Chestnut Street	**Engine 47** **Division Chief**	**3** **1**
Las Animas 8	8383 Wren Avenue	**Engine 48**	**3**
Sunrise 9	880 Sunrise Drive	**Engine 49**	**3**

Source: South Santa Clara County fire agencies
[1] Battalion Chief is co-funded by the City of Morgan Hill and the Fire District

The three agencies have automatic mutual aid agreements with all other Santa Clara County fire agencies and are also signatories to the County and State of California mutual aid agreements.

Response Plan

The three agencies provide all-risk first response services to the people and facilities they protect including fire suppression; pre-hospital Paramedic (ALS) or Basic Life Support (BLS) emergency medical services (EMS); hazardous material and technical rescue response; and other non-emergency services, including fire prevention, community safety education, and other related services.

Given the diverse set of emergency risks presented in the south County area, the agencies utilize a best practice-based tiered response plan calling for different types and numbers of resources

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depending on incident/risk type. The two fire dispatch centers (Gilroy and CAL FIRE) select and dispatch the closest and most appropriate resource types pursuant to the three Departments' joint response plan, as shown in Table 7.

Table 7—Response Plan by Major Incident Type

Incident Type	Resources Dispatched	Total Personnel
Single-Patient EMS	1 Engine + 1 County Paramedic Ambulance	5
Vehicle Fire	1 Engine	3
Residential Building Fire	4 Engines, 2 Battalion Chiefs (Add Morgan Hill Ladder Truck if Commercial Building in Morgan Hill or Fire District Areas)	14
Wildland Fire (Medium)	4 Engines, 1 Water Tender, 1 Battalion Chief	14
Rescue	2 Engines, 1 Battalion Chief	7
Hazardous Material	2 Engines, 1 Battalion Chief	7

Source: Fire Departments

Finding #3: The three fire agencies have a standard response plan that considers risk and establishes an appropriate initial response for each incident type. Each type of call for service receives the combination of engines, trucks, specialty units, and command officers customarily needed to effectively control that type of incident based on each agency's experience.

2.3 Outcome Expectations

SOC Element 2 of 8
Community Outcome Expectations

The Standards of Coverage process begins by reviewing existing emergency services outcome expectations. This includes determining for what purpose the response system exists and whether the governing body has adopted any response performance measures. If it has, the time measures used must be understood and sound data must be available.

Current national best practice is to measure percent completion of a goal (e.g., 90 percent of responses) instead of an average measure. Mathematically, this is called a fractile measure.[4] This is because measuring the average only identifies the central or middle point of response time

[4] A *fractile* is that point below which a stated fraction of the values lie. The fraction is often given in percent; the term percentile may then be used.

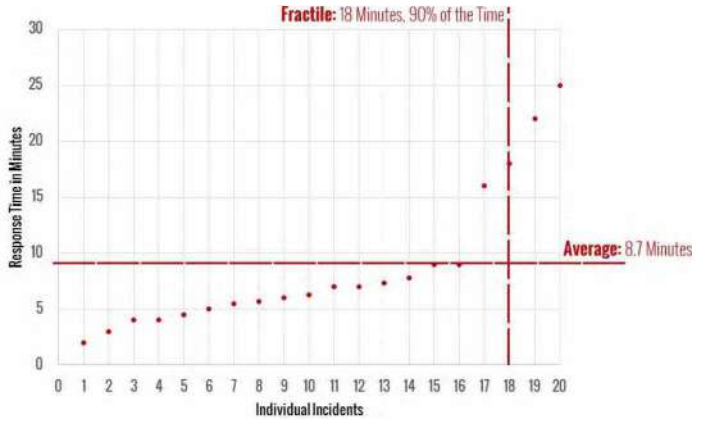
performance for all calls for service in the data set. Using an average makes it impossible to know how many incidents had response times that were far above the average or just above.

For example, Figure 4 shows response times for a fictitious fire department. This agency is small and receives 20 calls for service each month. Each response time has been plotted on the graph from shortest response time to longest response time.

Figure 4 shows that the average response time is 8.7 minutes. However, the average response time fails to properly account for four calls for service with response times far exceeding a threshold in which positive outcomes could be expected. In fact, it is evident in Figure 4 that 20 percent of responses are far too slow and that this jurisdiction has a potential life-threatening service delivery problem. Average response time as a measurement tool for fire services is simply not sufficient. This is a significant issue in larger cities if hundreds or thousands of calls are answered far beyond the average point.

By using the fractile measurement with 90 percent of responses in mind, this small jurisdiction has a response time of 18:00 minutes, 90 percent of the time. This fractile measurement is far more accurate at reflecting the service delivery situation of this small agency.

Figure 4—Fractile versus Average Response Time Measurements



More importantly, within the SOC process, positive outcomes are the goal. From that, crew size and response time can be calculated to allow appropriate fire station spacing (distribution and concentration). Emergency medical incidents include situations with the most severe time

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constraints. The brain can only survive 4:00-6:00 minutes without oxygen. Cardiac arrest and other events can cause oxygen deprivation to the brain. While cardiac arrests make up a small percentage, drowning, choking, trauma constrictions, or other similar events have the same effect. In a building fire, a small incipient fire can grow to involve the entire room in a 6:00- to 8:00-minute time frame. If fire service response is to achieve positive outcomes in severe emergency medical situations and incipient fire situations, *all* responding crews must arrive, assess the situation, and deploy effective measures before brain death occurs or the fire spreads beyond the room of origin.

Thus, from the time of 9-1-1 receiving the call, an effective deployment system is *beginning* to manage the problem within a 7:00- to 8:00-minute total response time. This is right at the point that brain death is becoming irreversible and the fire has grown to the point of leaving the room of origin and becoming very serious. Thus, the City needs a *first-due* response goal that is within a range to give the situation hope for a positive outcome. It is important to note that the fire or medical emergency continues to deteriorate from the time of inception, not from the time the fire engine starts to drive the response route. Ideally, the emergency is noticed immediately and the 9-1-1 system is activated promptly. This step of awareness—calling 9-1-1 and giving the dispatcher accurate information—takes, in the best of circumstances, 1:00 minute. Crew notification and travel time take additional minutes. Upon arrival, the crew must approach the patient or emergency, assess the situation, and appropriately deploy its skills and tools. Even in easy-to-access situations, this step can take 2:00 minutes or more. This time frame may be increased considerably due to long driveways, apartment buildings with limited access, multiple-story apartments or office complexes, or shopping center buildings.

Unfortunately, there are times when the emergency has become too severe, even before the 9-1-1 notification and/or fire department response, for the responding crew to reverse. However, when an appropriate response time policy is combined with a well-designed deployment system, only anomalies like bad weather, poor traffic conditions, or multiple emergencies slow down the response system. Consequently, a properly designed system will give citizens the hope of a positive outcome for their tax dollar expenditure.

For this report, total response time is the sum of the agency's fire dispatch center's dispatch processing, crew turnout, and road travel time. This is consistent with CFAI best practice recommendations.

2.4 Community Risk Assessment

SOC Element 3 of 8
Community Risk Assessment

The third element of the SOC process is a community risk assessment. Within the context of an SOC study, the objectives of a community risk assessment are to:

- Identify the values at risk to be protected within the community or service area.
- Identify the specific hazards with the potential to adversely impact the community or service area.
- Quantify the overall risk associated with each hazard.
- Establish a foundation for current/future deployment decisions and risk-reduction/hazard mitigation planning and evaluation.

A *hazard* is broadly defined as a situation or condition that can cause or contribute to harm. Examples include fire, medical emergency, vehicle collision, earthquake, flood, etc. *Risk* is broadly defined as the *probability of hazard occurrence* in combination with the *likely severity of resultant impacts* to people, property, and the community as a whole.

2.4.1 Risk Assessment Methodology

The methodology employed by Citygate to assess community risks as an integral element of an SOC study incorporates the following elements:

- Identification of geographic planning sub-zones (risk zones) appropriate to the community or jurisdiction.
- Identification and quantification (to the extent data is available) of the specific values at risk to various hazards within the community or service area.
- Identification of the fire and non-fire hazards to be evaluated.
- Determination of the probability of occurrence for each hazard.
- Identification and evaluation of multiple, relevant impact severity factors for each hazard by planning zone, using agency/jurisdiction-specific data and information.
- Quantification of overall risk for each hazard based on probability of occurrence in combination with probable impact severity as shown in Figure 5.

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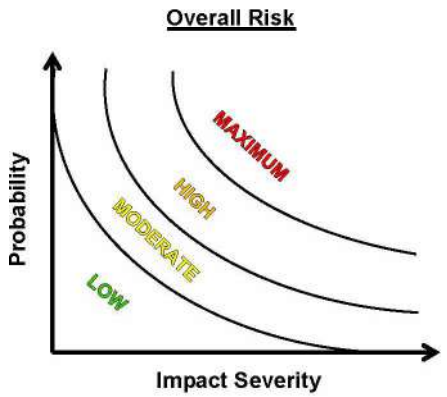
Figure 5—Overall Risk



2.4.2 Values at Risk to Be Protected

Broadly defined, *values at risk* are those tangibles of significant importance or value to the community or jurisdiction that are potentially at risk of harm or damage from a hazard occurrence. Values at risk typically include people, critical facilities/infrastructure, buildings, and key economic, cultural, historic, and/or natural resources.

People

Residents, employees, visitors, and travelers through a community or jurisdiction are vulnerable to harm from a hazard occurrence. Particularly vulnerable are specific at-risk populations, including those unable to care for themselves or self-evacuate in the event of an emergency. At-risk populations typically include children younger than 10 years of age, the elderly, people housed in institutional settings, those requiring special access, and/or those who have functional needs. Key demographic data for each of the three service areas is contained in **Appendix A—Community Risk Assessment**.

Critical Infrastructure / Key Resources

The U.S. Department of Homeland Security defines Critical Infrastructure / Key Resources as those physical assets essential to the public health and safety, economic vitality, and resilience of a community, such as lifeline utilities infrastructure, telecommunications infrastructure, essential government services facilities, public safety facilities, schools, hospitals, airports, etc. The 2017

Santa Clara County Operational Area Hazard Mitigation Plan (Volume 2) identifies critical facilities and infrastructure within the two Cities and the unincorporated Fire District areas. A hazard occurrence with significant impact severity affecting one or more of these facilities would likely adversely impact critical public or community services.

Buildings

The three-jurisdiction service area includes thousands of housing units and hundreds more non-residential occupancies, including office, research, professional services, and retail sales buildings; restaurants/bars; motels; churches; schools; government facilities; healthcare facilities; and other non-residential uses as described in **Appendix A**.

2.4.3 Hazard Identification

Citygate utilizes prior risk studies where available, fire and non-fire hazards as identified by the CFAI, and data and information specific to the agency/jurisdiction to identify the hazards to be evaluated for this report.

Following an evaluation of the hazards identified in all three agencies' fire and non-fire hazards as identified by the CFAI as they relate to services provided by the Departments, Citygate evaluated the following five hazards for this risk assessment:

- Building Fire
- Vegetation/Wildland Fire
- Medical Emergency
- Hazardous Material Release/Spill
- Technical Rescue

Because building fires and medical emergencies have the most severe time constraints if positive outcomes are to be achieved. Following is a brief overview of building fire and medical emergency risk. **Appendix A** contains the full risk assessment for all five hazards.

Building Fire Risk

One of the primary hazards in any community is building fire. Building fire risk factors include building density, size, age, occupancy, and construction materials and methods, as well as the number of stories, the required fire flow, the proximity to other buildings, built-in fire protection/alarm systems, an available fire suppression water supply, building fire service capacity, fire suppression resource deployment (distribution/concentration), staffing, and response time.

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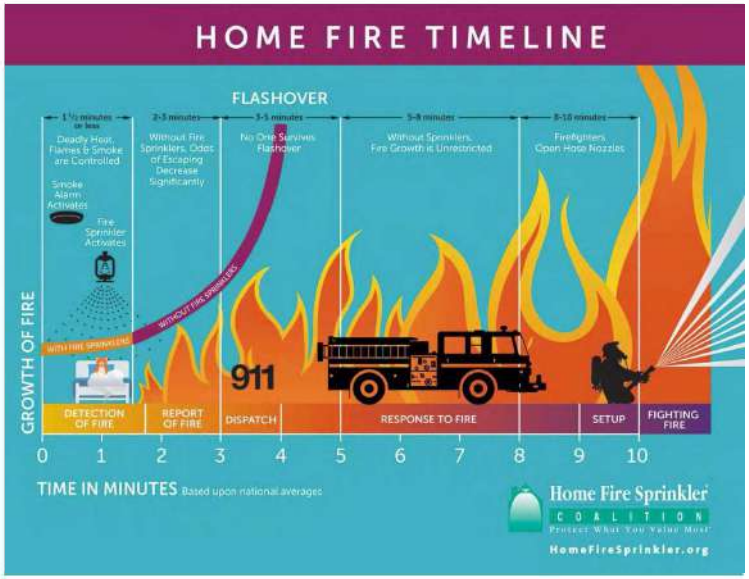
Figure 6 illustrates the building fire progression timeline and shows that flashover, which is the point at which the entire room erupts into fire after all the combustible objects in that room reach their ignition temperature, can occur as early as 3:00–5:00 minutes from the initial ignition. Human survival in a room after flashover is extremely improbable.

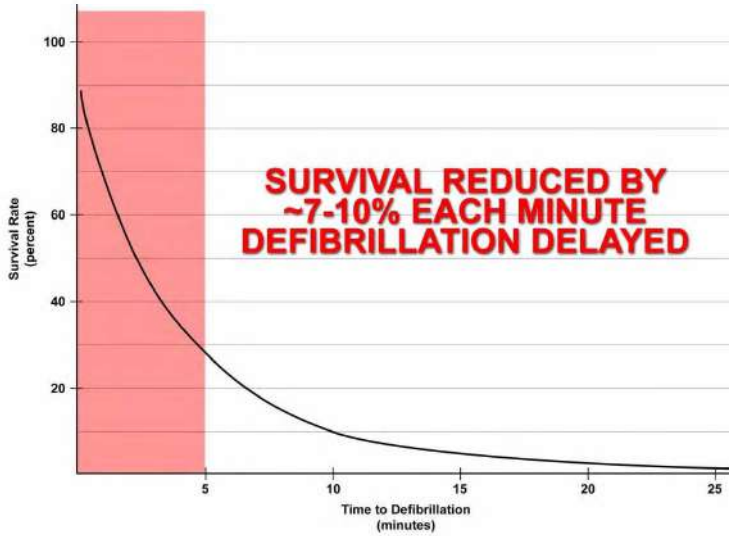
Figure 6—Building Fire Progression Timeline



Medical Emergency Risk

Fire agency service demand in most jurisdictions is predominantly for medical emergencies. Figure 7 illustrates the reduced survivability of a cardiac arrest victim as time to defibrillation increases.

Figure 7—Survival Rate versus Time to Defibrillation



Source: www.suddencardiacarrest.org

The three fire agencies currently provide first responder ALS or BLS pre-hospital emergency medical services, with operational personnel trained to the EMT or EMT-Paramedic level.

2.4.4 Risk Assessment Summary

Citygate's assessment of the values at risk and hazards likely to impact the three-agency service area yields the following overall risk ranging from ***Low*** to ***High*** for the five hazards, as summarized in the following table by fire station area planning zone. See **Appendix A** for the full risk assessment.

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Table 8—Overall Risk by Hazard

Hazard	Risk Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Building Fire	*Moderate*	*Low*	*Low*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Low*
Vegetation/Wildland Fire	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Low*	*Low*	*Low*	*Moderate*	*Moderate*
Medical Emergency	*High*	*High*	*High*	*High*	*High*	*High*	*High*	*High*	*High*
Hazardous Material	*Moderate*	*Moderate*	*Low*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*
Technical Rescue	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*

2.5 Critical Task Time Measures—What Must Be Done over What Time Frame to Achieve the Stated Outcome Expectation?

SOC Element 4 of 8
Critical Task Time Study

SOC studies use critical task information to determine the number of firefighters needed within a timeframe to achieve desired objectives on fire and emergency medical incidents. Table 9 and Table 10 illustrate critical tasks typical of building fire and medical emergency incidents, including the minimum number of personnel required to complete each task. These tables are composites from Citygate clients in urban/suburban departments similar to the three fire agencies, with units staffed with three personnel per engine or ladder truck. It is important to understand the following relative to these tables:

- It can take considerable time after a task is ordered by command to complete the task and arrive at the desired outcome.
- Task completion time is usually a function of the number of personnel that are *simultaneously* available. The fewer firefighters available, the longer some tasks will take to complete. Conversely, with more firefighters available, some tasks are completed concurrently.
- Some tasks must be conducted by a minimum of two firefighters to comply with safety regulations. For example, two firefighters are required to search a smoke-filled room for a victim.
- These issues are important as the three population centers with their fire stations are all not immediately adjacent to one another. For serious fire staffing, either City needs the District crews to be immediately available and/or needs U.S. 101 to be open and clear for one city to get to the other quickly.

2.5.1 Critical Firefighting Tasks

Table 9 illustrates the critical tasks required to control a typical single-family dwelling fire with five response units (four engines/trucks and two Chief Officers) from the three Departments, for a total Effective Response Force (ERF) of **14** personnel. These tasks are taken from typical fire departments' operational procedures, which are consistent with the customary findings of other agencies using the SOC process. No conditions exist to override the Occupational Safety and Health Administration (OSHA) two-in/two-out safety policy, which requires that firefighters enter atmospheres that are immediately dangerous to life and health, such as building fires, in teams of two while two more firefighters are outside and immediately ready to rescue them should trouble arise.

Scenario: *Simulated approximately 2,000 square-foot, two-story, residential fire with unknown rescue situation. Responding companies receive dispatch information typical for a witnessed fire. Upon arrival, they find approximately 50 percent of the second floor involved in fire.*

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Table 9—First Alarm Residential Fire Critical Tasks—14 Personnel

Critical Task Description		Personnel Required
First-Due Engine (Three Personnel)		
1	Conditions report	1
2	Establish supply line to hydrant.	2
3	Deploy initial fire attack line to point of building access.	1–2
4	Operate pump and charge attack line.	1
5	Establish incident command.	1
6	Conduct primary search.	2
Second-Due Engine (Three Personnel)		
7	If necessary, establish supply line to hydrant.	1–2
8	Deploy a backup attack line.	1–2
9	Establish Initial Rapid Intervention Crew.	2
Third-Due Engine or Truck (Three Personnel)		
10	Conduct initial search and rescue, if not already completed.	2
11	Deploy ground ladders to roof.	1–2
12	Establish horizontal or vertical building ventilation.	1–2
13	Open concealed spaces as required	2
Chief Officers (Two)		
14	Transfer of incident command.	1
15	Establish exterior command and scene safety.	1
Fourth-Due Engine (Three Personnel)		
16	Establish Initial Rapid Intervention Crew.	3
17	Secure utilities.	2
18	Deploy second attack line as needed.	2
19	Conduct secondary search.	2

Grouped together, the duties in Table 9 form an Effective Response Force, or First Alarm Assignment. These distinct tasks must be performed to effectively achieve the desired outcome; arriving on scene does not stop the emergency from escalating. While firefighters accomplish these tasks, the incident progression clock keeps running.

Fire in a building can double in size during its free-burn period before fire suppression is initiated. Many studies have shown that a small fire can spread to engulf an entire room in fewer than 4:00–5:00 minutes after free burning has started. Once the room is completely superheated and involved

in fire (known as flashover), the fire will spread quickly throughout the structure and into the attic and walls. For this reason, it is imperative that fire suppression and search/rescue operations commence before the flashover point occurs *if* the outcome goal is to keep the fire damage in or near the room of origin. In addition, flashover presents a life-threatening situation to both firefighters and any occupants of the building.

2.5.2 Critical Medical Emergency Tasks

The Departments respond to thousands of EMS incidents annually, including vehicle accidents, strokes, heart attacks, difficulty breathing, falls, childbirths, and other medical emergencies.

For comparison, Table 10 summarizes the critical tasks required for a cardiac arrest patient.

Table 10—Cardiac Arrest Critical Tasks—3–4 Engine Personnel + ALS Ambulance

Critical Task		Personnel Required	Critical Task Description
1	Chest compressions	2	Compression of chest to circulate blood
2	Ventilate/oxygenate	1–2	Mouth-to-mouth, bag-valve-mask, apply O_2
3	Airway control	1–2	Manual techniques/intubation/cricothyroidotomy
4	Defibrillate	1–2	Electrical defibrillation of dysrhythmia
5	Establish I.V.	1–2	Peripheral or central intravenous access
6	Control hemorrhage	1–2	Direct pressure, pressure bandage, tourniquet
7	Splint fractures	2–3	Manual, board splint, HARE traction, spine
8	Interpret ECG	2	Identify type and treat dysrhythmia
9	Administer drugs	2	Administer appropriate pharmacological agents
10	Spinal immobilization	2–5	Prevent or limit paralysis to extremities
11	Extricate patient	3–5	Remove patient from vehicle, entrapment
12	Patient charting	1–2	Record vitals, treatments administered, etc.
13	Hospital communication	1–2	Receive treatment orders from physician
14	Treat en route to hospital	2–4	Continue to treat/monitor/transport patient

2.5.3 Critical Task Analysis and Effective Response Force Size

A critical task analysis reveals that the time required to complete the critical tasks necessary to stop the escalation of an emergency (as shown in Table 9 and Table 10) must be compared to outcomes. As shown in nationally published fire service time versus temperature tables, after approximately 4:00 to 5:00 minutes of free burning a room, fire will escalate to the point of flashover. At this point, the entire room is engulfed in fire, the entire building becomes threatened,

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and human survival near or in the room of fire origin becomes impossible. Additionally, brain death begins to occur within 4:00 to 6:00 minutes of the heart stopping. Thus, the ERF must arrive in time to prevent these emergency events from becoming worse.

The agencies' daily staffing plus automatic aid is sufficient to deliver a *single* ERF of **12** firefighters and two Chief Officers to a building fire totaling 14, if they can arrive in time, which the statistical analysis of this report will discuss in depth. Mitigating an emergency event is a *team* effort once the units have arrived. This refers to the *weight* of response analogy; if too few personnel arrive too slowly, the emergency will escalate instead of improve. The outcome times, of course, will be longer and yield less desirable results if the arriving force is later or smaller.

The quantity of staffing and the arrival time frame can be critical in a serious fire. Fires in older and/or multiple-story buildings could well require the initial firefighters to rescue trapped or immobile occupants. If the ERF is too small, rescue *and* firefighting operations *cannot* be conducted simultaneously.

Fires and complex medical incidents require that additional units arrive in time to complete an effective intervention. Time is one factor that comes from *proper station placement*. Good performance also comes from *adequate staffing* and training. But where fire stations are spaced too far apart, and one unit must cover another unit's area or multiple units are needed, these units can be too far away, and the emergency will escalate and/or result in less-than-desirable outcome.

Previous critical task studies conducted by Citygate and NFPA Standard 1710 find that all units need to arrive with **15** firefighters plus at least one Chief Officer within 11:30 minutes (from the time of 9-1-1 call) at a building fire to be able to *simultaneously and effectively* perform the tasks of rescue, fire suppression, and ventilation.

If fewer firefighters arrive, most likely, the search team would be delayed, as would ventilation. The attack lines would only consist of two firefighters, which does not allow for rapid movement of the hose line above the first floor in a multiple-story building. Rescue is conducted with at least two-person teams; thus, when rescue is essential, other tasks are not completed in a simultaneous, timely manner. Effective deployment is about the **speed** *(travel time)* and the **weight** *(number of firefighters)* of the response.

Fifteen initial firefighters plus a command chief could handle a moderate-risk, confined residential fire. However, even an ERF of 16 personnel will be seriously slowed if the fire is above the first floor in a low-rise apartment building or commercial/industrial building. This is where the capability to add additional personnel and resources to the standard response becomes critical.

Given that the three agencies' ERF plan delivers 14 personnel to a moderate-risk building fire, it reflects a goal to confine serious building fires inside the building of origin, *but not inside the compartment of origin* and to prevent the spread of fire to adjoining buildings. This is a typical desired outcome in less populated suburban areas.

The agencies' current physical response to building fires is, in effect, its de-facto deployment measure to more densely populated urban areas—*if those areas are within a reasonable travel time from multiple fire stations.* Thus, this becomes the baseline policy for the deployment of firefighters.

2.6 Distribution and Concentration Studies—How the Location of First-Due and First Alarm Resources Affects Emergency Incident Outcomes

SOC Element 5 of 8
Distribution Study

SOC Element 6 of 8
Concentration Study

The combined South Santa Clara County area is served today by three agencies deploying eight engine companies, one cross-staffed aerial ladder truck, and one Chief Officer per agency as the duty Incident Commander from eight fire stations. It is appropriate to understand, using geographic mapping tools, what the existing stations do and do not cover within specific travel time goals, if there are any coverage gaps needing one or more stations, and what, if anything, to do about those gaps.

In brief, there are two geographic perspectives to fire station deployment:

- **Distribution**—the spacing of first-due all-risk intervention units to control routine emergencies before they escalate and require additional resources.
- **Concentration**—the spacing of fire stations sufficiently close to each other so that more complex emergency incidents can quickly receive sufficient resources from multiple fire stations. As indicated, this is known as the **Effective Response Force** (ERF), or more commonly, the First Alarm Assignment, which is the collection of a sufficient number of firefighters on scene, delivered within the concentration time goal to stop the escalation of the problem.

To analyze first-due fire unit travel time coverage, Citygate used FireView™, a geographic mapping tool that can measure theoretical travel time over a street network. For this calculation, the modeling tool calibrates the uncongested travel speeds by correcting speed limits to the actual speeds fire apparatus are traveling by roadway type, such as prime arterial, collector, or local neighborhood to simulate real-world travel time coverage. Using these tools, Citygate ran several deployment tests and measured their impact on various parts of the Departments' service areas.

A second travel time model was also constructed using traffic congestion data to slow the fire unit travel times according to the congestion present on various types of streets during commute periods. This data is not from social media sources, but from GIS vendors that mine extensive public and private data sources.

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A 4:00-minute travel time goal for the neighborhood first responder is a nationally recommended best practice for urban areas. The City of Gilroy has been using 4:30 minutes as being reflective of both urban and edge area lighter population density neighborhoods. Given the Fire District and Morgan Hill do not have prior policy level response time goals and that their neighborhoods are reflective of Gilroy's, this study utilized Gilroy's goals. None of the three agencies have a multiple-unit response (First Alarm) time goal, so this study used a best practices-based measure of 8:00 minutes travel time for the last-arriving unit.

Most of the maps are provided in two views showing northern and southern areas of the joint study area so that fire unit travel time coverage can be seen at the neighborhood level.

2.6.1 Deployment Coverage Baselines

Map #1a/1b—General Geography, Station Locations, and Response Resource Types

Map set #1 shows the agency boundaries and fire station locations. This is a reference map for other maps that follow. Station symbols denote the type of staffed resources at each station. The staffing per resource varies and is explained in Table 6.

Maps #1a and #1b additionally show, by different colors, the primary service area for each fire station, including the proposed fire station location at Glen Loma. These areas also serve to tabulate and identify the risks to be protected in each zone.

Map #2a/2b—Risk Assessment: Population Density

Map set #2 shows the population density across the service areas for *resident* populations. Community General Plan land use and zoning determine population capacity. People drive EMS demand, and the highest population density areas are typically also the highest EMS demand areas.

Map #3a/3b—Distribution: 4:30-Minute First-Due Travel Time Coverage – Congested vs. Non-Congested

Map set #3 shows first-due travel time coverage from the agencies' current fire station locations, with green indicating the current road network that a fire engine should be expected to reach within 4:30 minutes, assuming it is in station and encounters *no traffic congestion*. The red road segments indicate the coverage as impacted by traffic congestion. Thus, the outer green areas are the maximum expected coverage (red + green = total minutes).

The purpose of response time modeling is to determine response time coverage across a jurisdiction's geography and station locations. This geo-mapping design is then validated against dispatch time data to reflect actual response times. There should be some overlap between station areas so that a second-due unit can have a chance of an acceptable response time when it responds to a call in a different station's first-due response area.

As can be seen, severe traffic congestion can hamper fire unit travel time, even with traffic signal preemption technology. The impact is the largest in the more travelled major road and commercial corridors. Also, the neighboring fire agency stations are too far away to be the primary provider in lieu of one of the three fire agencies' primary fire stations.

As can be seen, the non-congested coverage is adequate for the most developed (populated) areas. The small edge areas that do not receive *non-congested* coverage in both Morgan Hill and Gilroy are due to street design or topography and thus are not large enough to warrant a fire station move or addition from strictly a travel time perspective.

Finding #4:	During traffic congestion periods, there are multiple underserved core areas in Morgan Hill, suggesting the three stations are spaced too far apart. In Gilroy, the edge areas and new development beyond the current *non-congested* coverage area also suggests the need for an additional station.
Finding #5:	Given that only nine firefighters are on-duty in each City, if *both* Cities added a fourth fire station, raising daily staffing to 12, they would be less dependent on the Fire District's staffing for serious emergencies requiring a multiple-unit response.
Finding #6:	The Fire District's Station #3 in west Gilroy serves mostly Gilroy within its 4:30-minute first-due travel coverage. It would provide better rural area coverage if moved northwest of its current location.

The purpose of computer response mapping is to determine response time coverage across a community's geography and balance station locations to provide appropriate station distribution and concentration. This geo-mapping design is then validated against historical response data to reflect actual travel times. There should be some overlap between station areas so that a second-due unit has a chance of an adequate response time when it covers a call in another station's first-due area.

As detailed later in this section, the *travel* time to 90 percent of the fire and EMS incidents is 6:08 minutes across all three jurisdictions. This finding supports the GIS model coverage showing that 4:30-minute coverage does not extend out to all areas, with or without traffic congestion.

Map #4a/4b—Insurance Services Office 1.5-Mile Coverage Areas

Map set #4 displays the Insurance Services Office (ISO) recommendation that urban stations cover a 1.5-mile *distance* response area. Depending on a jurisdiction's road network, the 1.5-mile measure usually equates to a 3:30- to 4:00-minute travel time and is thus conservative. However,

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a 1.5-mile measure is a reasonable indicator of station spacing and overlap. As can be seen, the 1.5-mile ISO coverage is much smaller than the 4:30-minute first-due coverage in Map #3. This suggests the stations are too few and/or too far apart.

Map #5a/5b/5c/5d—Concentration: Effective Response Force 8:00-Minute Travel Time Coverage – Congested vs. Non-Congested

Map Series #5 shows, with and without travel congestion, the streets where all three agencies' current response plans *should* deliver the initial ERF (First Alarm) within 8:00 minutes travel time. On Maps #5a and #5b, ERF consists of four engines responding anywhere in the service area. On Maps #5c and #5d, ERF consists of responses in the north of three engines, the Morgan Hill ladder truck, and one Chief Officer. The uncongested coverage shown in Map #5b is only adequate at 8:00 minutes from southern Morgan Hill through central Gilroy where there are multiple fire stations. Traffic congestion has the largest impact on this measure in the outer edge areas of all three jurisdictions.

Finding #7: Even if all three agencies' fire stations are available, neither north Morgan Hill nor south and eastern Gilroy can receive a minimum multiple-unit Effective Response Force of 12 firefighters within 8:00 minutes travel time.

Map #6a/b—8:00-Minute Ladder Truck Travel Time Coverage – Congested vs. Non-Congested

Map set #6 shows 8:00-minute travel time coverage for the Morgan Hill ladder truck with and *without* traffic congestion. As can be seen, this specialized resource is typically only staffed in Morgan Hill, so the coverage is limited to the northern extent of the joint study area.

Map #7—Chief Officer 8:00-Minute Travel Time Coverage

Map #7 displays 8:00-minute travel time coverage for a Chief Officer from Morgan Hill and Gilroy.

Map #8—All Incident Locations

Map #8 shows the location of all incidents from January 2016 through December 2018. It is apparent that incidents occur in not only the most populated areas, but across the three-year study period, most suburban and rural areas also received emergency response services.

The more rural to remote incident locations also illustrate why a single response time policy for these agencies is not useful. The service area patterns show the need for at least an urban and a rural response time goal so that the rural incident response times do not overly mask adequate response times in the core populated areas.

Map #9—Emergency Medical Services and Rescue Incident Locations

Map #9 illustrates only the emergency medical and rescue incident locations. With the majority of the calls for service being medical emergencies, virtually the entire joint service area needs pre-hospital emergency medical services.

Map #10—All Fire Locations

Map #10 identifies the location of all fires within the joint service area over the past three years, including *any* type of fire call, from vehicle to dumpster to building. There are obviously fewer fires than medical or rescue calls. Even given this fact, it is evident that fires occur in all fire station areas.

Map #11—Structure Fire Locations

Map #11 displays the locations of the structure fire incidents over the past three years. While the number of structure fires is a smaller subset of total fires, there are two meaningful findings from this map. First, there are structure fires in every fire station area. Second, there are a relatively small number of building fires in Morgan Hill compared to Gilroy.

Additional Map Scenarios

Additional map scenarios are also found in **Volume 2** and represent proposed station locations for each fire agency that are described in Section 3.3.

2.6.2 Road Mile Coverage Measures

In addition to the visual displays of coverage that maps provide, the GIS software allows the miles of public streets covered at 4:30 or 8:00 minutes to be measured. The following table provides these metrics for the coverage with and without the impacts of traffic congestion.

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Table 11—Service Area Road Mile Coverage Comparison (No Mutual Aid)

Travel Time Measure	Total Public Road Miles	Non-Congested Miles Covered	Non-Congested Percent of Total Miles	Congested Miles Covered	Congested Percent of Total Miles	Congested vs. Non-Congested Difference (Miles)
4:30 Minutes First-Due	**881.2**	579.75	**65.79%**	461.9	**52.41%**	117.85
8:00 Minutes ERF (4 Engines)	**881.2**	420.82	**47.75%**	303.55	**34.44%**	116.45
8:00 Minutes ERF (3/1/1)[1]	**881.2**	258.19	**29.29%**	160.25	**18.18%**	97.94
8:00 Minutes BC/DC[2]	**881.2**	637.63	**72.35%**	501	**56.85%**	136.63
8:00 Minutes Truck (MH 4)[3]	**881.2**	302.06	**34.27%**	228.23	**25.89%**	73.83

[1] 3/1/1 = three engines, one truck, and one Battalion Chief
[2] BC/DC = one Battalion Chief or Division Chief
[3] MH 4 = one truck from Station #4 in Morgan Hill

As can be seen, the existing 4:30-minute first-due travel coverage is reduced by 13.4 percent during traffic congestion periods. While there is an impact, it is not terrible. Elsewhere in the metropolitan areas of Santa Cara County, Citygate has measured 25–30 percent coverage reductions. If a desirable travel time goal is 4:30 minutes, and prior data shows the agencies' 90th percentile travel performance is 6:08 minutes, then traffic congestion is effectively adding to travel time as there are more incidents at peak traffic hours when human activity is the highest. The 8:00-minute ERF travel coverage shows a similar level of traffic congestion impact.

2.7 Statistical Analysis

SOC Element 7 of 8
Reliability & Historical Response Effectiveness Studies

The map sets described in Section 2.6 and presented in **Volume 2** show predicted response travel times under both normal and congested traffic conditions. Examination of the actual response data provides a picture of actual response performance with simultaneous calls, rush hour traffic congestion, units out of position, and delayed travel time for events such as severe weather.

The following subsections provide summary statistical information regarding the agencies and their services. While this combined study measures service demand and response performance of all three agencies as a single operational entity, demand and performance within each jurisdiction can be determined by examining individual station data as follows:

- South Santa Clara County Fire District—Stations SC1, SC2, and SC3

Cities of Gilroy and Morgan Hill and the South Santa Clara County Fire District
Standards of Coverage Assessment—Volume 1

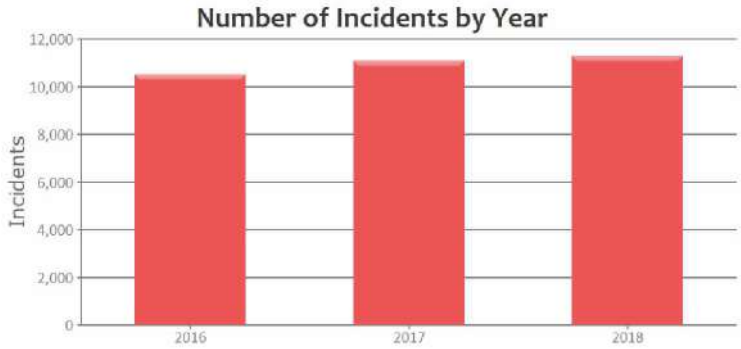
- Morgan Hill Fire Department—Stations MH4 and MH5
- Gilroy Fire Department—Stations GY7, GY8, and GY9 (plus proposed station area "GYSTR")[5]

2.7.1 Service Demand

In 2018, the Departments responded to 11,289 incidents. During this period, the Departments had a daily demand of 30.93 incidents. During this same period, there were 16,514 apparatus responses for an average of 1.46 apparatus responses per incident.

In 2018, the percentage of fire incidents was 4.4 percent, EMS incidents was 68.06 percent, and other types was 27.54 percent. The Departments experienced a slight increase in the number of incidents from 2016 through 2018 as illustrated in the following figure.

Figure 8—Number of Incidents by Year – 2016–2018



The following figure illustrates the number of incidents by NFIRS 5 incident type. While fire and EMS incidents grew, there was a very slight decline in other incident types in 2018.

[5] GYSTR is a defined geographic area of southwest Gilroy to be served by a future fourth fire station.

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Figure 9—Number of Incidents by Year by Incident Type – 2016–2018

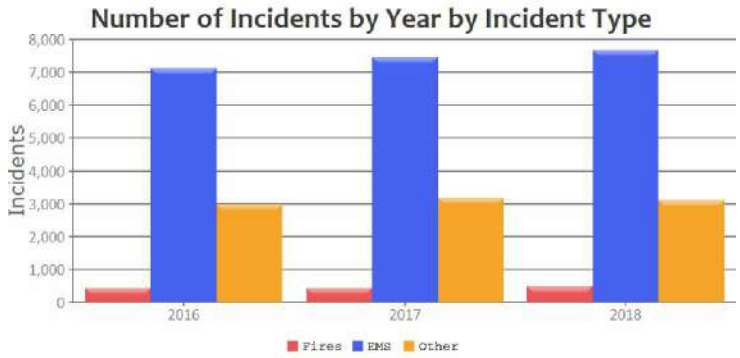
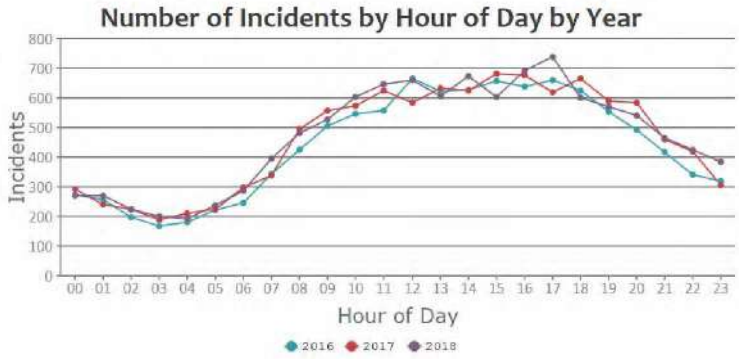


Figure 10 shows service demand by hour of day, illustrating that calls for service occur at every hour of the day and night, requiring fire and EMS response capability 24 hours per day, every day of the year.

Figure 10—Number of Incidents by Hour of Day and Year – 2016–2018



Finding #8: Service demand occurs across all hours of the day, indicating the need for a 24-hours-per-day, seven-days-per-week fire and EMS emergency response system.

Figure 11 illustrates the number of incidents by station area in 2016-2018. Station GY8 in Gilroy had the highest volume of activity. Station SC3 in the Fire District had the lowest volume.

Figure 11—Number of Incidents by Station – 2016–2018

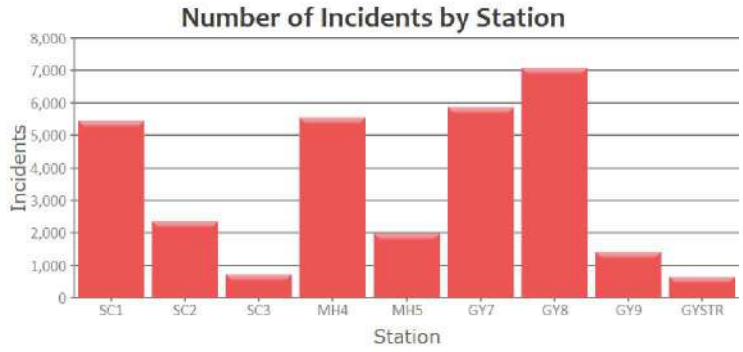


Figure 12 breaks down service demand by station by year. Station GY8 shows the highest activity with a steady increase in overall annual service demand.

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Figure 12—Annual Number of Incidents by Station – 2016–2018

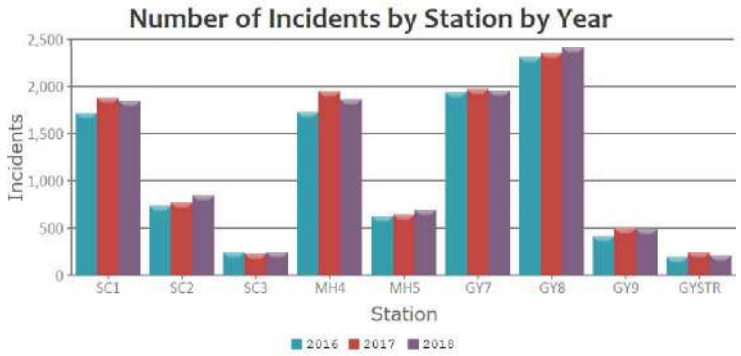

Table 12 lists the rankings of incidents by type for 2018. Only those incident types with more than 50 occurrences are shown. Note the strong ranking for EMS-related incidents.

Table 12—Number of Incidents by Incident Type – 2018

Incident Type	Number of Incidents
321 EMS call, excluding vehicle accident with injury	6,144
611 Dispatched and canceled en route	1,049
322 Vehicle accident with injuries	581
700 False alarm or false call, other	479
311 Medical assist, assist EMS crew	451
324 Motor vehicle accident no injuries	277
554 Assist invalid	156
320 Emergency medical service, other	130
553 Public service	105
600 Good intent call, other	105
550 Public service assistance, other	97
510 Person in distress, other	89
551 Assist police or other governmental agency	83
143 Grass fire	67
111 Building fire	64
622 No incident found on arrival of incident address	64
743 Smoke detector activation, no fire – unintentional	64
531 Smoke or odor removal	58
500 Service call, other	56
131 Passenger vehicle fire	53
733 Smoke detector activation due to malfunction	53

Reference: Fire agencies incident records

Table 13 illustrates the number of incidents by property type. The highest service demand by property type is for residential dwellings. Only those property types with 50 or more incidents are shown.

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Table 13—Number of Incidents by Property Type – 2018

Property Type	Number of Incidents
419 1 or 2 family dwelling	4,353
961 Highway or divided highway	895
429 Multifamily dwellings	818
960 Street, other	610
311 24-hour care nursing homes, 4 or more persons	594
963 Street or road in commercial area	311
965 Vehicle parking area	285
962 Residential street, road or residential driveway	262
519 Food and beverage sales, grocery store	170
500 Mercantile, business, other	155
449 Hotel/motel, commercial	133
931 Open land or field	130
340 Clinics, doctors' offices, hemodialysis centers	106
215 High school/junior high school/middle school	85
213 Elementary school, including kindergarten	70
700 Manufacturing, processing	66
321 Mental retardation/development disability facility	66
549 Specialty shop	64
161 Restaurant or cafeteria	63
459 Residential board and care	63
900 Outside or special property, other	55
365 Police station	54
936 Vacant lot	54

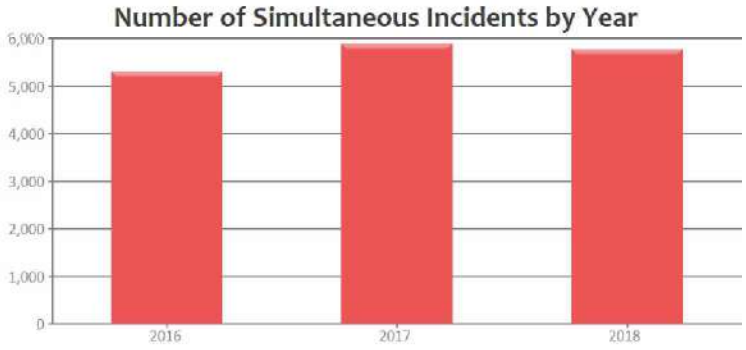
2.7.2 Simultaneous Incident Activity

Simultaneous incidents occur when other incidents are underway at the time. As Table 14 and Figure 13 show, more than 51 percent of incidents occurred while one or more other incidents were underway, while slightly more than 19 percent of incidents occurred while two or more other incidents were underway.

Table 14—Overall Simultaneous Incident Activity – 2018

Number of Simultaneous Incidents	Percentage
1 or more simultaneous incidents	51.28%
2 or more simultaneous incidents	19.35%
3 or more simultaneous incidents	06.22%
4 or more simultaneous incidents	02.06%
5 or more simultaneous incidents	00.78%

Figure 13—Number of Simultaneous Incidents by Year – 2016-2018



Finding #9: Although the occurrence of simultaneous incidents varies over the three-year study period, a significant percentage of the collective agencies' service demand involves two or more incidents occurring at the same time.

In a larger jurisdiction, simultaneous incidents in different station areas have very little operational consequence. However, when simultaneous incidents occur within a single station area there can be significant delays in response times.

The following figure illustrates the number of single-station simultaneous incidents by station area by year. Station MH4 has the highest number of same-station simultaneous incidents. Closely

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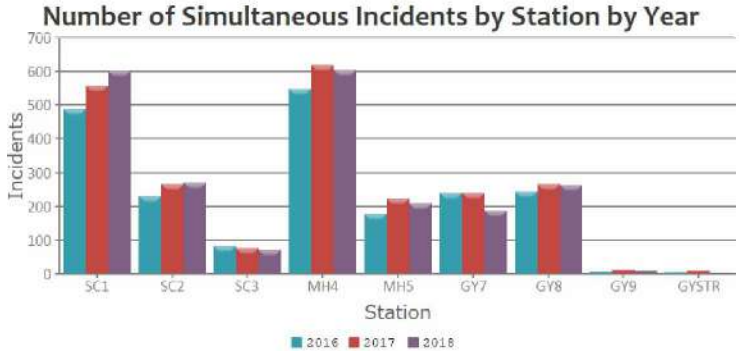
following Station MH4 is Station SC1, which is experiencing steady year-to-year growth in simultaneous activity. Station GY9 and proposed station GYSTR have insignificant same-station simultaneous activity.

Figure 14—Same-Station Simultaneous Incident Activity by Year – 2016–2018



Finding #10: Approximately 10 percent of the three Fire District and two Morgan Hill stations' calls for service involve simultaneous incidents within those same station response areas, resulting in a slower response for the second or subsequent incident from another station. Same-station simultaneous incident activity in Gilroy is 3.5 percent or less.

2.7.3 Unit Hour Utilization

Another view of unit workload is the percent of each hour a unit spends annually committed to emergency responses. The utilization percentage for apparatus is calculated by two primary factors, the number of responses and the duration of responses.

For a firefighting unit, during a nine-hour daytime work period, when crews on a 24-hour shift must also pay attention to apparatus checkout, station duties, training, fire prevention inspections, public education, and paperwork, plus required physical training and meal breaks, Citygate believes the maximum unit-hour utilization (UHU) per hour across the workday *should not exceed 30* percent. Beyond that, the most important duties most likely to suffer will be training and fire prevention inspections.

For a dedicated unit, such as an ambulance or low-acuity squad working less than a 24-hour shift, UHU can increase to a maximum of 40-50 percent. At that UHU level, peak-hour squads must have additional duty days for training only, on which they are not responding to incidents, to meet their annual requirements for continuing education and training hours.

Table 15 shows the 2018 utilization summary for engines, with the busiest units listed first, and Table 16 shows the UHU for the Morgan Hill ladder truck.

Table 15—Unit Hour Utilization – Engines – 2018

Hour	GY E48	GY E47	SC E67	SC E68	GY E49	MH E58	MH E57	SC E69
00:00	5.85%	5.14%	6.94%	2.99%	2.51%	4.52%	1.93%	0.70%
01:00	7.01%	5.64%	5.25%	2.59%	3.10%	2.51%	1.51%	1.09%
02:00	6.88%	5.22%	5.02%	1.97%	2.17%	2.55%	1.26%	0.97%
03:00	3.97%	4.44%	10.88%	6.10%	2.38%	3.52%	2.62%	2.05%
04:00	4.94%	4.97%	3.19%	2.63%	2.64%	2.36%	0.76%	1.70%
05:00	4.93%	5.03%	5.53%	3.73%	1.13%	3.90%	1.96%	1.02%
06:00	9.42%	7.69%	5.89%	3.51%	5.20%	3.21%	2.90%	3.52%
07:00	10.59%	9.40%	8.34%	6.26%	3.14%	3.45%	4.33%	1.89%
08:00	9.32%	9.67%	12.64%	6.71%	5.26%	5.59%	5.27%	3.07%
09:00	11.56%	9.31%	12.28%	5.74%	5.72%	5.61%	6.29%	3.14%
10:00	15.06%	18.46%	13.05%	9.16%	9.73%	9.59%	5.20%	4.23%
11:00	15.12%	16.85%	13.64%	7.78%	9.56%	6.86%	3.30%	4.70%
12:00	13.77%	15.41%	14.80%	16.95%	11.14%	9.16%	6.03%	4.74%
13:00	12.36%	11.63%	16.10%	8.58%	4.39%	7.13%	4.52%	2.45%
14:00	17.48%	17.84%	13.44%	12.09%	10.82%	10.11%	4.71%	6.75%
15:00	15.02%	17.46%	10.79%	8.71%	7.16%	7.66%	5.36%	5.58%
16:00	14.17%	15.76%	22.66%	15.30%	12.89%	7.61%	8.14%	4.16%
17:00	19.20%	22.95%	18.06%	12.42%	10.57%	11.74%	6.78%	4.99%
18:00	16.65%	12.22%	12.06%	10.86%	7.66%	7.58%	3.79%	5.10%
19:00	14.22%	13.51%	13.29%	7.62%	8.19%	7.41%	11.11%	5.22%
20:00	14.10%	11.76%	10.89%	7.51%	7.74%	5.86%	3.14%	4.06%
21:00	9.47%	8.14%	11.17%	6.64%	6.76%	6.68%	5.47%	4.83%
22:00	10.66%	9.92%	6.56%	5.19%	6.00%	3.53%	3.86%	4.09%
23:00	8.12%	10.21%	7.12%	4.39%	3.82%	2.35%	2.46%	3.53%

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While engine UHU rates have not yet reached the 30 percent per hour saturation rate over multiple hours, Gilroy Engines 47 and 48, and Fire District Engine 67 are very busy in the late afternoon, and their workload should be closely monitored to provide sufficient lead time to plan for a Peak Activity Unit (PAU) or alternative relief solution once the 30 percent threshold is exceeded.

Table 16—Unit Hour Utilization – Morgan Hill Ladder Truck – 2016

Hour	MH TK57
00:00	2.49%
01:00	3.27%
02:00	3.59%
03:00	4.05%
04:00	2.86%
05:00	3.20%
06:00	5.24%
07:00	6.28%
08:00	6.20%
09:00	8.12%
10:00	5.22%
11:00	9.18%
12:00	8.09%
13:00	7.45%
14:00	8.53%
15:00	7.95%
16:00	6.70%
17:00	11.26%
18:00	9.07%
19:00	6.50%
20:00	9.32%
21:00	6.97%
22:00	5.09%
23:00	4.71%

Finding #11: The agencies need to monitor unit hour utilization and simultaneous incident rates of the busiest units on a quarterly basis.

2.7.4 Operational Performance

This section reports performance for the first apparatus to arrive on the scene of *emergency* incidents as the number of minutes and seconds necessary for 90 percent completion of the following components:

- Call processing
- Turnout
- Travel
- Dispatch to arrival
- Call to arrival

Call Processing Performance

Call processing measures the time from the first incident time stamp from the two fire dispatch centers until response crews are notified of the request for assistance. The best practice goal for this measure is 90 seconds with 90 percent or better reliability where there is not a language or location description barrier. Table 17 shows 90th percentile call processing/dispatch performance to fire and EMS incidents over the three-year study period.

Table 17—Call Processing /Dispatch Performance – 2016-2018

Station	90th Percentile Performance
Overall	**2:15**
SC1 – Morgan Hill	1:13
SC2 – Masten	1:33
SC3 – Gilroy Gardens	1:37
MH4 – El Toro	0:56
MH5 – Dunne Hill	0:59
GY7 – Chestnut	2:41
GY8 – Las Animas	2:33
GY9 – Sunrise	2:20
GYSTR – Glen Loma	2:37

Source: Fire Departments' incident records

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Finding #12: Across all three agencies, 90th percentile call processing is more than 2:00 minutes. Call processing for Morgan Hill and Fire District incidents *meets* the current NFPA 1221 90-second recommendation, while call processing for Gilroy is about 1:00 minute (67 percent) *slower*.

Crew Turnout Performance

Turnout time measures the time from dispatch notification until the response apparatus starts traveling to the emergency. Given that Citygate finds the NFPA and CFAI recommendations of 60–80 seconds impossible to meet given current safety standards and station designs, a 2:00-minute goal is used for this measurement. Table 18 shows 90th percentile crew turnout performance to fire and EMS incidents over the three-year study period.

Table 18—Crew Turnout Performance – 2016–2018

Station	90th Percentile Performance
Overall	**2:41**
SC1 – Morgan Hill	3:11
SC2 – Masten	3:38
SC3 – Gilroy Gardens	3:25
MH4 – El Toro	2:53
MH5 – Dunne Hill	2:58
GY7 – Chestnut	2:00
GY8 – Las Animas	1:58
GY9 – Sunrise	1:57
GYSTR – Glen Loma	2:00

Source: Fire Departments' incident records

Finding #13: Gilroy's crew turnout performance *meets* a Citygate-recommended goal of 2:00 minutes or less, while Morgan Hill's performance is about 1:00 minute (50 percent) *slower*, and the Fire District's is about 1:30 minutes (75 percent) *slower*.

Travel Time Performance

Travel time measures time for the first-arriving response apparatus to travel to the scene of the emergency. In most urban and suburban fire departments, a 4:00-minute travel time at 90 percent or better reliability would be considered highly desirable. For this study, a travel time of 4:30 minutes is used as the benchmark goal for urban/suburban zones, and 10:30 minutes for rural zones (SC2 and SC3). Table 19 shows 90th percentile first-due travel performance over the three-year study period.

Table 19—First-Due Travel Performance – 2016–2018

Station	90th Percentile Performance
Overall	**6:08**
SC1 – Morgan Hill	6:26
SC2 – Masten[1]	8:50
SC3 – Gilroy Gardens[1]	11:24
MH4 – El Toro	6:01
MH5 – Dunne Hill	7:25
GY7 – Chestnut	5:37
GY8 – Las Animas	5:06
GY9 – Sunrise	5:09
GYSTR – Glen Loma	7:39

Source: Fire Departments' incident records
[1] 10:30-minute travel time goal for rural response areas

Finding #14: First unit travel time for Gilroy is about 1:00 minute (25 percent) *slower* than a recommended best practice goal of 4:00 minutes or less for urban population densities, but only slightly (11–22 percent) slower than the Department's current 4:30-minute goal except for the Glen Loma / Santa Teresa area, where travel time is more than 3:00 minutes (67 percent) *slower* than the current 4:30-minute goal, and more than 3:30 minutes (87 percent) *slower* than the recommended 4:00-minute goal.

Finding #15: First unit travel time for Morgan Hill is 2:00–3:25 minutes (50–87 percent) *slower* than a recommended best practice goal of 4:00 minutes or less for urban population densities.

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Finding #16: First unit travel time from the Fire District's Masten station *meets* a Citygate-recommended goal of 10:30 minutes or less for rural zones and is 1:00 minute (10 percent) *slower* than the goal from the Gilroy Gardens station. First unit travel time from the Morgan Hill station is 2:26 minutes (62 percent) *slower* than the 4:00-minute goal for urban/suburban population densities.

Call-to-Arrival Performance

Call to arrival measures time from receipt of the 9-1-1 request for assistance until the apparatus arrives. Citygate's recommended goal for urban/suburban response zones is 7:30 minutes or less at 90 percent reliability, which includes 1:30-minute call processing, 2:00-minute turnout, and 4:00-minute travel. For this study, an additional 30 seconds is added to travel time based on Gilroy's current response policy. Table 20 shows call-to-arrival performance to fire and EMS incidents over the three-year study period.

Table 20—Call-to-Arrival Performance – 2016–2018

Station	90th Percentile Performance
Overall	**9:15**
SC1 – Morgan Hill	9:25
SC2 – Masten[1]	12:34
SC3 – Gilroy Gardens[1]	14:06
MH4 – El Toro	8:31
MH5 – Dunne Hill	9:51
GY7 – Chestnut	8:55
GY8 – Las Animas	8:11
GY9 – Sunrise	8:34
GYSTR – Glen Loma	10:51

Source: Fire Departments' incident records
[1] 14:00-minute call-to-arrival goal for rural response areas

Finding #17: Call-to-arrival response performance in Gilroy, Morgan Hill, and the Fire District's Morgan Hill station is nine percent to 45 percent *slower* than Citygate's recommended 7:30-minute goal for urban/suburban response zones. Call-to-arrival performance from the Fire District's Masten and Gilroy Gardens stations *meets* Citygate's recommended 14:00-minute goal for rural areas.

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Effective Response Force (First Alarm) Performance

The three agencies' Effective Response Force (ERF) for a building fire is four engines or three engines and one ladder truck, and one Battalion or Division Chief for a total of 14 personnel. Table 21 shows the number of incidents where all dispatched units arrived at the incident. It is important to note that measurements based on 20 or fewer incidents can be very volatile. Citygate's recommended ERF performance goal is 11:30 minutes or less at 90 percent reliability for urban/suburban areas, including 1:30 minutes for call processing, 2:00 minutes for crew turnout, and 8:00 minutes travel time.

Table 21—Effective Response Force Call-to-Arrival Performance – 2016–2018

Station	ERF Performance	No. of Incidents
Overall	**17:07**	**25**
SC1 – Morgan Hill	14:03	7
SC2 – Masten[1]	16:29	7
SC3 – Gilroy Gardens[1]	N/A	0
MH4 – El Toro	18:17	3
MH5 – Dunne Hill	15:56	2
GY7 – Chestnut	17:04	1
GY8 – Las Animas	14:01	4
GY9 – Sunrise	N/A	0
GYSTR – Glen Loma	9:38	1

Source: Fire Departments' incident records
[1] 19:30-minute call-to-arrival goal for rural response areas

Finding #18: Effective Response Force (ERF or First Alarm) call-to-arrival performance is *significantly slower* than the Citygate-recommended goal of 11:30 minutes for urban/suburban areas, except in the Glen Loma station area in Gilroy which is 9:38 minutes. Also, ERF performance *meets* the Citygate-recommended *rural* response goal of 19:30 minutes for the Fire District's Masten station response area.

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2.8 Overall Evaluation

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Overall Evaluation

The Departments collectively serve a diverse urban to rural population with a mixed residential and non-residential land use pattern typical for south Bay Area communities.

While the state fire code now requires fire sprinklers even in residential dwellings, it will be many more decades before the majority of homes are replaced or remodeled with automatic fire sprinklers. If desired outcomes include limiting building fire damage to only part of the inside of an affected building and/or minimizing permanent impairment resulting from a medical emergency, then all three agencies will need both first-due unit and multiple-unit ERF coverage in all *urban/suburban* neighborhoods consistent with a Citygate response performance recommendation of first-due arrival within 7:30 minutes from 9-1-1 dispatch notification and ERF arrival within 11:30 minutes of 9-1-1 notification, all at 90 percent or better reliability.

Call processing and crew turnout performance are longer than recommended best practices in some cases, and when combined with fire stations spaced too far apart, traffic congestion, and simultaneous incidents, the result is significantly longer-than-desirable total response times for first-due and ERF multiple-unit events.

Although Citygate finds the three Departments' resources to be appropriate to protect the respective jurisdictions against the hazards likely to impact their service area, the collective daily staffing of 26 personnel only provides a minimum total response force sufficient for a single emerging to serious fire incident, as discussed in Section 2.2.4, as well as a single one- to five-patient EMS incident. While the three agencies have automatic aid agreements that provide for the dispatch of the closest first-due and ERF response resource(s) regardless of jurisdiction, they are poorly located geographically for prompt additional mutual aid, which cannot realistically be provided from the west, east, or south in a timely manner, and from the north only if southern San Jose units are available and do not encounter traffic congestion on southbound U.S. 101. The three jurisdictions are thus essentially self- or co-reliant to provide the resources needed to resolve all but the most catastrophic emergencies without outside assistance. Citygate further notes that many cities the size of Gilroy and Morgan Hill have more than nine firefighters on duty daily, and that Morgan Hill and the Fire District receive mutual benefit from the cost-shared engine at the Fire District's Morgan Hill station that serves both jurisdictions.

Finding #19: Gilroy and Morgan Hill do not deploy enough firefighters daily to safely resolve even a single serious fire or EMS incident, nor to provide adequate capacity for simultaneous incidents.

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Finding #20: Gilroy and Morgan Hill are dependent on Fire District resources to achieve a minimal Effective Response Force staffing of 14 personnel.

Finding #21: Gilroy and the Fire District receive mutual benefit from their current automatic aid agreement.

Finding #22: Morgan Hill and the Fire District receive mutual benefit from their current cost-shared engine and automatic aid agreement.

Finding #23: The three jurisdictions are poorly located geographically for prompt mutual aid other than from each other.

Finding #24: The three jurisdictions are essentially self- or co-reliant to provide the response resources to resolve all but the most catastrophic emergencies without outside assistance.

As the geographic mapping indicates, while the stations are appropriately located in all the major neighborhoods, they are spaced too far apart. The overall longer-than-desired first-due unit travel times are *partially* the result of a lack of fire stations. Other causes are the non-grid street network design in some areas, topography, natural and built barriers (hills and the highways), simultaneous incidents at peak hours of the day, and traffic congestion.

In terms of emergency incident workload per unit, no single fire unit or station area is approaching workload saturation; however, across the entire study area, during peak hours of the day there is a significant simultaneous incident rate of at least three incidents at once 19 percent of the time. When this occurs, 33 percent of the area's fire engines are committed, and should a building fire occur at that point, the Departments would depend on mutual aid assistance from San Jose.

Given increasing service demand and the fact that the area's population is still evolving, Citygate is concerned that the overall staffing per day in the two Cities limits those Departments' abilities to respond with more "weight of attack."

The two Cities are growing past their station spacing, while continuing to be very co-dependent on the Fire District, CAL FIRE, and San Jose. Lowering dispatch processing and turnout time cannot completely negate the long travel times and traffic congestion—only an additional fire station in each City can.

2.8.1 Deployment Recommendations

Based on the technical analysis and findings contained in this SOC assessment, Citygate offers the following deployment recommendations:

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Recommendation #1: Adopt Updated Deployment Policies: The Departments' elected officials should adopt *updated*, complete performance measures to aid deployment planning and to monitor performance. The measures of time should be designed to deliver outcomes that will save patients when possible upon arrival and to keep small but serious fires from becoming more serious. With this is mind, Citygate recommends the following measures:

1.1 Distribution of Fire Stations: In *urban/suburban* population density areas, to treat pre-hospital medical emergencies and control small fires, the first-due unit should arrive within 7:30 minutes, 90 percent of the time from the receipt of the 9-1-1 call at fire dispatch. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and a 4:00-minute travel time.

In rural population density areas, the first-due unit should arrive within 14:00 minutes from the receipt of the 9-1-1 call at fire dispatch at 80 percent or better reliability. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and a 10:30-minute travel time.

1.2 Multiple-Unit Effective Response Force (ERF) for Serious Emergencies: In *urban/suburban* population density areas, to confine building fires near the room of origin, keep vegetation fires under one acre in size, and treat multiple medical patients at a single incident, a multiple-unit ERF of at least 17 personnel, including two Battalion Chiefs, should arrive within 11:30 minutes from the time of 9-1-1 call receipt at fire dispatch 90 percent of the time. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and an 8:00-minute travel time.

For *rural* population density areas, a multiple-unit ERF of at least 13 personnel, including at least one Battalion Chief, should arrive within 19:30 minutes from the time of 9-1-1 call receipt at fire dispatch 80 percent of the time. This equates to a 90-second dispatch time, a 2:00-minute crew turnout time, and a 16:00-minute travel time.

1.3 Hazardous Materials Response: Provide hazardous materials response designed to protect the communities from the hazards associated with uncontrolled release of hazardous and toxic materials. The fundamental mission of the Departments' response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community. This can be achieved with a first-due total response time of 7:30 minutes or less to provide initial hazard evaluation and/or mitigation actions. After the initial evaluation is completed, a determination can be made whether to request additional resources from the regional hazardous materials team.

1.4 Technical Rescue: Respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue with a first-due total response time of 7:30 minutes or less to evaluate the situation and/or initiate rescue actions. Following the initial evaluation, assemble additional resources as needed within a total response time of 11:30 minutes to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

Recommendation #2: Gilroy needs to work to substantially lower dispatch processing times, and Morgan Hill and the Fire District need to work to lower crew turnout times.

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SECTION 3—FUTURE SERVICE NEEDS AND ALTERNATIVE SERVICE MODELS

This section contains Citygate's evaluation of projected future population growth and related development within the three fire agency jurisdictions, projected future service demand, and potential alternative fire service models. It should be noted that recent state legislation, which overrides local growth measures, could increase near-term and longer-term growth and related service demand in all three jurisdictions.

3.1 FUTURE GROWTH

3.1.1 City of Gilroy

According to Gilroy's 2040 General Plan Alternatives Report,[6] the Association of Bay Area Governments (ABAG) projects the City's population to grow to 61,000 by 2040, for a relatively slow annual growth rate of 0.8 percent. ABAG's projection, however, is based on regional policies and does not consider projected market demand. Gilroy's Economic Consultant, ADE, produced a range of population growth scenarios based on projected market demand, which range from 69,249 to 79,317 by the year 2040 for an average annual growth rate ranging from 1.5 to 2.2 percent. ADE's median projection calls for a 2040 population of approximately 74,000, which reflects an average annualized growth rate of 1.9 percent. The report further projects 5,600 to more than 9,000 additional housing units over the same period based on the low and high population projections. Citygate further assumes a relatively similar growth in non-residential occupancies to support the growing population of residents, non-residents in the workforce, and daily transients.

Santa Clara County land use policies[7] that promote future growth within existing urban service areas, and long-term voter-approved Urban Growth Boundaries (UGBs), will limit the City's physical expansion through at least 2040, and any population growth will be accommodated through infill and land use intensification within the UGBs. Recent state legislation, which overrides local growth measures, could increase near-term and longer-term growth and related service demand in the City.

3.1.2 City of Morgan Hill

The City of Morgan Hill's 2035 General Plan projects the City's population to increase 35 percent to 58,200 by the year 2035, for an average annualized growth rate of approximately 2.2 percent.[8]

[6] Reference: Gilroy General Plan Alternatives Report (2015) – Table 3-10
[7] Reference: Santa Clara County General Plan (1995–2010), Growth and Development
[8] Reference: City of Morgan Hill 2035 General Plan

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The General Plan Housing Element further identifies 1,378 potential additional housing units based on available vacant land and current land use and zoning policies.

Although recent state legislation overrides local growth control measures, local land use policies encourage population growth to be accommodated through infill and land use intensification.

3.1.3 South Santa Clara County Fire District

Given Santa Clara County land use policies, Citygate does not expect the Fire District's population or land use to change significantly over the next 20 years.

Finding #25: Population in the two Cities is projected to increase 1.5 to 2.2 percent annually over the next 16–21 years; population in the Fire District is not expected to change significantly as a result of County land use policies focusing future growth within existing urban service areas.

Finding #26: Projected population growth in Gilroy and Morgan Hill will be accommodated through infill and land use intensification within the existing Urban Growth Boundaries through at least 2040.

3.2 FUTURE SERVICE DEMAND

Table 22 summarizes total service demand over the three-year study period by jurisdiction.

Table 22—Total Service Demand – 2016–2018

Year	Jurisdiction						Total	Percent Change
	Gilroy	Percent Change	Morgan Hill	Percent Change	Fire District	Percent Change		
2016	4,865	n/a	2,361	n/a	2,699	n/a	9,925	n/a
2017	5,079	4.4%	2,592	9.8%	2,880	6.7%	10,551	6.3%
2018	5,067	-.2%	2,557	-1.4%	2,942	2.2%	10,556	.05%
Total	15,011	4.2%	7,510	8.3%	8,521	9.0%	31,042	6.3%

As Table 22 illustrates, aggregate total service demand increased 6.3 percent over the three-year period for an average annual increase of 3.2 percent. During that same period, EMS demand, which comprised 68 percent of total aggregate service demand, increased 7.3 percent for an average annual increase of 3.65 percent.

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As discussed in Section A.1.12 (**Appendix A—Risk Assessment**), medical emergency service demand in most communities is predominantly a function of population density, demographics, violence, health insurance coverage, and vehicle traffic. In addition, medical emergency risk tends to be higher among older, poorer, less educated, and uninsured populations. According to the U.S. Census Bureau, 10 to 13 percent of the population in the two Cities is 65 and older; 7 to 12 percent is at or below poverty level; 10 to 30 percent over 24 years of age has less than a high school diploma or equivalent; and only 5 to 8 percent do not have health insurance coverage.[9] Given these demographics and the projected population growth discussed in Section 3.1, Citygate projects that overall service demand will increase approximately 2-4 percent annually over the next 15-20 years, with EMS demand projected to increase at a slightly higher rate of 3-6 percent annually.

Finding #27: Annual service demand increased 6.3 percent over the three-year study period.

Finding #28: Citygate projects service demand will continue to increase approximately 2-5 percent annually over the next 16-21 years (2035-2040), with EMS service demand increasing at a slightly higher 3-6 percent annually and comprising an increasing percentage of total service demand.

3.3 Future Facility, Resource, and Staffing Needs

While the three fire agencies' resources are appropriate to protect against the hazards likely to impact their service areas, the collective daily on-duty staffing of 26 personnel only provides a minimum total response force sufficient for a single emerging to serious fire incident, as discussed in Section 2.2.4, as well as a single one- to five-patient EMS incident. Many cities the size of Gilroy and Morgan Hill have more than nine firefighters on duty daily. The two Cities are very dependent on the Fire District's resources for both first-due and ERF capacity and staffing.

As discussed in Section 2.8, although the City stations are appropriately located in all the major neighborhoods, they are spaced too far apart to provide first-due travel times to achieve desirable outcomes in combination with the non-grid street network design in some areas, topography, natural and built barriers (hills and the highways), simultaneous incidents at peak hours of the day, and traffic congestion. Given the projected population and service demand growth discussed previously, Citygate believes that both Cities will require at least one additional fire station in the near future.

[9] Source: U.S. Census Bureau (2016)

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3.3.1 Fire Station Siting Guidelines

Over more than a decade of assisting clients in determining where to best site or relocate fire stations, Citygate has developed the following fire station siting guidelines:

1. Serve the most people in the shortest travel time possible
2. Provide a 360-degree first-due service area
3. Avoid political, natural, and human-built barriers within the first-due travel time goal[10]
4. Provide direct access to primary travel routes in all cardinal directions.

3.3.2 City of Gilroy

As discussed in Section 2, Citygate's recommended best practice for total *first-due* response time to achieve desirable outcomes, from receipt of a 9-1-1 call in urban population areas such as Gilroy, is 7:30 minutes or less at 90 percent or better reliability, which includes 1:30 minutes for call processing/dispatch time, 2:00 minutes for crew turnout time, and 4:00 minutes for travel time. More serious emergencies requiring a multiple-unit ERF of at least 17 personnel to achieve desirable outcomes, should arrive within 11:30 minutes or less at 90 percent or better reliability.

Gilroy's three current fire stations, in combination with the Fire District's Station #3 at Gilroy Gardens, provide a daily staffing level of 13 total response personnel, four personnel short of the minimum recommended ERF staffing level for even a single moderate emergency incident. Assuming a 4:00-minute travel time goal to achieve desirable emergency incident outcomes, geographic mapping conducted for a concurrent Gilroy Fire Master Plan Update shows a significant 4:00-minute travel time coverage gap in the southwestern Glen Loma / Eagle Ridge area of the City where new residential development is occurring. Citygate evaluated two sites for a future fire station in this area and recommended a City-owned site at Miller Avenue and West Luchessa Avenue as the preferred alternative, as shown in Map Scenario #1 (**Volume 2—Map Atlas**).

The City implemented the pilot Alternative Service Model (ASM) study in the Glen Loma Ranch area on July 1, 2019, staffing either a Type-1 ambulance or a Type-6 wildland fire engine with two personnel on overtime status daily from 8:00 a.m. to 8:00 p.m. While this ASM pilot study was implemented primarily to provide ALS pre-hospital emergency medical services to this newly developing area of the City beyond 4:00-minute first-due travel time from other existing fire stations, it also provides additional critical Citywide first-due and ERF staffing capacity during peak service demand hours. Although this pilot study is only funded through June 30, 2020, Citygate has recommended that the City continue the ASM, absent any unforeseen adverse

[10] This guideline may not apply in auto-aid-or "boundary drop" situations.

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impacts, until such time as the City can allocate the funds to construct a station and staff a full-time three-person crew in that area of the City.

As discussed in more detail below, the Fire District is also considering its future options, which could include the relocation of one or more of its existing stations. Should the District decide to relocate the Gilroy Gardens station, it would impact first-due and ERF capacity, staffing, and travel time coverage for the City. Should the District exercise this option, the City should consider relocating the Las Animas station further west toward First Street and Santa Teresa Boulevard, which would in turn create a first-due and ERF coverage gap in the northeast quadrant of the City, potentially requiring a fifth station in that area to ensure equitable delivery of fire and pre-hospital EMS to all areas of the City.

Finding #29: The City of Gilroy is geographically too large to effectively provide recommended service levels from its three existing fire stations and Fire District Station #3 at Gilroy Gardens.

Finding #30: A fourth fire station in southwest Gilroy would improve five deployment needs including first-due travel time coverage, daily Citywide staffing, multiple-unit Effective Response Force (ERF) staffing, travel time coverage during traffic congestion periods, and reduced dependence on the Fire District's Station #3 at Gilroy Gardens for first-due and ERF capacity and staffing.

Finding #31: If the Fire District relocates the Gilroy Gardens station further west, it will impact first-due and Effective Response Force capacity, staffing, and travel time coverage for Gilroy.

Recommendation #3: The City of Gilroy should construct a fourth fire station in the southwest Glen Loma area of the City, and staff it with a full-time three-person crew as soon as fiscally feasible.

Recommendation #4: The City of Gilroy should continue the current pilot Alternative Service Model until such time as the Glen Loma station is constructed and staffed with a full-time crew.

Recommendation #5: The City of Gilroy and the Fire District should continue to provide shared services wherever feasible to enhance fire and EMS service delivery in both jurisdictions.

3.3.3 City of Morgan Hill

The City of Morgan Hill's two existing fire stations, with a third cost-shared engine[11] stationed at the Fire District Headquarters on Monterey Road in Morgan Hill, provide a combined daily staffing level of 10 response personnel. As discussed in Section 2.8, the City is understaffed to achieve even minimal ERF staffing and is heavily reliant on Fire District and/or mutual aid resources to safely resolve even a single serious fire or EMS incident, or to provide adequate capacity for simultaneous incidents. In Citygate's opinion, the risks within the City, combined with projected future growth, justify a minimum daily staffing level of nine City personnel (12 including shared Fire District Station #1) providing all-risk fire/EMS from three City fire stations plus shared Fire District Station #1. Potential incremental steps to achieve a fully staffed third City station include staffing the truck with three personnel as a third City unit, and/or dynamic deployment of a two-person Type-6[12] all-risk unit in central Morgan Hill during peak service demand hours.

Finding #32: The City of Morgan Hill is geographically too large to effectively provide recommended service levels from its two existing fire stations and shared Fire District Station #1.

Finding #33: The risks in Morgan Hill, combined with projected future growth, justify a dedicated minimum daily City staffing level of nine personnel, with 12 total personnel daily including the Fire District's Morgan Hill engine.

[11] Engine crew costs are equally shared between the City of Morgan Hill and the South Santa Clara County Fire District

[12] 18,000-20,000-pound GVW truck chassis with utility body, fire pump, water tank, and hose. May also be equipped to provide ALS/BLS EMS and initial rescue services.

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Recommendation #6: The City of Morgan Hill should construct and staff a third fire station in the central section of the City as soon as fiscally feasible; or incrementally staff the truck with three personnel as a fourth unit, or dynamically deploy a two-person Peak Activity Unit during peak service demand periods.

Assuming a 4:00-minute first-due travel time goal to achieve desirable emergency incident outcomes, geographic mapping shows that only 75 percent of the City's public road network is reachable within 4:00 minutes travel time *without* traffic congestion as summarized in Table 23.

Table 23—Travel Time Coverage – Morgan Hill

Travel Time Measure	Total Public Road Miles	Non-Congested Miles Covered	Non-Congested Percent of Total Miles
4:00-Minute First Due Existing Stations[1]	193.5	144.6	74.73%
4:00-Minute First Due with Butterfield Station[1]	193.5	158.7	82.02%
8:00-Minute ERF with Existing Stations[1]	193.5	55.8	28.84%
8:00-Minute ERF with Butterfield Station[1]	193.5	177.3	91.63%

[1] Including shared Fire District Station #1 in Morgan Hill

Citygate evaluated travel time coverage from a potential future third City fire station at Butterfield Boulevard and Diana Avenue at the Department's request. As Map Scenario #2 (**Volume 2—Map Atlas**) and Table 23 show, this location would improve 4:00-minute first-due travel time coverage by approximately 7 percent to 82 percent of total City public road miles, which in Citygate's opinion is good first-due coverage. As Table 23 also shows, a third City station at this location would improve 8:00-minute ERF travel time coverage by nearly 63 percent to more than 91 percent of total public road miles, as shown in Map Scenario #2a, which is excellent coverage.

Finding #34: A third fire station in central Morgan Hill would improve Citywide daily staffing capacity and both first-due and Effective Response Force travel time coverage.

Recommendation #7: Morgan Hill and the Fire District should continue to collaborate to provide shared services wherever feasible to enhance fire and EMS service delivery in both jurisdictions.

Citygate was also asked to review travel time coverage from the City's El Toro station. As Map Scenario #2 (**Volume 2—Map Atlas**) and Table 23 show, there is a significant 4:00-minute first-due travel time coverage gap in the northeast section of the City even with the recommended third fire station at Butterfield Boulevard and Diana Avenue. Although the scope of work for this study did not include geographic mapping of an alternative El Toro station site, relocation of that station further east to the Cochrane Road corridor would certainly improve 4:00-minute first-due travel time coverage into that northeastern gap area; however, it would reduce first-due travel time coverage to the northwestern Llagas Road neighborhoods. In Citygate's opinion, relocation of the El Toro station would have no to very minimal impact on current 8:00-minute ERF travel time coverage.

Finding #35: Relocating the Morgan Hill El Toro station east to the Cochrane Road corridor would improve 4:00-minute first-due travel time coverage in the northeast section of the City; however, it would concurrently reduce first-due travel time coverage in the northwestern Llagas Road neighborhoods.

Finding #36: Relocating the El Toro station east to the Cochrane Road corridor would have no to very minimal impact on current 8:00-minute Effective Response Force travel time coverage.

3.3.4 South Santa Clara County Fire District

Although Santa Clara County land use policies promote future growth within existing urban service areas, there are areas within the Fire District's 306 square mile service area, including San Martin and the unincorporated areas just outside the City of Morgan Hill, with population densities approaching 1,000 per square mile. In addition, western areas of the District along Watsonville Road, and areas east of U.S. 101, have a higher population density than the more rural areas of the District.

Because of these varied population densities, Citygate utilized two response performance expectations for this study: 7:30-minute first-due call-to-arrival and 11:30-minute ERF call-to-arrival goal for the Morgan Hill station given the predominantly urban/suburban population density served by that station, and a 14:00-minute rural first-due call-to-arrival goal for the Masten

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and Gilroy Gardens stations given the more suburban/rural population densities served by those stations.

Although response performance for the Masten and Gilroy Gardens stations meets the Citygate-recommended 14:00-minute call-to-arrival goal for rural response zones, District executive staff asked Citygate to identify and evaluate potential alternate sites for these two stations that could enhance first-due and overall regional response performance.

The Masten station, centrally located between Gilroy and Morgan Hill on the east side frontage road of U.S. 101 just south of Masten Avenue, provides relatively good access to east- and west-bound Masten Avenue, as well as northbound U.S. 101. Access to southbound U.S. 101, however, is slower due to the onramp location on the west side of the Masten Avenue overpass.

Considering Citygate's fire station siting guidelines in Section 3.3.1, the only other suitable location for this station in Citygate's opinion is in the vicinity of the U.S. 101 / San Martin Avenue interchange, approximately two miles north of its current location, as shown in Map Scenario #3 (**Volume 2—Map Atlas**). Given the pending closure of Reed Airport in San Jose which is anticipated to increase general aviation activity significantly at the South Santa Clara County Airport in San Martin, a station sited on the north end of the runway with direct access to Murphy Avenue would provide improved response time to the airport, San Martin, and Morgan Hill. However, it would increase response times into Gilroy and Fire District areas east of Gilroy. While there are both advantages and disadvantages to this potential station location, it is ultimately a policy and fiscal decision for consideration by the Fire District Board of Commissioners, ideally in collaboration with the Cities of Gilroy and Morgan Hill.

Finding #37: Relocation of the Fire District's Masten station would result in both advantages and disadvantages relative to first-due and Effective Response Force response performance and automatic aid.

The Gilroy Gardens station is located on the south side of Highway 152 at the entrance to the Gilroy Gardens Family Theme Park on the western edge of Gilroy. While this location provides immediate first-due and ERF coverage into the City, nearly all this station's primary first-due response area lies to the west along Highway 152 and northwest. In Citygate's opinion, considering the fire station siting guidelines in Section 3.3.1, a more suitable location for this station would be in the vicinity of Watsonville Road and Day Road to provide quicker first-due travel time coverage of the more populated portions of its primary response area, as well as good access to the north, south, and east to Santa Teresa Boulevard. As shown in Map Scenario #4 (**Volume 2—Map Atlas**), relocation of this station would also have a significant impact on first-due and ERF capacity and travel time coverage for Gilroy.

Finding #38: Relocation of the Fire District's Gilroy Gardens station would result in both advantages and disadvantages relative to first-due and Effective Response Force response performance and automatic aid.

Recommendation #8: The Fire District should collaborate closely with both Cities relative to any potential station relocations.

3.4 Alternative Service Models

As discussed in Section 2.8 and this section, Gilroy and Morgan Hill do not, in Citygate's opinion, deploy a sufficient number of firefighters daily to safely resolve even a single serious fire or EMS incident, or to provide adequate capacity for simultaneous incidents, and are thus dependent on Fire District resources to achieve a minimal ERF staffing of 14 personnel. In addition, while the three agencies have automatic aid agreements that send the closest first-due and ERF resources regardless of jurisdiction, they are poorly located geographically for prompt mutual aid other than from each other, and are thus essentially self- or co-reliant to provide the response resources to resolve all but the most catastrophic emergencies without outside assistance.

Given the fact that few if any jurisdictions can afford a service level that provides enough resources to handle *all* calls for service, including concurrent calls, cooperative solutions between the three jurisdictions that maximize utilization of their combined resources are the best pathway forward for efficient and cost-effective delivery of fire services. The existing automatic aid agreements that provide for closest first-due and ERF unit response are an excellent first step in this direction, as is Morgan Hill and the Fire District's cost sharing of a fire engine and some administrative support staff to serve both jurisdictions.

As the jurisdiction physically located between the two Cities, the Fire District is *the* key partner to any cooperative fire service solution in south Santa Clara County. In addition to its current cooperative shared services with Morgan Hill, the Fire District and Gilroy could consider similar shared services, including cost-shared or co-located response resource(s), and/or administrative support staff to serve both jurisdictions.

Finding #39: A cooperative fire service model that maximizes utilization of the combined three fire agency jurisdictions" resources is the best alternative going forward for efficient and cost-effective delivery of fire services in south Santa Clara County.

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3.5 Future Needs Summary

Projected future growth and development in south Santa Clara County will not alter Gilroy, Morgan Hill, and the Fire District's physical isolation from other regional fire service providers, thus continuing to make them self- or co-reliant for many decades for the resources to resolve all but the most catastrophic emergencies without outside assistance. Such physical isolation, in combination with fiscal realities that prevent any one jurisdiction from being able to afford a service level providing enough resources and staffing to handle all calls for service without outside assistance, makes cooperative solution(s) critical that maximize utilization of the combined resources of all three jurisdictions to provide optimal operational and fiscal effectiveness and efficiency going forward.

Given the growth currently occurring in southwestern Gilroy, and the City's current planning for a future fourth fire station in that area, it is essential that the Fire District determine its long-term plans relative to the Gilroy Gardens station as soon as possible given the potential impacts to the City if that station is closed or relocated. Equally important, in Citygate's opinion, is for the Cities' and Fire District's leadership to engage as soon as possible: to (1) establish desire and intent to provide cooperative fire services for many decades, perhaps through a formal Memorandum of Understanding (MOU); and (2) to establish a joint planning team to work through the detailed planning for such future cooperative services for consideration by each jurisdiction's policy-making body.

Finding #40: Close collaboration between Gilroy, Morgan Hill, and the Fire District is critical to establishing and maintaining a cooperative regional fire service delivery model that maximizes utilization of the combined jurisdictions' resources to provide long-term operational and fiscal efficiencies.

Recommendation #9: Gilroy, Morgan Hill, and Fire District leadership should establish desire and intent as soon as possible to provide cooperative fire services for many decades, perhaps through a formal Memorandum of Understanding.

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Recommendation #10: Given the desire and intent to jointly provide cooperative fire services for many decades, the three jurisdictions should establish a joint strategic planning team with policy-level direction to evaluate potential cooperative service elements for approval by the respective policy bodies, and then to conduct the detailed implementation planning necessary.

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SECTION 4—FINDINGS AND RECOMMENDATIONS

This section contains all the findings and recommendations found throughout this report in sequential order.

4.1 FINDINGS

Finding #1: None of the three agencies have elected-official-approved response performance objectives meeting all best practice elements for time and desired outcomes. Some of the departmental policies have a portion of the elements of best practices-based response time and outcomes desired policies.

Finding #2: All three agencies have, over the last decade or more, completed a fire master plan, Standards of Response Cover assessment, or a contract for services agreement, yet the elected officials have not clearly adopted the response time policies as recommended in prior studies.

Finding #3: The three fire agencies have a standard response plan that considers risk and establishes an appropriate initial response for each incident type. Each type of call for service receives the combination of engines, trucks, specialty units, and command officers customarily needed to effectively control that type of incident based on each agency's experience.

Finding #4: During traffic congestion periods, there are multiple underserved core areas in Morgan Hill, suggesting the three stations are spaced too far apart. In Gilroy, the edge areas and new development beyond the current *non-congested* coverage area also suggests the need for an additional station.

Finding #5: Given that only nine firefighters are on-duty in each City, if *both* Cities added a fourth fire station, raising daily staffing to 12, they would be less dependent on the Fire District's staffing for serious emergencies requiring a multiple-unit response.

Finding #6: The Fire District's Station #3 in west Gilroy serves mostly Gilroy within its 4:30-minute first-due travel coverage. It would provide better rural area coverage if moved northwest of its current location.

Finding #7: Even if all three agencies' fire stations are available, neither north Morgan Hill nor south and eastern Gilroy can receive a minimum multiple-unit Effective Response Force of 12 firefighters within 8:00 minutes travel time.

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Finding #8: Service demand occurs across all hours of the day, indicating the need for a 24-hours-per-day, seven-days-per-week fire and EMS emergency response system.

Finding #9: Although the occurrence of simultaneous incidents varies over the three-year study period, a significant percentage of the collective agencies' service demand involves two or more incidents occurring at the same time.

Finding #10: Approximately 10 percent of the three Fire District and two Morgan Hill stations' calls for service involve simultaneous incidents within those same station response areas, resulting in a slower response for the second or subsequent incident from another station. Same-station simultaneous incident activity in Gilroy is 3.5 percent or less.

Finding #11: The agencies need to monitor unit hour utilization and simultaneous incident rates of the busiest units on a quarterly basis.

Finding #12: Across all three agencies, 90th percentile call processing is more than 2:00 minutes. Call processing for Morgan Hill and Fire District incidents *meets* the current NFPA 1221 90-second recommendation, while call processing for Gilroy is about 1:00 minute (67 percent) *slower*.

Finding #13: Gilroy's crew turnout performance *meets* a Citygate-recommended goal of 2:00 minutes or less, while Morgan Hill's performance is about 1:00 minute (50 percent) *slower*, and the Fire District's is about 1:30 minutes (75 percent) *slower*.

Finding #14: First unit travel time for Gilroy is about 1:00 minute (25 percent) *slower* than a recommended best practice goal of 4:00 minutes or less for urban population densities, but only slightly (11–22 percent) slower than the Department's current 4:30-minute goal except for the Glen Loma / Santa Teresa area, where travel time is more than 3:00 minutes (67 percent) *slower* than the current 4:30-minute goal, and more than 3:30 minutes (87 percent) *slower* than the recommended 4:00-minute goal.

Finding #15: First unit travel time for Morgan Hill is 2:00–3:25 minutes (50–87 percent) *slower* than a recommended best practice goal of 4:00 minutes or less for urban population densities.

Finding #16: First unit travel time from the Fire District's Masten station *meets* a Citygate-recommended goal of 10:30 minutes or less for rural zones and is 1:00 minute (10 percent) *slower* than the goal from the Gilroy Gardens station. First unit travel time

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from the Morgan Hill station is 2:26 minutes (62 percent) *slower* than the 4:00-minute goal for urban/suburban population densities.

Finding #17: Call-to-arrival response performance in Gilroy, Morgan Hill, and the Fire District's Morgan Hill station is nine percent to 45 percent *slower* than Citygate's recommended 7:30-minute goal for urban/suburban response zones. Call-to-arrival performance from the Fire District's Masten and Gilroy Gardens stations *meets* Citygate's recommended 14:00-minute goal for rural areas.

Finding #18: Effective Response Force (ERF or First Alarm) call-to-arrival performance is *significantly slower* than the Citygate-recommended goal of 11:30 minutes for urban/suburban areas, except in the Glen Loma station area in Gilroy which is 9:38 minutes. Also, ERF performance *meets* the Citygate-recommended *rural* response goal of 19:30 minutes for the Fire District's Masten station response area.

Finding #19: Gilroy and Morgan Hill do not deploy enough firefighters daily to safely resolve even a single serious fire or EMS incident, nor to provide adequate capacity for simultaneous incidents.

Finding #20: Gilroy and Morgan Hill are dependent on Fire District resources to achieve a minimal Effective Response Force staffing of 14 personnel.

Finding #21: Gilroy and the Fire District receive mutual benefit from their current automatic aid agreement.

Finding #22: Morgan Hill and the Fire District receive mutual benefit from their current cost-shared engine and automatic aid agreement.

Finding #23: The three jurisdictions are poorly located geographically for prompt mutual aid other than from each other.

Finding #24: The three jurisdictions are essentially self- or co-reliant to provide the response resources to resolve all but the most catastrophic emergencies without outside assistance.

Finding #25: Population in the two Cities is projected to increase 1.5 to 2.2 percent annually over the next 16-21 years; population in the Fire District is not expected to change significantly as a result of County land use policies focusing future growth within existing urban service areas.

Finding #26: Projected population growth in Gilroy and Morgan Hill will be accommodated through infill and land use intensification within the existing Urban Growth Boundaries through at least 2040.

Finding #27: Annual service demand increased 6.3 percent over the three-year study period.

Finding #28: Citygate projects service demand will continue to increase approximately 2-5 percent annually over the next 16-21 years (2035-2040), with EMS service demand increasing at a slightly higher 3-6 percent annually and comprising an increasing percentage of total service demand.

Finding #29: The City of Gilroy is geographically too large to effectively provide recommended service levels from its three existing fire stations and Fire District Station #3 at Gilroy Gardens.

Finding #30: A fourth fire station in southwest Gilroy would improve five deployment needs including first-due travel time coverage, daily Citywide staffing, multiple-unit Effective Response Force (ERF) staffing, travel time coverage during traffic congestion periods, and reduced dependence on the Fire District's Station #3 at Gilroy Gardens for first-due and ERF capacity and staffing.

Finding #31: If the Fire District relocates the Gilroy Gardens station further west, it will impact first-due and Effective Response Force capacity, staffing, and travel time coverage for Gilroy.

Finding #32: The City of Morgan Hill is geographically too large to effectively provide recommended service levels from its two existing fire stations and shared Fire District Station #1.

Finding #33: The risks in Morgan Hill, combined with projected future growth, justify a dedicated minimum daily City staffing level of nine personnel, with 12 total personnel daily including the Fire District's Morgan Hill engine.

Finding #34: A third fire station in central Morgan Hill would improve Citywide daily staffing capacity and both first-due and Effective Response Force travel time coverage.

Finding #35: Relocating the Morgan Hill El Toro station east to the Cochrane Road corridor would improve 4:00-minute first-due travel time coverage in the northeast section of the City; however, it would concurrently reduce first-due travel time coverage in the northwestern Llagas Road neighborhoods.

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Finding #36: Relocating the El Toro station east to the Cochrane Road corridor would have no to very minimal impact on current 8:00-minute Effective Response Force travel time coverage.

Finding #37: Relocation of the Fire District's Masten station would result in both advantages and disadvantages relative to first-due and Effective Response Force response performance and automatic aid.

Finding #38: Relocation of the Fire District's Gilroy Gardens station would result in both advantages and disadvantages relative to first-due and Effective Response Force response performance and automatic aid.

Finding #39: A cooperative fire service model that maximizes utilization of the combined three fire agency jurisdictions' resources is the best alternative going forward for efficient and cost-effective delivery of fire services in south Santa Clara County.

Finding #40: Close collaboration between Gilroy, Morgan Hill, and the Fire District is critical to establishing and maintaining a cooperative regional fire service delivery model that maximizes utilization of the combined jurisdictions' resources to provide long-term operational and fiscal efficiencies.

4.2 RECOMMENDATIONS

Recommendation #1: **Adopt Updated Deployment Policies:** The Departments' elected officials should adopt *updated*, complete performance measures to aid deployment planning and to monitor performance. The measures of time should be designed to deliver outcomes that will save patients when possible upon arrival and to keep small but serious fires from becoming more serious. With this is mind, Citygate recommends the following measures:

1.1 Distribution of Fire Stations: In *urban/suburban* population density areas, to treat pre-hospital medical emergencies and control small fires, the first-due unit should arrive within 7:30 minutes, 90 percent of the time from the receipt of the 9-1-1 call at fire dispatch. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and a 4:00-minute travel time.

In rural population density areas, the first-due unit should arrive within 14:00 minutes from the receipt of the 9-1-1 call at fire dispatch at 80 percent or better reliability. This equates to a 90-second dispatch time, a 2:00-minute company turnout time, and a 10:30-minute travel time.

1.2 Multiple-Unit Effective Response Force (ERF) for Serious Emergencies: In *urban/suburban* population density areas, to confine building fires near the room of origin, keep vegetation fires under one acre in size, and treat multiple medical patients at a single incident, a multiple-unit ERF of at least 17 personnel, including two Battalion Chiefs, should arrive within 11:30 minutes from the time of 9-1-1 call receipt at fire dispatch 90 percent of the time. This equates to a 90-second dispatch time, 2:00-minute company turnout time, and 8:00-minute travel time.

For *rural* population density areas, a multiple-unit ERF of at least 13 personnel, including at least one Battalion Chief, should arrive within 19:30 minutes from the time of 9-1-1 call receipt at fire dispatch 80 percent of the time. This equates to a 90-second dispatch time, 2:00-minute crew turnout time, and 16:00-minute travel time.

1.3 Hazardous Materials Response: Provide hazardous materials response designed to protect the communities from the hazards associated with uncontrolled release of hazardous and toxic materials. The fundamental mission of the Departments' response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community. This can be achieved with a first-due total response time of 7:30 minutes or less to provide initial hazard evaluation and/or mitigation actions. After the initial evaluation is completed, a determination can be made whether to request additional resources from the regional hazardous materials team.

1.4 Technical Rescue: Respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue with a first-due total response time of 7:30 minutes or less to evaluate the situation and/or initiate rescue actions. Following the initial evaluation, assemble additional resources as needed within a total response time of 11:30 minutes to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

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Recommendation #2: Gilroy needs to work to substantially lower dispatch processing times, and Morgan Hill and the Fire District need to work to lower crew turnout times.

Recommendation #3: The City of Gilroy should construct a fourth fire station in the southwest Glen Loma area of the City, and staff it with a full-time three-person crew as soon as fiscally feasible.

Recommendation #4: The City of Gilroy should continue the current pilot Alternative Service Model until such time as the Glen Loma station is constructed and staffed with a full-time crew.

Recommendation #5: The City of Gilroy and the Fire District should continue to provide shared services wherever feasible to enhance fire and EMS service delivery in both jurisdictions.

Recommendation #6: The City of Morgan Hill should construct and staff a third fire station in the central section of the City as soon as fiscally feasible; or incrementally staff the truck with three personnel as a fourth unit, or dynamically deploy a two-person Peak Activity Unit during peak service demand periods.

Recommendation #7: Morgan Hill and the Fire District should continue to collaborate to provide shared services wherever feasible to enhance fire and EMS service delivery in both jurisdictions.

Recommendation #8: The Fire District should collaborate closely with both Cities relative to any potential station relocations.

Recommendation #9: Gilroy, Morgan Hill, and Fire District leadership should establish desire and intent as soon as possible to provide cooperative fire services for many decades, perhaps through a formal Memorandum of Understanding.

Recommendation #10: Given the desire and intent to jointly provide cooperative fire services for many decades, the three jurisdictions should establish a joint strategic planning team with policy-level direction to evaluate potential cooperative service elements for approval by the respective policy bodies, and then to conduct the detailed implementation planning necessary.

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SECTION 5—NEXT STEPS

Citygate's recommended immediate next steps for Gilroy, Morgan Hill, and the Fire District are:

- Review and absorb the content, findings, and recommendations of this study
- Prepare a staff report and draft Resolution for each City Council and the Fire District Board of Commissioners to adopt the included recommended response performance goals
- Determine interest and intent to provide long-term joint cooperative fire services in south Santa Clara County
  - Consider a Memorandum of Understanding to memorialize such intent.

Recommended intermediate-term next steps include:

- Monitor response performance and unit workload at least annually
- Establish a joint agency strategic planning team with policy-level direction to evaluate potential cooperative service opportunities, including, but not limited to, fire crew staffing, deployment, cost sharing, and fire dispatch services, with the intent to develop a mutually beneficial long-term commitment and solution that optimizes the use of all three jurisdictions' resources to provide efficient and cost-effective fire services in south Santa Clara County.

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APPENDIX A—COMMUNITY RISK ASSESSMENT

A.1 COMMUNITY RISK ASSESSMENT

SOC ELEMENT 3 OF 8
COMMUNITY RISK ASSESSMENT

The third element of the Standards of Coverage (SOC) process is a community risk assessment. Within the context of an SOC study, the objectives of a community risk assessment are to:

1. Identify the values at risk to be protected within the community or service area.
2. Identify the hazards with potential to adversely impact the community or service area.
3. Quantify the overall risk associated with each hazard.
4. Establish a foundation for current/future deployment decisions and risk-reduction/hazard mitigation planning and evaluation.

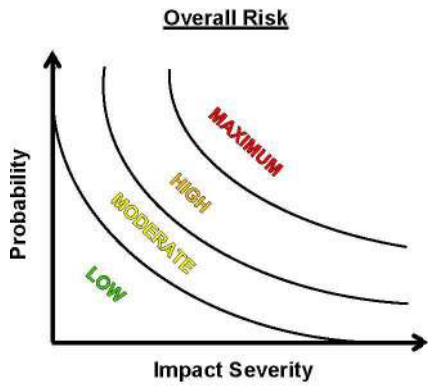
A *hazard* is a situation or condition that can cause or contribute to harm. Examples include fire, medical emergency, vehicle collision, earthquake, flood, etc. *Risk* is the *probability of hazard occurrence* in combination with the *likely severity of resultant impacts* to people, property, and the community as a whole.

A.1.1 Risk Assessment Methodology

The methodology employed by Citygate to assess community risks as an integral element of an SOC study incorporates the following elements:

- Identification of geographic risk planning sub-zones appropriate to the community or jurisdiction.
- Identification and quantification, to the extent data is available, of the specific values at risk to various hazards within the community or service area.
- Identification of the fire and non-fire hazards to be evaluated.
- Determination of the probability of occurrence for each hazard based on recent historical service demand by hazard type.
- Identification and evaluation of multiple relevant impact severity factors for each hazard by planning zone using agency/jurisdiction-specific data and information.
- Quantification of overall risk for each hazard based on probability of occurrence in combination with probable impact severity, as shown in Figure 15.

Figure 15—Overall Risk



Source: Commission on Fire Accreditation International (CFAI): *Community Risk Assessment: Standards of Cover (Sixth Edition)*

Citygate referenced multiple data sources for this study to understand the hazards and values to be protected within the three South Santa Clara County jurisdictions as follows:

- U.S. Census Bureau population and demographic data
- Fire agency data and information, including geographical information systems (GIS) data
- City and Santa Clara County data and information, including General Plan and zoning information
- 2017 Santa Clara County Operational Area Hazard Mitigation Plan

Although not utilized for this study to ensure equitable assessment of risk across all three agency jurisdictions, Citygate acknowledges that the City of Gilroy Fire Department has implemented a Citywide risk assessment of all non-single-family residential buildings using a two-factor life safety and community risk scoring scale. Citygate commends the Department for this innovative program that identifies specific higher-risk buildings and occupancies within the City, which also provides information to modify emergency responses to these buildings to mitigate additional risk. Citygate suggests that the Department consider modifying the scoring scales to allow a finer differentiation of the risk factors and resultant overall risk scores and category, and to also

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potentially consider other risk factors such as occupancy classification, built-in fire protection and alarm systems, required fire flow, historic service demand, and ERF response capacity.

A.1.2 Risk Assessment Summary

Citygate's evaluation of the values at risk and hazards likely to impact the three study jurisdictions yields the following:

- The study area has a diverse urban/suburban population density, with rural population densities in the outlying areas.
- The three jurisdictions have a mix of residential, office, commercial, light industrial, and other non-residential building occupancies.
- The study area includes economic and natural resource values to be protected, as identified in this assessment.
- There are varying probabilities of occurrence and probable resultant impact severity associated with the following five hazards relating to services provided by the three fire agencies:
  - Building Fire
  - Vegetation/Wildland Fire
  - Medical Emergency
  - Hazardous Materials Release/Spill
  - Technical Rescue
- Overall risk for the five hazards ranges from ***Low*** to ***High***, as summarized in Table 24 by planning zone.

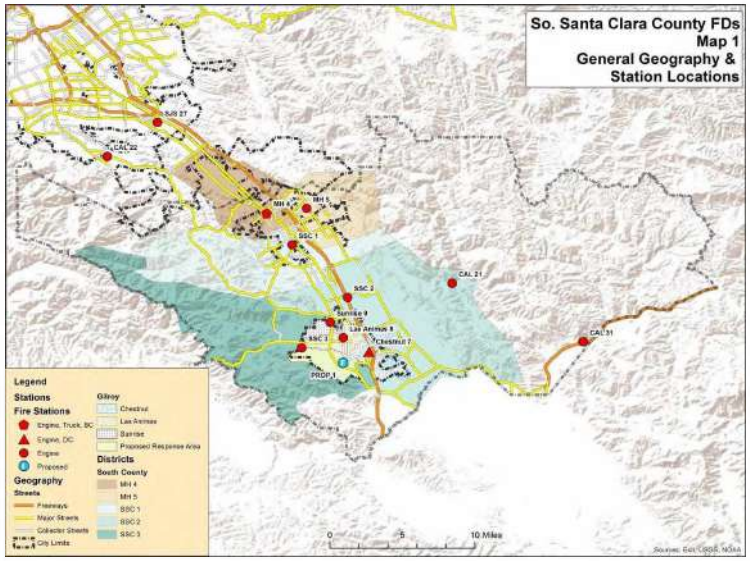
Table 24—Overall Risk by Hazard

Hazard	Risk Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Building Fire	*Moderate*	*Low*	*Low*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Low*
Vegetation/Wildland Fire	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Low*	*Low*	*Low*	*Moderate*	*Moderate*
Medical Emergency	*High*	*High*	*High*	*High*	*High*	*High*	*High*	*High*	*High*
Hazardous Material	*Moderate*	*Moderate*	*Low*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*
Technical Rescue	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*	*Low*

A.1.3 Risk Planning Zones

The Commission on Fire Accreditation International (CFAI) recommends that jurisdictions establish geographic planning zones to better understand risk at a sub-jurisdictional level. For example, portions of a jurisdiction may contain predominantly moderate-risk building occupancies, such as detached single-family residences, while other areas contain high- or maximum-risk occupancies, such as commercial and industrial buildings with a high hazard fire load. If risk were to be evaluated on a jurisdiction-wide basis, the predominant moderate risk could outweigh the high or maximum risk and may not be a significant factor in an overall assessment of risk. If, however, those high- or maximum-risk occupancies are a larger percentage of the risk in a smaller planning zone, then it becomes a more significant risk factor. Another consideration in establishing risk planning zones is that the jurisdiction's record management system must also track the specific zone for each incident to be able to appropriately evaluate service demand and response performance relative to each specific zone. For this assessment, Citygate utilized nine risk planning zones corresponding to each fire agency's first-due response areas, as shown in Figure 16.

Figure 16—Risk Planning Zones



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A.1.4 Values at Risk to Be Protected

Broadly defined, *values at risk* are tangibles of significant importance or value to the community or jurisdiction potentially at risk of harm or damage from a hazard occurrence. Values at risk typically include people, critical facilities/infrastructure, buildings, and key economic, cultural, historic, and/or natural resources.

People

Residents, employees, visitors, and travelers through a community or jurisdiction are vulnerable to harm from a hazard occurrence. Particularly vulnerable are specific at-risk populations, including those unable to care for themselves or self-evacuate in the event of an emergency. At-risk populations typically include children younger than 10 years of age, the elderly, and people housed in institutional settings. Key demographic data for Gilroy and Morgan Hill is summarized in Table 25 and Table 26. *No separate demographic data was available for just the South Santa Clara County Fire District's service area.*

Table 25—Key Demographic Data – City of Gilroy

Demographic	2017	Percentage
Population	**54,159**	
Under 10 years	7,936	**14.65%**
10–19 years	9,355	**17.27%**
20–64 years	31,572	**58.30%**
65–74 years	3,012	**5.56%**
75 years and older	2,284	**4.22%**
Median age	**34.1**	**N/A**
Housing Units	**16,145**	
Owner-Occupied	9,201	**56.99%**
Renter-Occupied	6,673	**41.33%**
Average Household Size	**3.41**	**N/A**
Ethnicity		
Caucasian (includes White and Hispanic/Latino)	41,964	**77.48%**
Hispanic/Latino	32,820	**60.60%**
Asian	4,856	**8.97%**
Black / African American	1,187	**2.19%**
Other	6,152	**11.36%**
Education (population over 24 years of age)	**33,185**	**61.27%**
High School Graduate	26,150	**78.80%**
Undergraduate Degree	5,617	**16.93%**
Graduate/Professional Degree	2,921	**8.80%**
Employment (population over 15 years of age)	**40,279**	**74.37%**
In Labor Force	28,441	**70.61%**
Unemployed	1,746	**6.14%**
Population below Poverty Level	6,445	**11.90%**
Population without Health Insurance Coverage	4,560	**8.42%**

Source: US Census Bureau (2017 data)

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Of note from Table 25 is:

- More than 24 percent of the City's population is under 10 or over 65 years of age.
- The City's population is predominantly Hispanic (61 percent), followed by White (16.9 percent), Asian (9 percent), Black / African American (2 percent), and Other ethnic origins (11 percent).
- Of the City population over 24 years of age, nearly 79 percent has completed high school or higher.
- Of the City population over 24 years of age, nearly 26 percent has an undergraduate, graduate, or professional degree.
- Nearly 71 percent of the City population 16 years of age or older is in the workforce; of those, slightly more than 6 percent are unemployed.
- The total City population below the federal poverty level is nearly 12 percent.
- Just less than 8.5 percent of the City population does not have health insurance coverage.

According to Gilroy's 2040 General Plan Alternatives Report,[13] the Association of Bay Area Governments (ABAG) projects the City's population to grow to 61,000 by 2040, for a relatively slow annual growth rate of 0.8 percent. ABAG's projection, however, is based on regional policies and does not consider projected market demand. Gilroy's Economic Consultant, ADE, produced a range of population growth scenarios based on projected market demand, which range from 69,249 to 79,317 by the year 2040 for average annual growth rate ranging from 1.5 to 2.2 percent. ADE's median projection calls for a 2040 population of approximately 74,000, which reflects an average annualized growth rate of 1.9 percent.

[13] Reference: Gilroy General Plan Alternatives Report (2015) - Table 3-10

Table 26—Key Demographic Data – City of Morgan Hill

Demographic	2017	Percentage
Population	**43,136**	
Under 10 years	6,295	**14.59%**
10–19 years	6,292	**14.59%**
20–64 years	25,099	**58.19%**
65–74 years	3,335	**7.73%**
75 years and older	2,115	**4.90%**
Median age	**38.4**	**N/A**
Housing Units	**14,516**	
Owner-Occupied	10,257	**70.66%**
Renter-Occupied	3,948	**27.20%**
Average Household Size	**3.05**	**N/A**
Ethnicity		
Caucasian (includes White and Hispanic/Latino)	33,225	**77.02%**
Asian	6,344	**14.71%**
Black / African American	1,290	**2.99%**
Other	2,277	**5.28%**
Education (population over 24 years of age)	**28,033**	**64.99%**
High School Graduate	25,286	**90.20%**
Undergraduate Degree	7,400	**26.40%**
Graduate/Professional Degree	3,958	**14.12%**
Employment (population over 15 years of age)	**32,772**	**75.97%**
In Labor Force	22,103	**67.44%**
Unemployed	1,046	**4.73%**
Population below Poverty Level	2,847	**6.60%**
Population without Health Insurance Coverage	2,269	**5.26%**

Source: US Census Bureau (2017 data)

Of note from Table 26 is:

- More than 27 percent of the City population is under 10 or over 65 years of age.
- The City's population is predominantly Caucasian (77 percent), followed by Asian (15 percent), Black / African American (3 percent), and Other ethnic origins (5 percent).

- Of the City population over 24 years of age, 90 percent has completed high school or higher.
- Of the City population over 24 years of age, slightly more than 40 percent has an undergraduate, graduate, or professional degree.
- More than 67 percent of the City population 16 years of age or older is in the workforce; of those, nearly 5 percent are unemployed.
- The total City population below the federal poverty level is 6.6 percent.
- Slightly more than 5 percent of the City population does not have health insurance coverage.

In addition, over the next 16 years, the City of Morgan Hill is projected to grow by nearly 13 percent to nearly 48,500 by 2035, or an average annualized growth rate of 0.8 percent. Housing units are projected to increase 6.9 percent over the same period to 15,500, for an average annualized rate of 0.4 percent.[14]

Buildings

The study area contains a large inventory of housing units and non-residential occupancies, including office, professional services, retail/wholesale sales, restaurants/bars, hotels/motels, churches, schools, government facilities, healthcare facilities, and other non-residential uses.

Building Occupancy Risk Categories

The CFAI identifies four risk categories that relate to building occupancy as follows:

Low Risk – includes detached garages, storage sheds, outbuildings, and similar building occupancies that pose a relatively low risk of harm to humans or the community if damaged or destroyed by fire.

Moderate Risk – includes detached single-family or two-family dwellings; mobile homes; commercial and industrial buildings less than 10,000 square feet without a high hazard fire load; aircraft; railroad facilities; and similar building occupancies where loss of life or property damage is limited to the single building.

High Risk – includes apartment/condominium buildings; commercial and industrial buildings more than 10,000 square feet without a high hazard fire load; low-occupant load buildings with high fuel loading or hazardous materials; and similar occupancies with potential for substantial loss of life or unusual property damage or financial impact.

[14] Reference: City of Morgan Hill General Plan, Housing Element, Table 1-1

Maximum Risk – includes buildings or facilities with unusually high risk requiring an Effective Response Force involving a significant augmentation of resources and personnel and where a fire would pose the potential for a catastrophic event involving large loss of life and/or significant economic impact to the community.

Critical Facilities

Critical facilities typically include structures or other improvements, both public and private, that, due to function, size, service area, or uniqueness, have the potential to cause serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if damaged or destroyed, or if their functionality is significantly impaired. Critical facilities may include, but are not limited to, health and public safety facilities, utilities, government facilities, hazardous materials sites, or vital community economic facilities.

The 2017 Santa Clara County Operational Area Hazard Mitigation Plan (HMP) identifies 187 critical facilities for Gilroy and Morgan Hill, a Fire District staff identified 71 similar facilities within the District as summarized in Table 27. A hazard occurrence with significant impact severity affecting one or more of these facilities would likely adversely impact critical public or community services.

Table 27—Critical Facilities

Jurisdiction	Facility Category					Total
	Emergency Response / Public Health & Safety	Infrastructure Lifeline	Recovery Facilities	Socio-Economic	Hazardous Materials	
City of Gilroy	15	45	1	50	7	118
City of Morgan Hill	9	14	0	39	7	69
Fire District	4	19	8	29	11	71
Total	28	78	9	118	25	258

Source: 2017 Santa Clara County Operational Area Hazard Mitigation Plan, Table 4-4, and Fire District staff

Economic Resources

Gilroy:

Key economic resources within the City of Gilroy include:

- Gilroy Premium Outlets (145 retail stores)
- Olam Spices and Vegetables
- Costco

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- Auto dealerships
- Walmart
- Christopher Ranch Foods

Morgan Hill:

Key economic resources within the City of Morgan Hill include:

- Anritsu
- Cal Door & Drawer
- NxEdge
- Paramit Corporation
- Specialized Bicycle Components
- Lusamerica Foods
- Mission Bell Manufacturing
- Toray Advanced Composites
- Infineon Technologies
- Safeway
- Velodyne LiDAR

Natural Resources

Natural resources within the study area include Debell Uvas Creek Preserve, Coyote Lake, Coyote Lake Harvey Bear Ranch County Park, Anderson Lake, Anderson Lake County Park, Uvas Canyon County Park, Chesbro Reservoir, Pajaro River watershed, Uvas Reservoir, and multiple neighborhood parks and open spaces.

Cultural/Historic Resources

There are numerous cultural and historic resources to be protected throughout the three-agency service area.

A.1.5 Hazard Identification

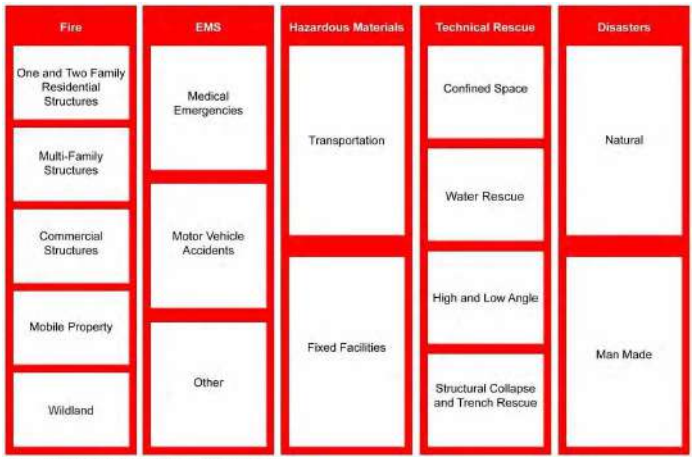
Citygate utilizes prior risk studies where available, fire and non-fire hazards as identified by the CFAI, and agency/jurisdiction-specific data and information to identify the hazards to be evaluated for this study. The 2017 Santa Clara County Operational Area Hazard Mitigation Plan identifies the following nine hazards of concern:

1. Climate change / sea level rise
2. Dam/levee failure
3. Drought
4. Earthquake
5. Flood
6. Landslide
7. Severe weather
8. Tsunami
9. Wildfire

Although the three fire agencies have no legal authority or responsibility to mitigate any of these hazards other than perhaps wildfire, they all provide services related to each of these hazards, including fire suppression, emergency medical services, technical rescue, and hazardous materials response.

The CFAI groups hazards into fire and non-fire categories, as shown in Figure 17. Identification, qualification, and quantification of the various fire and non-fire hazards are important factors in evaluating how resources are or can be deployed to mitigate those risks.

Figure 17—CFAI Hazard Categories



Source: CFAI *Standards of Cover* (Fifth Edition)

Subsequent to evaluation of the hazards identified in the Santa Clara County HMP, and the fire and non-fire hazards as identified by the CFAI as they relate to services provided by the three fire agencies, Citygate evaluated the following five hazards for this risk assessment:

1. Building Fire
2. Vegetation/Wildland Fire
3. Medical Emergency
4. Hazardous Materials Release/Spill
5. Technical Rescue

A.1.6 Service Capacity

Service capacity refers to an agency's available response force; the size, types, and condition of its response fleet and any specialized equipment; core and specialized performance capabilities and competencies; resource distribution and concentration; availability of automatic and/or mutual aid; and any other agency-specific factors influencing the agency's ability to meet current and prospective future service demand relative to the risks to be protected.

The City of Gilroy's service capacity for building fire, vegetation/wildland fire, medical emergency, hazardous material, and technical rescue risk consists of a minimum daily on-duty response force of nine personnel staffing three Type-1 fire engines, and one Division Chief, from the Department's three fire stations. The City of Morgan Hill's service capacity for the same five risks consists of a minimum daily on-duty response force of nine personnel staffing three Type-1 fire engines, and one Battalion Chief, from the Department's three fire stations.[15] South Santa Clara County Fire District's service capacity for those same five risks consists of a minimum daily on-duty response force of nine personnel staffing three Type-1 fire engines, and one Battalion Chief, from the District's three fire stations. The three agencies have a boundary drop automatic mutual aid agreement that provides a minimum Effective Response Force (ERF) of 12 personnel staffing four apparatus, plus one Chief Officer, for more serious emergencies.

All three agency response personnel are trained and certified to either the Emergency Medical Technician (EMT) level to provide Basic Life Support (BLS) pre-hospital emergency medical care or to the EMT-Paramedic (Paramedic) level to provide Advanced Life Support (ALS) pre-hospital emergency medical care. All staffed response apparatus include at least one Paramedic. Ground paramedic ambulance service is provided by Rural/Metro/AMR Ambulance of Northern California, a private-sector ambulance provider operating under a non-exclusive agreement administered by the Santa Clara County Emergency Medical Services Agency. In addition, the Gilroy Fire Department has a Type-1 ambulance that can be cross-staffed as needed for BLS or ALS ground transportation. Air ambulance services, when needed, are provided by CALSTAR/Reach Air Medical Services (Gilroy) or Life Flight (Palo Alto). There are four hospitals with emergency services within the region, including Saint Louise Regional Hospital in Gilroy, two in San Jose, and one in Palo Alto, all of which are also trauma centers.

All response personnel are further trained to the U.S. Department of Transportation Hazardous Material First Responder Operational (FRO) level to provide initial hazardous material incident assessment, hazard isolation, and support for a hazardous material response team. The Gilroy Fire Department cross-staffs a Hazardous Materials Decontamination Unit as needed from the Sunrise station to support the City of San Jose Hazardous Materials Response Team.

Response personnel are also trained to the Confined Space Awareness level as required by Cal/OSHA. In addition, South Santa Clara County Fire District cross-staffs a Type-2 technical rescue trailer from its Gilroy Gardens station as needed. This resource is also available to other regional agencies/jurisdictions through the County mutual aid system.

[15] The Type-1 engine at the South Santa Clara County Fire District headquarters in Morgan Hill is cost-shared between the City of Morgan Hill and the Fire District, and serves both jurisdictions.

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A.1.7 Probability of Occurrence

Probability of occurrence refers to the likelihood of a future hazard occurrence during a specific period. Because the CFAI agency accreditation process requires annual review of an agency's risk assessment and baseline performance measures, Citygate recommends using the 12 months following completion of an SOC study as an appropriate period for the probability of occurrence evaluation. Table 28 describes the five probability of occurrence categories and related scoring criteria used for this analysis.

Table 28—Probability of Occurrence Scoring Criteria

Score	Probable Occurrence	Description	General Criteria	Average Frequency
0–1.0	*Very Low*	Improbable	Hazard occurrence is ***unlikely***	Annually or less
1.1–2.0	*Low*	Rare	Hazard ***could occur***	1-4 times per year
2.1–3.0	*Moderate*	Infrequent	Hazard ***should occur*** infrequently	Bi-monthly to monthly
3.1–4.0	*High*	Likely	Hazard is ***likely to occur*** regularly	Bi-weekly to weekly
4.1–5.0	*Very High*	Frequent	Hazard is ***expected*** to occur frequently	Several times per week or more

Citygate's SOC assessments use recent multiple-year hazard response data to determine the probability of hazard occurrence for the ensuing 12-month period.

A.1.8 Impact Severity

Impact severity refers to the extent a hazard occurrence impacts people, buildings, lifeline services, the environment, and the community as a whole. Table 29 describes the five impact severity categories and related scoring criteria used for this analysis.

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Table 29—Impact Severity Scoring Criteria

Score	Impact Severity	General Criteria
0–1.0	Insignificant	• No serious injuries or fatalities • Few persons displaced for only a short duration • No or inconsequential damage • No or very minimal disruption to community • No measurable environmental impacts • Little or no financial loss
1.25–2.0	Minor	• Some minor injuries; no fatalities expected • Some persons displaced for less than 24 hours • Some minor damage • Minor community disruption; no loss of lifeline services • Minimal environmental impacts with no lasting effects • Minor financial loss
2.25–3.0	Moderate	• Some hospitalizations; some fatalities expected • Localized displacement of persons for up to 24 hours • Localized damage • Normal community functioning with some inconvenience • Minor loss of lifeline services • Some environmental impacts with no lasting effects, or small environmental impact with long-term effect • Moderate financial loss
3.25–4.0	Major	• Extensive serious injuries; significant number of persons hospitalized • Many fatalities expected • Significant displacement of many people for more than 24 hours • Significant damage requiring external resources • Community services disrupted; some lifeline services potentially unavailable • Some environmental impacts with long-term effects • Major financial loss
4.25–5.0	Catastrophic	• Large number of severe injuries and fatalities • Local/regional hospitals impacted • Large number of persons displaced for an extended duration • Extensive damage • Widespread loss of critical lifeline services • Community unable to function without significant support • Significant environmental impacts and/or permanent environmental damage • Catastrophic financial loss

A.1.9 Overall Risk

Overall hazard risk is determined by multiplying the *probability of occurrence score* by the *impact severity score*. The resultant total score determines the overall *risk ranking*, as described in Table 30.

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Table 30—Overall Risk Score and Rating

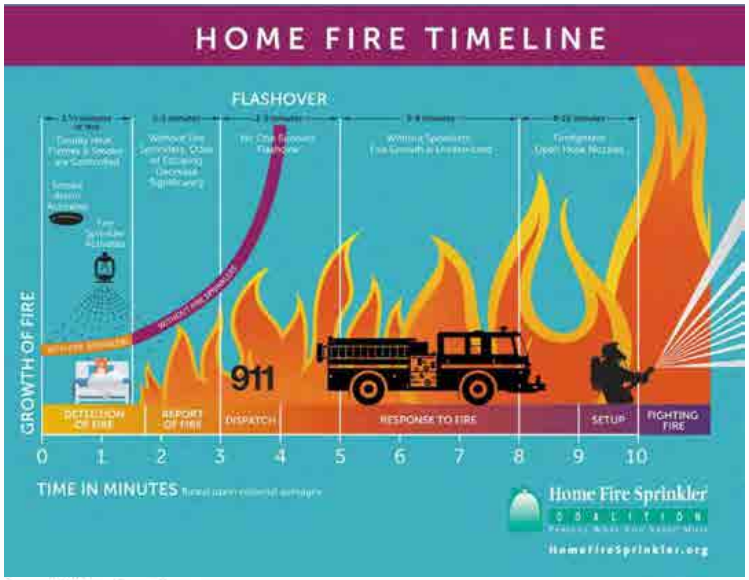
Overall Risk Score	Overall Risk Rating
0–5.99	LOW
6.0–11.99	MODERATE
12.0–19.99	HIGH
20.0–25	MAXIMUM

A.1.10Building Fire Risk

One of the primary hazards in any community is building fire. Building fire risk factors include building size, density, age, occupancy, and construction materials and methods, as well as the number of stories, required fire flow, proximity to other buildings, built-in fire protection/alarm systems, available fire suppression water supply, building fire service capacity, fire suppression resource deployment (distribution/concentration), staffing, and response time. Citygate used available data from the three agencies and the U.S. Census Bureau to assist in determining each jurisdiction's building fire risk.

Figure 18 illustrates the building fire progression timeline and shows that flashover, which is the point at which an entire room erupts into fire after all the combustible objects in that room reach their ignition temperature, can occur as early as three to five minutes from the initial ignition. Human survival in a room after flashover is extremely improbable.

Figure 18—Building Fire Progression Timeline



Source: http://www.firesprinklerassoc.org

Population Density

Population density within each agency's service area ranges from less than 1,000 to more than 15,000 people per square mile, as illustrated in Figure 19. Although risk analysis across a wide spectrum of other Citygate clients shows no direct correlation between population density and building fire *occurrence*, it is reasonable to conclude that building fire *risk* relative to potential impact on human life is greater as population density increases, particularly in areas with high density, multiple-story buildings.

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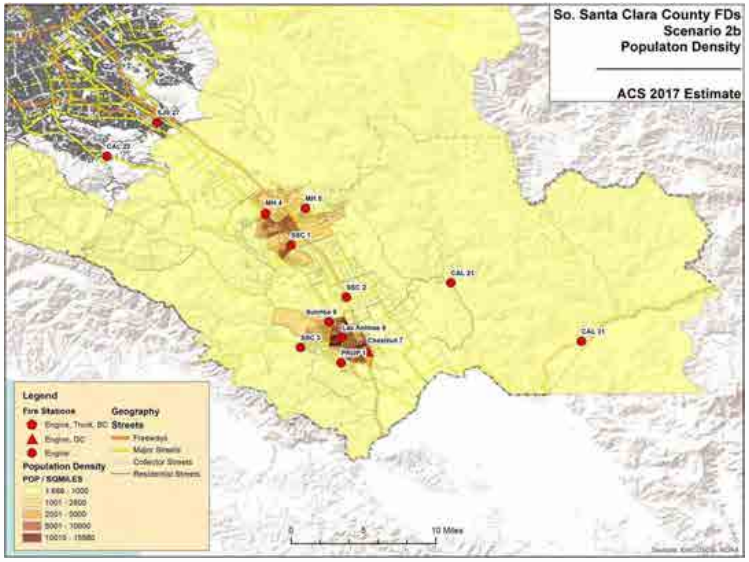
Figure 19—Population Density



Water Supply

A reliable public water system providing adequate volume, pressure, and flow duration near all buildings is a critical factor in mitigating the potential impact severity of a community's building fire risk. The Cities of Gilroy and Morgan Hill each provide their own water service and, according to Fire Department staff, available fire flow is adequate throughout each City. Water service in the Fire District is provided by multiple water districts and private wells. According to District staff, available fire flow is inadequate throughout most of the service area.

Building Fire Service Demand

Table 31, Table 32, and Table 33 summarize building fire service demand by jurisdiction for the three-year period from January 1, 2016, through December 31, 2018.

Table 31—Building Fire Service Demand – Gilroy

Risk	Year	Planning Zone				Total
		Chestnut	Glen Loma	Las Animas	Sunrise	
Building Fire	2016	45	2	38	5	90
	2017	21	3	28	6	58
	2018	33	3	25	10	71
	Total	99	8	91	21	219
Percent of Total Service Demand		1.69%	1.22%	1.28%	1.50%	1.46%

Source: Gilroy FD incident data

Table 32—Building Fire Service Demand – Morgan Hill

Risk	Year	Planning Zone		Total
		Morgan Hill 1	Morgan Hill 2	
Building Fire	2016	8	8	16
	2017	11	3	14
	2018	8	2	10
	Total	27	13	40
Percent of Total Service Demand		0.49%	0.66%	0.53%

Source: Morgan Hill FD incident data

Table 33—Building Fire Service Demand – Fire District

Risk	Year	Planning Zone			Total
		SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	
Building Fire	2016	7	15	12	34
	2017	13	14	7	34
	2018	13	11	4	28
	Total	33	40	23	96
Percent of Total Service Demand		0.61%	1.70%	3.18%	1.13%

Source: South Santa Clara County Fire District incident data

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As these tables show, building fire service demand varies by jurisdiction and has been relatively consistent in each jurisdiction over the three-year study period, ranging from 0.5 percent of total service demand in Morgan Hill to 1.5 percent in Gilroy. Overall, building fire service demand is low for all three agencies, which is typical of other Citygate client jurisdictions of similar size and demographics.

Probability of Building Fire Occurrence

Table 34 summarizes Citygate's scoring of building fire probability by planning zone based on recent historic building fire service demand from Table 31, Table 32, and Table 33

Table 34—Building Fire Probability Scoring

Building Fire	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Probability	3.0	2.25	2.25	2.5	2.25	3.5	3.5	2.5	2.25

Building Fire Impact Severity

Table 35 summarizes Citygate's scoring of the probable building fire impact severity by planning zone.

Table 35—Building Fire Impact Severity Scoring

Building Fire	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Impact Severity	2.5	2.5	2.5	3.0	3.0	3.0	3.0	2.75	2.25

Overall Building Fire Risk

Table 36 summarizes overall building fire risk by planning zone.

Table 36—Overall Building Fire Risk

Building Fire	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Total Risk Score	7.5	5.625	5.625	7.5	6.75	10.5	10.5	6.875	5.063
Risk Rating	*Moderate*	*Low*	*Low*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Low*

A.1.11 Vegetation/Wildland Fire Risk

Factors influencing vegetation/wildland fire risk include vegetative fuel features, weather, topography, fire history, service capacity, water supply, and vegetation/wildland fire service demand.

Vegetative Fuels

Vegetative fuel factors influencing fire intensity and spread include fuel type (vegetation species), height, arrangement, density, and moisture. Vegetative fuels within the three jurisdictions consist of a mix of annual grasses and weeds, brush, and deciduous and conifer tree species. Once ignited, vegetation/wildland fires can burn intensely and contribute to rapid fire spread under the right fuel, weather, and topographic conditions.

Weather

Weather elements, including temperature, relative humidity, wind, and lightning, also affect vegetation/wildland fire potential and behavior. High temperatures and low relative humidity dry out vegetative fuels, creating a situation where fuels will ignite more readily and burn more intensely. Wind is the most significant weather factor influencing vegetation/wildland fire behavior, and the predominant diurnal winds in the Santa Clara Valley tend to cause elevated speed and spread on the valley floor and wind exposed foothills during the summer afternoons when sea breezes are strongest. With summer temperatures averaging in the 80s and reaching into the 100s, and annual rainfall averaging approximately 15 inches, weather factors are conducive to vegetation/wildland fires from about May through October.

Topography

The study area's topography can significantly influence vegetation/wildland fire behavior and spread in those areas beyond the flat Santa Clara Valley floor, as fires tend to burn more intensely

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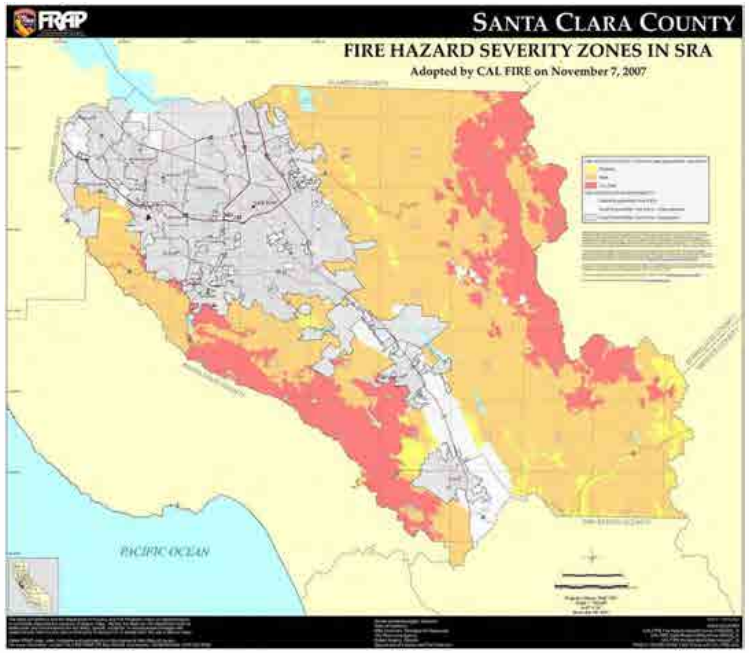
and spread faster when burning uphill and up-canyon, except for a wind-driven downhill or down-canyon fire.

Wildland Fire Hazard Severity Zones

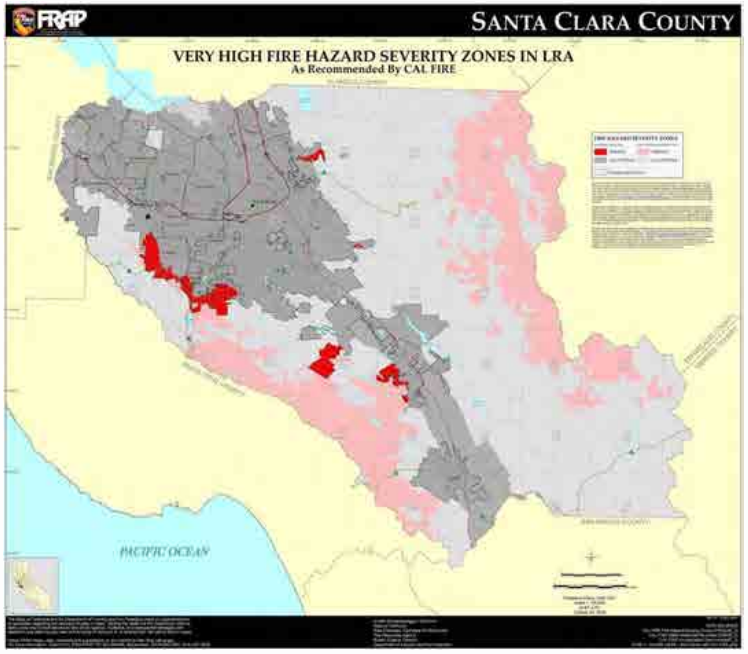
The California Department of Forestry and Fire Protection (CAL FIRE) designates wildland Fire Hazard Severity Zones (FHSZ) throughout the State based on analysis of multiple wildland fire hazard factors and modeling of potential wildland fire behavior. For State Responsibility Areas (SRAs) where CAL FIRE has fiscal responsibility for wildland fire protection, CAL FIRE designates **Moderate**, **High**, and **Very High** FHSZs by county, as shown in Figure 20 for Santa Clara County. Note particularly the *Moderate*, *High*, and *Very High* FHSZs in the vicinity of the three study jurisdictions west of U.S. Route 101, and the *Moderate* and *High* FHSZs east of U.S. 101.

Figure 20—SRA Fire Hazard Severity Zones – Santa Clara County



CAL FIRE also identifies recommended Very High FHSZs for Local Responsibility Areas (LRAs), where a local jurisdiction bears the fiscal responsibility for wildland fire protection, including incorporated cities, as shown in Figure 21. Note particularly the *Very High* FHSZ on the west side of Morgan Hill.

Figure 21—LRA Fire Hazard Severity Zones – Santa Clara County

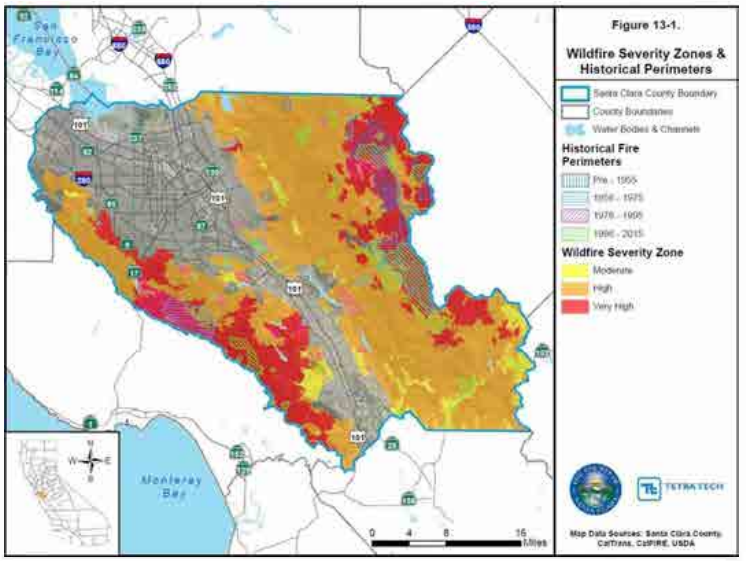


Wildland Fire History

Santa Clara County has a history of significant wildland fires as illustrated in Figure 22.[16]

[16] Reference: 2017 Santa Clara County Operational Area Hazard Mitigation Plan

Figure 22—Wildland Fires – Santa Clara County



Water Supply

Another vegetation/wildland fire impact severity factor is water supply immediately available for fire suppression in areas where vegetation fires are likely to occur. According to fire agency staff, adequate fire flow is available throughout the Cities of Gilroy and Morgan Hill but is inadequate throughout most of the Fire District.

Vegetation/Wildland Fire Service Demand

Table 37, Table 38, and Table 39 summarize vegetation/wildland fire service demand by jurisdiction for the three-year study period.

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Table 37—Vegetation/Wildland Fire Service Demand – Gilroy

Risk	Year	Planning Zone				Total
		Chestnut	Glen Loma	Las Animas	Sunrise	
Vegetation/Wildland Fire	2016	25	7	12	5	49
	2017	17	8	6	9	40
	2018	29	3	15	9	56
	Total	71	18	33	23	145
Percent of Total Service Demand		1.21%	2.75%	0.47%	1.64%	0.97%

Source: Gilroy FD incident data

Table 38—Vegetation/Wildland Fire Service Demand – Morgan Hill

Risk	Year	Planning Zone		Total
		Morgan Hill 1	Morgan Hill 2	
Vegetation/Wildland Fire	2016	10	4	14
	2017	14	7	21
	2018	4	6	10
	Total	28	17	45
Percent of Total Service Demand		0.51%	0.86%	0.60%

Source: Morgan Hill FD incident data

Table 39—Vegetation/Wildland Fire Service Demand – Fire District

Risk	Year	Planning Zone			Total
		SSCCFD Morgan Hill	SSCCFD Masten	SSCCFD Gilroy Gardens	
Vegetation/Wildland Fire	2016	15	23	4	42
	2017	22	15	3	40
	2018	12	22	2	36
	Total	49	60	9	118
Percent of Total Service Demand		0.90%	2.55%	1.24%	1.38%

Source: South Santa Clara County Fire District incident data

As these tables illustrate, vegetation/wildland fire service demand varies by jurisdiction and has been relatively consistent in each jurisdiction over the three-year study period, ranging from 0.6 percent of total service demand in Morgan Hill to 1.4 percent in the Fire District. Overall, vegetation/wildland fire service demand is low for all three agencies, which is typical of other Citygate client jurisdictions of similar size and demographics.

Probability of Vegetation/Wildland Fire Occurrence

Table 40 summarizes Citygate's scoring of vegetation/wildland fire probability by planning zone based on recent historic vegetation/wildland service demand from Table 37, Table 38, and Table 39.

Table 40—Vegetation/Wildland Fire Probability Scoring

Vegetation / Wildland Fire	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Probability	3.0	3.25	2.25	2.5	2.25	3.25	2.75	2.5	2.25

Vegetation/Wildland Fire Impact Severity

Table 41 summarizes Citygate's scoring of probable vegetation/wildland impact severity by planning zone.

Table 41—Vegetation/Wildland Fire Impact Severity Scoring

Vegetation / Wildland Fire	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Impact Severity	3.25	3.0	3.25	3.0	2.25	1.0	1.0	2.5	3.0

Overall Vegetation/Wildland Fire Risk

Table 42 summarizes overall vegetation/wildland fire risk by planning zone.

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Table 42—Overall Vegetation/Wildland Fire Risk

Vegetation / Wildland Fire	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Total Risk Score	9.75	9.75	7.3125	7.5	5.063	3.25	2.75	6.25	6.75
Risk Rating	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Low*	*Low*	*Low*	*Moderate*	*Moderate*

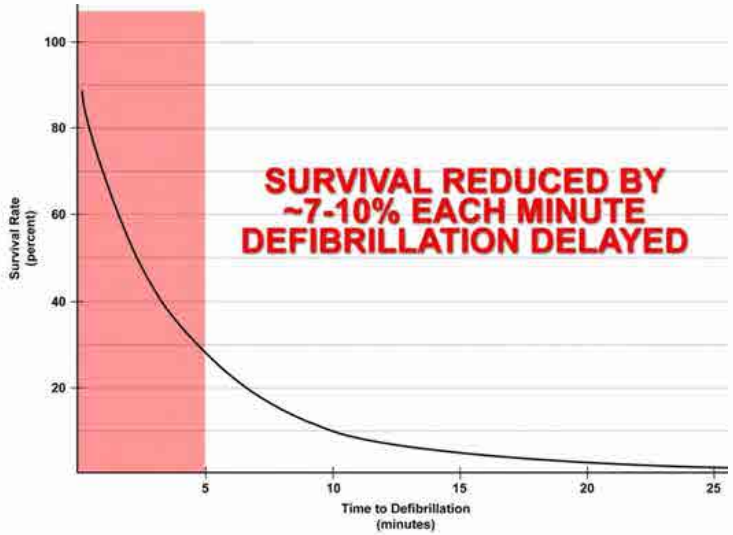
A.1.12Medical Emergency Risk

Medical emergency risk in most communities is predominantly a function of population density, demographics, violence, health insurance coverage, and vehicle traffic.

Medical emergency risk can also be categorized either as a medical emergency resulting from a health-related condition or event or as a traumatic injury. One serious medical emergency is cardiac arrest or some other event where there is an interruption or blockage of oxygen to the brain.

Figure 23 illustrates the reduced survivability of a cardiac arrest victim as time to defibrillation increases. While early defibrillation is one factor in cardiac arrest survivability, other factors can influence survivability as well, such as early CPR and pre-hospital advanced life support interventions.

Figure 23—Survival Rate versus Time of Defibrillation



Source: www.suddencardiacarrest.com

Population Density

Because medical emergencies involve people, it seems logical that higher population densities generate higher medical emergency service demand than lower population densities. In Citygate's experience, this is particularly true for urban population densities. As illustrated in Figure 19, population density in the study area ranges from less than 1,000 per square mile to more than 15,000 per square mile.

Demographics

Medical emergency risk tends to be higher among older, poorer, less-educated, and uninsured populations. According to the U.S. Census Bureau, 10 to 13 percent of the population in the two Cities is 65 and older; 7 to 12 percent is at or below poverty level; 10 to 30 percent over 24 years

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of age has less than a high school diploma or equivalent; and 5 to 8 percent do not have health insurance coverage.[17]

Vehicle Traffic

Medical emergency risk tends to be higher in those areas of a community with high daily vehicle traffic volume, particularly those areas with high traffic volume traveling at high speeds. The transportation network in the study area includes State Routes 25 and 152 and U.S. Route 101, which carry an aggregate annual average daily traffic volume of 164,000 vehicles, with more than 14,000 at peak hour traffic.[18]

Medical Emergency Service Demand

Table 43, Table 44, and Table 45 summarize medical emergency service demand by jurisdiction for the three-year study period.

Table 43—Medical Emergency Service Demand – Gilroy

Risk	Year	Planning Zone				Total
		Chestnut	Glen Loma	Las Animas	Sunrise	
Medical Emergency	2016	1,289	140	1,640	223	3,292
	2017	1,352	136	1,717	269	3,474
	2018	1,298	161	1,819	275	3,553
	Total	3,939	437	5,176	767	10,319
Percent of Total Service Demand		67.10%	66.82%	73.05%	54.75%	68.74%

Source: Gilroy FD incident data

[17] Source: U.S. Census Bureau (2016)

[18] Source: California Department of Transportation (2017 data)

Table 44—Medical Emergency Service Demand – Morgan Hill

Risk	Year	Planning Zone		Total
		Morgan Hill 1	Morgan Hill 2	
Medical Emergency	2016	1,242	451	1,693
	2017	1,352	423	1,775
	2018	1,318	464	1,782
	Total	3,912	1,338	5,250
Percent of Total Service Demand		70.61%	67.92%	69.91%

Source: Morgan Hill FD incident data

Table 45—Medical Emergency Service Demand – Fire District

Risk	Year	Planning Zone			Total
		SSCCFD Morgan Hill	SSCCFD Masten	SSCCFD Gilroy Gardens	
Medical Emergency	2016	1,211	439	125	1,775
	2017	1,297	471	102	1,870
	2018	1,272	521	125	1,918
	Total	3,780	1,431	352	5,563
Percent of Total Service Demand		69.40%	60.87%	48.69%	65.29%

Source: South Santa Clara County Fire District incident data

As these tables show, medical emergency service demand varies significantly by planning zone, increasing annually an average of approximately 2.5 to 4 percent. Overall, medical emergencies represent the largest percentage of all calls for service, which is typical of other jurisdictions of similar size and demographics.

Probability of Medical Emergency Occurrence

Table 46 summarizes Citygate's scoring of medical emergency probability by planning zone based on recent medical emergency service demand history from Table 43,Table 44, and Table 45.

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Table 46—Medical Emergency Probability Scoring

Medical Emergency	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Probability	5.0	4.5	4.0	5.0	4.5	5.0	5.0	4.25	4.0

Medical Emergency Impact Severity

Table 47 summarizes Citygate's scoring of probable medical emergency impact severity by planning zone.

Table 47—Medical Emergency Impact Severity Scoring

Medical Emergency	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Impact Severity	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Overall Medical Emergency Risk

Table 48 summarizes overall medical emergency risk scores and ratings by planning zone.

Table 48—Overall Medical Emergency Risk

Medical Emergency	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Total Risk Score	15.0	13.5	12.0	15.0	13.5	15.0	15.0	12.75	12.0
Risk Rating	*High*	*High*	*High*	*High*	*High*	*High*	*High*	*High*	*High*

A.1.13Hazardous Material Risk

Hazardous material risk factors include fixed facilities that store, use, or produce hazardous chemicals or waste; underground pipelines conveying hazardous materials; aviation, railroad,

maritime, and vehicle transportation of hazardous materials into or through a jurisdiction; vulnerable populations; emergency evacuation planning and related training; and specialized hazardous material service capacity.

The Santa Clara County Department of Environmental Health, serving as the State-designated Certified Unified Program Agency for the County, identified 682 facilities within the study area requiring a State or County hazardous material operating permit or Hazardous Materials Business Plan, as summarized in Table 49.

Table 49—Fixed Hazardous Materials Facilities

Risk	Jurisdiction			Total
	Gilroy	Morgan Hill	Fire District	
Fixed Hazardous Materials Facilities	104	484	94	682

Source: Santa Clara County Department of Environmental Health

High-pressure natural gas transmission pipelines are also located along the eastern edge of Santa Clara Valley extending west into the major population centers, including the Cities of Gilroy, Morgan Hill, and San Martin.

Transportation-related hazardous material risk includes vehicles and/or trains transporting hazardous materials into, from, or through a jurisdiction. Southern Santa Clara County highways carry more than 11,500 trucks daily, many transporting hazardous materials, as summarized in Table 50.

Table 50—Average Annual Truck Traffic Volume

Highway	Crossing	AADT[1]
Hwy. 25	Junction Hwy. 101	1,549
U.S. 101	Junction Hwy. 152	7,360
Hwy. 152	Junction Hwy. 101	2,699
Total		11,608

Source: California Department of Transportation (2017 data)

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In addition, Union Pacific railroad tracks run north/south through the three jurisdictions, with more than 12 train movements daily,[19] many transporting hazardous materials.

Population Density

Because hazardous material emergencies have the potential to adversely impact human health, it is logical that the higher the population density, the greater the potential population exposed to a hazardous material release or spill. As illustrated in Figure 19, population density ranges from less than 1,000 per square mile to more than 15,000 per square mile in the study area.

Vulnerable Populations

Persons vulnerable to a hazardous material release/spill include those individuals or groups unable to self-evacuate, generally including children under the age of 10, the elderly, and persons confined to an institution or other setting where they are either physically unable to or otherwise prevented from self-evacuating. Nearly 25 percent of the population is under age 10 or is 65 years of age and older in the City of Gilroy; in the City of Morgan Hill, these age groups constitute just over 27 percent.

Emergency Evacuation Planning, Training, Implementation, and Effectiveness

Another significant hazardous material impact severity factor is a jurisdiction's shelter-in-place / emergency evacuation planning and training. In the event of a hazardous material release or spill, time can be a critical factor in notifying potentially affected persons, particularly at-risk populations, to either shelter-in-place or evacuate to a safe location. Essential to this process is an effective emergency plan that incorporates one or more mass emergency notification capabilities, as well as pre-established evacuation procedures. It is also essential to conduct regular, periodic exercises involving these two emergency plan elements to evaluate readiness and to identify and remediate any planning and/or training gaps to ensure ongoing emergency incident readiness and effectiveness.

Although neither City has a formal written emergency evacuation plan, both are members of the Santa Clara County Alert System (AlertSCC) administered and operated by the Santa Clara County Office of Emergency Services. AlertSCC is a free, subscription-based, mass emergency notification system that can provide emergency alerts, notifications, and other emergency information to email accounts, cell phones, smartphones, tablets, and landline telephones. Within either City, AlertSCC notifications can be initiated by designated Fire or Police Department personnel.

[19] Reference: U.S. Department of Transportation, Federal Railroad Administration (2016 data)

Hazardous Material Service Demand

Table 51, Table 52, and Table 53 summarize hazardous material service demand by jurisdiction over the three-year study period.

Table 51—Hazardous Material Service Demand – Gilroy

Risk	Year	Planning Zone				Total
		Chestnut	Glen Loma	Las Animas	Sunrise	
Hazardous Materials	2016	11	2	17	4	34
	2017	9	2	25	6	42
	2018	5	2	14	4	25
	Total	25	6	56	14	101
Percent of Total Service Demand		0.43%	0.92%	0.79%	1.00%	0.67%

Source: Gilroy FD incident data

Table 52—Hazardous Materials Service Demand – Morgan Hill

Risk	Year	Planning Zone		Total
		Morgan Hill 1	Morgan Hill 2	
Hazardous Materials	2016	11	1	12
	2017	13	5	18
	2018	7	8	15
	Total	31	14	45
Percent of Total Service Demand		0.56%	0.71%	0.60%

Source: Morgan Hill FD incident data

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Table 53—Hazardous Materials Service Demand – Fire District

Risk	Year	Planning Zone			Total
		SSCCFD Morgan Hill	SSCCFD Masten	SSCCFD Gilroy Gardens	
Hazardous Materials	2016	10	1	1	12
	2017	19	4	1	24
	2018	15	6	0	21
	Total	44	11	2	57
Percent of Total Service Demand		0.81%	0.47%	0.28%	0.67%

Source: South Santa Clara County Fire District incident data

As these tables illustrate, hazardous material service demand varies by planning zone and has been consistent in each jurisdiction over the three-year study period. Overall, hazardous material service demand is very low in all three jurisdictions.

Probability of Hazardous Material Occurrence

Table 54 summarizes Citygate's scoring of hazardous materials probability by planning zone based on recent hazardous material service demand from Table 51, Table 52, and Table 53.

Table 54—Hazardous Material Probability Scoring

Hazardous Materials	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Probability	3.0	2.25	1.25	2.75	2.25	2.5	3.0	2.25	2.0

Hazardous Material Impact Severity

Table 55 summarizes Citygate's scoring of probable hazardous material impact severity by planning zone.

Table 55—Hazardous Material Impact Severity Scoring

Hazardous Materials	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Impact Severity	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Overall Hazardous Material Risk

Table 56 summarizes overall hazardous material risk scores and ratings by planning zone.

Table 56—Overall Hazardous Material Risk

Hazardous Materials	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Total Risk Score	9.0	6.75	3.75	8.25	6.75	7.5	9.0	6.75	6.0
Risk Rating	*Moderate*	*Moderate*	*Low*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*	*Moderate*

A.1.14Technical Rescue Risk

Technical rescue risk factors include active construction projects; structural collapse potential; confined spaces, such as tanks and underground vaults; bodies of water and rivers or streams; industrial machinery; transportation volume; and earthquake, flood, and landslide potential.

Construction Activity

There is ongoing residential, commercial, industrial, and/or infrastructure construction activity occurring within the three jurisdictions.

Confined Spaces

There are multiple confined spaces within the study area, including tanks, vaults, open trenches, etc.

Waterways and Bodies of Water

There are multiple waterways and bodies of water within the study area, including Anderson and Coyote Lakes, Chesbro and Uvas Reservoirs, and numerous creeks and smaller bodies of water.

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Transportation Volume

Another factor is transportation-related incidents requiring technical rescue. This risk factor is primarily a function of vehicle, railway, maritime, and aviation traffic. Vehicle traffic volume is the greatest of these factors within the study area, with U.S. 101 and State Routes 25 and 152 carrying an aggregate average of 164,000 vehicles daily. Railway traffic includes more than 12 train movements daily. General aviation traffic, into and from the San Martin Airport, is an additional risk factor.

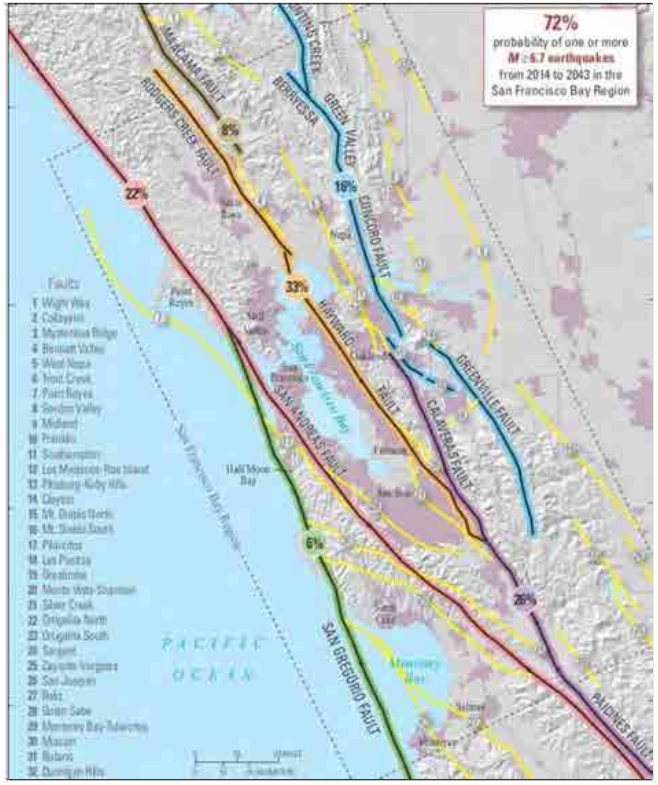
Earthquake Risk[29]

Three major seismic faults within the region have the potential to impact the study area, including the Calaveras, Hayward, and San Andreas Faults. Significant historical seismic activity includes 14 earthquakes with a magnitude of 5.0 or greater within 100 miles of Santa Clara County since 1985. According to the U.S.G.S., there is a 72 percent probability of a magnitude 6.7 or greater earthquake in the San Francisco Bay Area region within the next 25 years. Figure 24 shows the location of the various Bay Area seismic faults.

[29] Reference: 2017 Santa Clara County Operational Area Hazard Mitigation Plan, Section 8

Cities of Gilroy and Morgan Hill and the South Santa Clara County Fire District
Standards of Coverage Assessment—Volume 1

Figure 24—Earthquake Faults



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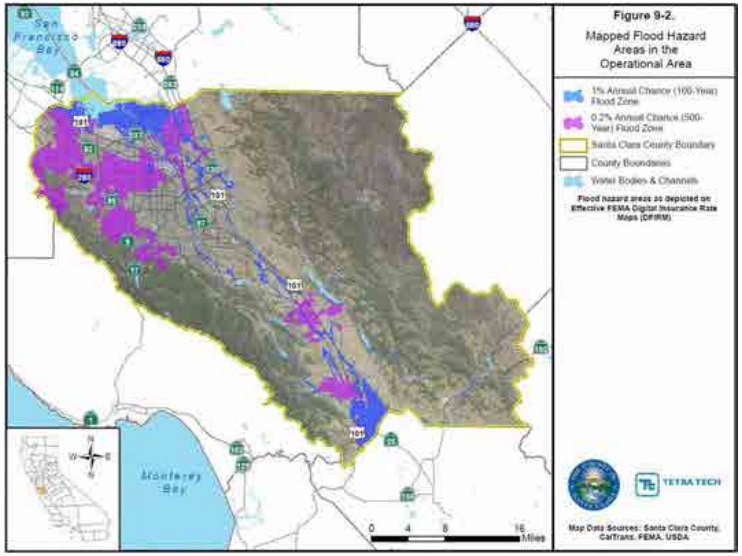
Flood Risk[21]

Figure 25 shows the flood hazard areas for Santa Clara County as identified by the Federal Emergency Management Agency.

Figure 25—Flood Hazard Areas – Santa Clara County



Technical Rescue Service Demand

Table 57, Table 58, and Table 59 summarize technical rescue service demand by jurisdiction over the three-year study period.

[21] Reference: 2017 Santa Clara County Operational Area Hazard Mitigation Plan, Section 9

Table 57—Technical Rescue Service Demand —Gilroy

Risk	Year	Planning Zone				Total
		Chestnut	Glen Loma	Las Animas	Sunrise	
Technical Rescue	2016	2	0	0	0	2
	2017	3	0	0	0	3
	2018	1	1	0	0	2
	Total	6	1	0	0	7
Percent of Total Service Demand		0.10%	0.15%	0.00%	0.00%	0.05%

Source: Gilroy FD incident data

Table 58—Technical Rescue Service Demand – Morgan Hill

Risk	Year	Planning Zone		Total
		Morgan Hill 1	Morgan Hill 2	
Technical Rescue	2016	2	1	3
	2017	3	1	4
	2018	1	0	1
	Total	6	2	8
Percent of Total Service Demand		0.11%	0.10%	0.11%

Source: Morgan Hill FD incident data

Table 59—Technical Rescue Service Demand —Fire District

Risk	Year	Planning Zone			Total
		SSCCFD Morgan Hill	SSCCFD Masten	SSCCFD Gilroy Gardens	
Technical Rescue	2016	1	2	0	3
	2017	3	2	0	5
	2018	1	1	2	4
	Total	5	5	2	12
Percent of Total Service Demand		0.09%	0.21%	0.28%	0.14%

Source: South Santa Clara County Fire District incident data

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As these tables show, technical rescue service demand is very low and relatively consistent across all three jurisdictions over the three-year study period.

Probability of Technical Rescue Occurrence

Table 60 summarizes Citygate's technical rescue probability scoring by planning zone based on recent technical rescue service demand history from Table 57, Table 58, and Table 59.

Table 60—Technical Rescue Probability Scoring

Technical Rescue	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Probability	1.5	1.5	1.25	1.5	1.25	1.5	1.25	1.25	1.25

Technical Rescue Impact Severity

Table 61 summarizes Citygate's scoring of probable technical rescue impact severity by planning zone.

Table 61—Technical Rescue Impact Severity Scoring

Technical Rescue	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Impact Severity	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Overall Technical Rescue Risk

Table 62 summarizes overall technical rescue risk scores and ratings by planning zone.

Table 62—Overall Technical Rescue Risk

Technical Rescue	Planning Zone								
	SSCCFD 1 Morgan Hill	SSCCFD 2 Masten	SSCCFD 3 Gilroy Gardens	Morgan Hill 4 El Toro	Morgan Hill 5 Dunne Hill	Gilroy 7 Chestnut	Gilroy 8 Las Animas	Gilroy 9 Sunrise	Gilroy Glen Loma
Total Risk Score	3.75	3.75	3.125	3.75	3.125	3.75	3.125	3.125	3.125
Risk Rating	Low	Low	Low	Low	Low	Low	Low	Low	Low

CITYGATE ASSOCIATES, LLC
PUBLIC SAFETY SERVICES

NOVEMBER 14, 2019

CITYGATE ASSOCIATES, LLC
WWW.CITYGATEASSOCIATES.COM
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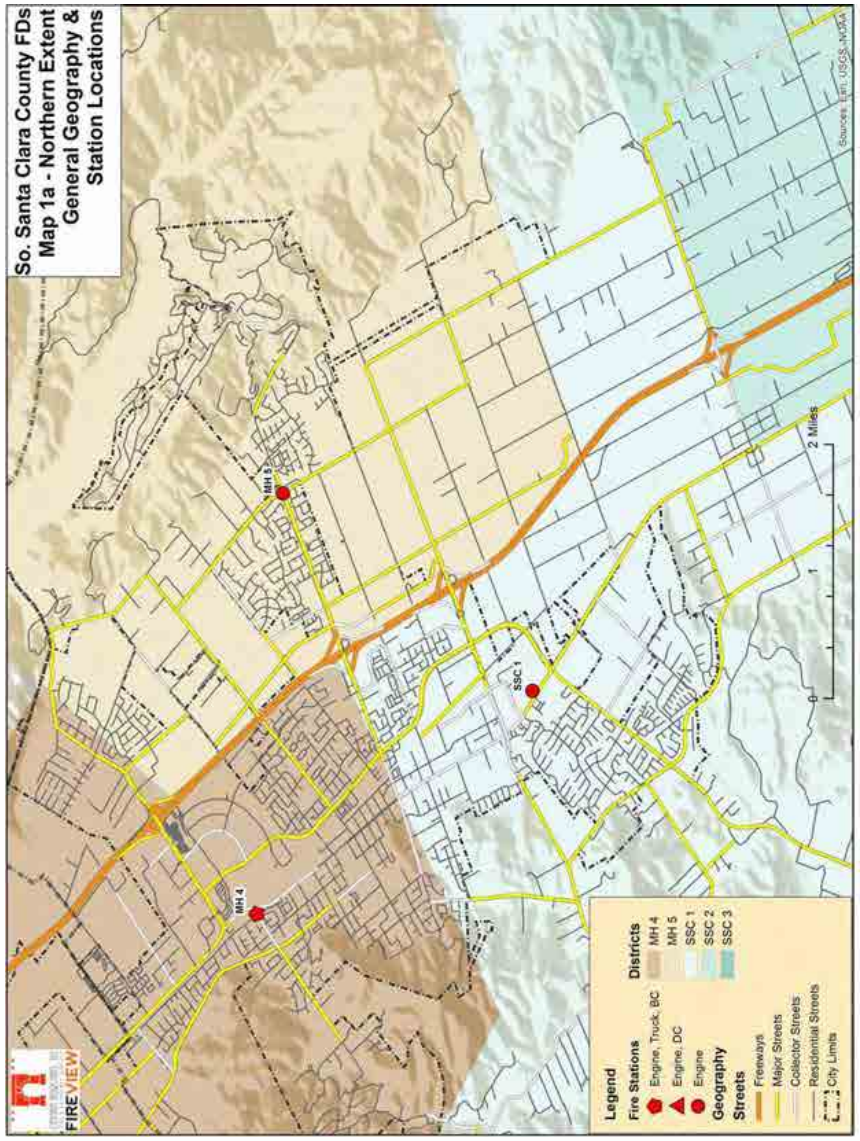
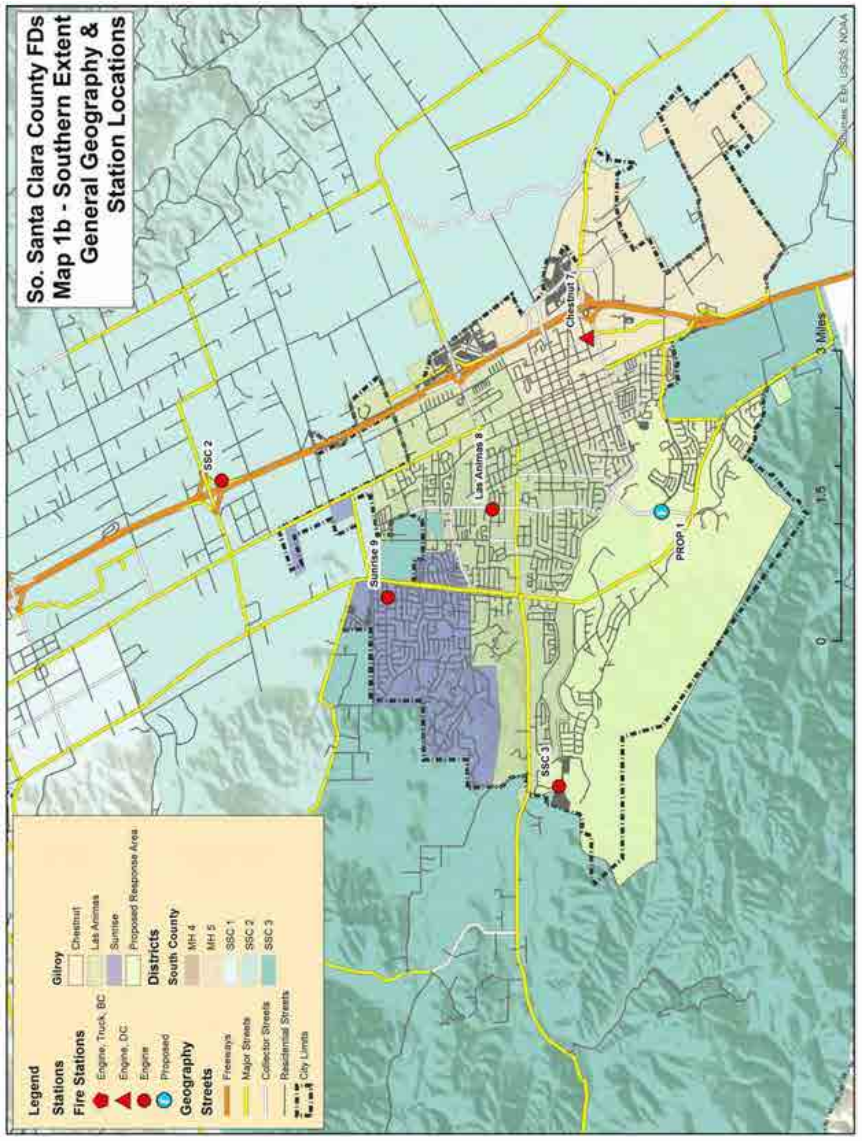
FOLSOM, CA 95630 FAX: (916) 983-2090

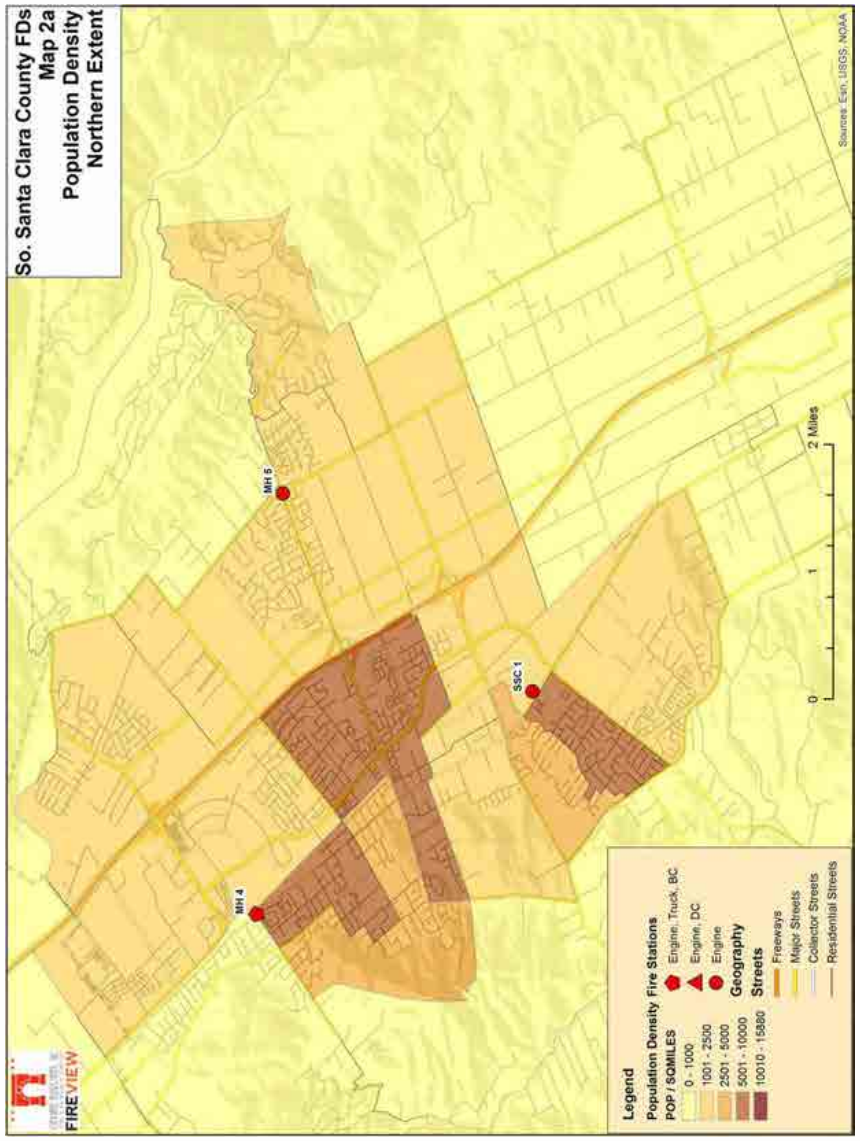
gilroy

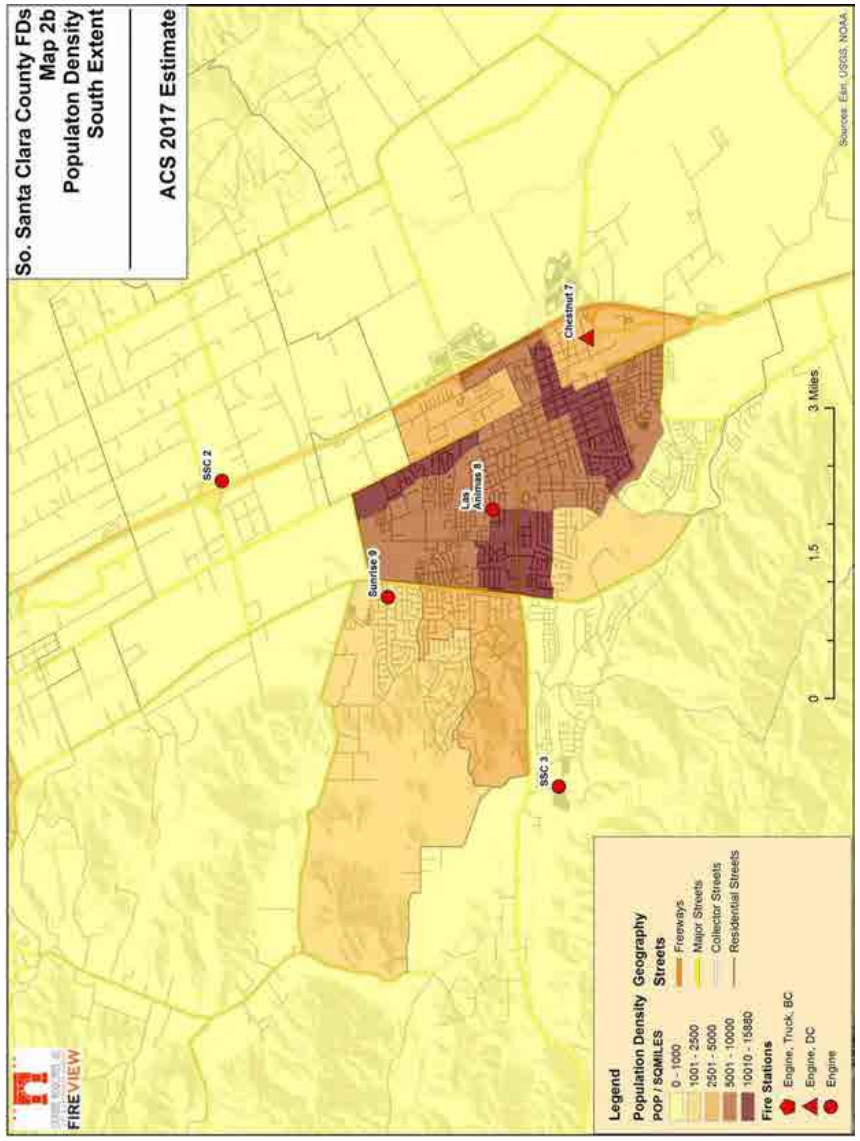
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



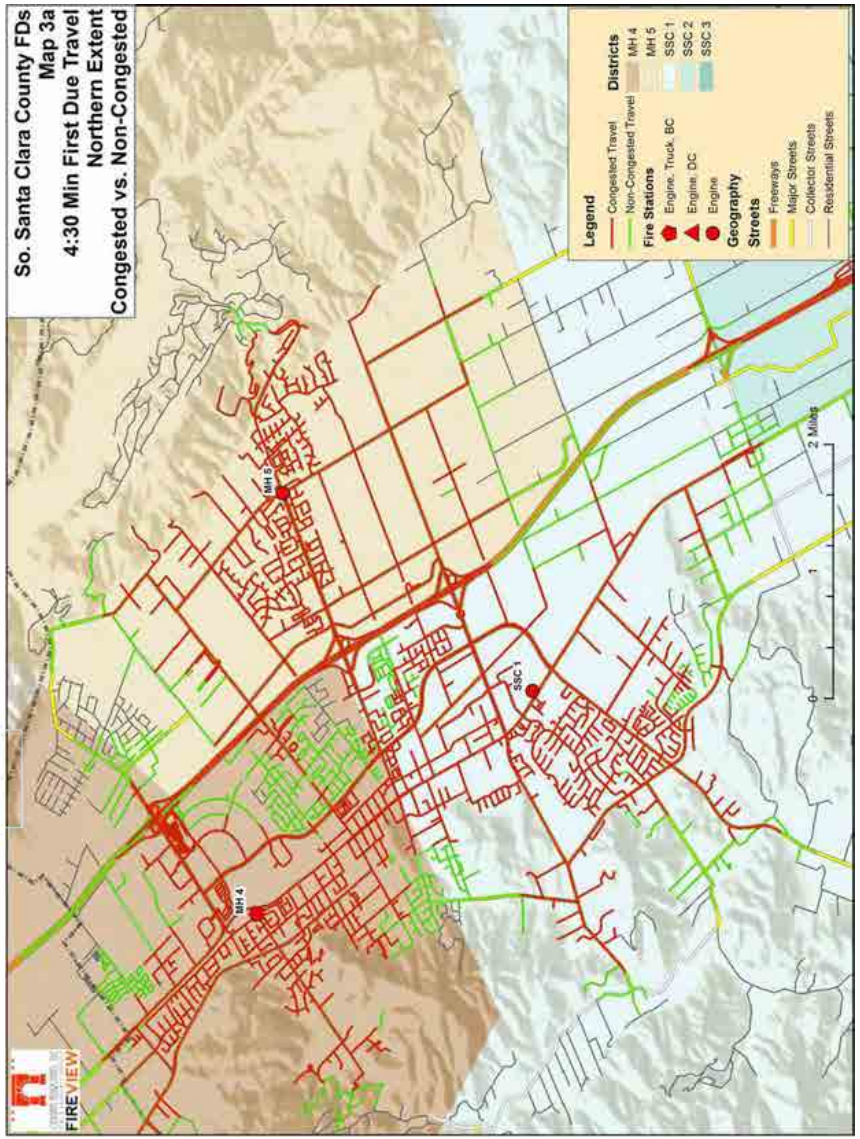


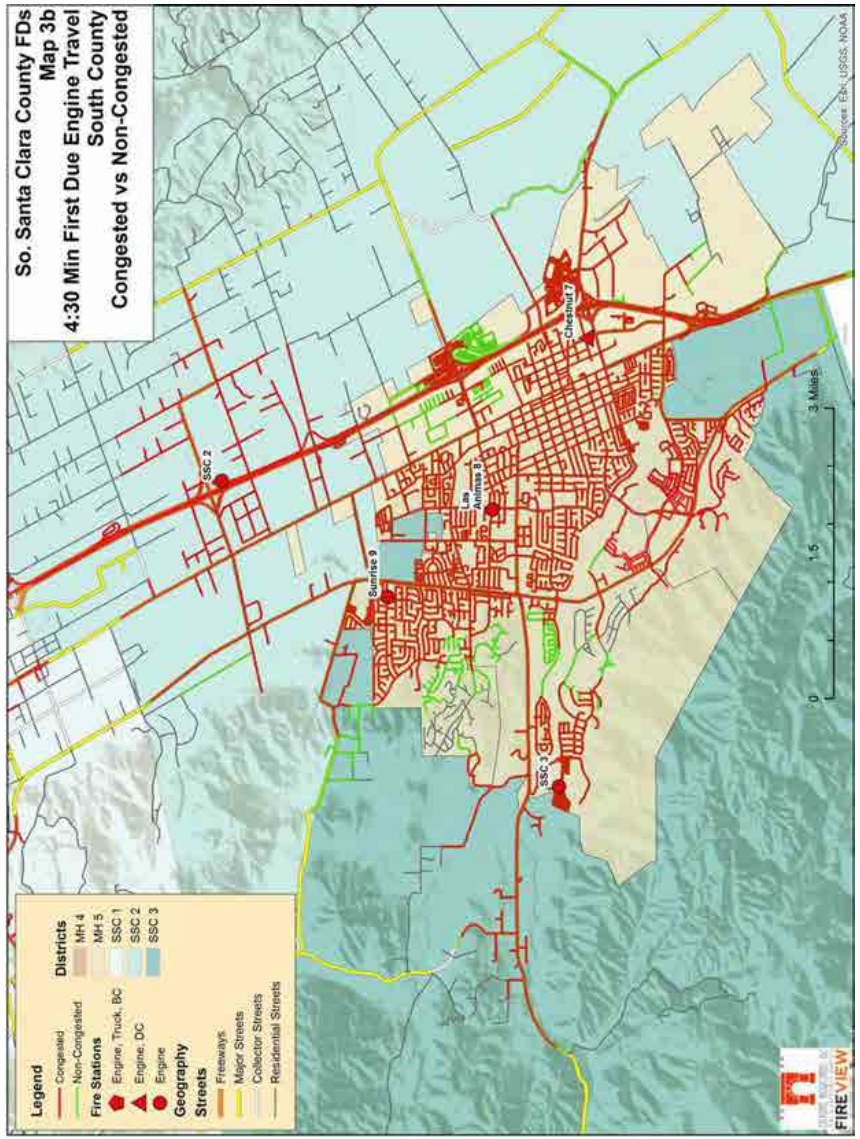
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



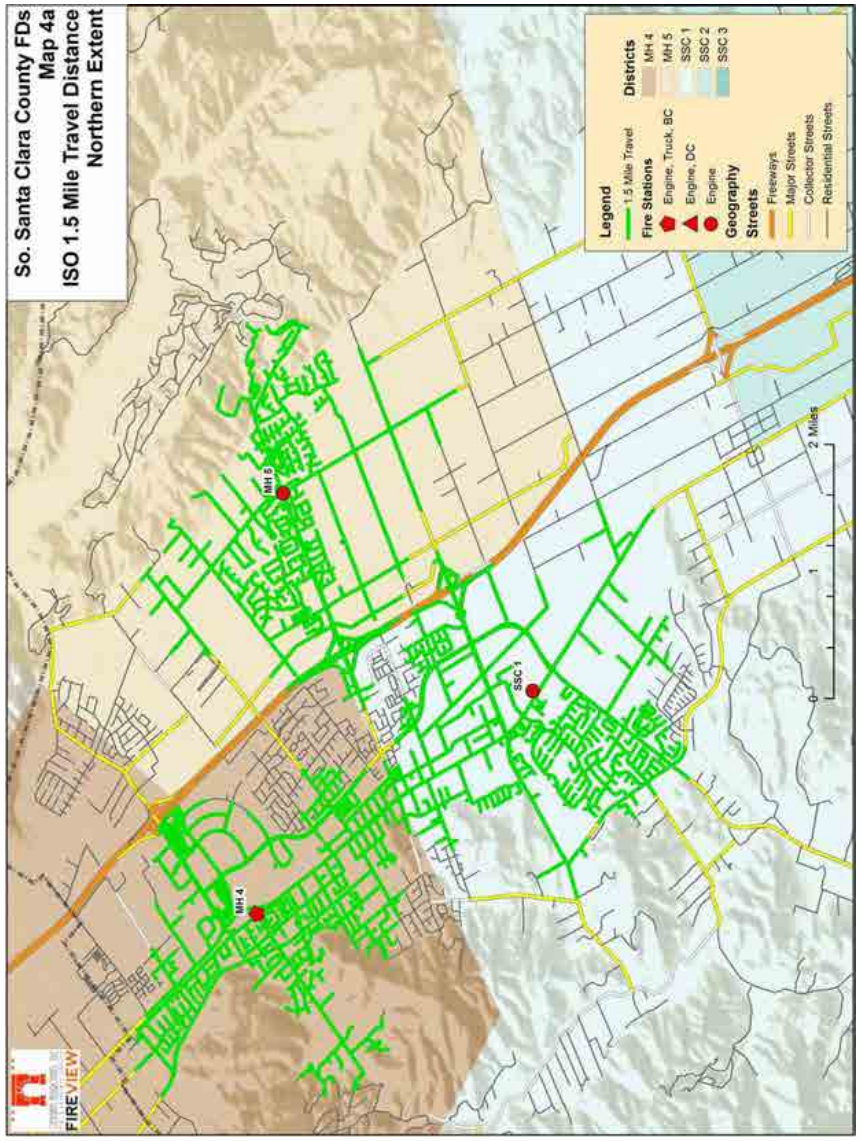


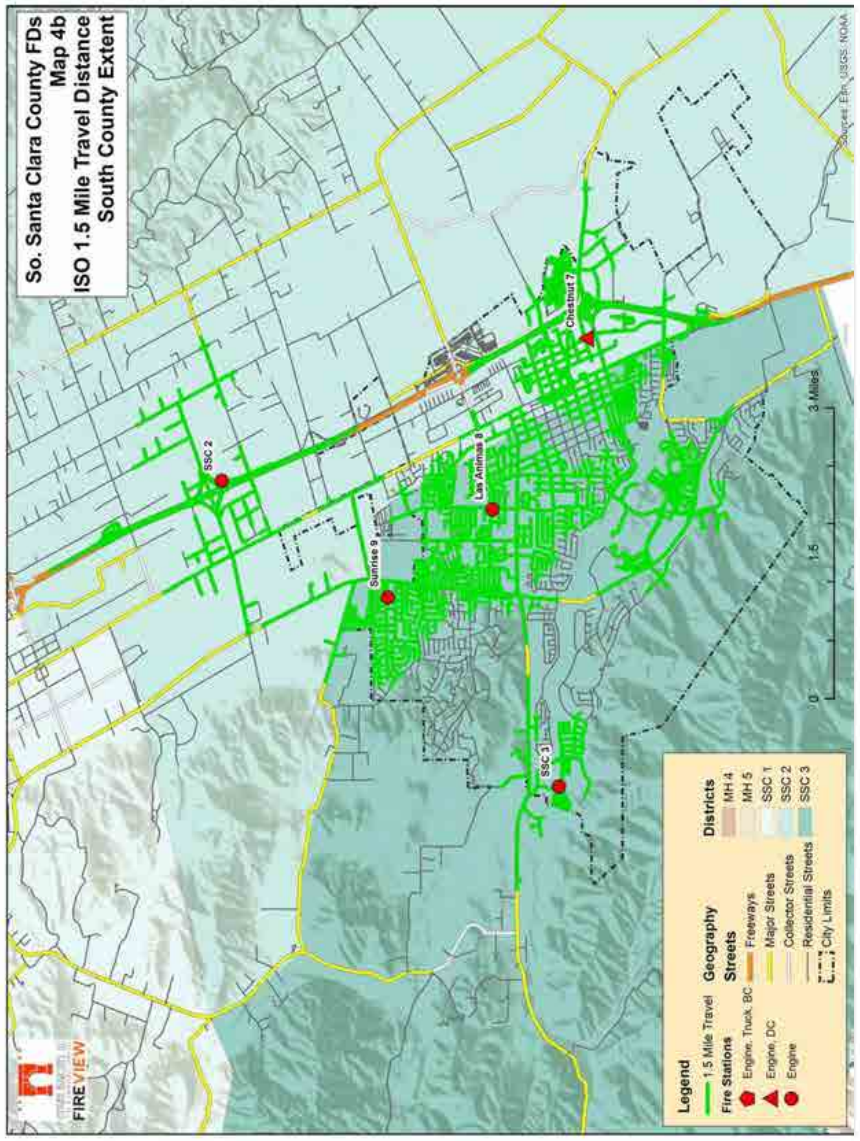
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



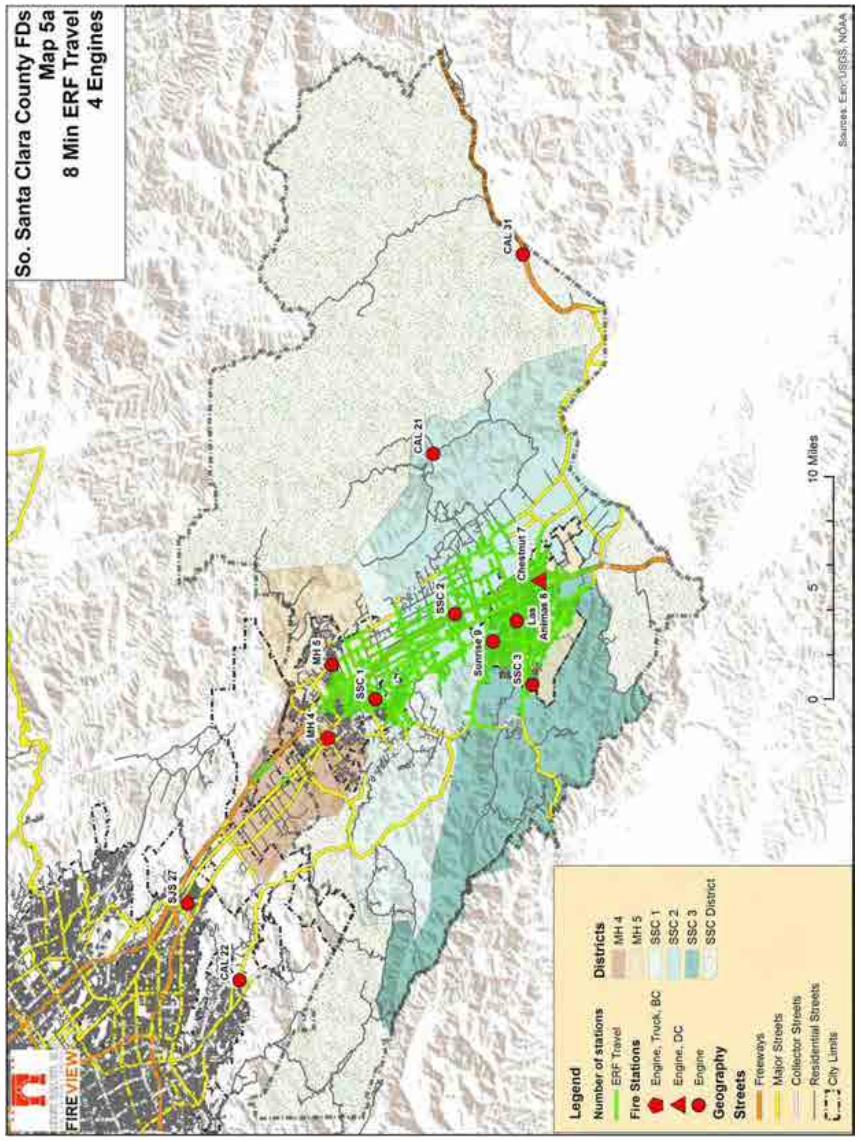


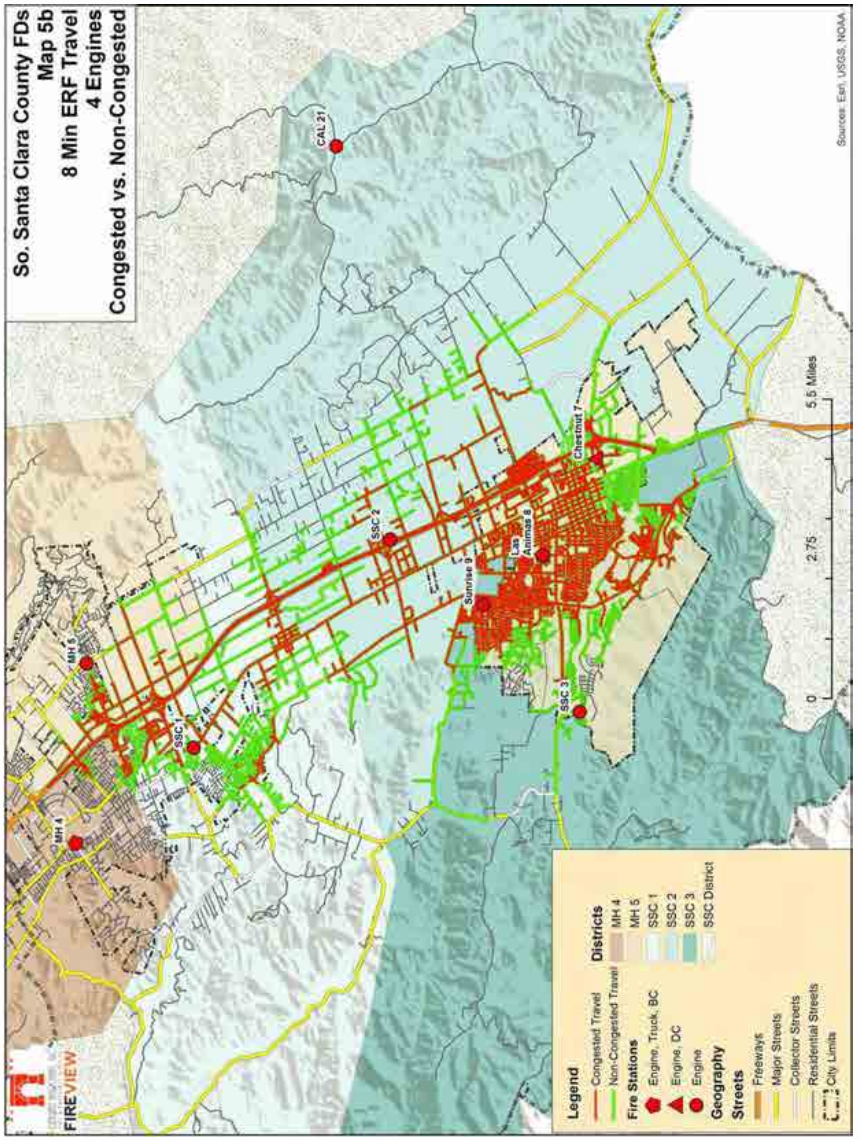
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



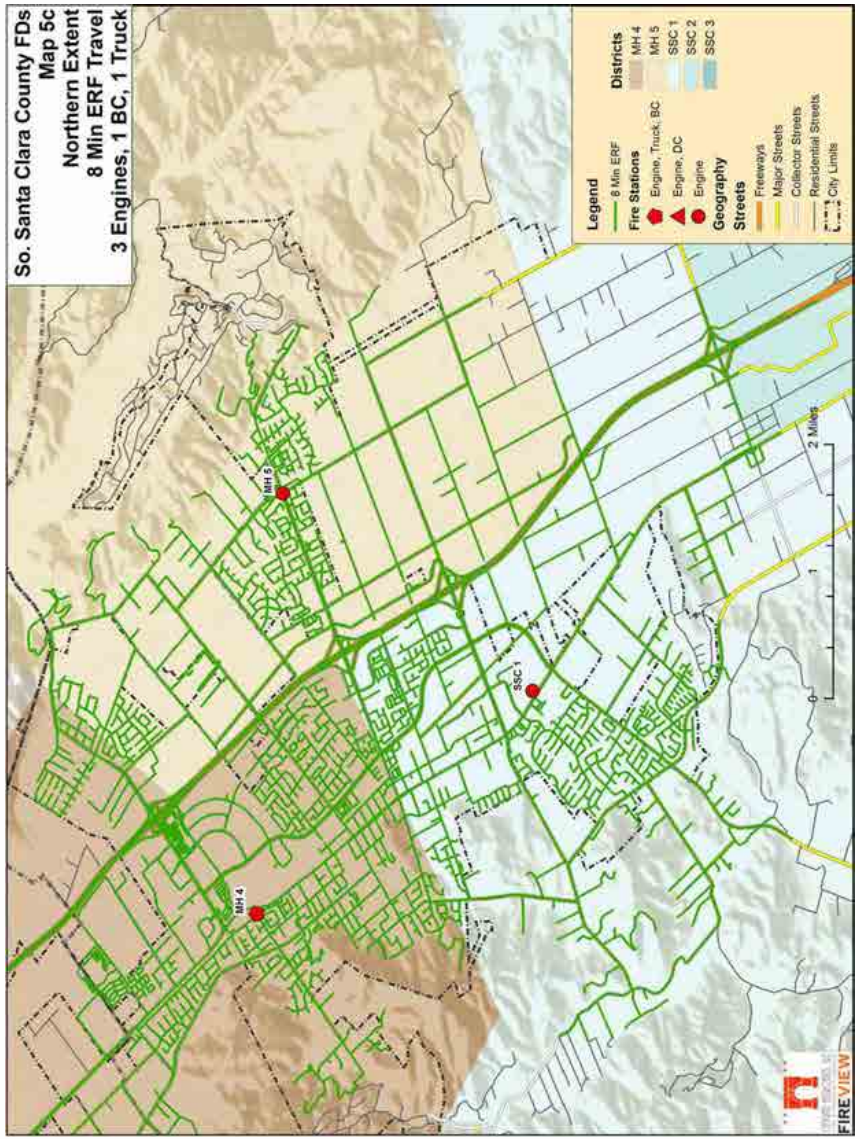


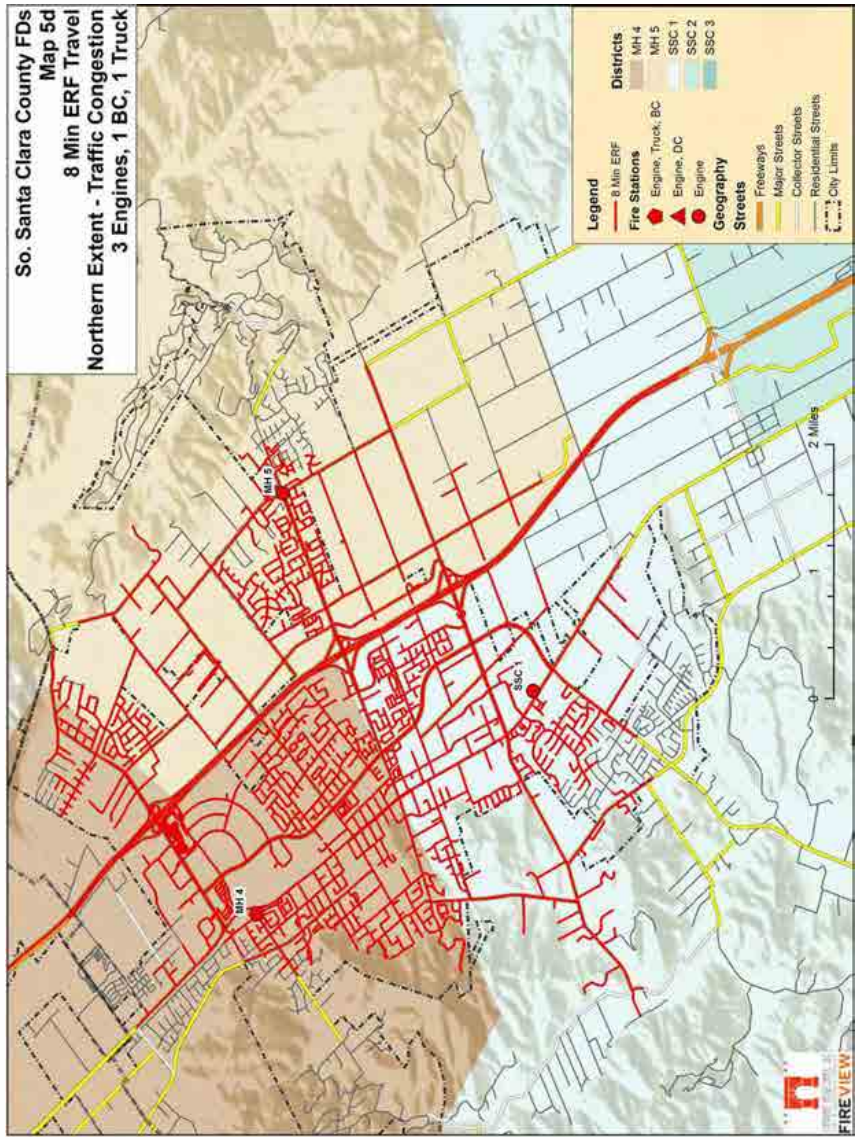
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



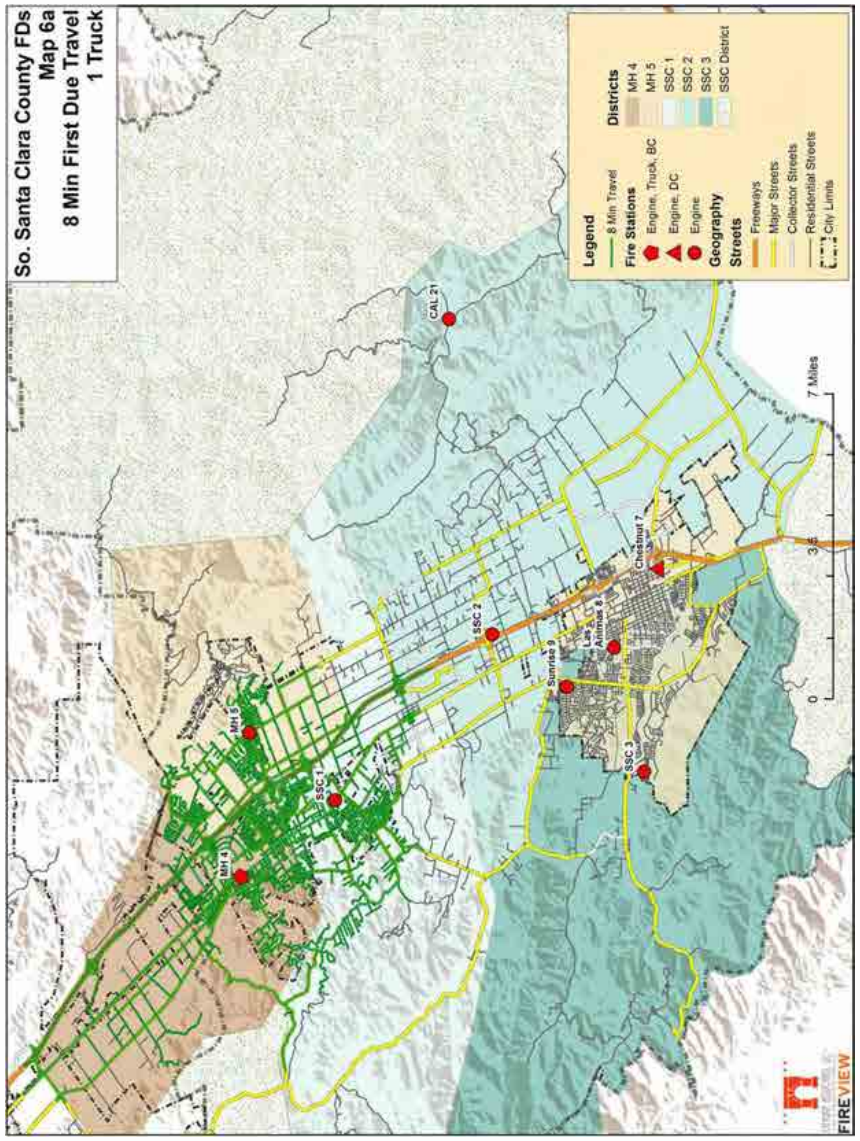


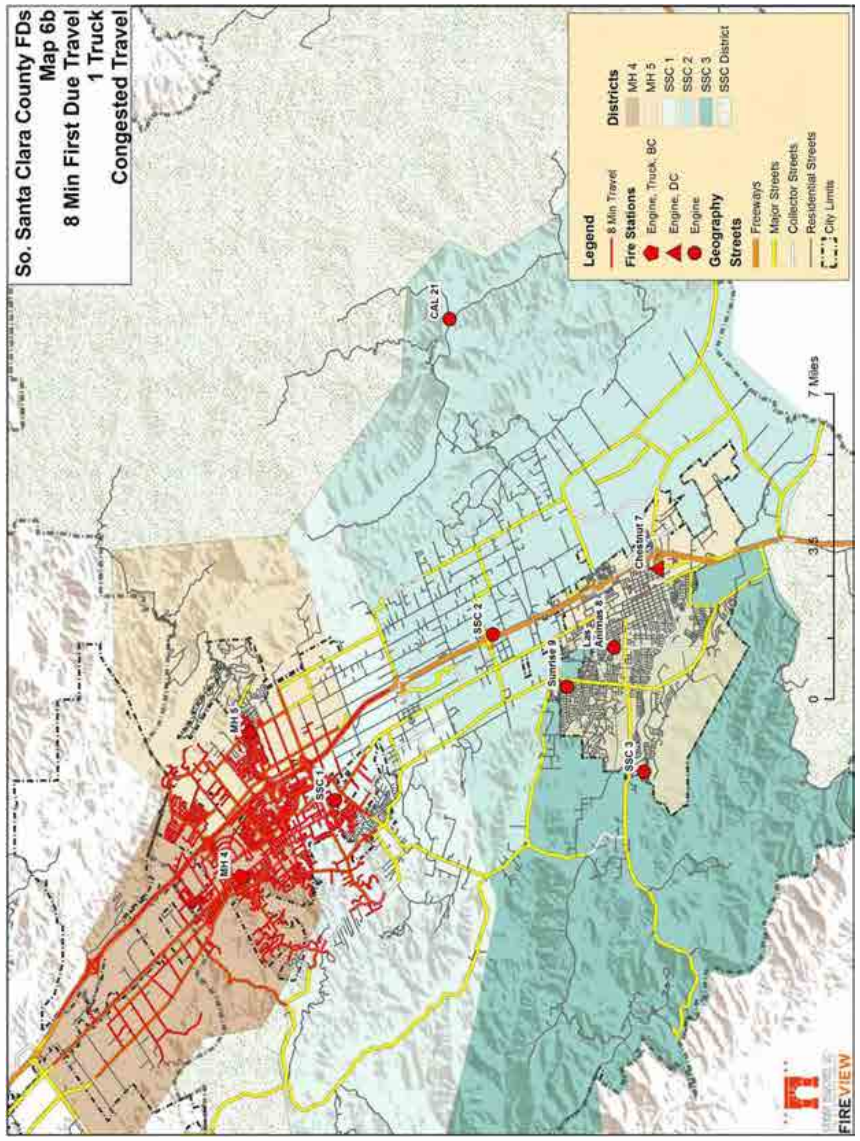
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



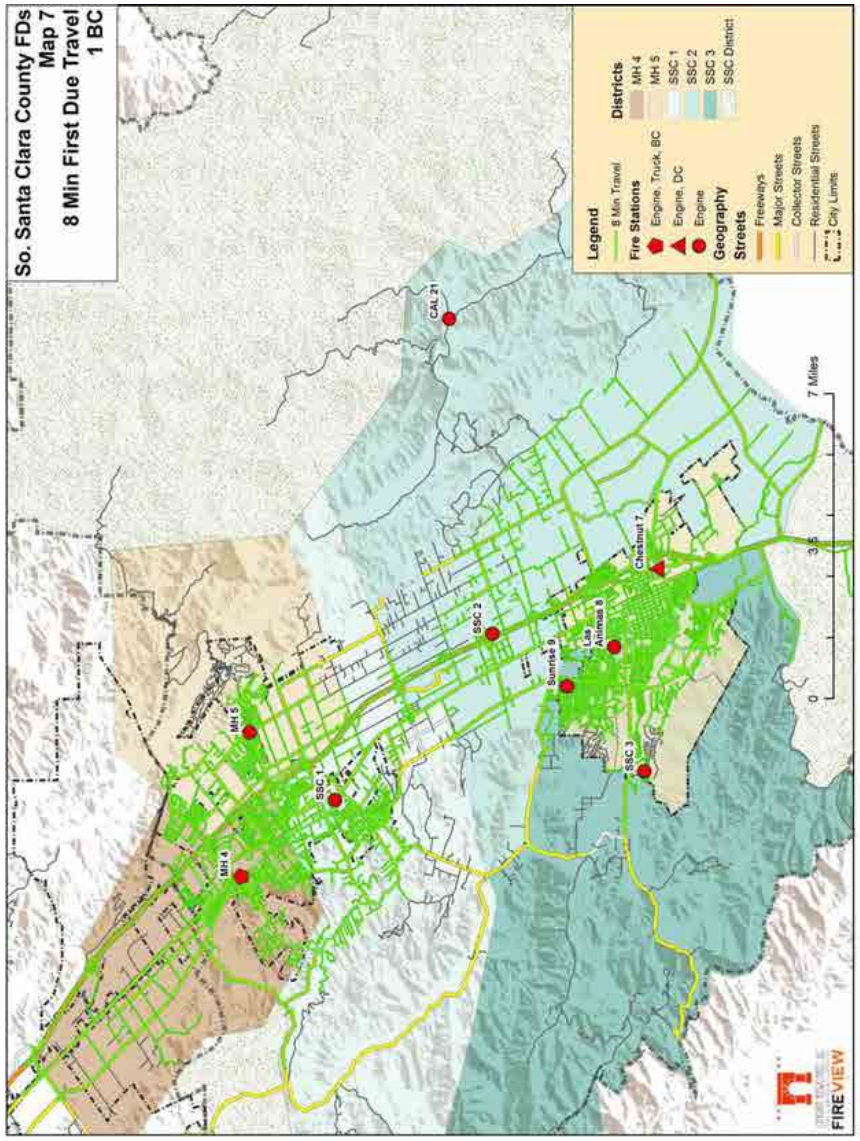


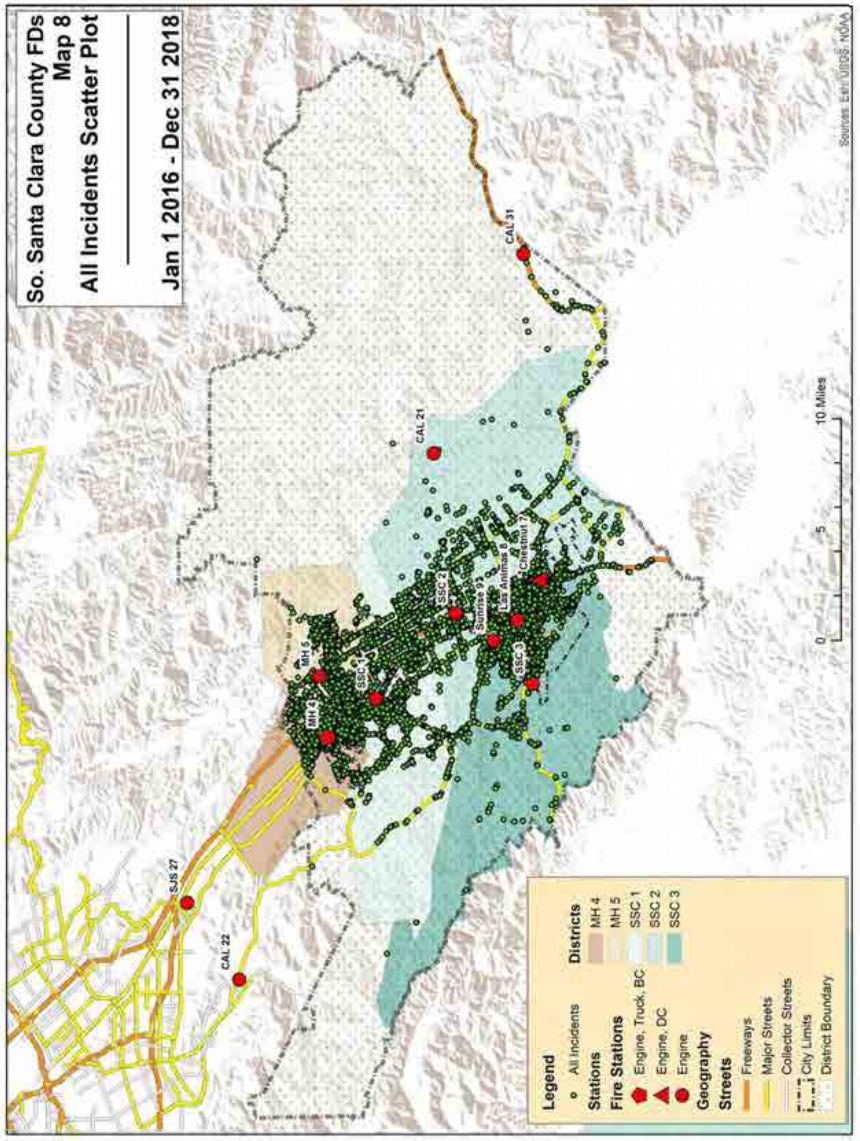
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



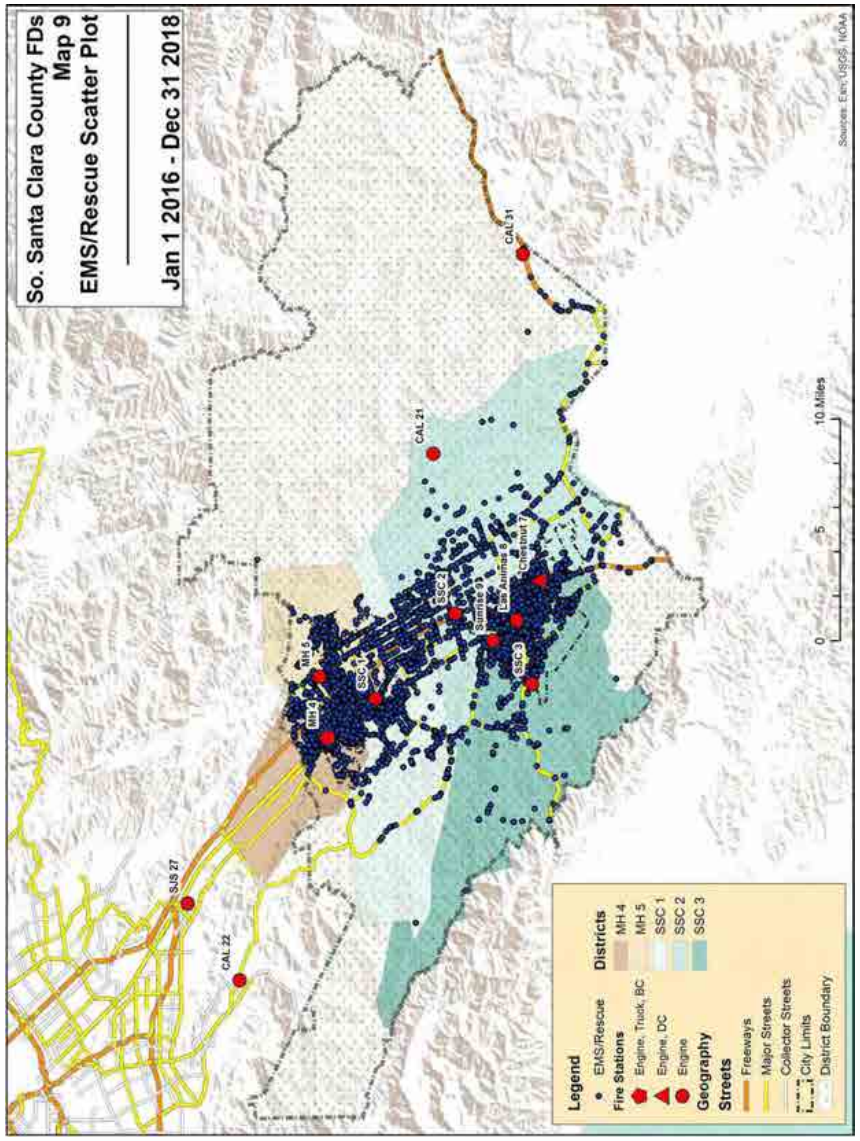


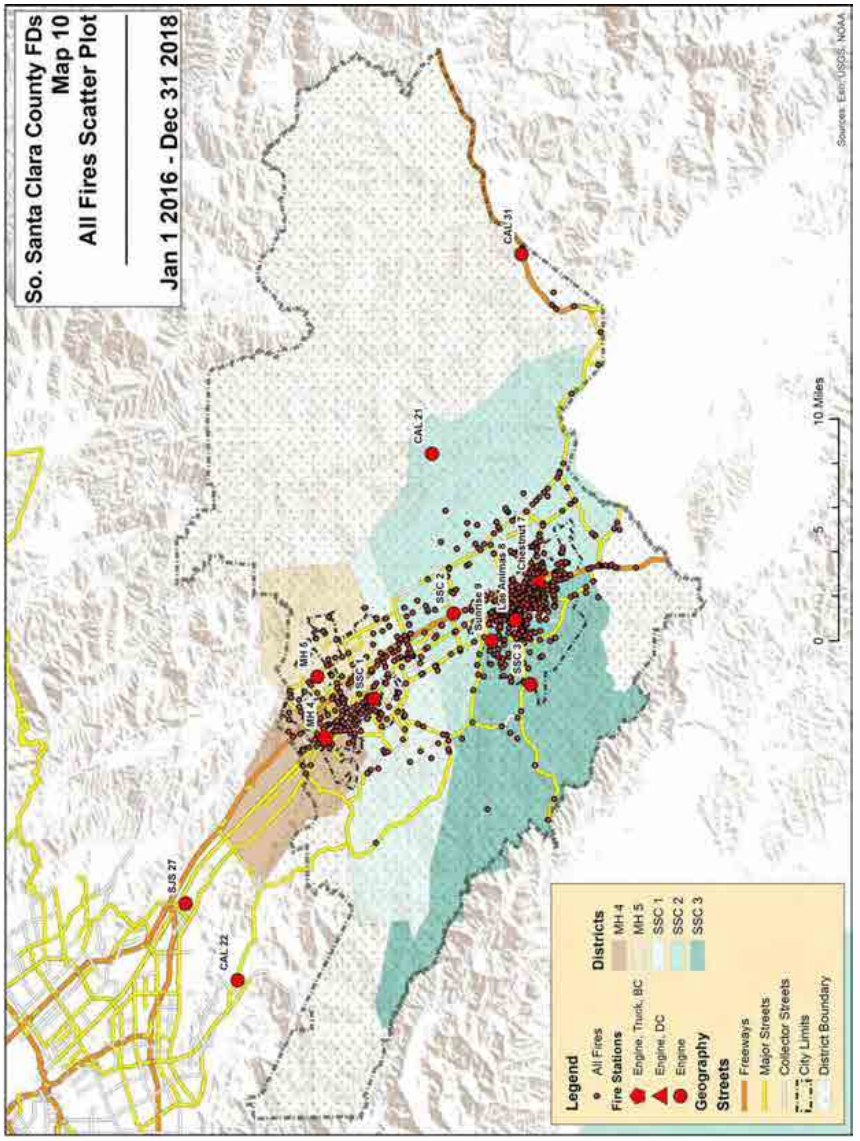
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



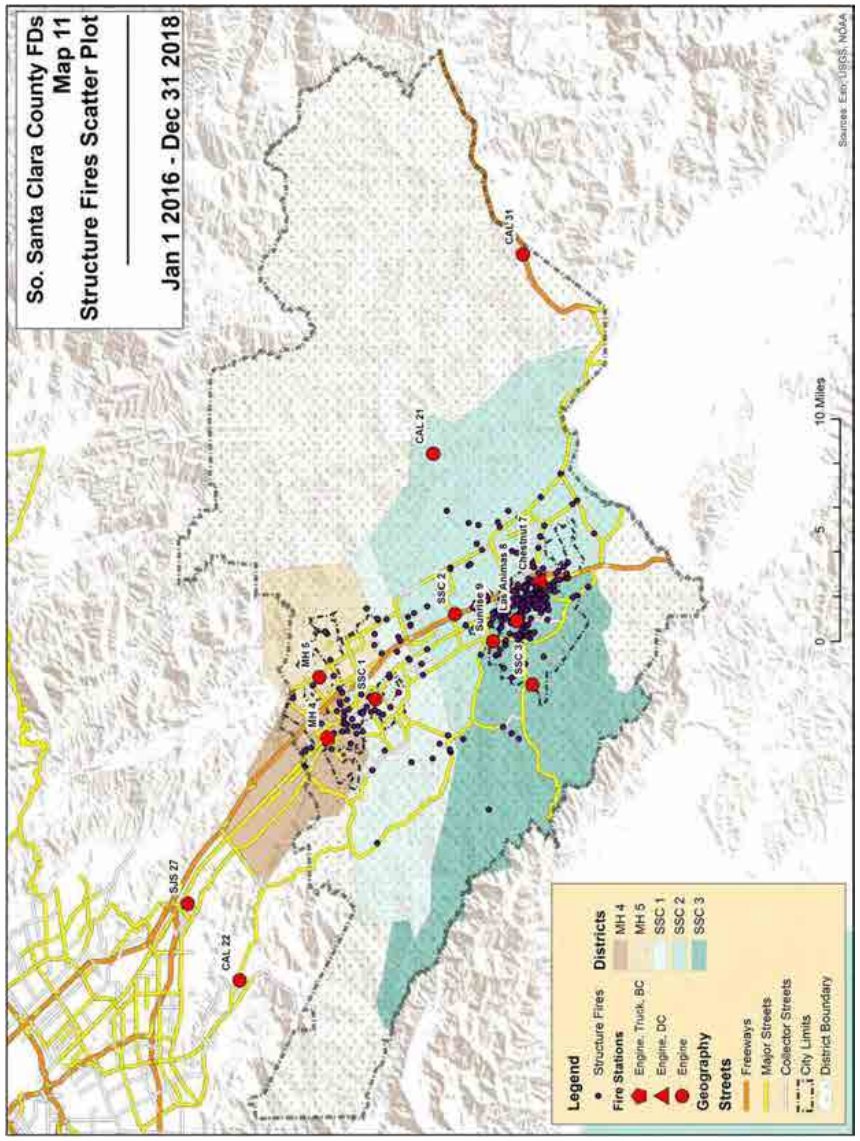


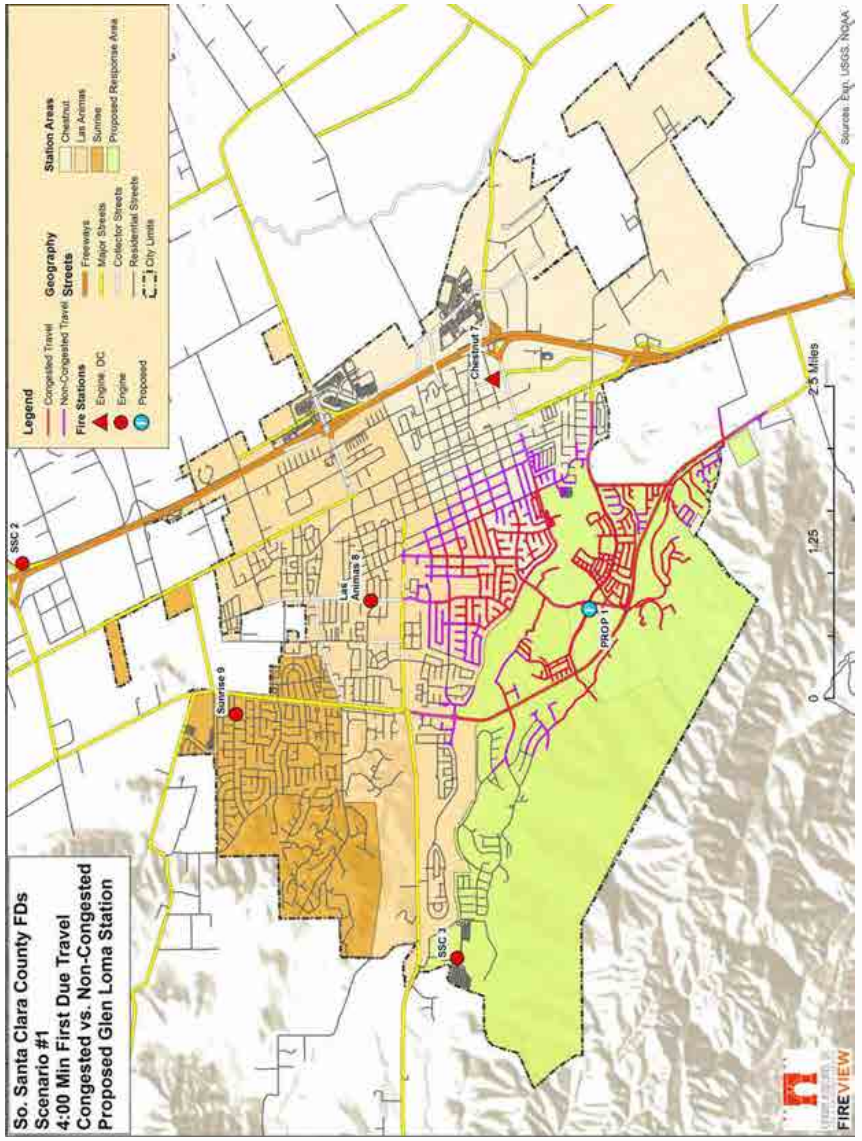
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



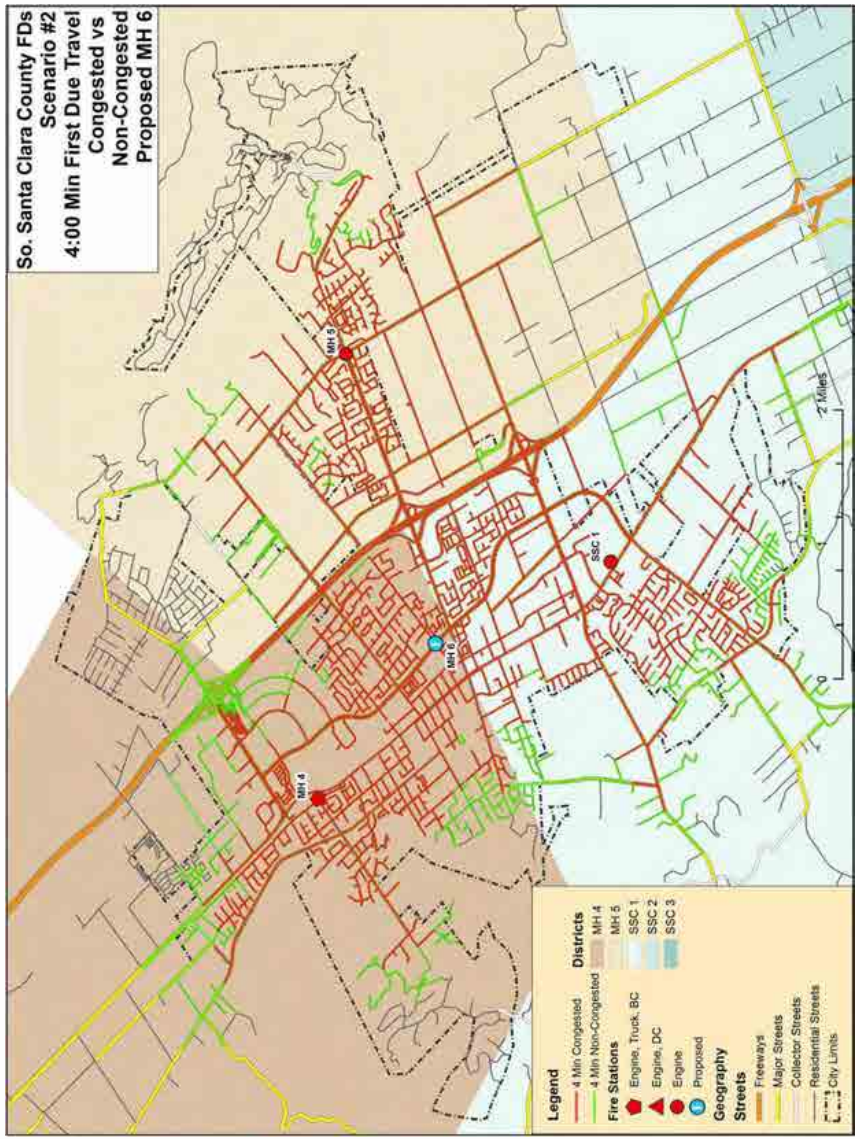


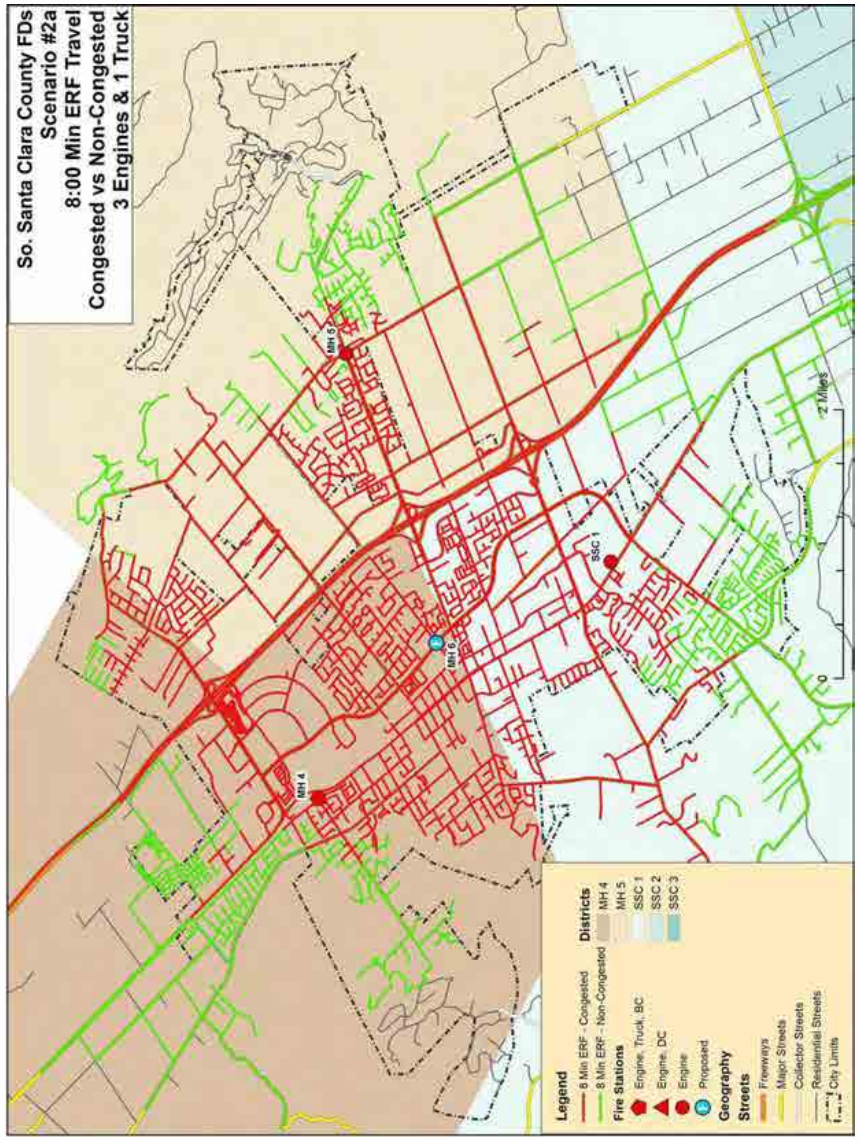
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



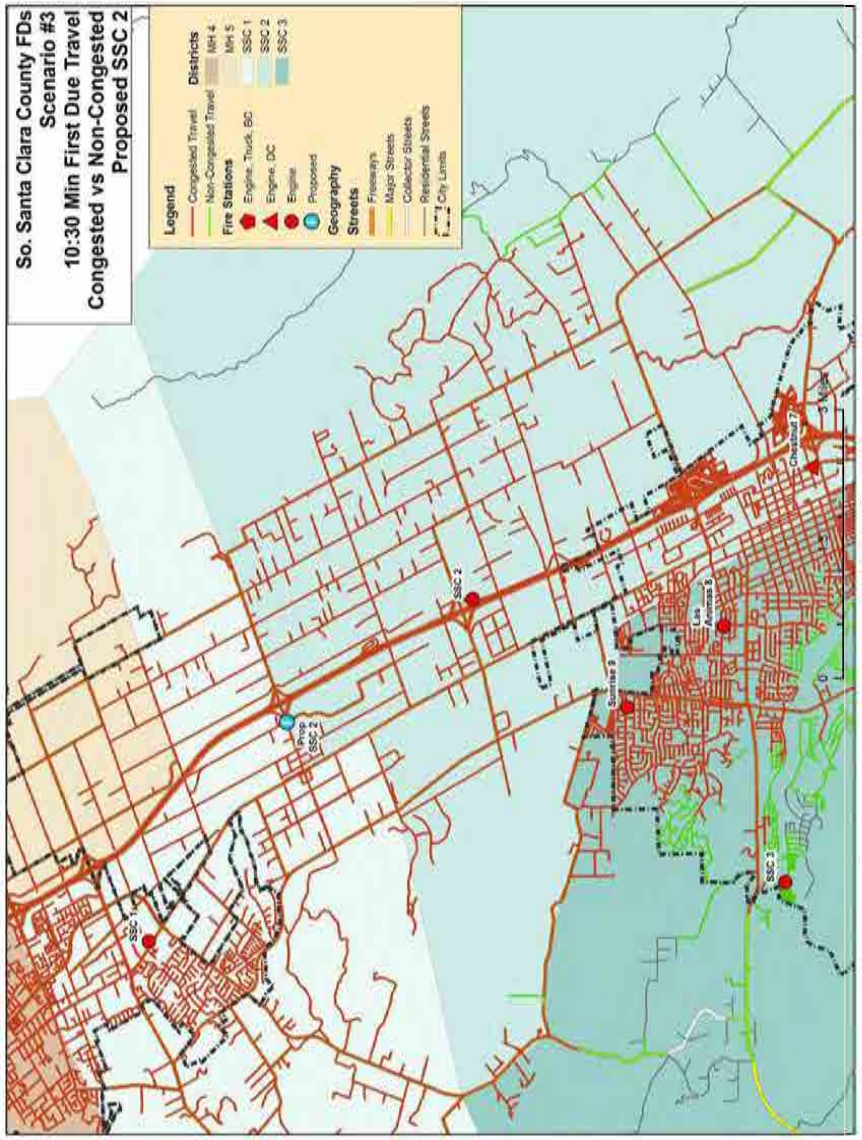


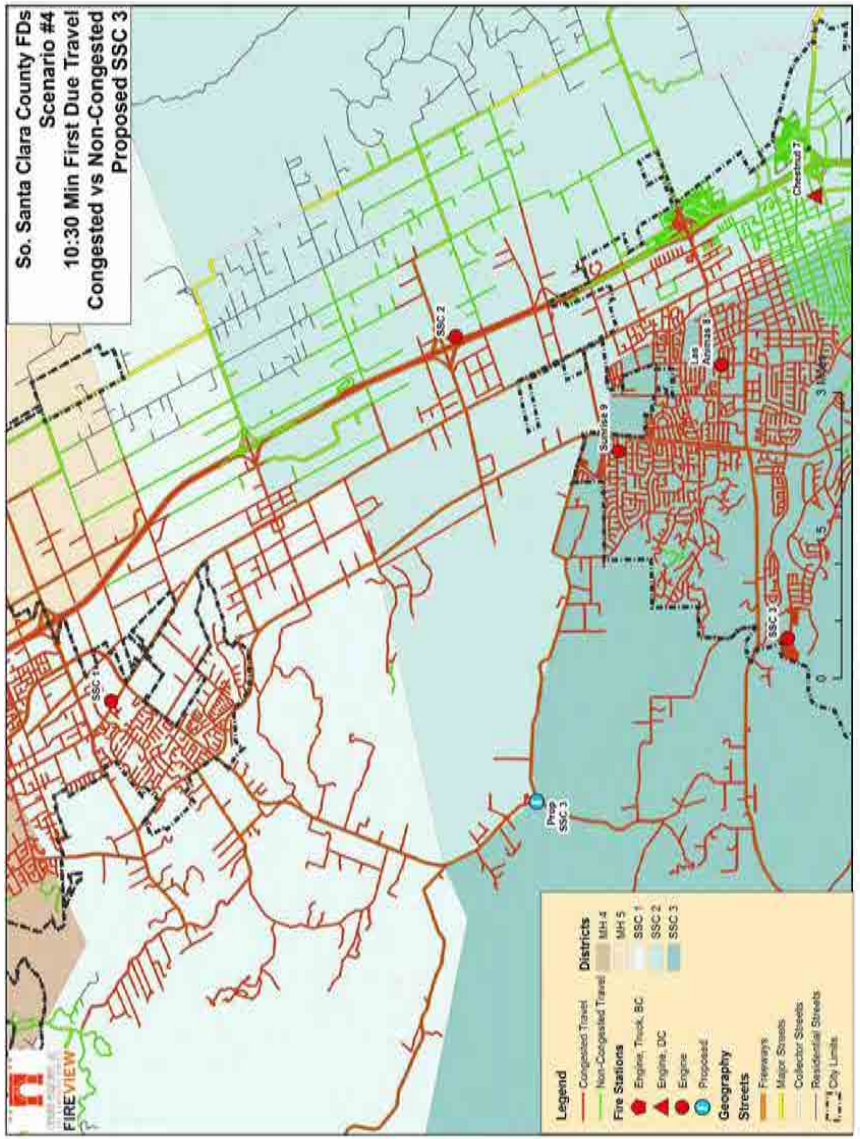
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Attachment D: Traffic Memo

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: May 22, 2020

To: Ms. Pooja Nagrath, David J. Powers & Associates, Inc.

From: Gary Black, Katie Riutta

Subject: High-Speed Rail EIR/EIS Review on Behalf of Morgan Hill

Hexagon Transportation Consultants, Inc. has reviewed the High-Speed Rail (HSR) EIR/EIS on behalf of the City of Morgan Hill, California. The HSR EIR/EIS identifies four project alignment alternatives. The four alignment alternatives are shown in the *San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, prepared by the California High-Speed Rail Authority, dated April 2020. HSR Authority has identified Alternative 4 to be the preferred alternative. The four alignment alternatives are described below and shown on Figures 1, 2, and 3:

- **Alternative 1:** The proposed high-speed rail tracks would run on a viaduct adjacent to US 101 through Morgan Hill. This alternative has a station in downtown Gilroy.
- **Alternative 2:** The proposed high-speed rail tracks would run through downtown Morgan Hill on an embankment along the east side of the Union Pacific Railroad (UPRR) alignment. Monterey Road would need to be shifted to the east to make room for the HSR tracks north of Cochrane Road. Railroad Avenue would need to be shifted to the east to make room for the HSR tracks south of Barrett Avenue. The bridge at Butterfield Boulevard would be extended to cross an at-grade portion of HSR and the realigned Railroad Avenue. All streets that currently cross the Caltrain/UPPR tracks at-grade would be rebuilt as underpasses.
- **Alternative 3:** This alternative is the same as Alternative 1 within Morgan Hill. In this alternative the Gilroy station would be east of US 101.
- **Alternative 4 (Preferred Alternative):** The proposed high-speed rail tracks would run through downtown Morgan Hill at-grade in blended service with Caltrain in the existing UPRR right-of-way. All current at-grade crossings would be maintained but with four-quadrant barrier gates for added safety. A new pedestrian/bicycle underpass would be provided at the Morgan Hill Caltrain Station.

Hexagon previously evaluated two HSR design options and identified their land use impacts, transportation impacts, and construction impacts in a memorandum titled *Transportation, Land Use and Construction Impact Analysis of HSR*, dated August 29, 2017. Alternatives 1 and 3 are similar to the previously studied Option 2. Alternative 2 is similar to the previously studied Option 1. The memo is attached as Appendix A.

4 North Second Street, Suite 400 · San Jose, California 95113 · phone 408.971.6100 · fax 408.971.6102 · www.hextrans.com

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Analysis Conditions

The 2029 and 2040 conditions traffic volumes were estimated using city-specific growth factors obtained from the VTA travel demand model. To determine potential impacts generated by the project, a version of the VTA model developed for the *Caltrain Peninsula Corridor Electrification Project EIR* using inputs from *Projections 2013* and adjusted to incorporate HSR ridership.

Hexagon compared the HSR EIR 2029 and 2040 no project conditions with 2035 cumulative conditions from previous transportation studies conducted in Morgan Hill. Discrepancies were found for intersections along Butterfield Boulevard, between Main Avenue and Tennant Avenue. We believe these discrepancies could be explained by the different models used by HSR and the City of Morgan Hill. The City of Morgan Hill utilizes a city-specific model that focuses on intercity travel rather than regional travel. The HSR forecasts include more regional travel through Morgan Hill (unrelated to HSR) and are higher than the City's previous forecasts on Butterfield Boulevard.

Alternative 1: Viaduct to Downtown Gilroy

With Alternative 1, the proposed high-speed rail tracks would run along a viaduct on the west side of US 101 to an elevated Downtown Gilroy Station. The viaduct would cross over Burnett Avenue to US 101 and would cross over Cochrane Road and ramps, East Main Avenue, East Dunne Avenue and ramps, and Tennant Avenue and ramps (see Figure 1). The alignment for Alternative 1 would bypass downtown Morgan Hill. The speed of trains on the viaduct would be 150 mph in Morgan Hill. Changes to the Transportation System would be as follows:

- San Pedro Avenue cul-de-sac would be relocated to west of HSR
- Barrett Avenue access to Saint John Court would be realigned

1471-2150

Transportation Impacts

Under existing plus project conditions, two study intersections would operate at LOS E or F and one intersection would have a project impact. Under 2029 plus project conditions, seven intersections would operate at LOS E or F and two intersections would have a project impact. Under 2040 plus project conditions, eight intersections would operate at LOS E or F and two intersections would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

- Hale Avenue and Tilton Avenue (M19) – AM and PM Peak Hours (LOS E and LOS F, respectively)
- Monterey Road and Tilton Avenue (M46) – PM Peak Hour (LOS F)

Since the alignment would not be constructed near these intersections, it is not clear why these intersections would have project impacts. The additional intersection delay could be due to decreased capacity on Monterey Road north of Morgan Hill. However, the EIR should explain these impacts in detail and describe what the proposed mitigations would be.

Construction Impacts

With Alternative 1, the HSR tracks would bypass the downtown area so there would be limited construction impacts to the Morgan Hill roadway network. Roadways that intersect with Alternative 1 would be affected, but there would not be major reconstruction of the existing infrastructure. Further construction impacts are discussed in Appendix A.

Source: https://maphubmorcal.org/sanjose-merced/

Figure 1
High-Speed Rail Alternatives 1 and 3 Alignment

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Emergency Response Times

Since construction in the City of Morgan Hill would be limited under Alternative 1, there would be no impacts to emergency response times

Bicycle, Pedestrian, and Transit Impacts

Roadway changes and construction on Monterey Road would be expected to cause delay for VTA Route 68 due to reduced travel lanes between Capitol Expressway and Blossom Hill Road in San Jose.

Property Access

The US 101 interchanges at Cochrane Road, Dunne Avenue, and Tennant Avenue would have temporary construction easements. Overall, properties that are not planned to be displaced would not have access issues under Alternative 1.

Alternative 2: Embankment to Downtown Gilroy

With Alternative 2, the proposed high-speed rail tracks would run through downtown Morgan Hill on an embankment along the east side of the Union Pacific Railroad (UPRR) alignment, outside of the existing rail right-of-way (see Figure 2). The embankment would begin north of Palm Avenue and would cross over Monterey Road south of Cochrane Road. Madrone Parkway, Monterey Road, Main Avenue, Dunne Avenue, San Pedro Avenue, and Tennant Avenue would be lowered and HSR and UPRR would cross over the roadways above grade. The HSR alignment would descend to an at-grade crossing under Butterfield Boulevard and East Middle Avenue, then return to embankment and continue south. The speed of trains along the embankment would be 185 to 195 mph in Morgan Hill. Additional changes to the transportation system would be as follows:

- Tilton Avenue would become a cul-de-sac
- Monterey Road would be realigned from Blanchard Road to Cochrane Road
- Madrone Parkway would be realigned to the west side of Monterey Road and extended to Hale Avenue. A new road would connect Madrone Parkway to Monterey Road east of the rail tracks.
- East Central Avenue cul-de-sac would be realigned eastward
- East Main Avenue would be widened to accommodate HSR grade separation
- Saint Agatha Lane would be removed
- Depot Street access to Main Avenue would be closed to accommodate a grade separation on Main Avenue
- Diana Avenue cul-de-sac would be relocated eastward
- East Dunne Avenue would be widened to accommodate HSR grade separation
- Railroad Avenue between San Pedro Avenue and Barrett Avenue would be closed. Railroad Avenue between Barrett Avenue and Maple Avenue would be realigned eastward
- Tennant Avenue would be realigned to accommodate HSR grade separation
- The bridge at Butterfield Boulevard would be extended to cross over an at-grade portion of HSR and the realigned Railroad Avenue

Source: https://maphsrnorcal.org/sanjose-merced/

Figure 2
High-Speed Rail Alternative 2 Alignment

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2151

Transportation Impacts

Under existing plus project conditions, five study intersections would operate at LOS E or F and four intersections would have a project impact. Under 2029 plus project conditions, nine intersections would operate at LOS E or F and four intersections would have a project impact. Under 2040 plus project conditions, 10 intersections would operate at LOS E or F and four intersections would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

- Hale Avenue and Tilton Avenue (M19) – AM and PM Peak Hours (LOS F)
- Monterey Road and Tilton Avenue (M46) – AM and PM Peak Hours (LOS F)
- Monterey Road and Madrone Parkway (M47) – AM and PM Peak Hours (LOS F)
- Railroad Avenue and Tennant Avenue (MH2) – AM and PM Peak Hours (LOS F)

1471-2152

Under Alternative 2, the intersection at Monterey Road and Tilton Avenue would become a cul-de-sac and the intersection at Monterey Road and Madrone Parkway would become grade separated. Therefore, project impacts would not be possible. The EIR should explain all impacts in detail and describe what the proposed mitigations would be.

Construction Impacts

Reconstruction of the roadways necessary for Alternative 2 would require either new temporary facilities or roadway closures. Both of these options would cause temporary increases in travel times and delay. Further construction impacts are discussed in Appendix A.

During construction of Alternative 2, the Morgan Hill Caltrain Station would be temporarily relocated. Relocation of the station and tracks would result in temporary disruptions of Caltrain, ACE, Capitol Corridor, and Amtrak transit services.

Emergency Response Times

Emergency response times could be increased during construction activities. To mitigate this, the contractor would provide temporary access roads during construction.

Bicycle, Pedestrian, and Transit Impacts

Roadway changes and construction on Monterey Road would be expected to cause delay for VTA Route 68 due to reduced travel lanes between Capitol Expressway and Blossom Hill Road in San Jose. Additional delay could be expected for transit in Morgan Hill as a result of higher overall intersection delays.

A new pedestrian/bicycle underpass would be provided at the Morgan Hill Caltrain Station to maintain access from the east side of the train tracks. However, the underpass as proposed requires further design development.

Property Access

Properties on Tilton Avenue would lose access to Monterey Road and would need to use Hale Avenue. Access to Monterey Road from Hale Avenue would be provided via Madrone Parkway and Live Oak Avenue. Residential units along Saint Agatha Lane would lose their parking. Properties along the planned slopes of grade separations would require alternate access routes. The grade separation at Dunne Avenue would impede access to the Morgan Hill Community Center and Gavilan College. Properties with driveways along Railroad Avenue between San Pedro Avenue and Barrett Avenue would require alternate access. Detours and alternative access points would be provided by the contractor to mitigate these access interruptions.

Recommendations

- At underpasses, the design speed of 45 mph is too high. The analysis should consider a slower speed which would enable the underpasses to be shorter and not affect as many properties.
- The closure of Depot Street at Main Avenue would not align with Morgan Hill circulation goals.
- The closure of Saint Agatha Lane should be noted in the EIR.
- The HSR bridge over Monterey Road should be built to accommodate future widening of Monterey Road as per the *Morgan Hill 2035 General Plan*.

Alternative 3: Viaduct to East Gilroy

Alternative 3 would have the same alignment as Alternative 1 within Morgan Hill.

Alternative 4: Blended, At-Grade (Preferred Alternative)

With Alternative 4, the proposed high-speed rail tracks would run through downtown Morgan Hill at-grade in blended service with Caltrain in the existing UPRR right-of-way (see Figure 3). Four-quadrant barrier gates would be provided at Tilton Avenue, Main Avenue, Dunne Avenue, San Pedro Avenue, and Tennant Avenue. Additional changes to the transportation system would be as follows:

- Existing Monterey Road underpass would be rebuilt to accommodate future widening
- Diana Avenue cul-de-sac would be relocated slightly eastward

Four-Quadrant Barrier Gates

Commuter service trains operate at a maximum speed of 79 miles per hour. Since HSR trains would operate at a maximum speed of 110 miles per hour between San Jose and Gilroy, safety improvements at the at-grade crossings would be required. Two gate arms would extend across all lanes of travel, with one gate on each side of the roadway, on both sides of the tracks. This would prevent drivers from attempting to travel around the lowered gate arms, making the four-quadrant barrier gates safer than two-quadrant barrier gates. Gate arms would also be present across pedestrian pathways on both sides of the roadway and on both sides of the tracks. The 95th percentile gate-down time is estimated to be 54 seconds per single-train event.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2153

Source: https://maphubmorcal.org/sanjose-merced/

Figure 3
High-Speed Rail Alternative 4 Alignment

Transportation Impacts

Under existing plus project conditions, two study intersections would operate at LOS E or F and no intersections would have a project impact. Under 2029 plus project conditions, seven intersections would operate at LOS E or F and four intersections would have a project impact. Under 2040 plus project conditions, nine intersections would operate at LOS E or F and four intersections would have a project impact. The following intersections would have a project impact under 2040 plus project conditions:

- Monterey Road and Tilton Avenue (M46) – PM Peak Hour (LOS F)
- Monterey Road and Main Avenue (MH10) – AM Peak Hour (LOS F)
- Depot Street and E Main Avenue (MH11) – AM and PM Peak Hours (LOS F)
- Butterfield Boulevard and E Main Avenue (MH12) – AM and PM Peak Hours (LOS F)

Although the EIR doesn't say, it is assumed these impacts would be due to increased gate-down time at the study intersections. The EIR does not provide any specific mitigation for these impacts. However, these impacts could be mitigated with grade separations. Hexagon recommends a grade separation at Dunne Avenue for the impacts along Main Avenue and a grade separation at Tilton Avenue for the impacts at the Monterey Road/Tilton Avenue intersection. These mitigations are described in more detail below.

Queueing at At-Grade Crossings

The EIR analysis was based on an expected total of 18 trains passing through Morgan Hill per peak hour, with seven HSR trains traveling in each direction and four Caltrain trains traveling in one direction. However, the blended service tracks have the capacity to accommodate at most 24 trains per peak hour, with eight HSR trains and four Caltrain trains in each direction. That calculates to an average of one train every 2-1/2 minutes. The estimated 95th percentile gate-down time would be 54 seconds per single-train event. That means there would be roughly 1-1/2 minutes between gate down events, on average. Hexagon calculated the resulting queue at each crossing and the length of time to clear each queue based on 2035 traffic forecasts (see Table 1). Tilton Avenue would have an estimated queue length of 3 vehicles per lane which would take about 9 seconds to clear once the gates are lifted. Main Avenue would have an estimated queue length of 9 vehicles which would take about 25 seconds to clear. All queues would be expected to clear the crossings before the next gate down event.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Table 1
Queueing at At-Grade Crossings

At-Grade Crossing	2035 Peak Hour Volume[1]	Queue Length Per Lane	Seconds to Clear Queue[2]	Clear Before Next Train[3]
Tilton Avenue	407	3	9	Yes
Main Avenue	723	12	25	Yes
Dunne Avenue	723	6	15	Yes
San Pedro Avenue	272	5	13	Yes
Tennant Avenue	1,104	9	20	Yes

Notes

1. Volumes are from nearby intersections in the 2035 General Plan. Volumes at Tilton Avenue are factored to year 2035 from 2013 counts by a growth rate of 1% per year.
2. A typical saturation flow rate is assumed to be 2,000 vehicles per hour after the first four vehicles.
3. The maximum capacity of 24 single-train events per hour was assumed.

1471-2154

Construction Impacts

The construction of the four-quadrant barrier gates would require temporary roadway detours and relocations, resulting in temporary increases in travel time and delay.

The Morgan Hill Caltrain Station would be rebuilt, and service would be temporarily relocated during construction. Relocation of the station and tracks would result in temporary disruptions of Caltrain, ACE, Capitol Corridor, and Amtrak transit services.

1471-2155

Bicycle, Pedestrian, and Transit Impacts

Bus transit in Morgan Hill could expect delays as a result of increased gate-down time at the at-grade railroad crossings. A new pedestrian/bicycle underpass would be provided at the new Morgan Hill Caltrain Station to maintain access from the east side of the train tracks. However, the underpass as proposed requires further design development.

Since high-speed rail trains would operate faster than Caltrain and no siding tracks would be installed, Caltrain would need to maintain speeds by implementing a skip-stop pattern between Gilroy and the Tamien Station. A skip-stop pattern would mean that trains skip over more stations than originally scheduled so that HSR may operate efficiently. In an effort to maintain the same number of stops at each station, Caltrain would need to increase the number of trains from three to six trains traveling in the peak direction during the morning and evening. The blended operations would have the capacity to accommodate up to four trains per peak hour in the peak directions for Caltrain service. Based on the *Caltrain 2040 Long Range Service Vision*, Caltrain would provide two trains per hour per direction between the Gilroy and Blossom Hill Stations. Therefore, HSR would have the capacity to accommodate the increase in Caltrain service.

1471-2156

Emergency Response Times

Emergency response times on roadways along the rail alignment could be increased during construction activities. Emergency vehicles could also expect delays due to increased gate-down time on roadways with at-grade crossings. Response times for the fire station at 18300 Old Monterey Road could be increased by up to 30 seconds. Response times for the fire station at 15670 Monterey Road could be increased by up to 210 seconds, due to the at-grade crossing at East Middle Avenue and San Martin Avenue. The exact scope of the potential impact would be determined before HSR service begins. Mitigation is stated as requiring new vehicle detection equipment, new responder equipment installed at existing fire stations, new fire stations, and additional ambulance services, with funding from HSR Authority.

Mitigations

Hexagon recommends a grade separation at Dunne Avenue to mitigate project impacts at the study intersections along Main Avenue. A grade separation at Main Avenue, as proposed under Alternative 2, would require Depot Street to become a cul-de-sac and lose an important connection to Main Avenue. Therefore, a grade separation at Main Avenue would not be acceptable to Morgan Hill. A grade separation at Dunne Avenue would also address potential queuing problems. As shown in Table 1, queues at the at-grade crossing with Dunne Avenue would be expected to clear within 15 seconds per single-train event under optimal conditions. Therefore, emergency vehicles could experience delay beyond what was determined for the increased gate-down time. Dunne Avenue forms the southern boundary of the Downtown area and the Caltrain Station is located just north of the Dunne Avenue and Monterey Road intersection. Therefore, there will be significantly more multi-modal travel across the Dunne Avenue crossing. The City of Morgan Hill plans to connect Depot Street to Church Street near Dunne Avenue, which would provide enough room for an underpass.

Hexagon also recommends a grade separation at Tennant Avenue to mitigate project impacts to emergency response time. The Morgan Hill Police and Fire Departments utilize Tennant Avenue for faster response times to the eastern part of town because it has less traffic and signals. It provides the fastest route to respond to fires in the eastern hills. Tennant Avenue also provides quicker access to US 101 which is essential to reach areas near Cochrane Road and East Dunne Avenue. A grade separation at Tennant Avenue would also address potential queuing problems. As shown in Table 1, queues at the at-grade crossing with Tennant Avenue would be expected to clear within 20 seconds per single-train event under optimal conditions. Therefore, emergency vehicles could experience delay beyond what was determined for the increased gate-down time. The Morgan Hill Fire Department does not have existing capacity in their response times for any additional delay, therefore this grade separation is recommended.

A grade separation also should be considered at Tilton Avenue to mitigate project impacts at the Monterey Road/Tilton Avenue intersection. A grade separation at Tilton Avenue would require raising the rail tracks in that area. The City of Morgan Hill plans to connect Tilton Avenue to Burnette Avenue and to remove a proposed grade separation at Madrone Parkway in their upcoming transportation element update.

Property Access

Since Alternative 4 would operate in the existing UPRR right-of-way, there would be no access issues for properties in Morgan Hill.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Recommendations

1471-2157 • The EIR should explain all project impacts to study intersections in detail and describe what the proposed mitigations would be.

1471-2158 • The analysis should note the new planned intersection at Dunne Avenue and Depot Street/Church Avenue.

1471-2159 • At future grade separations, the analysis should consider a design speed lower than 45 mph to enable the underpasses to be shorter and not affect as many properties.

1471-2160 • The closure of Depot Street at Main Avenue would not align with Morgan Hill circulation goals.

1471-2161 • The closure of Saint Agatha Lane under Alternative 2 should be noted in the EIR.

1471-2162 • The HSR bridge over Monterey Road should be built to accommodate future widening of Monterey Road under Alternative 2 as per the *Morgan Hill 2035 General Plan*.

1471-2163 • Hexagon recommends a grade separation at Dunne Avenue to address potential queuing issues, project impacts along Main Avenue, and emergency response time delays due to increased gate-down time under Alternative 4.

1471-2164 • Hexagon recommends a grade separation at Tennant Avenue to address potential queuing issues and emergency response time delays due to increased gate-down time under Alternative 4.

1471-2165 • Hexagon also recommends a grade separation at Tilton Avenue to mitigate the project impact at Monterey Road and Tilton Avenue under Alternative 4.

Appendix A
Transportation, Land Use and Construction Impact Analysis of HSR

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: August 29, 2017

To: Tiffany Brown, City of Morgan Hill

From: Gary Black
Ollie Zhou

Subject: Transportation, Land Use and Construction Impact Analysis of HSR

Hexagon Transportation Consultants, Inc. has reviewed the proposed two alignment design options for the High-Speed Rail (HSR) project through Morgan Hill, California. The two alignment options are shown in the *San Jose to Merced Section: San Jose to Central Valley Wye, Draft Preliminary Engineering for Project* Definition, prepared by the California High-Speed Rail Authority (CA HSRA), dated May 2017. The two alignment options are described below and also shown on Figure 1:

- **Option 1:** The proposed high-speed rail tracks would run through the downtown area on an embankment. Monterey Road would need to be shifted to the east to make room for the HSR tracks north of Cochrane Road. Railroad Avenue also would be shifted to the east between Barret Avenue and Maple Avenue. Railroad Avenue north of Barret Avenue would be discontinued. All of the streets that currently cross the Caltrain/UP tracks at-grade would be rebuilt as underpasses.

- **Option 2:** The proposed high-speed rail tracks would run along a viaduct parallel to and just west of US 101.

Hexagon previously evaluated four HSR design options and identified their land use impacts, transportation impacts, and construction impacts in a memorandum titled *Transportation, Land Use and Construction Impact Analysis of HSR*, dated September 21, 2016. The two alignment options that the CA HSRA now proposes are almost identical to two of the HSR design options Hexagon previously studied. The now-proposed Option 1, which would run the tracks on an embankment through downtown Morgan Hill, is very similar to the at-grade option through downtown Morgan Hill Hexagon previously studied. The now-proposed Option 2, which would run the tracks on an aerial structure just west of US 101, is almost identical to Option 3 analyzed in the previously study. Therefore, most of the discussion below regarding the land use, transportation and construction impacts of the now-proposed alignment options is the same as the discussion in the previous study.

Land Use Impacts

Under each proposed alignment design option, different numbers of properties would need to be acquired for the right-of-way of the high-speed rail tracks. The draft plans prepared by the CA HSRA outline the areas affected by each alignment option. A detailed discussion of the land use impacts of each alignment option is provided below.

4 North Second Street, Suite 400 · San Jose, California 95113 · phone 408.971.6100 · fax 408.971.6102 · www.hextrans.com

Option 1 – Embankment Through Downtown

With alignment Option 1, the high-speed rail (HSR) tracks would run through the Morgan Hill downtown area on an embankment 6 to 15 feet high. The HSR tracks would run parallel to and immediately east of the existing Union Pacific (UP) railroad tracks. Therefore, all existing properties along the east side of the UP tracks would be affected (see Figures 2A-2C).

As part of alignment Option 1, the CA HSRA proposes several roadway realignments and extensions, as well as new roadways within the City of Morgan Hill. These proposed roadway changes would require the acquisition of all affected properties (see Figures 2A-2C). A detailed description of the proposed roadway changes is provided below:

- **Monterey Road:** Monterey Road currently runs directly adjacent to and east of the UP railroad tracks north of Cochrane Road. With alignment Option 1, this section of Monterey Road would be acquired for the HSR tracks. Monterey Road north of Cochrane Road would be realigned to run just east of the proposed HSR tracks.

- **Madrone Parkway:** Madrone Parkway is an east-west roadway that currently terminates at Monterey Road. With alignment Option 1, Madrone Parkway would extend west of the railroad tracks and connect with Hale Avenue via a flyover. Madrone Parkway access to Monterey Road would be provided via a loop road connection in the northeast quadrant of the Monterey Road/Madrone Parkway interchange.

- **Railroad Avenue:** Railroad Avenue currently runs directly adjacent to and east of the UP railroad tracks between Maple Avenue and San Pedro Avenue. With alignment Option 1, this section of Railroad Avenue would be acquired for the HSR tracks. Railroad Avenue would be realigned to run just east of the proposed HSR tracks. However, Railroad Avenue north of Barret Avenue would be discontinued.

As part of alignment Option 1, the CA HSRA proposes to grade separate all existing at-grade rail crossings within the City of Morgan Hill. All roadways that would cross the railroad tracks would be depressed under the tracks. Other roadways that currently intersect the depressed roadway would also require depression to maintain the roadway access or have access discontinued with cul-de-sacs. As a result, properties with driveways along the depressed sections of all roadways would need to be either acquired or have their driveways regraded or moved (see Figures 2A-2C). The extent of the grade separation at each roadway crossing the railroad tracks is described below:

- **Main Avenue:** Main Avenue would be depressed between Monterey Road and Butterfield Boulevard. Main Avenue would be widened from a two-lane roadway (one through lane in each direction) to a four-lane roadway. The roadway widening would require property acquisitions along either side of the roadway. The existing intersection with Depot Street west of the railroad tracks would be discontinued. Depot Street would end in a cul-de-sac. Access to Main Avenue from Depot Street would be provided via Monterey Road and cross streets connecting Depot Street to Monterey Road. The existing intersection along Main Avenue with McLaughlin Avenue would be eliminated. Properties along McLaughlin Avenue would access the City's roadway network via Central Avenue.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

- **Dunne Avenue:** Dunne Avenue would be depressed between Monterey Road and Butterfield Boulevard. The existing intersections with Church Street and with Depot Street would be maintained, with both roadways slightly depressed to maintain crossings. It is assumed that driveways along the depressed sections of Church Street and of Depot Street would be regraded. If not regraded, the properties associated with the driveways would also need to be acquired since there are no alternative roadways to use for access to the affected properties.

- **San Pedro Avenue:** San Pedro Avenue would be depressed between Monterey Road and Butterfield Boulevard. The existing intersection with Church Street would be grade-separated as an interchange. As discussed above, Railroad Avenue would be discontinued north of Barrett Avenue. Therefore, the existing intersection of Railroad Avenue and San Pedro Avenue would be eliminated.

- **Tennant Avenue:** Tennant Avenue would be depressed between Vineyard Boulevard and Butterfield Boulevard. The existing intersection with Caputo Drive would be eliminated, with Caputo Drive terminating in a cul-de-sac north of Tennant Avenue. Properties along Caputo Drive would access the roadway network via Barrett Avenue. The existing intersection along Tennant Avenue at Railroad Avenue would be maintained, with the realigned Railroad Avenue depressed to form an intersection with Tennant Avenue. All existing driveways along the depressed section of Tennant Avenue would be eliminated.

- **Middle Avenue:** Middle Avenue would be elevated over the railroad tracks on an aerial structure between Monterey Road and Llagas Avenue. The aerial structure would be aligned slightly south of the existing Middle Avenue alignment between Monterey Road and Llagas Avenue. A trumpet-shaped interchange would be constructed at the interchange of Monterey Road and Middle Avenue. Because the realigned Middle Avenue aerial structure would be located outside of Morgan Hill and there would be no land use impacts within the City, the land use impacts of the Middle Avenue aerial structure are not shown on Figure 2C.

Option 2 – Viaduct West of US 101

With alignment Option 2, the high-speed rail (HSR) tracks would run just west of US 101 on a viaduct approximately 30 to 60 feet high. This alignment option would allow the HSR tracks to mostly avoid developed land in Morgan Hill. There would be no modifications to the existing roadway network. The land use impacts of alignment option 2 are shown on Figures 3A-3C.

Transportation Impacts

Option 1 – Embankment Through Downtown

With alignment Option 1, the transportation system of Morgan Hill would benefit by the elimination of all at-grade crossings. However, the roadway network modifications proposed with alignment Option 1 have several inconsistencies with the City of Morgan Hill's 2035 General Plan:

- **Tilton Avenue:** Tilton Avenue currently terminates to the east at Monterey Road. Morgan Hill's 2035 General Plan does not show any change to Tilton Avenue. With alignment Option 1, Tilton Avenue would terminate west of the UP rail tracks and lose its access to Monterey Road. The proposed cul-de-sac on Tilton Avenue would not be in conformance with the 2035 General Plan. An overpass or underpass will be needed to maintain Tilton Avenue's connection with the realigned Monterey Road. With either an overpass or underpass, Tilton Avenue's roadway grade would be affected and it is unlikely that the eastern-most driveways along Tilton Avenue could be regraded to maintain access. Affected properties along Tilton Avenue would need to be acquired. Moreover, either an overpass or underpass would require the realigned Monterey Road to be raised or depressed to intersect with Tilton Avenue. It is likely that the intersection of the realigned Monterey Road with Burnett Avenue would also require depression/elevation.

  With alignment Option 1, Madrone Parkway would be extended west to Hale Avenue with a connection to the realigned Monterey Road. This extension would be in conformance with the City's General Plan.

- **Railroad Avenue:** With alignment Option 1, Railroad Avenue would be discontinued north of Barrett Avenue, which would not be in conformance with City's General Plan.

- **Restricted Accesses:** With alignment Option 1, all roadways crossing the railroad tracks would be depressed under the tracks. As the roadways regain grade to conform to existing grade on either side of the railroad tracks, some roadways that currently intersect the depressed roadways would no longer have access to the depressed roadways. These access restrictions are not in conformance with City's General Plan. The roadways that would lose access to the depressed roadways are listed below:

  - McLaughlin Avenue at Main Avenue
  - Depot Street at Main Avenue
  - Church Street at San Pedro Avenue

Maintaining these connections would require additional roadway depressions and loss of property access.

Option 2 – Viaduct West of US 101

Option 2 would not result in any changes to the Morgan Hill motor vehicle transportation system. The space under the elevated tracks would provide an opportunity for a multiple-use trail for pedestrians and bicyclists. The City would need to work with the CA HSRA to design the crossings of the possible trail at the interchanges. At-grade crossings would not be safe, so the crossings would need to be under- or over-passes.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Construction Impacts

Construction of the HSR tracks would impact the Morgan Hill transportation system including street closures, lane closures, sidewalk closures, railroad crossing closures, and detours. The main impacts under each design option are described as follows:

Option 1 – Embankment Through Downtown

With Option 1, Monterey Road north of Cochrane Road would need to be realigned, which might result in the closure of Monterey Road during construction. Currently, only Monterey Road and US 101 run directly through Morgan Hill. US 101 is already congested during peak times under existing conditions. No widening of US 101 is planned. Table 1 shows the forecasted average daily traffic (ADT) and corresponding roadway level of service (LOS) at several locations along Monterey Road under Year 2035 General Plan conditions. Three out of eight segments along Monterey Road are projected to serve ADT equivalent to unacceptable LOS F.

Table 1
Year 2035 General Plan Conditions Monterey Road Segment Analysis

	Roadway Segment	2035 General Plan Condition	
		ADT [1]	LOS [2]
1	Monterey Road between Kirby Avneue and Tilton Avenue	30,872	F
2	Monterey Road between Peebles Avenue and Madrone Parkway	33,269	F
3	Monterey Road between Cochrane Road and Old Monterey Road	19,584	D
4	Monterey Road between Wright Avenue and El Toro Street	17,164	C
5	Monterey Road between 3rd Street and 4th Street	13,503	C
6	Monterey Road between San Pedro Avenue and Cosmo Ln	26,140	D
7	Monterey Road between Vineyard Boulevard and Watsonville Rd	26,985	D
8	Monterey Road between Starswept Ln and East Middle Avenue	29,446	F

Note:
Source: Morgan Hill 2035 General Plan Update.
1. ADT = Average two-way daily traffic.
2. LOS = Level of service based on daily volume planning thresholds. Peak hour traffic operations may be worse than shown for daily conditions.

The 2035 General Plan includes improvements to enhance north-south connectivity and relieve some of the pressure off of Monterey Road. The following improvements should be provided if Monterey Road is to be partially or completely closed during certain periods of construction.

- Extension of Hale Avenue/Santa Teresa Boulevard as a 2-lane arterial between Main Avenue and Spring Avenue.
- Extension of Murphy Avenue/Mission View Drive as a 2-lane multi-modal arterial between Half Road and Dianna Avenue.
- Realignment of DeWitt Avenue as a 2-lane arterial with Sunnyside Avenue
- Extension of Hill Road/Peet Road as a 2-lane collector between Half Road and Main Avenue.

Before any partial or complete closure of Monterey Road during construction, a detour plan should be prepared and submitted to the City for approval. The detour plan should show the proposed times of closure, the proposed detour routes, and the capacity of the detour routes to accommodate increased traffic during the times of closure.

Building underpasses on the east-west street crossings of the HSR tracks would also result in street closures. Table 2 shows the forecasted average daily traffic (ADT) and corresponding roadway level of service (LOS) on these east-west streets under Year 2035 General Plan conditions. Based on the forecasted average daily traffic on these streets under Year 2035 General Plan conditions, all of the streets would operate at LOS C or D. Therefore, it would not be possible to close more than one east-west street at a time.

Table 2
Year 2035 General Plan Conditions East-West Street Segment Analysis

	Roadway Segment	2035 General Plan Condition	
		ADT [1]	LOS [2]
1	Cochrane Road between Adams Ct and Woodview Avenue	27,597	D
2	West Main Street between Hale Avenue and Del Monte Street	6,693	C
3	East Dunne Avenue between Depot Street and Butterfield Boulevard	19,838	D
4	Tennant Avenue between Vineyard Boulevard and Railroad Avenue	17,164	C

Note:
Source: Morgan Hill 2035 General Plan Update.
1. ADT = Average two-way daily traffic.
2. LOS = Level of service based on daily volume planning thresholds. Peak hour traffic operations may be worse than shown for daily conditions.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

Option 2 – Viaduct West of US 101

With Option 2, the HSR tracks would bypass the downtown area so there would not be any construction impacts to Monterey Road or the east-west cross-streets. However, there could be construction impacts to the three US 101 freeway interchanges. Along US 101, the interchanges with Tennant Avenue, Dunne Avenue, and Cochrane Road provide access to most of the City of Morgan Hill. The level of service results under Year 2035 General Plan conditions show that the intersections at these three interchanges would operate at LOS D or better conditions (see Table 3). However, because of the importance of the interchanges for access to adjacent properties and the overall City of Morgan Hill, all three interchanges should be kept open during construction.

Table 3
Year 2035 General Plan Conditions Intersection Level of Services at US 101 Interchanges

	Roadway Segment	Peak Hour	2035 General Plan Condition	
			Delay (sec/veh)	LOS
1	US 101 SB Ramps and Dunne Avenue	AM	21.0	C
		PM	18.2	B
2	US 101 NB Ramps and Dunne Avenue	AM	12.9	B
		PM	14.7	B
3	US 101 SB Ramps and Tennant Avenue	AM	32.3	C
		PM	50.3	D
4	US 101 NB Ramps and Tennant Avenue	AM	12.9	B
		PM	11.3	B
5	US 101 SB Ramps and Cochrane Road	AM	14.4	B
		PM	21.1	C
6	US 101 NB Ramps and Cochrane Road	AM	13.6	B
		PM	13.1	B

Source: Morgan Hill 2035 General Plan Update.

Conclusions

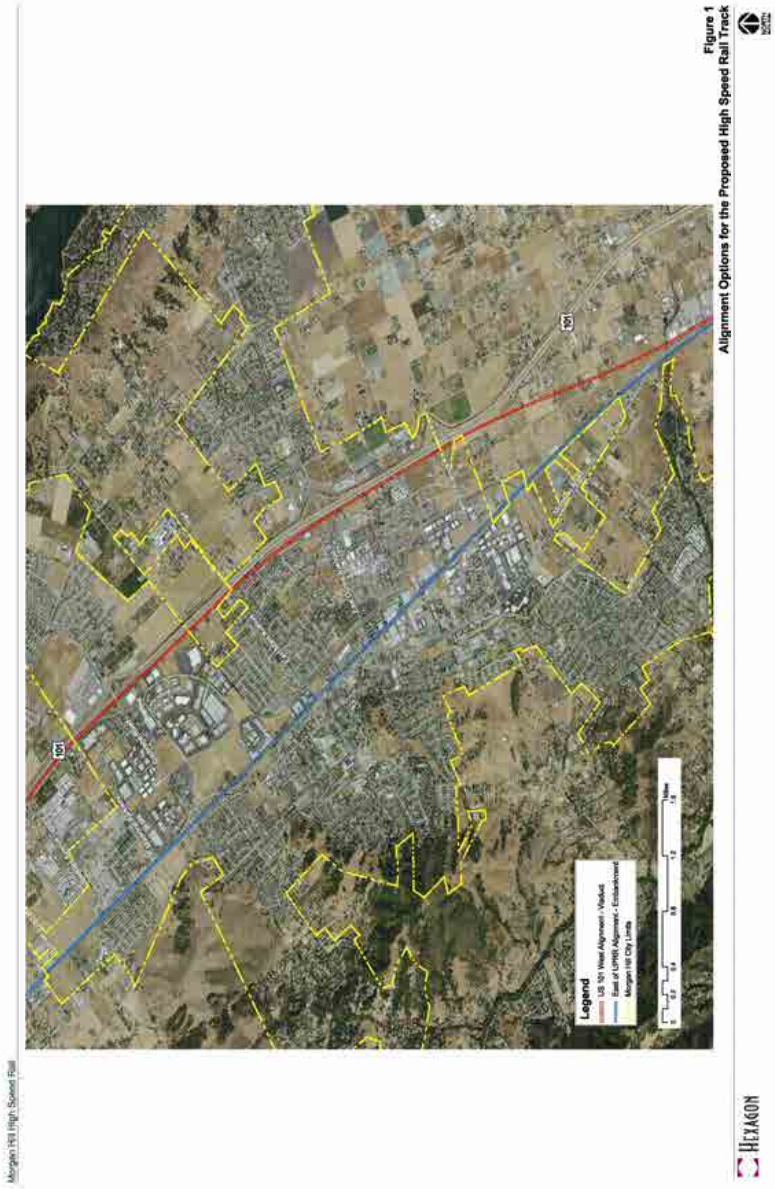
As discussed above, with the build-out or during the construction process of the HSR tracks, both proposed alignment options would have different impacts on the Morgan Hill transportation system and on the surrounding properties. Table 4 summaries these impacts of each option.

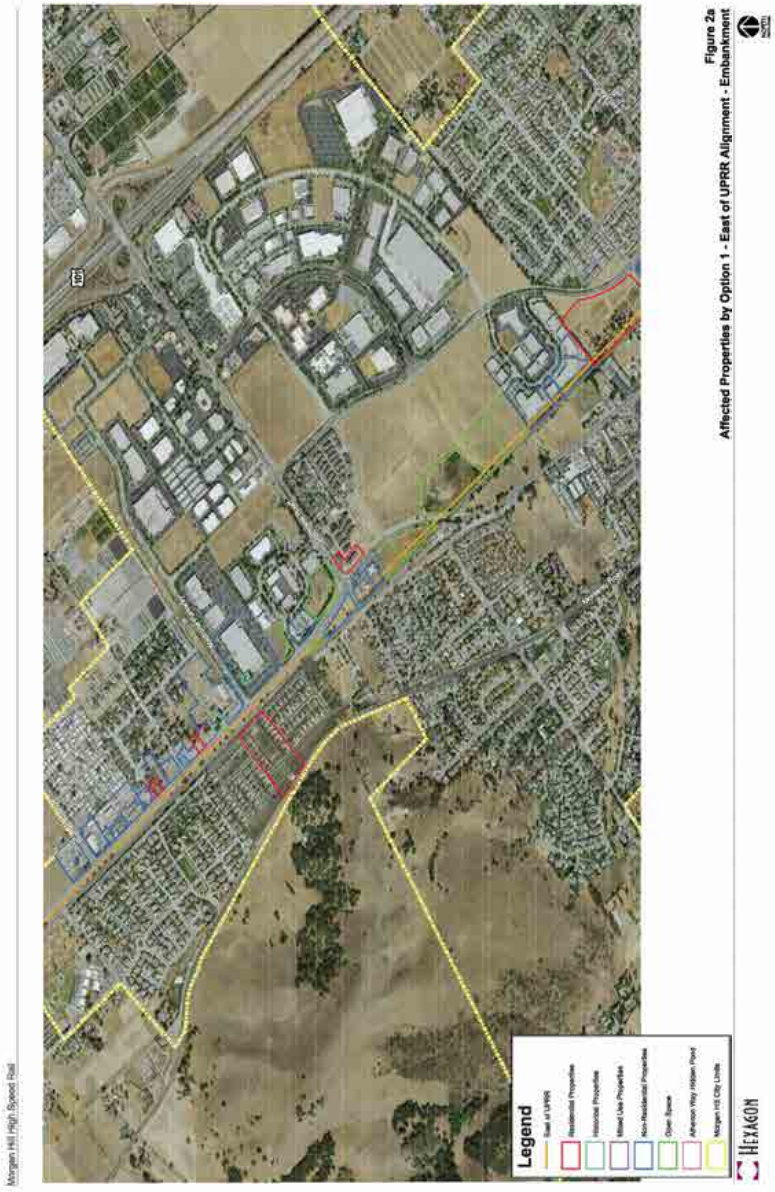
Table 4
Impacts Summary of the Proposed HSR Alignment Options

Alignment	Options	Land Use Impacts	Transporation Impacts	Construction Impacts
Option 1	(Downtown embankment)	- - - -	+ +	- - - -
Options 2	(West of US 101 viaduct)	- - -	o	- -

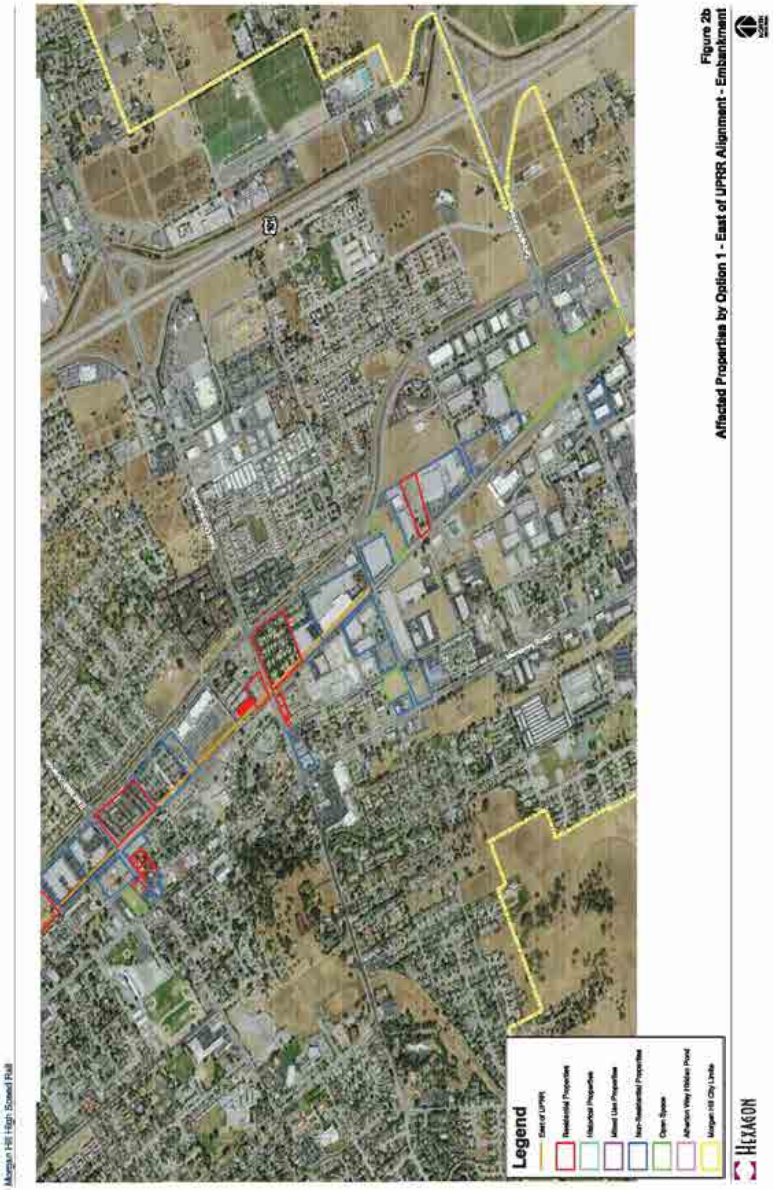
Notes:
" - " represents negative impacts
" + " represents benefits
" o " represents no impacts

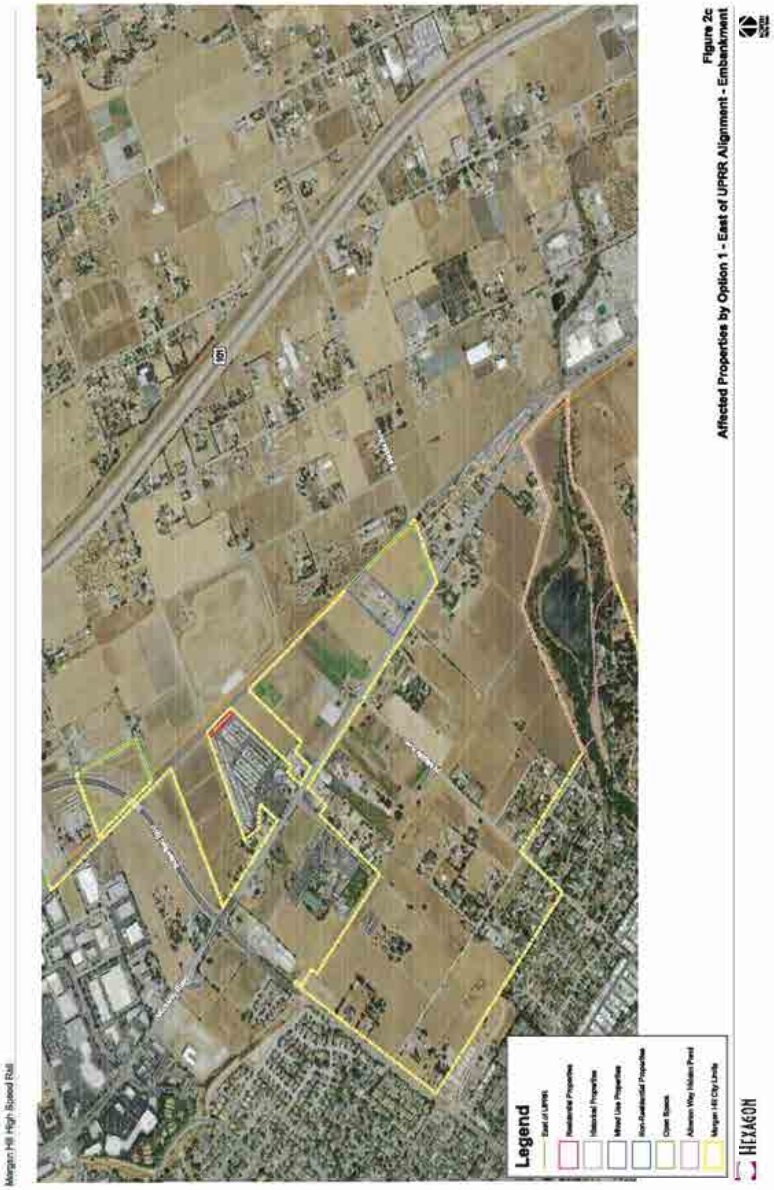
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



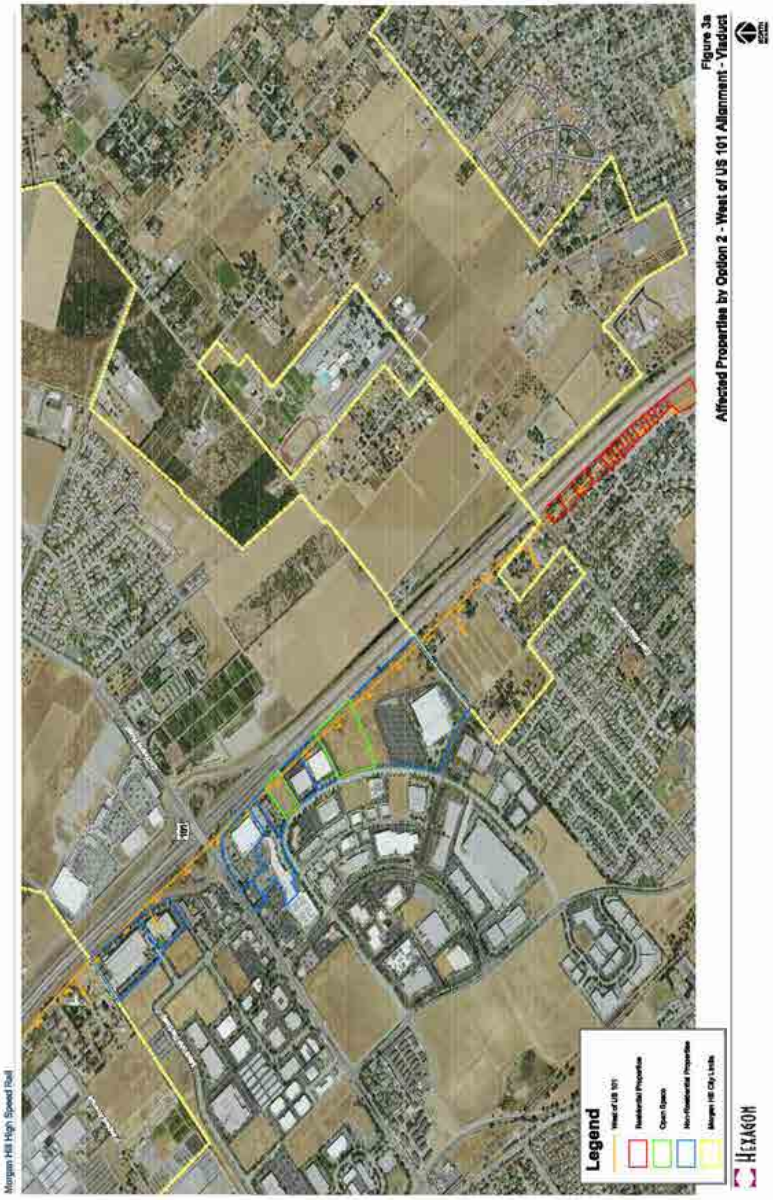


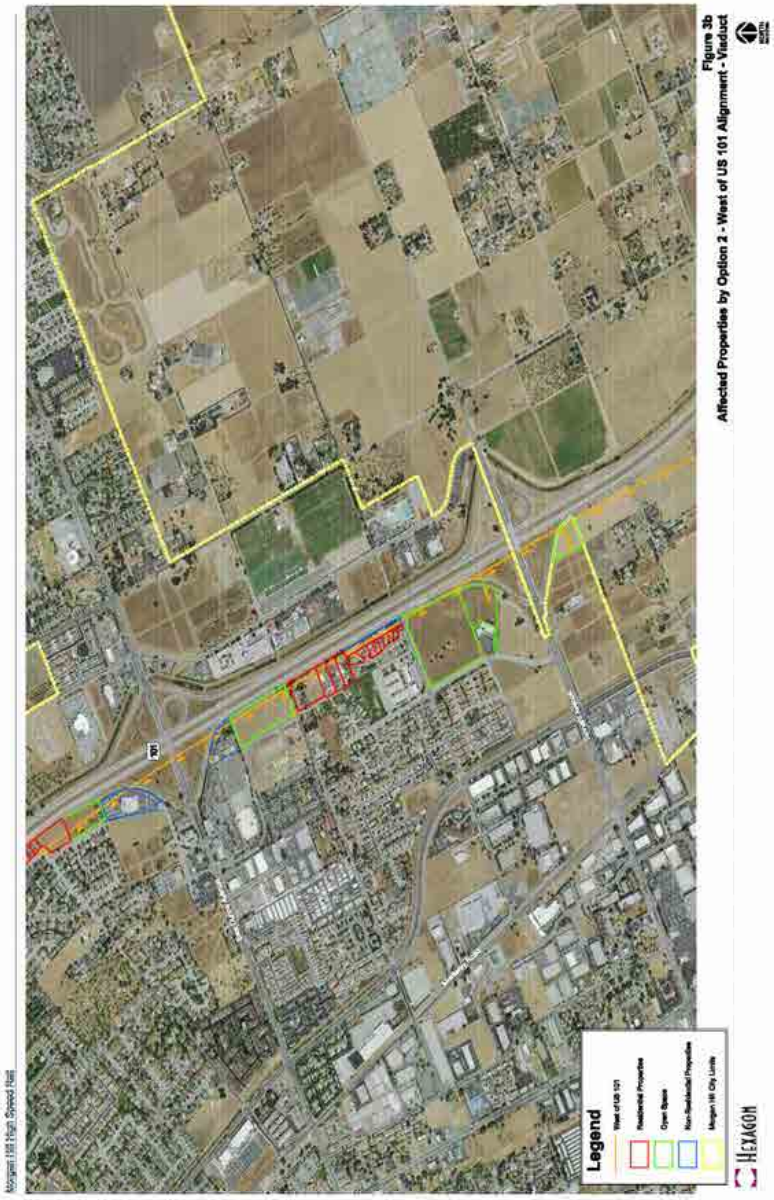
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



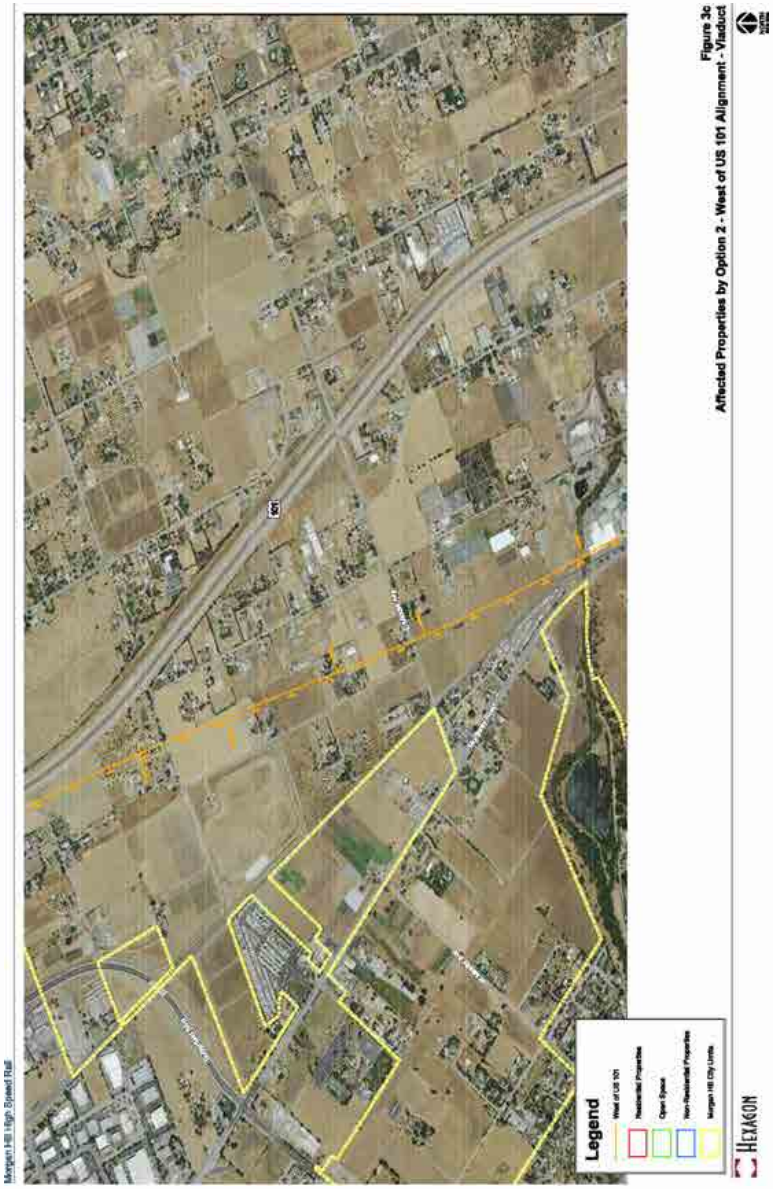


Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



Attachment E:
Noise Memo

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

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1471-2166

May 21, 2020

Pooja Nagrath
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San José, CA 95126

VIA E-Mail: apnagrath@davidjpowers.com

Subject: Review of the California High-Speed Rail Noise and Vibration Assessment for the City of Morgan Hill

Dear Ms. Nagrath:

We have completed our review of the California High Speed Rail (HSR) Draft Environmental Impact Report/Environmental Impact Statement Section 3.4 on Noise and Vibration, as it relates to the City of Morgan Hill. The documents reviewed included the overall report in Section 3.4, the Noise and Vibration Technical Report and its Appendices A, B, and C. These documents are generally thorough and follow the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) and adhere to the guidance of the Federal Railroad Administration (FRA) for HSR[1] and the Federal Transit Administration Noise and Vibration Impact Assessment Manual.[2] One challenge for the City of Morgan Hill is that given the length of the analysis from San Jose to Merced, the analysis is broken up into corridors, which include multiple jurisdictions of cities and unincorporated areas. As a result, the sections do not quite align with city limits so that additional information is needed to more precisely assess the impacts in the City of Morgan Hill. However, given the information provided, the impacts can be estimated with an indication that actual impacts in the City may be slightly more or less. Similarly, of the existing noise data identified as being in the Morgan Hill to Gilroy section, only a portion is in Morgan Hill. Properly quantifying the existing noise levels is an important aspect of the assessment as impact is defined on the basis of increases in level over the existing conditions.

[1] High-Speed Ground Transportation Noise and Vibration Impact Assessment, U.S. Department of Transportation Federal Railway Administration, Final Report DOT/FRA/ORD-12/15, September 2012.
[2] Transit Noise and Vibration Impact Assessment Manual, U.S. Department of Transportation Federal Transit Administration, FTA Report No. 0123, September 2018.

There are four proposed rail alignments considered in the assessment. Alternative 1 uses a viaduct east of downtown Morgan Hill. Alternate 2 brings the HSR through downtown Morgan Hill on an embankment parallel to the existing low speed rail line. Alternative 3 is similar to Alternative 1 in Morgan Hill. Alternative 4 is the preferred option, which brings the HSR through downtown Morgan Hill at grade in the existing railroad right-of-way.

To estimate the number of impacts in the City of Morgan Hill, the impacts due to HSR operation included in the Noise and Vibration Technical Report were used, as determined using FRA guidance. In the Table 1, the number of moderate and severe noise impacts are identified within the limits of roadways identified. Moderate impacts may or may not trigger the need for noise mitigation, as described in Section 3.4 Noise and Vibration of the EIR/EIS document, while Severe impacts do generate the need for noise mitigation. The number of impacts in both cases are included in Table 1. The impacts are also broken down by the following land use categories: Category 1 areas where quiet is an essential element to the land use; Category 2 are Residential; and Category 3 are Institutional use and passive-use parks. Vibration impacts are also identified in Table 1. From this table, the greatest number of noise and vibration impacts for the City of Morgan Hill occurs in the downtown HSR options, with the highest being for Alternative 2 due to the elevated railway on the embankment, followed by the at grade Alternative 4. In order to

Table 1: Summary of Noise and Vibrations Impacts for the City of Morgan Hill

Location		Noise				Vibration
		Moderate		Severe		
		Cat 2	Cat 1, 3	Cat 2	Cat 1, 3	
Alt 1	Burnett Ave to Tennant Ave	68 SF 2 MF 1 Hotel	0	1 SF	0	0
	Tennant Ave to California	31 SF	0	0	0	0
	Total	102	0	1	0	0
Alt 2	Palm Ave to Tilton Ave	36 SF 1 MF 1 Hotel	0	0	0	1 Vib Sen
	Tilton Ave to Tennant Ave	304 SF 131 MF 1 Hotel	3 Inst 1 Micro 1 Amp	225 SF 79 MF	0	0
	Tennant Ave to California Ave	26 SF 101 MF	0	6 SF 100 MF	0	0
	Total	563	5	410	0	1

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2166

Table 1 (cont): Summary of Noise and Vibrations Impacts for the City of Morgan Hill

Location		Noise				Vibration
		Moderate		Severe		
		Cat 2	Cat 1, 3	Cat 2	Cat 1, 3	
Alt 3	Burnett Ave to Tennant Ave	70 SF 2 MF 1 Hotel	1 SF	1 SF	0	0
	Tennant Ave to California	31 SF	0	6 SF	0	0
	Total	104	1	7	0	0
Alt 4	Palm Ave to Tilton Ave	9 SF	0	1 SF 1 MF	0	0
	Tilton Ave to Tennant Ave	224 SF 67 MF 2 Hotel	3 Inst 1 POW 1 Amp	158 SF 107 MF	0	1 SF 3 MF
	Tennant Ave to California Ave	11 SF 100 MF		17 SF 100 MF	0	11 SF 100 MF
	Total	413	5	384	0	111

Note: SF=single residences, MF=multi family residences, Inst=institutions, POW=places of Worship, Amp=amphitheaters

evaluate these impacts, the City of Morgan Hill should request the location of the impacted places along with the specific mitigation measurements that will be applied to each.

1471-2167

Another consequence of the EIR/EIS analysis being done by sections rather than by jurisdictions is the determination of the existing noise levels. The exact locations of these measurements were determined from the addresses provided and the photographs of the sites supplied in Appendix A. Eleven locations were identified as being applicable to the City of Morgan Hill. Of these, only eight are actually in the City: N101 through N108. Two are problematic for assessing the existing levels: N100 and N109. Location N100 indicated considerably higher levels than the others, 81 dBA L_{dn}, compared to the range of 68 to 73 L_{dn} for the other measurement locations. N100 is approximately 3.7 miles from the City of Morgan Hill northwest boundary. Location N109, which was southeast of the city boundary and east of US 101, indicated considerably lower levels, 57 dBA, compared to the range. From the Noise and Vibration Technical Report, it cannot be determined if these data effected the estimation of the existing levels within the City of Morgan Hill. In order to determine this, the City should request the results of existing noise level modeling done within Morgan Hill.

1471-2168

The EIR/EIS documents approach the noise and vibration assessment from a high level view, breaking up the City of Morgan Hill into two sections for Alternatives 1 and 3 and three sections for Alternatives 2 and 4. This high level view does not facilitate a more detailed analysis for the City, with regard to how effective the mitigation measures will be. For construction noise, mitigation measures are cited that are typical and can be effective for construction projects. Their effectiveness, however, will vary by location of the work and the receptors and the equipment and operations. The impact of construction noise will have to be assessed in more detail once the individual projects in the City are defined by the contractor. At this point in the project, the assessment of the Construction Noise and Vibration appears to be thorough, in terms of assessment and mitigation measurements but should be considered as significant and unavoidable for the time being until detailed, site specific construction plans and equipment operations are specified are provided and actual planned mitigation measures can be evaluated to determine if the impact is unavoidable.

1471-2169

For operational noise, the primary mitigation strategy is the use of sound walls at various locations for Alternative 2 and 4. These reduce the number of moderate impacts of Alternative 2 to zero and the number of severe impacts to 26 in Morgan Hill. For Alternative 4, the moderate impacts are also zero and with only two severe impacts. There is insufficient detail to determine if the impacts in Alternatives 2 and 4 could be lowered by increasing wall height, using absorptive facings, or more novel barrier designs. For Alternative 4, the two severe impacts are eliminated with the use of an unspecified number of quiet zones (mitigation measure NV-MM#3). The use of these quiet zones would reduce the usage of barriers that are identified in NV-MM#2), however, implementing the quiet zones would be the responsibility of the City. Under NV-MM#2 or #3, it should be noted that the feasibility and reasonableness of these barriers have only been initially evaluated and that these need to be re-evaluated in more detail before they are actually included in the project. Other possible mitigation measures involve reducing the sources of noise from the vehicles and the track, however, the impact of such reductions are not quantified. Concerns about HSR passenger stations and maintenance facilities are not applicable to the City of Morgan Hill.

1471-2170

Traffic noise would increase by 2 dB at two locations in the City for all four Alternatives by the year 2029 and would not be considered significant impacts. By 2040, one location in all of the Alternatives would be exposed to a traffic noise increase of 3 dB. This is the ¼ mile segment on Llagas Road between Hale Avenue and Old Monterey Road. This section has a posted speed limit of 35 mph, lined with subdivision walls and is one lane in each direction. Under CEQA, this would be a significant increase; however, the street has significant cracking and wear and possibly would be rehabilitated with a quieter pavement by 2040. If not, the City may want to consider requesting that this be done as part of the HSR noise mitigation.

Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2171

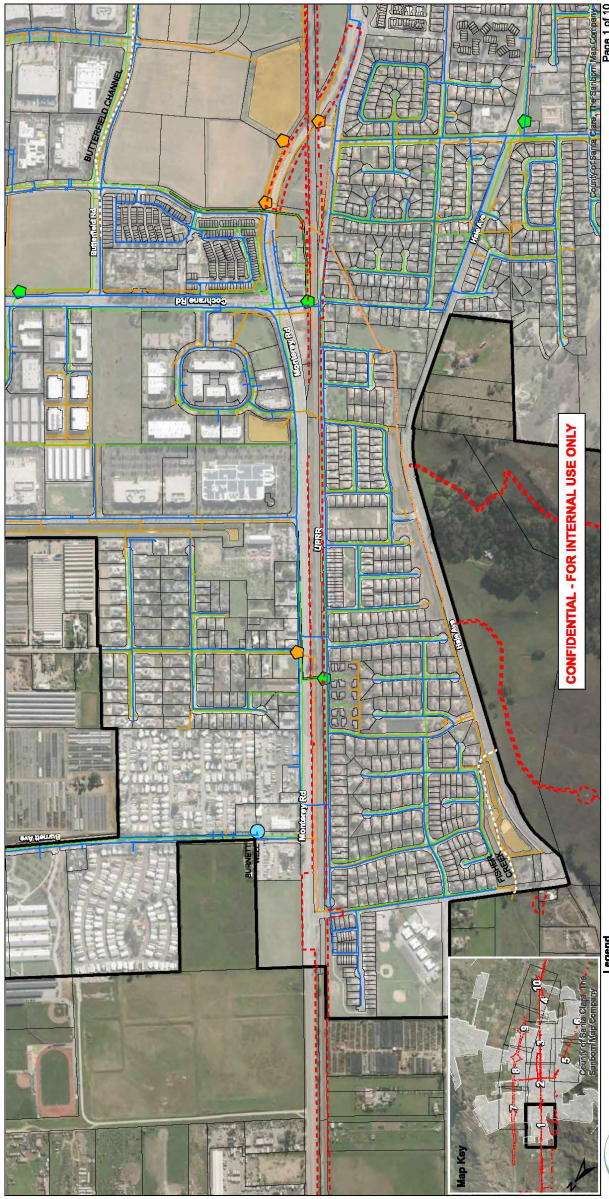
In Table 1, operational vibration impacts are noted in Alternatives 2 and 4. Mitigations are to be designed and implemented during the final design. The City of Morgan Hill should request the location of these impacts and specific mitigation would be applied. In several places in the documents, the EIR/EIS implies further analysis will be done for vibration as well as noise. The timing and extent of these evaluations should be clarified to the City.

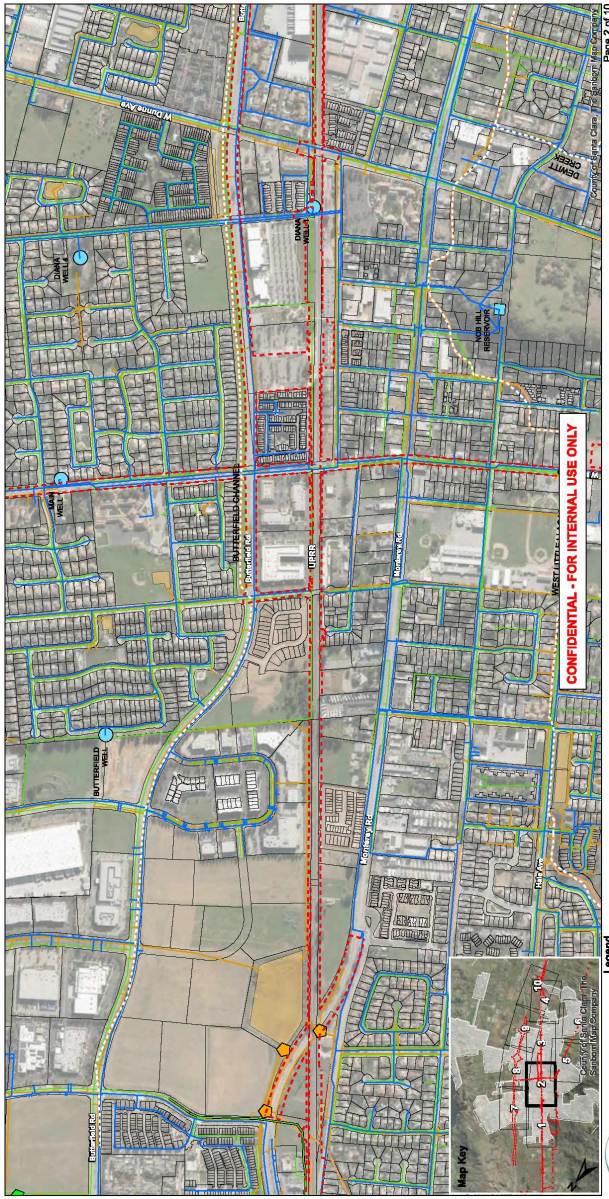
Sincerely,

Paul R. Donavan, Sc.D.
Principle, Illingworth & Rodkin, Inc.

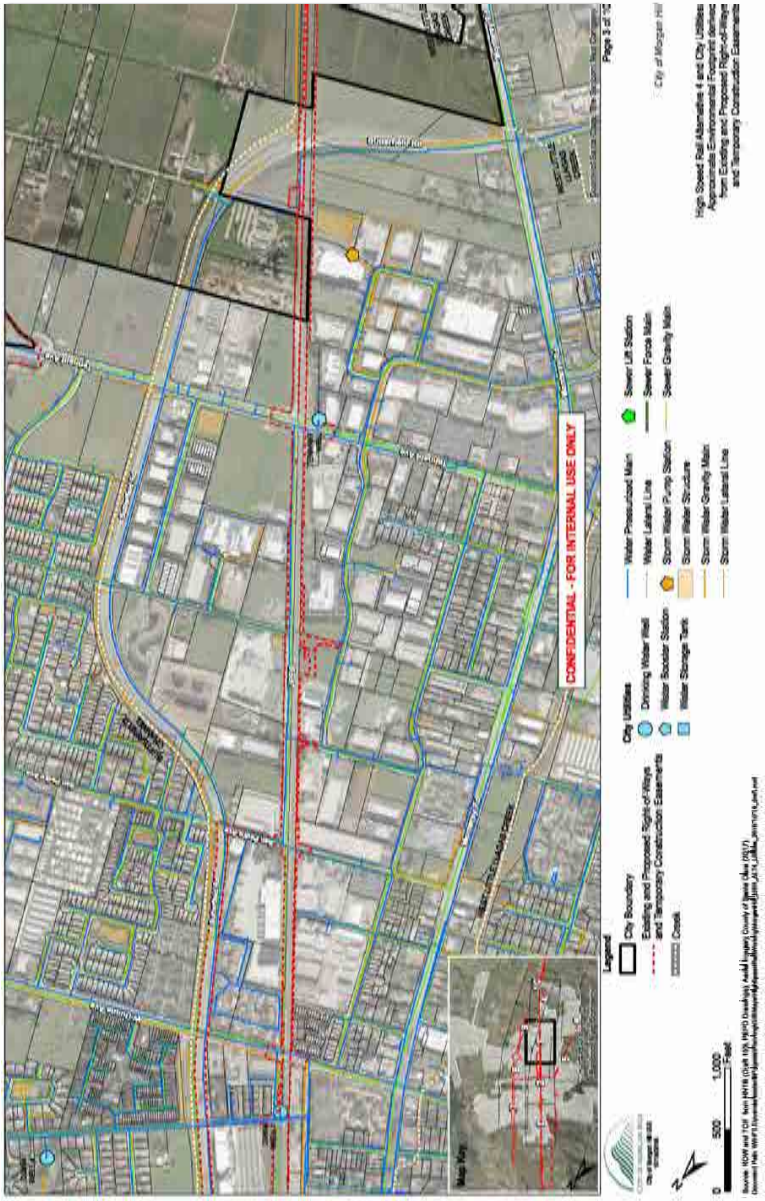
Attachment F: Mapping of City Utilities

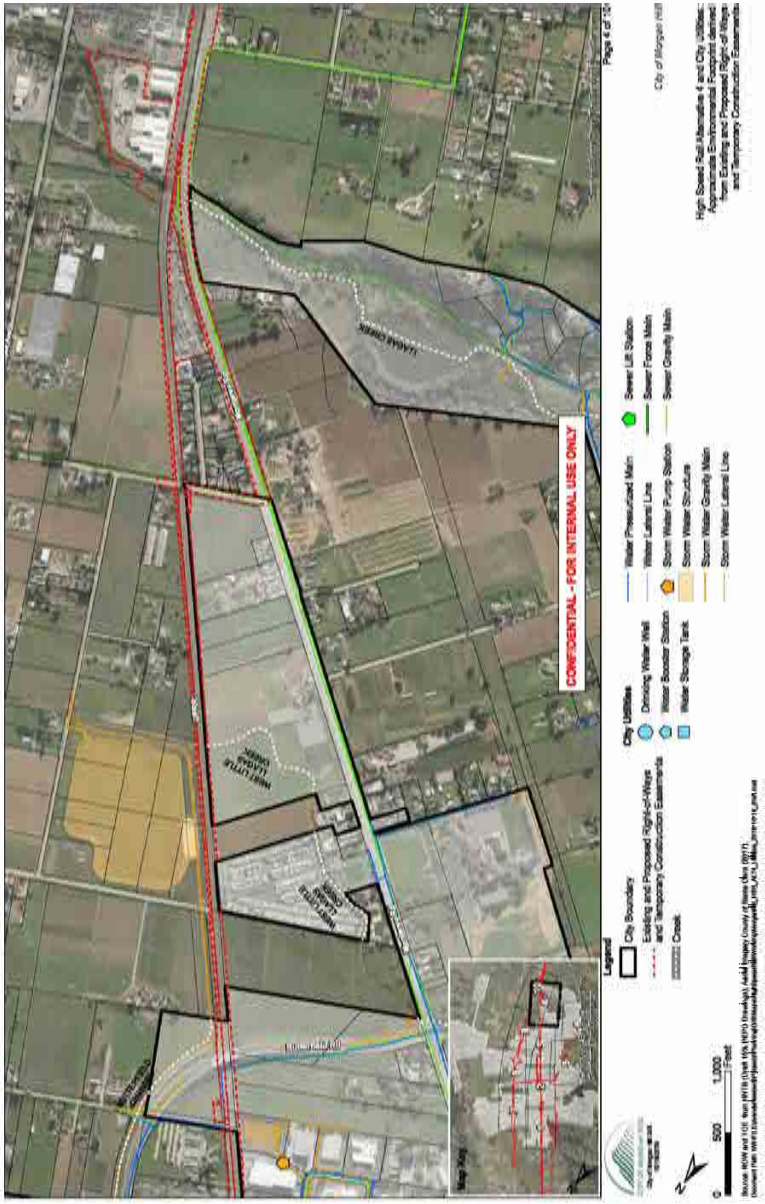
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



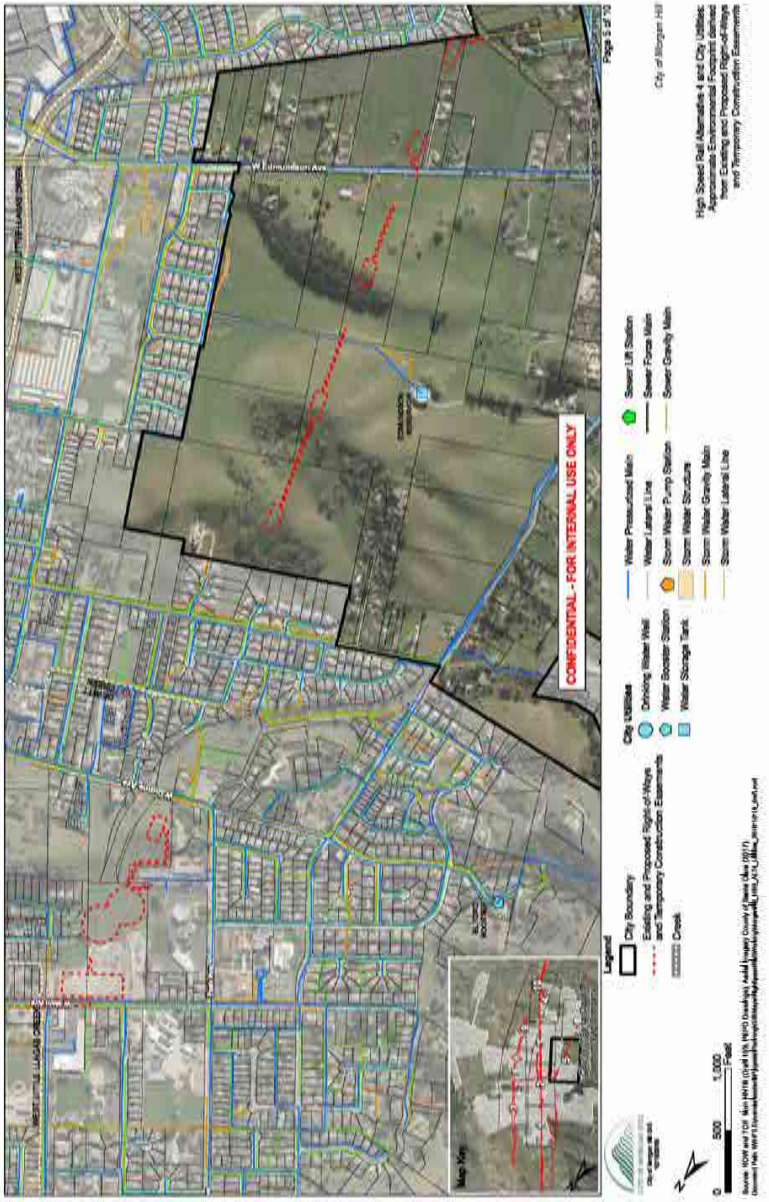


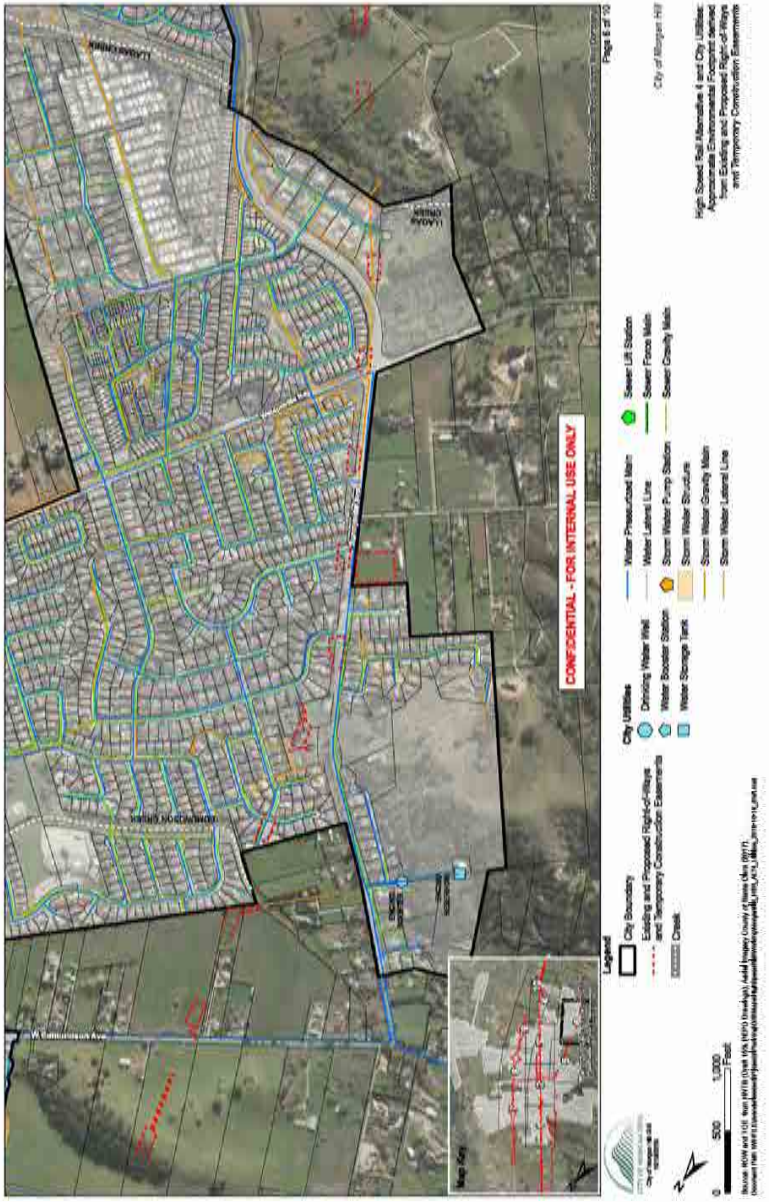
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



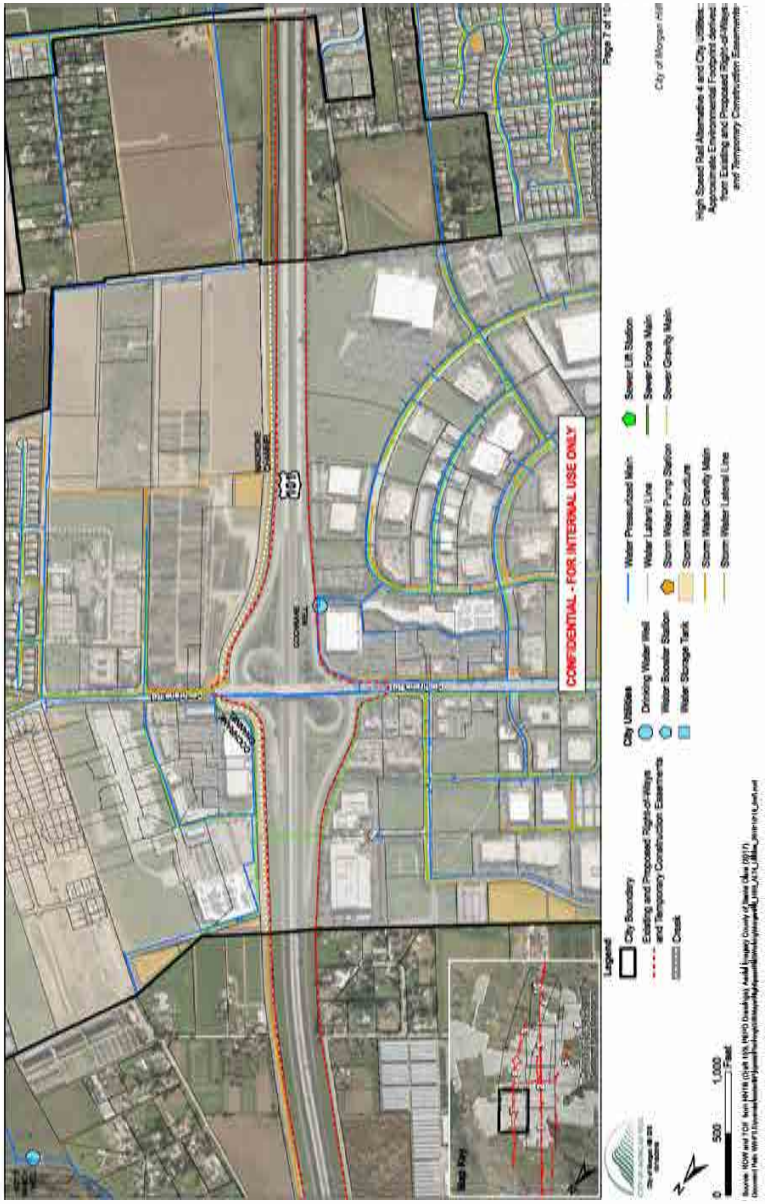


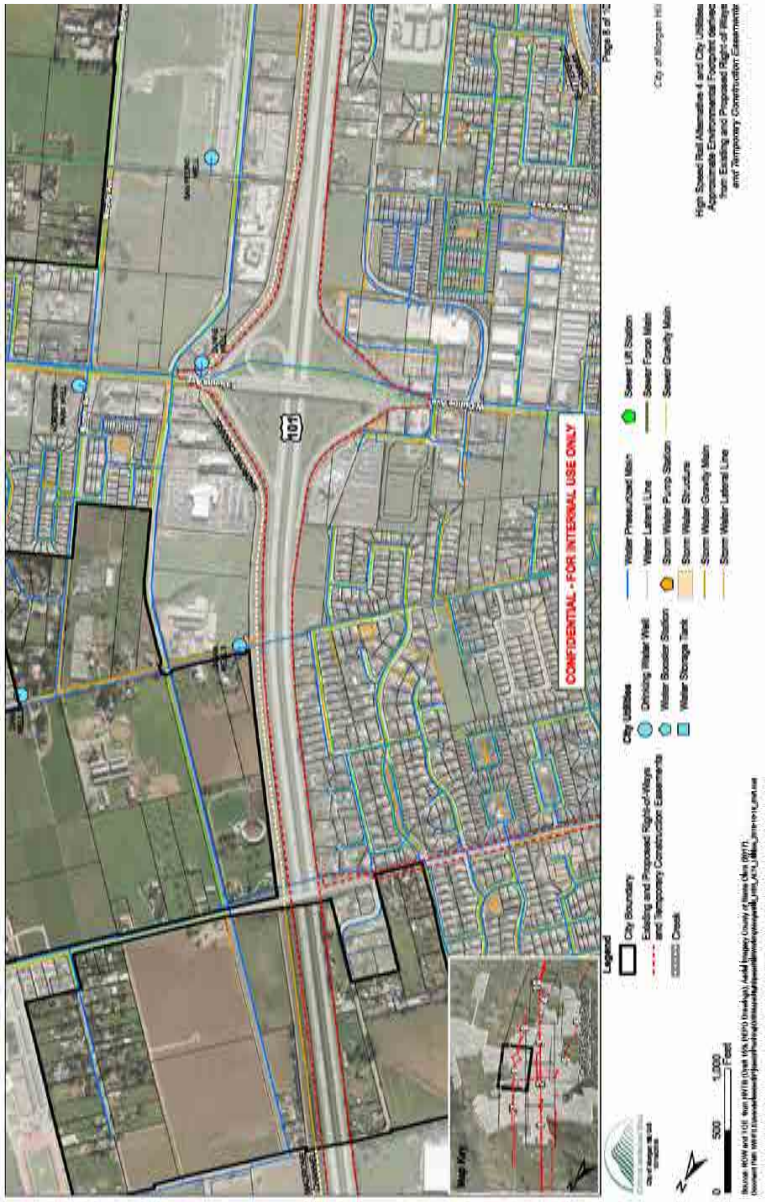
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued



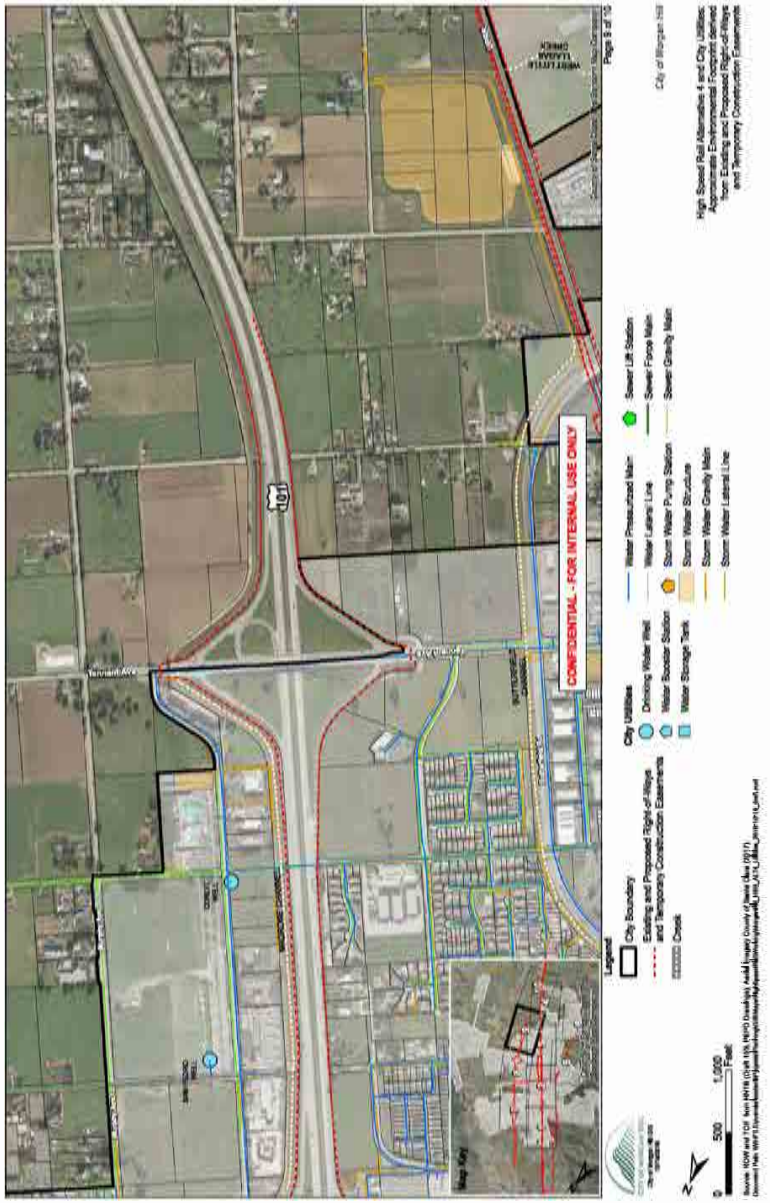


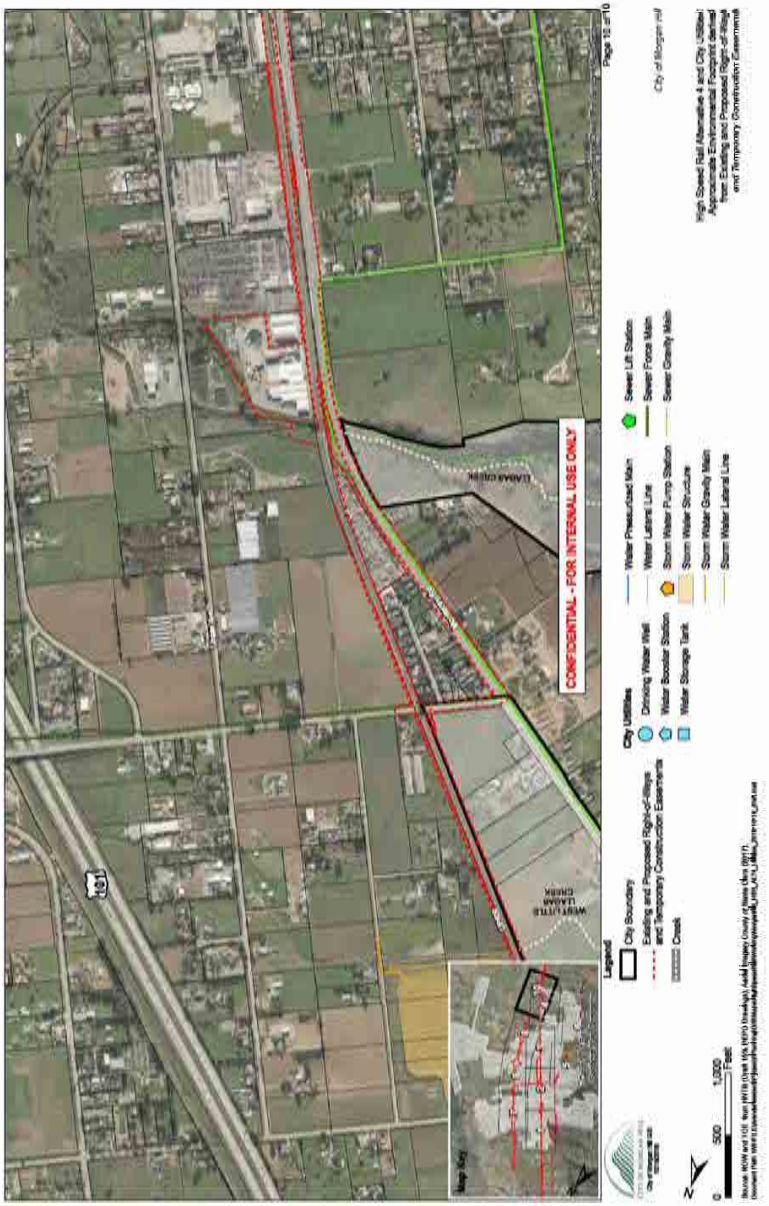
Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued





Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020)

1471-1936

Section 1.1.5, Lead Agencies, Cooperating Agencies, and Responsible Agencies, of the Draft EIR/EIS only includes agencies with discretionary authority to approve or permit aspects of the HSR project. While the City of Morgan Hill is a key local agency and would be involved in carrying out or approving certain aspects of mitigation, it is not considered a Responsible Agency in the sense of the CEQA Guidelines Section 15220 et seq. or CEQA Guidelines Section 15096.

Table 2-18 in Chapter 2, Alternatives, shows the major environmental reviews, permits, and approvals required for the project. The table identifies each agency's status as a NEPA cooperating agency or CEQA responsible agency. As a state agency, the Authority is exempt from local permit requirements; however, in order to coordinate construction activities with local jurisdictions, the Authority plans to pursue local permits as part of construction processes consistent with local ordinances. These local permits may include, but are not limited to major encroachment permits, alternatives grading and drainage permits, and major improvement permits.

1471-1937

Refer to Standard Response SJM-Response-ALT-2: Project-Specific Alternatives Considerations.

The comment's support for an alignment entirely within the US 101 right-of-way is noted. All feasible mitigation measures to reduce impacts of the project alternatives have been identified in the various resource topic sections of the Draft EIR/EIS. In accordance with CEQA, any remaining significant and unavoidable impacts have been disclosed.

1471-1938

Refer to Standard Response SJM-Response-ALT-1: Alternatives Selection and Evaluation Process.

The comment's request that the Authority select the alternative with the fewest impacts on the City of Morgan Hill is noted. All feasible mitigation measures to reduce impacts of the project alternatives have been identified in the various resource topic sections of the Draft EIR/EIS. In accordance with CEQA, any remaining significant and unavoidable impacts have been disclosed.

1471-1939

Refer to Standard Response SJM-Response-ALT-1: Alternatives Selection and Evaluation Process, SJM-Response-GEN-1: Opposition and Comments on the Merits of the Project.

This comment opposes Alternative 2.

1471-1940

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The Authority has reviewed Attachment A. The Authority will continue to work with the City of Morgan Hill through planning, design, construction, and operation of the project.

1471-1941

The comment states that the station improvements under Alternatives 2 and 4 for the downtown Caltrain station in Morgan Hill do not appear to meet the requirements of the ADA. Volume 3, Preliminary Engineering for Project Design Record, has been designed in compliance with the ADA. The comment provides a bulleted list of items that should be considered when designing HSR stations, including maximizing natural light, stair access, walkway widths, potential for elevator, centralized platform location, design features to create a sense of place, providing updated telecommunications infrastructure, and providing replacement parking. Design and construction of the selected alternative will comply with the ADA and Caltrain Design Criteria. Station design will be refined during Detailed Design Post-ROD.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1942

The Authority acknowledges the commenter's preference for Alternative 4 and the concerns raised with respect to economic impacts on the City of Morgan Hill due to acquisition of land for the HSR project and resulting displacement of land uses. Section 3.12, Socioeconomics and Communities, of the Draft EIR/EIS analyzes reductions in both property tax revenue and sales tax revenue to the City of Morgan Hill due to property acquisitions. Table 5-20 in the Draft Relocation Impacts Report (Authority 2019b, as cited in Section 3.12 of the Draft EIR/EIS) shows the estimated number of displaced residential units and estimated number of residents by geographic locations for each project alternative. The analysis in Section 3.12 quantified the loss of property tax and sales tax revenues. Impact SOCIO#15 analyzed temporary impacts on sales tax revenues, and Impact SOCIO#18 analyzed permanent impacts on property tax and sales tax revenues. The analysis concluded that loss of property and sales tax revenues would represent a very small percentage of overall revenue. Thus, the minimal reduction in revenue should not affect the City's ability to provide police, fire, and other municipal services to the community. Alternative 4 has been identified by the Authority as the Preferred Alternative.

The project alternatives evaluated in the Draft EIR/EIS and technical reports are designed to a preliminary level of engineering sufficient to identify and analyze potential environmental impacts. No specific analysis of individual community facilities or businesses was done in the Draft EIR/EIS. Ultimate relocation effects would be dependent on the final design of the project alternatives, case-by-case acquisition determinations during the land acquisition and real estate appraisal phase for the project, and relocation resources available based on market conditions at the time of land acquisition.

The gap analysis performed for the Draft Relocation Impact Report (Authority 2019b, as cited in Section 3.12 of the Draft EIR/EIS) indicated that there would likely be sufficient available residential and nonresidential properties in the RSA to accommodate displaced residents. Displaced residents would be supported in their efforts to find replacement housing in accordance with the Uniform Relocation Act, which provides benefits to displaced individuals to assist them financially and with advisory services related to relocating their residence. The Authority would develop a relocation mitigation plan (SOCIO-IAMF#3) for all displaced properties in consultation with affected cities and counties.

Morgan Hill Community and Cultural Center was identified as being within 0.5 mile of the proposed alignment of all four alternatives. The Morgan Hill Community and Cultural Center is not identified as a potential property to be acquired. Impacts on access to the Community Center would be temporary and would not represent a significant impact.

The Authority respectfully disagrees with the commenter's statement that Alternative 3 would severely affect the local Honda Dealership. During construction of Alternatives 1 or 3, the Honda Dealership would be temporarily affected by construction-related noise and vibration, changes in circulation, and changes in visual quality due to the presence of construction equipment, material storage, and earthmoving activities. However, access to the business would be maintained throughout the construction period and a noise monitoring program would be implemented as part of NV-MM#1 to limit construction-related noise. Accordingly, the Honda Dealership is anticipated to continue to operate throughout the period of construction and during project operation. Neither Alternative 1 nor Alternative 3 would require permanent acquisition of property associated with the Honda Dealership. Impact SOCIO#7 in Section 3.12 of the Draft EIR/EIS identifies the number of commercial and industrial businesses displaced by the project; Table 5-22 of the Draft Relocation Impacts Report (Authority 2019b, as cited in Section 3.12 of the Draft EIR/EIS) describes those effects.

1471-1942

1471-1943

The comment requests a complete list of roadways crossed by the project and whether they would be at-grade or grade separated. Please refer to Table 3.2-14 in Section 3.2, Transportation, of the Draft EIR/EIS for a list of all project roadway modifications by alternative. New grade-separated crossings are noted within the table. At-grade crossings to be retained are noted as being equipped with quad-gates.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1944

The comment states that the Draft EIR/EIS should evaluate the transportation-related effects of roadway closures and the resulting shifts in traffic within its technical assessments of LOS. Please refer to Impact TR#3, Impact TR#4, ImpactTR#6, and Impact TR#7 in Section 3.2, Transportation, of the Draft EIR/EIS for discussions of the impacts of roadway closures/modifications and the resulting shifts in traffic to alternative facilities. The Draft EIR/EIS evaluates the impacts associated with all proposed roadway closures and modifications, including volume shifts to adjacent streets. Regarding mitigation, please refer to revisions in the Final EIR/EIS in Section 3.2.7, Mitigation Measures, including revisions to Mitigation Measure TR-MM#1 to add site-specific mitigation measures.

1471-1945

The comment noted that the Draft EIR/EIS should provide additional information regarding what years the existing conditions LOS analysis represents. Please refer to Draft EIR/EIS Section 3.2.4.3, Methods for Impact Analysis (subsection Baseline Operations Analysis), for a discussion of the existing conditions analysis and other scenarios. For intersections within the City of Morgan Hill, traffic counts were collected in 2016, 2017, and 2018. Counts were collected during clear mid-week days when local schools were in session.

1471-1946

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill and are delineated within Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS.

1471-1947

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment asserts that the Draft EIR/EIS does not explain the basis for using a 30-second increase in emergency vehicle response time as the threshold of significance. Please refer to Draft EIR/EIS Section 3.11.4.5, Method for Determining Significance Under CEQA (specifically, footnote 9 on page 3.11-16of the Draft EIR/EIS). For the purposes of the analysis, inadequate emergency access was defined as either a substantial blockage of physical access for emergency response purposes or a substantial increase in emergency response times (defined as greater than 30 seconds). While there are local standards for emergency vehicle response time, there are no established state or federal emergency vehicle response time standards, and analysts were not able to identify specific thresholds previously used to evaluate this effect. The 30-second criterion was selected after a review of local emergency management agency standards for response times (as discussed in Section 3.11, Safety and Security, of the Draft EIR/EIS), of which the more conservative were around 5 minutes. Thirty seconds—or 10 percent of 5 minutes (300 seconds)—was considered to represent a substantial delay in emergency response time. (This threshold is also being employed within the San Francisco to San Jose Project Section Draft EIR/EIS (Authority 2020c).

1471-1948

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

1471-1949

Refer to Standard Response SJM-Response-SS-2: Emergency Vehicle Response Times.

1471-1950

Refer to Standard Response SJM-Response-TR-3: Gate-Down Time Calculation Details.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1951

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill and are delineated within Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS.

1471-1952

The comment states that the Draft EIR/EIS should note the new planned intersection at Dunne Avenue and Depot/Church Street considered in the City's 2030 General Plan. Please refer to Section 3.2.6.2, Roadways, Freeways, and Intersections (Vehicle Circulation), of the Draft EIR/EIS for a detailed discussion of NEPA effects at study intersections. The Draft EIR/EIS evaluated the intersections on Dunne Avenue at Depot Street and Church Avenue in their current configuration and significant effects were not identified at the intersections along Dunne Avenue in Morgan Hill. Additional subsequent analysis with the planned intersection at Dunne Avenue and Depot Street/Church Street per the City of Morgan Hill General Plan was prepared and no significant effects were identified. The results of this additional analysis have been added to Table 16 in Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Final EIR/EIS). The intersection was found to operate at LOS C or better under all analysis scenarios under all alternatives. Project-related significant effects at the intersections along Dunne Avenue would not occur with or without the implementation of the potential planned intersection at Dunne Avenue/Depot Street/Church Street discussed in the City's 2030 General Plan.

1471-1953

The comment does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS. Alternative 2 assumes a conservative design speed of 45 miles per hour in the sizing of grade separations in the development of the project footprint. A larger design speed provides for the identification of a conservative project footprint, thereby identifying any potential project impacts. In future phases of project design, the design speed may be lowered due to local design considerations and the context of the area's land uses.

1471-1954

The comment states that Alternative 2 as evaluated in the Draft EIR/EIS would not align with City of Morgan Hill circulation goals and would generate additional unmitigated impacts. Please refer to Table 3.2-14 in Section 3.2, Transportation, of the Draft EIR/EIS for a delineation of the roadway closures associated with Alternative 2. Please refer to Section 3.2.6.2, Roadways, Freeways, and Intersections (Vehicle Circulation), of the Draft EIR/EIS for a detailed discussion of NEPA effects at study intersections. As described by the comment, Alternative 2 would close Depot Street at Main Avenue. This closure was included and evaluated within the Draft EIR/EIS transportation analyses, and significant effects on transportation resources related to the closure were not identified.

1471-1955

The comment states that the Draft EIR/EIS should note the closure of Saint Agatha Lane under Alternative 2. The closure of Saint Agatha Lane under Alternative 2 has been added to Table 3.2.14 in Section 3.2, Transportation, of the Final EIR/EIS. This closure was evaluated within the Draft EIR/EIS' transportation assessment and no associated significant transportation effects were identified.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1956

The comment does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS. If Alternative 2 is selected, future phases of design would incorporate the future potential widening of Monterey Road as noted in the comment. This potential widening of Monterey Road is reflected in the drawings prepared for Alternative 4. Please refer to Draft EIR/EIS Volume 3, Preliminary Engineering for Project Design Record, for these drawings (specifically Drawing TT-D4015 and structure Drawing ST-T4004).

1471-1957

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include a grade separation at Dunne Avenue as mitigation for LOS and emergency vehicle response time impacts under Alternative 4. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measure TR-MM1x.6 in Section 3.2, Transportation, of the Final EIR/EIS details the proposed mitigation measure on Main Avenue in the City of Morgan Hill. Mitigation measures are not proposed at the intersection of Dunne Avenue and Monterey Road because expanding intersection capacity at-grade would require substantial displacement of adjacent building and property due to the developed nature of the location. Please refer to Mitigation MeasuresSS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Morgan Hill. These measures identify improvements other than grade separations as mitigation for emergency vehicle response time impacts.

1471-1958

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment recommended that the Draft EIR/EIS should include a grade separation at Tennant Avenue as mitigation for emergency vehicle response time impacts under Alternative 4. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Morgan Hill. These measures identify improvements other than grade separations as mitigation for emergency vehicle response time impacts.

1471-1959

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include a grade separation at the Tilton Avenue/Monterey Road intersection as mitigation for LOS impacts under Alternative 4, with the associated realignment of Burnett Avenue. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measure TR-MM#1q in Section 3.2, Transportation, of the Final EIR/EIS details the proposed mitigation measure at Tilton Avenue and Monterey Road under Alternative 4.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1960

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that Alternative 2 of the Draft EIR/EIS should include a grade separation at Tilton Avenue rather than Madrone Parkway. Please refer to ImpactTR#3 and Impact TR#4 in Section 3.2, Transportation, of the Draft EIR/EIS for a discussion of the analysis and conclusions regarding the project alternatives as proposed. Please refer to Mitigation Measure TR-MM#1 in Section 3.2 of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. The movement of the grade separation from Madrone Parkway to Tilton Avenue was not identified as a mitigation measure under Alternative 2.

1471-1961

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should consider the widening of US 101 as mitigation for project effects consistent with State of California's US 101 South Comprehensive Corridor Plan for Caltrans District 4 under Alternatives 2 and 4. Mitigation for permanent congestion/LOS effects on freeway operations could include freeway widening and the construction of express lanes, as identified in the MTC RTP (MTC 2013, as cited in Section 3.2, Transportation, of the Draft EIR/EIS). These improvements would reduce the impact on freeway operations resulting from the project. While the improvements are included in the MTC RTP, they are not part of the implementation program funded for 2040. In concept, this measure would require the project to make a fair share contribution towards mobility improvements in the affected section of the highway corridor. Widening of the freeway and adding new freeway capacity would likely result in a substantial increase in VMT. The Authority is not intending to include mitigation measures for traffic delay/congestion if they would substantially increase VMT; as such, this measure is not proposed. Please see further discussion in Appendix 3.2-C, Traffic Mitigation Measures Screening (located in Volume 2, Technical Appendices, of the Final EIR/EIS).

1471-1962

Please refer to Section 3.4, Noise and Vibration, of the Draft EIR/EIS and Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for detailed discussion regarding ambient existing noise measurements and the noise modeling approach, specifically Section 5.1.1.2 of Appendix 3.4-A. All noise-sensitive receptors for all alternatives were analyzed. The ambient noise monitoring results provided a baseline for establishing existing noise levels at sensitive receptors. Most measurement sites were adjacent to existing rail tracks, and some were adjacent to heavily traveled roadways. Analysts prepared detailed models of the existing conditions, which included existing rail operations and noise from major roadways. The existing noise model was calibrated with the noise measurement results. Through this method, accurate existing noise levels were calculated at all receptors, allowing for comparison with future predicted noise levels, which were then compared to the impact criteria.

1471-1963

Moderate noise impacts listed in Section 3.4, Noise and Vibration, of the Draft EIR/EIS are considered less than significant under CEQA. As stated in Section 3.4.4.5, Method for Determining Significance under CEQA, of the Draft EIR/EIS, only severe noise impacts are considered significant.

1471-1964

Please refer to Tables 3.4-28 through 3.4-31 in Section 3.4, Noise and Vibration, of the Draft EIR/EIS for summaries of noise impacts for the four project alternatives without mitigation, with noise barriers, and with a combination of quiet zones and noise barriers.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1965

The noise analysis prior to mitigation and without quiet zones assumes all trains would sound horns approaching at-grade crossings and passenger stations. Table 3.4-31 in Section 3.4, Noise and Vibration, of the Draft EIR/EIS summarizes noise impacts for Alternative 4 in the Morgan Hill and Gilroy Subsection without mitigation, with noise barriers, and with a combination of quiet zones and noise barriers.

A new appendix, Appendix 3.4-C, Noise Impact Locations (located in Volume 2, Technical Appendices), has been added to the Final EIR/EIS, with new figures showing the location of noise impacts in greater detail. This new appendix includes detailed maps of the 2040 Plus Project noise impacts for Alternative 4 in downtown Morgan Hill: Figures C-71 and C-72 (without mitigation), C-97 and C-98 (with only noise barriers as mitigation), and C-107 and C-108 (with a combination of quiet zones and noise barriers).

The noise impact assessment criteria depend on land use. Residences and buildings where people normally sleep utilize the Ldn noise metric. The Ldn is a 24-hour metric. As discussed in Section 4.1.1, Descriptors, of Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2 of the Draft EIR/EIS), studies have shown that the Ldn is well correlated with human annoyance for community noise. The FRA and FTA have adopted it as a measure of cumulative noise impact for residential land uses.

The noise analysis includes all trains operating in the corridor during a 24-hour period, including all daytime and nighttime HSR, Caltrain, and other passenger trains and freight trains.

1471-1966

NV-MM#4 states that the Authority would assist with the preparation of technical analysis and provide input for the Quiet Zone application, which local communities could then use as part of their application to FRA to establish quiet zones.

1471-1967

The comment is noted and does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS. The Draft EIR/EIS evaluates alternatives that include grade separations and retain at-grade crossings at crossings within the City of Morgan Hill. Please refer to Impact NV#2 in Section 3.4, Noise and Vibration, of the Draft EIR/EIS for a discussion of the impacts of train horns for those alternatives that retain at-grade crossings.

1471-1968

The Authority's noise mitigation guidelines are included in Appendix 3.4-B, Noise and Vibration Mitigation Guidelines (located in Volume 2, Technical Appendices, of the Draft EIR/EIS). These guidelines specify that barrier heights up to a maximum of 14 feet would be considered.
Table 3.4-24 in Section 3.4, Noise and Vibration, of the Draft EIR/EIS lists the heights of proposed noise barriers in the City of Morgan Hill under Alternative 2. Proposed barriers are also shown in the new Appendix 3.4-C, Noise Impact Locations (located in Volume 2 of the Final EIR/EIS); please refer to Figures C-88 and C-89 for Alternative 2 and Figures C-97 and C-98 (with noise barriers alone) and C-107 and C-108 (with noise barriers and quiet zones) for Alternative 4.

Absorptive treatments on noise barriers would not further reduce the number of noise impacts, as they would only reduce noise reflected off of the barriers to the opposite side of the tracks. Noise reflected off of nonabsorptive barriers to the opposite side of the tracks is only a concern when barriers are located very near to the tracks, which is not the case for the HSR project.

Criteria for evaluating feasibility and reasonableness of noise and vibration mitigation measures are detailed in Appendix 3.4-B, Noise and Vibration Mitigation Guidelines (located in Volume 2 of the Draft EIR/EIS), and all proposed noise and vibration mitigation has been evaluated against these criteria.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1969

Under Alternative 4, the noise barriers being proposed as mitigation in the Morgan Hill area are included in Table 3.4-26 and Figure 3.4-41 of the Draft EIR/EIS. Quiet zones are discussed as mitigation measure NV-MM#4, which would be in conjunction with NV-MM#3. HSR can only commit to noise barriers, not quiet zones. As indicated in NV-MM#4, the Authority would assist with the preparation of technical analysis and provide input for the Quiet Zone application, which the local communities could then use as part of their application to FRA.

1471-1970

Vibration impacts would be mitigated with NV-MM#8, which discusses some potential mitigation options. Further studies during the subsequent engineering phases of the project would determine specific vibration mitigation measures. The vibration analysis assumed all tracks were ballast and tie construction with concrete ties, except in tunnels where concrete slab track would be used.

1471-1971

Table 3.4-21 in Section 3.4, Noise and Vibration, of the Draft EIR/EIS provides a summary of vibration impacts, and Figures 3.4-26 and 3.4-31 show the locations in the City of Morgan Hill. Additional details regarding vibration impacts are included in Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), in Tables 5-28 through 5-31. Further studies during the subsequent engineering phases of the project would determine specific vibration mitigation measures and locations.

1471-1972

Sensitive viewers are present in approximately 5 percent% of the US 101 Landscape Unit, centered around Walnut Grove. The analysis records overall impact for the US 101Landscape Unit, which is 9.5 miles long. Following the Authority's methodology, which is based on the Federal Highway Administration's methodology as an industry standard approach to evaluating visual quality impacts of transportation projects, tThe analysis uses landscape units and viewer groups to reflect the diversity of conditions, physical and cultural, along the entire 90-mile corridor. The analysis of Alternatives 1 and 3 at KVP17, Walnut Grove, states visual quality would be reduced from moderate to low. This is weighed against the changes in visual quality to the remainder of the landscape unit to determine the overall change in visual quality to the landscape unit. The determination of significance is made for the entire landscape unit. Analyses of individual Key View Points (KVPs) are used to assess varied locations within the landscape unit.

The analysis of Alternatives 1 and 3 at KVP 17, Walnut Grove, states the visual quality would be reduced from moderate to low. This is weighed against factored in to the changes in visual quality into the remainder of the landscape unit to determine the overall change in visual quality to the landscape unit. The analysis of KVP 17 accurately states that Alternatives 12 and 34 would affect highly sensitive residential viewers and reduce the quality of the view from moderate to low. The document includedDraft EIS/EIR includes IAMFs and mitigation measures to reduce the effects to visual quality, but states “While the project features would reduce impacts, they would not replace views lost to HSR construction or obscure large-scale HSR facilities in a flat environment.”. To determine the level of significance for the landscape unit, the viewers and change in the view at KVP 17 were included in the analysis, but the analysis also considered the proportion of visual impacts at KVP 17 against the remainder of the 9.5 mile long landscape unit. The primary viewers in the landscape unit are travelers on US 101, with a moderate visual sensitivity. The determination of no significant impact for the US 101 Landscape Unit is based on the effects on the majority of viewers across the entire landscape unit.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1973

With respect to impact AVQ#8, the Draft EIR/EIS finds that the impact would be less than significant, and no mitigation is required. AVQ-IAMF#2 ensures that the Authority would work with local jurisdictions on how best to involve the community in the process; solicit input from local jurisdictions on their aesthetic preferences; evaluate aesthetic preferences for potential cost, schedule, and operational impacts and compatibility with project-wide aesthetic goals; include recommended aesthetic approaches in the construction procurement documents; and work with the contractor and local jurisdictions to review and incorporate designs and local aesthetic preferences into final design and construction. The commenter's citation to page 3.16-159 of the Draft EIR/EIS is to a generic is to text that generally acknowledges that elevated sections of the project would result in a greater visual change, which doesdiscussion and does not contradictvene the analysis of Impact AVQ#8. Please refer to the response to submission SJM-1471, comment 1972 for an explanation of the process used to determine the impacts to the US 101 Landscape Unit.

1471-1974

With respect to Impact AVQ#8, the Draft EIR/EIS finds that the impact to the US 101 Landscape Unit would be less than significant, which is the correct determination based on the effects analysis and evidence presented. As such, no mitigation is required. Please refer to the response to submission SJM-1471, comment 1972 for an explanation of the process used to determine the impacts to the US 101 Landscape Unit. Neighborhoods west of Alternatives 1 and 3 would have views of the HSR aerial structure, obscuring some distant views to the Diablo Range. AVQ-IAMF#2 ensures that the Authority would work with local jurisdictions on how best to involve the community in the process; solicit input from local jurisdictions on their aesthetic preferences; evaluate aesthetic preferences for potential cost, schedule, and operational impacts and compatibility with project-wide aesthetic goals; include recommended aesthetic approaches in the construction procurement documents; and work with the contractor and local jurisdictions to review and incorporate designs and local aesthetic preferences into final design and construction. Appendix B, provided by the commenter, will be reviewed and considered by the Authority. During design, relocation or modification of commercial signage could be considered where HSR facilities would block existing signage. As noted in Section 3.12, Socioeconomics and Communities, the project would introduce new infrastructure that would alter the visual environment for adjacent viewers. However, as noted above, the impact to the US 101 Landscape Unit would be less than significant. While views from 101 could be affected by the introduction of the viaduct, a related decrease in properties values for commercial businesses along the corridor is speculative. While project operations could result in property value reductions in some locations because of increased noise and light and glare, there is no evidence to support the conclusion that views of businesses from 101 would be blocked. The aerial structure would parallel the freeway, and it would rise to heights of more than 60 feet above grade to pass over roads and interchanges and would be taller than surrounding homes, offices, and other buildings in the area. Therefore, it is unlikely that the viaduct would block views of businesses along 101 for potential customers.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1975

With respect to Impact AVQ#9, the Draft EIR/EIS finds that the impact would be less than significant, which is the correct determination based on the effects analysis and evidence presented. The comment discusses both an individual Key Viewpoint (KVP) and the impact for the Landscape Unit. KVPs are representative views in the overall landscape unit. Please refer to the analysis of Alternative 2 at KVP19, Peebles Avenue, in the Aesthetics and Visual Quality Technical Report (Authority 2019, as cited in Section 3.16, Aesthetics and Visual Quality, of the Draft EIR/EIS), which provides the rationale underlying for the increase in visual quality at Peebles Avenue. Of the three components that are assessed, the reconstruction of Monterey Highway with associated pedestrian and landscaping improvements increased the project coherence rating, leading to the increase in overall visual quality at KVP 19. That is an assessment of one KVP view in the Landscape Unit. The overall assessment of the Morgan Hill- San Martin Landscape Unit includes both the individual KVPs and conditions throughout the entire landscape unit, including who is viewing the changes to the environment. While it may seem counterintuitive, the overall assessment of the changes to visual qualitycharacter from Alternative 2 in the landscape unit is a decrease,. But because the overall viewer sensitivity is moderate, the change in visual quality is not great enough to cause an significant impact under CEQA.

1471-1976

With respect to Impact AVQ#9, the Draft EIR/EIS finds that the impact would be less than significant, which is the correct determination based on the effects analysis and evidence presented. Design decisionsissues relating to the style and materials of embankments and landscaping would be undertaken in the detailed design phase of the project. AVQ-IAMF#2 ensures community input on the aesthetics of non-station structuresaesthetics. Furthermore, mitigation measure AVQ-MM#3 requires the incorporation of design criteria for non-station structures, such as fencing, retaining walls, and overcrossings, that can adapt to fit within the local context. The measure specifically requires the design/build contractor to prepare and submit to the Authority a technical memorandum that describes how it coordinated with local jurisdiction on the design of the non-station structures so that they fit in with the visual context of the areas near them (please refer to page 3.16-156 of the Draft EIR/EIS). Mitigation measures AVQ-MM#4 and AVQ-MM#5 detail landscaping mitigation along the HSR corridor. This mitigation would include replacement trees for any of the Keesling Trees removed by the project, as well as other flora.

1471-1977

Design decisionsissues relating to the style and materials of fencing and sound walls would be undertaken in the detailed design phase of the project, following the conclusion of the environmental process and prior to construction. All IAMFs are described in Appendix 2-E, Project Impact Avoidance and Minimization Features Analysis. AVQ-IAMF#2 ensures that the Authority would solicit input from local jurisdictions on conducting final design and preferences and how best to involve the community for input on non-station aesthetics. Furthermore, mitigation measure AVQ-MM#3 requires the incorporation of design criteria for non-station structures, such as fencing, retaining walls, and overcrossings, that can adapt to fit within the local context. AVQ-MM#7 specifically requires the design/build contractor to prepare and submit to the Authority a technical memorandum that describes how it coordinated with local jurisdiction on the design of the non-station structures so that they fit in with the visual context of the areas near them (please refer to page 3.16-156 of the Draft EIR/EIS).

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1978

The comment is noted; it and does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS.

1471-1979

With respect to Alternative 2's impact on Villa Mira Monte as a cultural resource, the Final EIR/EIS finds that the impact would be less than significant, which is the correct determination based on the effects analysis and evidence presented. Villa Mira Monte's historic setting has already experienced considerable change, such that the OCS poles would not materially impair the characteristics that qualify the resource for historic register listing. Furthermore, Chapter 4, Section 4(f)/6(f) Evaluation, specifies that additional project features will apply to Villa Mira Monte as related to potential aesthetic and noise/vibration impacts, including adoption of design standards (AVQ-IAMF#1) and design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures calling for noise barriers (NV-MM#1) and visual screening will also apply (AVQ-MM#3, AVQ-MM#4, and AVQ-MM#6).

1471-1980

With respect to Alternative 4's impact on Villa Mira Monte as a cultural resource, the Final EIR/EIS finds that the impact would be less than significant, which is the correct determination based on the effects analysis and evidence presented. Villa Mira Monte's historic setting has already experienced considerable change, such that the OCS poles would not materially impair the characteristics that qualify the resource for historic register listing. Furthermore, Chapter 4, Section 4(f)/6(f) Evaluation, specifies that additional project features will apply to Villa Mira Monte as related to potential aesthetic and noise/vibration impacts, including adoption of design standards (AVQ-IAMF#1) and design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures calling for noise barriers (NV-MM#1) and visual screening will also apply (AVQ-MM#3, AVQ-MM#4, and AVQ-MM#6).

1471-1981

With respect to all alternatives' impacts on Villa Mira Monte as a cultural resource, the Final EIR/EIS finds that the impact would be less than significant. The character-defining features of the resource are more than 200 feet from where construction activities will take place, at which distance construction-related damage to the residence would not occur. The Authority has revised Section 3.17.7.3, Historic Built Resources, under Impact CUL#5, to describe further the vibration impact thresholds used. The Authority has also revised this section to clarify that although construction would occur along the northeastern boundary of the historical resource boundary (the legal parcel containing Villa Mira Monte), it would occur over 200 feet from the residence's character-defining features. No additional measures to avoid or minimize effects are warranted, and the analysis continues to support the finding that the impact is less than significant without mitigation.

1471-1982

Please refer to the response to submission SJM-1471, comment 1981.

1471-1983

With respect to the project's impacts on Villa Mira Monte, the Final EIR/EIS finds that the historical resource impact would be less than significant, which is the correct determination based on the effects analysis and evidence presented. Related to potential indirect impacts caused by the site's lost revenues, the Authority will implement the project features and mitigation measures outlined in Chapter 4, Section 4(f)/6(f) Evaluation, involving design standards and review, noise barriers, and visual screening. As outlined in Section 3.4, Noise and Vibration, and Section 3.16, Aesthetics and Visual Quality, these measures will minimize the noise and visual impacts on Villa Mira Monte. As a result, a loss of revenue and subsequent neglect of Villa Mira Monte are not foreseeable consequences of HSR operation.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1984

As presented in Table 3.17-4, the Authority considered the historical resource boundary of the Cribari Winery as the parcel associated with APN 72636002, which contains one contributing Craftsman-style building. This is based on review of an available municipal resolution designating the Cribari Winery as a significant cultural resource in Morgan Hill. The Authority notes that the project feature referenced in the comment, CUL-IAMF#4, pertains to relocating elements of the project design to avoid impacts on historical resources, rather than relocating historical resources themselves. To address this comment, additional discussion of appropriate mitigation measures has been added to Section 3.17.10, CEQA Significance Conclusions, of the Final EIR/EIS. The Final EIR/EIS now states that CUL-MM#4 was considered but not applied to the Cribari Winery, because relocation of the resource does not appear to be feasible while also retaining the resource's historical integrity. The analysis continues to support the finding that the impact on the Cribari Winery under Alternative 2 is significant and unavoidable.

1471-1985

For total daily trains that would operate between San Jose and Gilroy in 2040, please see Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), Table 4-5 for HSR trains and Table 4-10 for non-HSR trains. Train frequency and volumes were analyzed in Noise and Vibration (Section 3.4), Safety and Security (Section 3.11), and Transportation analyses (Section 3.2) presented in the Draft EIR/EIS. The analysis of noise impacts for 2040 plus project conditions included both passenger and freight train noise.

The analysis of traffic impacts for 2040 plus project conditions was based on the worst-case gate-down time during peak hours, including both HSR and Caltrain. The emergency response analysis in Section 3.11, Safety and Security included a worst-case assumption that at-grade crossings are closed (e.g., gates are down) during an emergency response transit.

1471-1986

To address this comment, Railroad Park has been added into Section 3.15, Parks, Recreation, and Open Space, and Chapter 4, Section 4(f)/6(f) Evaluation, of the Final EIR/EIS. No permanent or temporary use would occur under any alternative. Under Alternative 4, a temporary construction easement is located 13 feet from the park. Under Alternative 2, a pedestrian underpass would be located adjacent to the western edge of the park, but it would not encroach into the park, avoiding an impact. Changes to the visual environment would be minor as additional trains and some track facilities would be visible from the park which is within an existing railroad corridor. Operation of Alternatives 2 and 4 either on embankment or at-grade in this existing transportation corridor would not introduce substantial additional sources of train noise because train sounds already occur in this area. Increased noise resulting from HSR operations would have limited effect on the protected activities of Railroad Park. Accordingly, operational visual and noise impacts would not be of a severity that the protected activities, features, or attributes of Railroad Park would be impaired under either Alternatives 2 or 4.

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1471-1987

The permanent acquisition at the Morgan Hill Community and Cultural Center under Alternative 2 would not result in the permanent loss of any parking spaces. The areas permanently affected are landscaped areas and the edges of the parking lot. Under Alternative 2, some parking spaces and access would be temporarily affected during construction because the parking spaces would be located within a TCE. With application of mitigation, this temporary impact under Alternative 2 on community and cultural center parking spaces would be less than significant under CEQA.

As discussed in Impact PK#1, temporary construction noise would be a significant impact for Alternatives 2 and 4 at Morgan Hill Community and Cultural Center because use of the amphitheater would be impaired during two construction phases (concrete pour/aerial structure and track installation) under Alternative 2 and during one phase (track installation) under Alternative 4, despite project avoidance and minimization measures that address construction noise.

Track installation and concrete pour/aerial structure activities would each last approximately 6 months in the vicinity of the community center, resulting in approximately 1 year under Alternative 2 and 6 months under Alternative 4 where use of the amphitheater at the Morgan Hill Community and Cultural Center would be diminished. While use of these facilities would not be physically prevented, construction noise would diminish the user experience during scheduled outdoor events. This impact would be reduced with implementation of mitigation measures identified in Section 3.15.9, CEQA Significance Conclusions. Section 3.15.7, Mitigation Measures, describes these measures in detail.

Because construction could occur on nights and weekends, the Authority would implement NV-MM#1 to minimize the impact of construction noise and PR-MM#6 to minimize construction noise during special events at Morgan Hill Community and Cultural Center. Accordingly, this construction noise impact would not be of a severity that the protected activities, features, or attributes that qualify the center for protection under Section 4(f) would be substantially impaired. Therefore, a Section 4(f) use would not result at the Morgan Hill Community and Cultural Center under Alternative 4 and the impacts would be de minimis under Alternative 2.

1471-1987

1471-1988

The noise assessment results indicate there would be a moderate noise impact at Villa Mira Monte. The building is approximately 275 feet away from the nearest HSR track under Alternative 4. The noise analysis includes all train operations and train horn sounding in the project section. However, there is no horn noise from trains at this location. The nearest at-grade crossing to Villa Mira Monte is more than 0.25 mile away; therefore, trains would not sound warning horns while passing this location. Ground-borne vibration from project train operations and construction would be far below the threshold of possible building damage at this distance; therefore, no additional study would be required or necessary. Refer to Table 5-26 of Appendix 3.4-A, Noise and Vibration Technical Report, of Volume 2 of the Draft EIR/EIS for buffer distances to potential construction vibration impact for various building types, including nonengineered timber buildings such as this one. Section 4.6.1.22, Villa Mira Monte (Resource #33), of the Final EIR/EIS has been revised to clarify this. No changes to the Section 4(f) use determinations are warranted.

1471-1989

The comment requests markers and signage be included with the new overpass structure to commemorate Madrone Underpass. This provision is included in CUL-MM#7 in Section 3.17, Cultural Resources, in the Draft EIR/EIS. CUL-MM#7 requires that interpretive and educational materials address the significance of the properties that would be affected by the project, including Madrone Underpass. Interpretive or educational materials could include, but are not limited to, brochures, videos, websites, study guides, teaching guides, articles or reports for general publication, commemorative plaques, or exhibits. The BETP would specify the agreed-upon method of interpretation for each property, resulting from consultation with the SHPO, MOA signatories, and concurring parties.

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1471-1990

Analysts classified this park to be an active playground as it a 0.16-acre space filled with playground equipment. It is not considered noise sensitive. Therefore, the current noise analysis does not include Sanchez Park as the FRA High-Speed Ground Transportation Noise and Vibration Impact Assessment (FRA 2012, as cited in Section 3.4, Noise and Vibration, of the Draft EIR/EIS) methodology states that only parks used for passive recreation are considered noise sensitive. Regarding train horn noise, trains would not sound horns when passing this park because the nearest at-grade crossings are more than 1 mile away. For reference, there would be 176 HSR train passbys per day, with approximately 14 per hour during peak-hour operations. While this park was not evaluated in the noise section, the three single-family residences that are between the railroad and this park were identified with a moderate noise impact. Therefore, it can reasonably be inferred that noise impacts at Sanchez Park would be similar. Moderate noise impacts would not substantially impair the activities, features, or attributes that qualify the park for protection under Section 4(f).

1471-1991

Refer to Standard Response SJM-Response-PUE-1: Major and High-Risk Utilities/Utility Infrastructure, SJM-Response-PUE-2: Coordination with Local Government Entities and Utility Owners.

The Draft EIR/EIS addresses impacts from major utility relocations in Section 3.6, Public Utilities and Energy, including within Morgan Hill. Although construction of all four project alternatives would result in planned temporary interruption of utility service, the planned disruption of utility services would be minimized through design features (IAMFs) incorporated into the project. See Impact PUE #1, Planned and Accidental Temporary Interruption of Utility Service, in Section 3.6 of the Draft EIR/EIS, which concludes that planned and accidental temporary interruption of utility service would be less than significant. Impact PUE#4, Existing Major Utilities Requiring Relocation and Removal, acknowledges potential significant impacts on the Santa Clara Valley Water District (SCVWD) Wastewater Treatment Plant (WWTP), as a result of construction of Alternatives 1 and 2; impacts pertaining to all other utility infrastructure would be less than significant under all alternatives. These impact discussions and conclusions pertain to all potential utility impacts within the City of Morgan Hill. Furthermore, relocations of essential facilities would be coordinated during detailed design post-ROD with the appropriate utility to ensure that service can be maintained during construction. Details of relocation would be refined during detailed design post-ROD and coordinated with the City as needed.

Major utilities are included in Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS. Utilities were incorporated into PEPD drawings according to TM 0.1, Preliminary Engineering for Project Definition Guidelines (Authority 2015). The Authority will show minor utilities on the design drawings as part of detailed design post-ROD. Please refer to Section 3.6.1, Introduction, for a description of the major utilities that were analyzed.

The Authority has reviewed Attachment F and identified that the Diana Well is a conflict with Alternatives 2 and 4. The Diana Well would be relocated for both Alternatives 2 and 4. Appendix 3.6-A, Public Utilities and Energy Facilities, in the Final EIR/EIS has been updated to include this relocation. Replacement of wells would occur before decommissioning existing wells, and in this case there would not be an effect on the

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1471-1991

City's water supply. The relocations have been included in the Volume 3 Errata and will be added to the drawings as part of detailed design post-ROD. The impact discussion in Impact PUE#4 has been revised in the Final EIR/EIS to acknowledge that groundwater wells and pump stations could be impacted in addition to other types of infrastructure. The CEQA conclusion for Impact PUE#4 remains significant under Alternatives 1 and 2 for impacts to the SCVWD WWTP, and less than significant under all alternatives for potential impacts to all other infrastructure within the City of Morgan Hill.

The Draft EIR/EIS addresses water use by Alternative in Section 3.6. Impact PUE#2 addresses temporary impacts from water use in relation to existing levels of use as well as projected county water surpluses.

1471-1992

The Draft EIR/EIS included Appendix 3.1-A, Parcels within the HSR Project Footprint, which shows Assessor's Parcel Numbers (APNs) of properties associated with the project footprint. The Online Open House for the San Jose to Merced Section included "Address Lookup &Interactive Online Map (Station 5)." This application allowed any member of the public the opportunity to type in an address and see the project footprint at that location for Alternative 1, 2, 3, and 4. The open house application is still available, and the HSR website contains the Draft EIR/EIS, Appendix 3.1-A, Parcels within the HSR Project Footprint, and Volume 3: Preliminary Engineering for Project Design. By using Appendix 3.1-A and these composite plans one has the ability to find a particular address.

As presented in Chapter 5 in the Final EIR/EIS, in the Morgan Hill community area, with direct mitigation, there would be the following residual disproportionately high and adverse effects to low-income populations, including in areas in Morgan Hill with a greater percentage of low-income persons than in the reference community: Aesthetics and Visual Quality (Alternatives 1, 2, and 3); Residential/Business Displacements (Alternative 2); Operational Noise/Operational Traffic (Alternative 4 would have residual effects at one intersection –Main/Monterey and 20 residual severe noise effects); Construction Bus Transit Delays (Alternative 2).

As presented in Chapter 5 in the Final EIR/EIS, in the Morgan Hill community area, the offsetting value of these project benefits relative to the residual disproportionately high and adverse effects was evaluated as follows:

• Construction Bus Transit Delays/Operational Traffic: The increased travel options, transit connectivity, and regional vehicle miles travelled with the project are considered to offset both the temporary adverse bus transit delays during construction with Alternative 2 and the operational traffic delays with Alternative 4. The long-term benefit of introducing a substantial new travel option and investment in alternatives to passenger vehicle travel is considered to offset both the temporary bus transit delays and the localized operational traffic delays.

• Business Displacements: The increased construction and operational spending and employment is considered to adequately offset the economic and employment effects of

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1992

business displacements with Alternative 2 that may not be able to relocate in the immediate vicinity.

• Aesthetics and Visual Quality/ Operational Noise: While the project would reduce adverse visual effects and noise effects associated with airport and highway expansion, this would not fully offset the adverse visual effects for Alternatives 1, 2, and 3 or the adverse noise effects with Alternative 4 in this community area.

There are no project benefits that would offset the DHAEs relative to residential displacement effects with Alternative 2 in this community area.

To address the residual effects (after direct mitigation and project benefits consideration), the Authority proposes the following community improvements as offsetting mitigation:

• Alternatives 1 and 3: The Authority would provide funding to the City of Morgan Hill to implement trail and park improvements between Cochrane Road and Tennant Road under the proposed viaduct with Alternatives 1 and 3 to improve visual aesthetics. While this measure will help improve community aesthetics, it is not considered sufficient to offset the DHAEs of the aerial viaduct with Alternatives 1 and 3 in this community area.

• Alternative 2: (1) The Authority would provide funding to the City of Morgan Hill to implement Railroad Avenue Complete Streets improvements to improve both visual aesthetics and safety for local residents relative to Alternative 2. While this measure will help improve community aesthetics, it is not considered sufficient to offset the DHAEs of theelevated embankment with Alternative 2 in this community area. (2) The Authority would provide funding to affordable housing supportive agencies and organizations to construct affordable housing at 50% of full cost of 59 new units, which corresponds to the estimated number of residential units that could not be relocated locally in Morgan Hill with Alternative 2. This measure, in addition to state and federal required relocation assistance and direct mitigation to help affected displaced residents, is considered adequate to offset the residential displacement DHAEs with Alternative 2 in this community area.

1471-1992

•Alternative 4: The Authority would install noise insulation for existing residents along the west side of US 101 in Morgan Hill between approximately 0.35 mile north of East Main Avenue to Diana Avenue and from San Pedro Avenue to Barrett Avenue where noise barriers do not already exist to reduce noise effects from existing highway traffic with Alternative 4. This measure would reduce community noise effects sufficient to offset the adverse noise effects with Alternative 4 in this community area.

The conclusion in Chapter 5 in the Final EIR/EIS is that after consideration of direct mitigation, project benefits and proposed offsetting mitigation, there would remain disproportionately high and adverse effects with Alternatives 1, 2 and 3 due to the aerial viaduct or elevated embankment. After consideration of direct mitigation, project benefits and proposed offsetting mitigation, there would be no disproportionately high and adverse effects with Alternative 4 in the Morgan Hill community area.

The Authority considered the 19 improvements suggested by the commenter and has determined that the offsetting mitigation proposed in the Final EIR/EIS would eliminate disproportionately high and adverse effects in Morgan Hill. As discussed below, the Authority proposes to implement some of the 19 improvements as offsetting mitigation measures. The Authority has stated its rationale for not including others of these community improvements as offsetting mitigation in Appendix 5C (and in this response below). The improvements suggested by the commenter that are not proposed do not have a reasonable nexus (or relationship) to residual disproportionately high and adverse effects of the project alternatives. As a result, these other improvements are not being considered.

All references to impacts discussion below in this reponse are specifically referring to the portions of Morgan Hill with a greater percentage of low-income individuals than the reference community. See Figure 5-5 in Chapter 5 of the Final EIR/EIS which shows that Morgan Hill does have areas with greater percentage of low-income persons than the reference community. See Figure 5-12 in Chapter 5 of the Final EIR/EIS which shows that Morgan Hill does not have areas with greater percentage of minority person than the reference community. Impacts outside of those defined environmental justice communities are not considered impacts to environmental justice populations.

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1471-1992

1. Multimodal intersection improvements (bicycle /pedestrian improvements, Monterey Road –East Main to East Dunne, Cochrane/Monterey, East Main/Butterfield) providing circulation, traffic and connectivity benefits:None of the alternatives have disproportionately high and adverse effects to bicycle or pedestrian facilities, circulation or connectivity. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits.

2. Pedestrian Overcrossings along new bridge at Monterey Road overpass providing circulation, traffic and connectivity benefits: None of the alternatives have disproportionately high and adverse effects to circulation or connectivity. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits.

3. Multimodal intersection improvements (bicycle / pedestrian improvements, San Pedro Ave/ Butterfield Road, Dunne Ave.) providing circulation, traffic and connectivity benefits: None of the alternatives have disproportionately high and adverse effects to circulation or connectivity. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits.

4. Safe routes to schools (especially across Monterey) providing connectivity and safety benefits: None of the alternatives have disproportionately high and adverse effects to safety or connectivity in the environmental justice communities in Morgan Hill.

5. Funding for pedestrian underpass and station access planning for Caltrain station providing connectivity benefits: None of the alternatives have disproportionately high and adverse effects to connectivity. The project includes an underpass at the Caltrain station with Alternatives 2 and 4 (and Alternatives 1 and 3 don't affect the Caltrain station). As explained in Chapter 5, the Authority does propose to fund the 30% design of a Master Plan of the Caltrain Station access as requested by the City of Morgan Hill during community improvement outreach, but the Authority is not proposing to fund any capital improvements because there is no nexus to project disproportionately high and adverse effects.

6. Bike lanes and trails (Burnett Ave., Tilton Funding Connectivity, Ave., E. Main Ave.,

1471-1992

Butterfield Blvd., recreation Monterey Road, Dunne Ave, under alignment (Alts. 1 and 3 only), Tennant Ave.) providing connectivity and recreational benefits: None of the alternatives have disproportionately high and adverse effects to connectivity or recreation in Morgan Hill. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits.

7. Complete Streets, landscaping improvements along railway corridor and adjacent: providing circulation, traffic and connectivity benefits: None of the alternatives have disproportionately high and adverse effects to circulation or connectivity. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits. However, Alternative 2 includes offsetting mitigation measure MH-OMM#2 (see Chapter 5 and Appendix 5-C) to provide complete streets along Railroad Ave. to address residual aesthetic effects.

8. Aesthetic treatments for viaduct (Alts. 1 &3) providing aesthetic benefits: This improvement is included in the potential list for Alternatives 1 and 3.

9. In-language and ADA-compliant signage providing safety benefits: None of the alternatives have disproportionately high and adverse effects to safety in the environmental justice community areas in of Morgan Hill.

10. Quiet zones (all at grade crossings) providing noise reduction benefits: Authority support for quiet zones is already included in Mitigation Measure NV-MM#4 (see Section 3.4, Noise and Vibration). As described in Section 3.4, the Authority cannot implement a Quiet Zone on its own; only a local jurisdiction is authorized to do so.

11. New High School Site Acquisition providing educational benefits: None of the alternatives have disproportionately high and adverse effects to schools or education.

12. Recycled water and internet access on Tennant Avenue providing water conservation, education and internet access benefits: None of the alternatives have disproportionately high and adverse effects to water supply, education or internet access.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-1992

13. Preferential hiring program providing economic uplift: As described in Chapter 5 and in Section 3.18, regional growth, the project would result in the creation or more jobs that would be displaced due to business displacements, so none of the alternatives have disproportionately high and adverse effects on employment.

14. Sidewalks, curbs, and gutters along Railroad Avenue providing circulation, traffic and safety benefits: None of the alternatives have disproportionately high and adverse effects to circulation or safety. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits.

15. Enhancements to affected basin on east side of tracks providing water conservation benefits: None of the alternatives have disproportionately high and adverse effects to water supply.

16. Provide pedestrian connectivity by creation of trails to fill in gaps or enhance affected trails adjacent to tracks providing circulation, traffic and safety benefits: None of the alternatives have disproportionately high and adverse effects to circulation or safety in the environmental justice communities of Morgan Hill.The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits. There are no disproportionately high and adverse effects of project alternatives on parks and recreation.

17. Sidewalk connections on Tennant just east of the tracks providing circulation, safety and traffic benefits: None of the alternatives have disproportionately high and adverse effects to circulation or safety in the environmental justice community areas of Morgan Hill. The residual traffic effects of Alternatives 2 and 4 are offset by the project's transportation benefits.

18. Purchase affected property north of the mobile home park and building out as a public park providing aesthetic benefits: None of the alternatives have disproportionately high and adverse effects to parks in Morgan Hill. Alternative 4 does not have disproportionately high and adverse effects to aesthetics. As noted above, new park and trail are proposed under the viaduct for Alternatives 1 and 3 and streetscape improvements along Railroad Avenue are proposed for Alternative 2 to address

1471-1992

aesthetic effects. This community improvement has been added for Alternative 2 since the improvement would benefit areas affected adversely by Alternative 2's aesthetics (see revisions in the Final EIR/EIS, Chapter 5 and Appendix 5-C).

19. Fix landscaping and develop park space adjacent to the trestle and fire station: providing aesthetic and safety benefits: None of the alternatives have disproportionately high and adverse effects relative to safety in the environmental justice communities of Morgan Hill. Alternative 4 does not have disproportionately high and adverse effects to aesthetics. As noted above, a new park and trail are proposed under the viaduct for Alternatives 1 and 3 and streetscape improvements along Railroad Avenue are proposed for Alternative 2 to address aesthetic effects. This community improvement has been added for Alternative 2 since the improvement would benefit areas affected adversely by Alternative 2's aesthetics (see revisions in the Final EIR/EIS, Chapter 5 and Appendix 5-C).

1471-1993

Mitigation measure AVQ-MM#1 requires the replacement of removed trees basedin compliance with on local jurisdictional requirements.

1471-1994

Design issues relating to the style and materials of fencing and soundwalls would be undertaken in the detailed design phase of the project. AVQ-IAMF#2 ensures community input on non-station aesthetics. Furthermore, mitigation measure AVQ-MM#3 requires the incorporation of design criteria for non-station structures, such as fencing, retaining walls, and overcrossings, that can adapt to fit within the local context. The measure specifically requires the design/build contractor to prepare and submit to the Authority a technical memorandum that describes how it coordinated with local jurisdictions on the design of the non-station structures so that they fit in with the visual context of the areas near them (please refer to page 3.16-156 of the Draft EIR/EIS).

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2130

The Authority would meet all ADA and access requirements for modifications to the Morgan Hill Caltrain Station.

1471-2131

The location and design of the pedestrian underpass and other station facilities will be refined during Detailed Design Post-ROD in coordination with Caltrain. Connections to existing and future developments on adjacent properties will be coordinated with the City of Morgan Hill at that time.

1471-2132

The comment states that the design should provide adequate lighting and maximize natural light to enhance security while ensuring energy efficiency. The comment also states that the length of the tunnel should be minimized. The location and design of the pedestrian underpass and other station facilities will be refined during Detailed Design Post-ROD in coordination with Caltrain. Although the Authority would implement design measures to minimize electricity consumption within its facilities (PUE-IAMF#2), selection and design of energy-efficient features would be done in coordination with Caltrain for Caltrain stations.

1471-2133

The location and design of the pedestrian underpass and other station facilities will be refined during Detailed Design Post-ROD in coordination with Caltrain. Connections to existing and future developments on adjacent properties will be coordinated with the City of Morgan Hill at that time.

1471-2134

The location and design of the pedestrian underpass and other station facilities will be refined during Detailed Design Post-ROD in coordination with Caltrain. Connections to existing and future developments on adjacent properties will be coordinated with the City of Morgan Hill at that time.

1471-2135

The location and design of the pedestrian underpass and other station facilities will be refined during Detailed Design Post-ROD in coordination with Caltrain. Connections to existing and future developments on adjacent properties will be coordinated with the City of Morgan Hill at that time.

1471-2136

The location and design of the pedestrian underpass and other station facilities will be refined during Detailed Design Post-ROD in coordination with Caltrain. Connections to existing and future developments on adjacent properties will be coordinated with the City of Morgan Hill at that time.

1471-2137

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

1471-2138

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests ADA-compliant bicycle lanes and sidewalks for the City-requested grade separation.

1471-2139

Section 3.2, Transportation, of the Final EIR/EIS discusses public access (please refer to Section 3.2.4.2, Impact Avoidance and Minimization Features, for a description of IAMFs included in the project to protect access). The Authority has endeavored to design and build the project so that it is consistent with local transportation goals. For example, the project alternatives incorporate IAMFs that include restricting construction hours and parking for construction vehicles, maintaining truck routes and access for special events during construction, maintaining bicycle and pedestrian access, protecting freight and passenger rail services, maintaining transit access, and meeting design standards and guidance for transportation facilities.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2140

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests coordination between design of Dunne Avenue and Depot Street for the City-requested grade separation

1471-2141

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests bicycle lanes, sidewalks, physical barriers for the City-requested grade separation.

1471-2142

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests a pedestrian path for the City-requested grade separation.

1471-2143

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests consideration of the Railroad Avenue and Tennant Avenue intersection for the City-requested grade separation.

1471-2144

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests ADA-compliant bicycle lanes and sidewalks for the City-requested grade separation.

1471-2145

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests driveway and building access mitigation for the City-requested grade separation.

1471-2146

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests bicycle lanes, sidewalks, and physical barriers for the City-requested grade separation.

1471-2147

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment requests consideration of the Railroad Avenue and Tennant Avenue intersection for the City-requested grade separation.

1471-2148

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment suggests that mitigation for impacts on access would be needed for the City-requested grade separation.

1471-2149

The replacement Monterey Road underpass in Alternative 4, south of Jarvis Drive would maintain existing bicycle lanes and sidewalks.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2150

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts. The comment noted that the Draft EIR/EIS should provide additional explanation for the identification of impacts at a number of intersections within the City of Morgan Hill. Please refer to Tables 12, 14, and 16 in Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume2, Technical Appendices, of the Draft EIR/EIS), for a summary of the LOS, delays, and identified effects at the intersections referenced by the comment. Changes in delays and LOS at these intersections are largely the result of roadway changes resulting in shifts in traffic patterns. Upstream and downstream modifications to Monterey Road were found to alter flows of traffic in this area, resulting in changes to intersection LOS and automobile delay. The largest shifts in traffic in the area referenced by the comment occur under Alternative 2, which substantially modifies the roadway network in the vicinity of Tilton Avenue. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the mitigation identified for the NEPA LOS effects.

1471-2151

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should provide additional explanation for the identification of impacts at a number of intersections within the City of Morgan Hill. Please refer to Tables 12, 14, and 16 in Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume2, Technical Appendices, of the Draft EIR/EIS), for a summary of the LOS, delays, and identified effects at the intersections referenced by the comment. Changes in delays and LOS at these intersections are largely the result of roadway changes resulting in shifts in traffic patterns. Upstream and downstream modifications to Monterey Road were found to alter flows of traffic in this area, resulting in changes to intersection LOS and automobile delay. The largest shifts in traffic in the area referenced by the comment occur under Alternative 2, which substantially modifies the roadway network in the vicinity of Tilton Avenue. Under Alternative 2, the intersection of Monterey Road/Tilton Avenue (M19) is eliminated, and this access is replaced by a new intersection at Madrone Parkway/Hale Avenue (also labeled as M19 within the Draft EIR/EIS). While Alternative 2 does grade separate Madrone Parkway/Monterey Road, a new "jug handle" access intersection is created just north of the new grade separation to facilitate movements between the two roadways. LOS at this new intersection are reported under M47 within the Draft EIR/EIS. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measures TR-MM#1q, TR-MM#1r, TR-MM#1s, TR-MM#1x.5, and TR-MM#1x7 in Section 3.2 of the Final EIR/EIS detail the proposed mitigation measures at Monterey Road/Tilton Avenue, Hale Avenue/Madrone Parkway, Monterey Road/Madrone Parkway, Hale Avenue/Tilton Avenue, and Railroad Avenue/Tennant Avenue.

1471-2152

Please refer to the responses to submission SJM-1471, comments 1953, 1954, 1955, and 1956.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2153

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include grade separations at Dunne Avenue and Tilton Avenue as mitigation for LOS impacts at intersections in the City of Morgan Hill. Changes in vehicle delay at the intersections referenced in the comment are due to a combination of gate-down time, roadway network modifications, traffic shifts, and increases in traffic levels, depending on the alternative and scenario being evaluated. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measures TR-MM#1q and TR-MM#1x.6 in Section 3.2 of the Final EIR/EIS detail the proposed mitigation measures at Monterey Road/Tilton Avenue and East Main Avenue/Depot Street.

1471-2154

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include a grade separation at Dunne Avenue as mitigation for LOS impacts along Main Avenue. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measure TR-MM#1x.6 in Section 3.2 of the Final EIR/EIS details the proposed mitigation measures on Main Avenue in the City of Morgan Hill. Mitigation measures are not proposed at the intersection of Dunne Avenue and Monterey Road.
Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Morgan Hill. These measures identify improvements other than a grade separation as mitigation for emergency vehicle response time impacts at this location.

1471-2155

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times.

The comment recommended that the Draft EIR/EIS should include a grade separation at Tennant Avenue as mitigation for emergency vehicle response time impacts. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Morgan Hill. These measures identify improvements other than a grade separation as mitigation for emergency vehicle response time impacts at this location.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2156

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include a grade separation at the Tilton Avenue/Monterey Road intersection as mitigation for LOS impacts, with the associated realignment of Burnett Avenue. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measures TR-MM#1q and TR-MM#1s in Section 3.2 of the Final EIR/EIS detail the proposed mitigation measures on Tilton Avenue and Madrone Parkway.

1471-2157

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment requested that the Draft EIR/EIS document impacts and proposed mitigation at all study intersections in detail. While LOS and automobile delay are no longer permitted to be used within CEQA, these assessments have been prepared and provided within the Draft EIR/EIS NEPA evaluation. Please refer to Section 3.2.6.2, Roadways, Freeways, and Intersections (Vehicle Circulation), of the Draft EIR/EIS for a detailed discussion of NEPA effects at all study intersections. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS.

1471-2158

The comment requested that the Draft EIR/EIS note the new planned intersection at Dunne Avenue and Depot/Church Street considered in the City's 2030 General Plan. Please refer to Section 3.2.6.2, Roadways, Freeways, and Intersections (Vehicle Circulation), of the Draft EIR/EIS for a detailed discussion of NEPA effects at study intersections. The Draft EIR/EIS evaluated the intersections on Dunne Avenue at Depot Street and Church Avenue in their current configuration and significant effects were not identified at the intersections along Dunne Avenue in Morgan Hill. Additional subsequent analysis with the planned intersection at Dunne Avenue and Depot Street/Church Street per the City of Morgan Hill General Plan was prepared and no significant effects were identified. The results of this additional analysis have been added to Table 16 in Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Final EIR/EIS). The intersection was found to operate at LOS C or better under all analysis scenarios under all alternatives. Project-related significant effects at the intersections along Dunne Avenue would not occur with or without the implementation of the potential planned intersection at Dunne Avenue/Depot Street/Church Street discussed in the City's 2030 General Plan.

1471-2159

The comment is noted and does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS. Alternative 2 assumes a conservative design speed of 45 miles per hour in the sizing of grade separations in the development of the project footprint. A larger design speed provides for the identification of a conservative project footprint, thereby identifying any potential project impacts. In future phases of project design, the design speed may be lowered due to local design considerations and the context of the area's land uses.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2160

The comment noted that Alternative 2 as evaluated in the Draft EIR/EIS would not align with City circulation goals and would generate additional unmitigated impacts. Please refer to Table 3.2-14 in Section 3.2, Transportation, of the Draft EIR/EIS for a delineation of the roadway closures associated with Alternative 2. Please refer to Section 3.2.6.2, Roadways, Freeways, and Intersections (Vehicle Circulation), of the Draft EIR/EIS for a detailed discussion of NEPA effects at study intersections. As noted by the comment, Alternative 2 would close Depot Street at Main Avenue. This closure was included and evaluated within the Draft EIR/EIS transportation analyses, and significant effects on transportation resources related to the closure were not identified.

1471-2161

The Authority has added additional analysis to the Draft EIR/EIS related to impacts on transportation related to the closure of Saint Agatha Lane under Alternative 2. No additional measures to avoid or minimize effects are warranted, and the analysis found no impacts related to transportation resources associated with the closure.

1471-2162

The comment is noted and does not indicate any specific concern regarding any of the conclusions in the Draft EIR/EIS. If Alternative 2 is selected, future phases of design would incorporate the future potential widening of Monterey Road as noted in the comment. This potential widening of Monterey Road is reflected in the drawings prepared for Alternative 4. Please refer to Draft EIR/EIS Volume 3, Preliminary Engineering for the Project Design Record, for these drawings (specifically Drawing TT-D4015 and structure Drawing ST-T4004).

1471-2163

The comment noted that the Draft EIR/EIS should evaluate emergency vehicle response time delays and potential project impacts along Main Avenue in the City of Morgan Hill under Alternative 4. Please refer to Impact S&S#4 in Section3.11, Safety and Security, of the Draft EIR/EIS for a discussion of the project's impacts on emergency vehicle access and response times. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11 of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Morgan Hill.

1471-2164

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The comment recommended that the Draft EIR/EIS should include a grade separation at Tennant Avenue as mitigation for emergency vehicle response time impacts under Alternative 4. Please refer to Mitigation Measures SS-MM#3 and SS-MM#4 in Section 3.11, Safety and Security, of the Final EIR/EIS for a discussion of the measures identified to mitigate the project's impacts on emergency vehicle response times within the City of Morgan Hill.
These measures identify improvements other than a grade separation as mitigation for emergency vehicle response time impacts at this location.

Response to Submission 1471 (Christina Turner, City of Morgan Hill, June 21, 2020) - Continued

1471-2165

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-2: Emergency Vehicle Response Times, SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment recommended that the Draft EIR/EIS should include a grade separation at the Tilton Avenue/Monterey Road intersection as mitigation for LOS impacts under Alternative 4. Please refer to Mitigation Measure TR-MM#1 in Section 3.2, Transportation, of the Final EIR/EIS for a discussion of the site-specific mitigation identified for the NEPA LOS effects. In response to comments, the Authority conducted further analysis and developed site-specific mitigation measures for consideration that could reduce identified adverse traffic effects identified in the EIR/EIS. The site-specific mitigation measures include improvements at locations within the City of Morgan Hill. Mitigation Measure TR-MM#1q in Section 3.2 of the Final EIR/EIS details the proposed mitigation measure at Monterey Road at Tilton Avenue.

1471-2166

Please refer to Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), Tables 5-10 through 5-14 for specific noise impacts and locations. Please refer to new Appendix 3.4-C, Noise Impact Locations (located in Volume 2 of the Final EIR/EIS), for figures showing the location of noise impacts and proposed noise barriers in greater detail.

Please refer to Tables 5-28 through 5-31 of Appendix 3.4-A for specific vibration impacts and locations. Further studies during the subsequent engineering phases of the project would determine specific vibration mitigation measures and locations.

1471-2167

Please refer to Section 3.4, Noise and Vibration, of the Draft EIR/EIS and Appendix 3.4-A, Noise and Vibration Technical Report (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for detailed discussion regarding ambient existing noise measurements and the noise modeling approach, specifically Section 5.1.1.2 of Appendix 3.4-A. All noise-sensitive receptors for all alternatives were analyzed. The ambient noise monitoring results provided a baseline for establishing existing noise levels at sensitive receptors. Most measurement sites were adjacent to existing rail tracks, and some were adjacent to heavily traveled roadways. Analysts prepared detailed models of the existing conditions, which included existing rail operations and noise from major roadways. The existing noise model was calibrated with the noise measurement results. Through this method, accurate existing noise levels were calculated at all receptors, allowing for comparison with future predicted noise levels, which were then compared to the impact criteria.

1471-2168

Construction noise and vibration impacts are significant for all project alternatives. NV-MM#1 and NV-MM#2 would be implemented during construction to reduce or avoid construction noise and vibration impacts.

1471-2169

Please refer to submission SJM-1471, comment 1968.

1471-2170

The comment is noted.
The noise impact due to traffic increases on this roadway segment due to the project is significant and unavoidable. This would be addressed through NV-MM#3 and NV-MM#7.

1471-2171

Please refer to response to submission SJM-1471, comment 1971.

Submission 1292 (John Ristow, City of San Jose, May 11, 2020)

San Jose - Merced - RECORD #1292 DETAIL

Status :	Action Pending
Record Date :	5/20/2020
Submission Date :	5/11/2020
Interest As :	Local Agency
First Name :	John
Last Name :	Ristow
Attachments :	050820 Extension of HSR EIR.pdf (131 kb)

Stakeholder Comments/Issues :

Hi Boris,

1292-46 Attached is San José's letter request for a 15-day extension of the Draft EIR comment period. Please share it with CEO Brian Kelly and Acting Chair Tom Richards as well. Let us know if there are any concerns with the extension on your side. As you and Jess discussed, the City's EIR review team was already stretched with 30+ EIRs, then COVID19, shelter-in-place, and city's emergency operations on COVID response hit us too.

City Council is also looking to have an item on HSR's Draft EIR in June. The added comment time will allow us and our Council to do a thorough review and provide well-grounded, specific, comments to help move HSR forward.

Thank you,

John Ristow
City of San Jose
Department of Transportation Director

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Transportation
JOHN RISTOW, DIRECTOR

May 8, 2020

Northern California Regional Director Boris Lipkin
California High-Speed Rail Authority
770 L Street, Suite 620
Sacramento, CA 95814

SUBJECT: Extension of San José to Merced Draft EIR Comment Period due to COVID19

Dear Director Lipkin:

Let me begin by thanking the Authority for your efforts to engage the City of San José and our residents. We appreciate the Authority's efforts to inform and prepare the community for the release of the San Jose – Merced draft Environmental Impact Report and Statement (EIR).

1292-47 With the onset of the COVID19 global pandemic, the operations for our city, residents, and businesses have been significantly affected. Given the on-going interruptions to city operations and the added diversion of city staff to COVID19 related operations we request that the comment period for the San José to Merced Draft EIR be extended from 45 days to 60 days. This extension, from June 8th to June 23rd, will give the city, residents, and stakeholders the necessary time for both the review of such a large technical document and to develop comments that best address their concerns and needs.

Sincerely,

John Ristow
Director, Department of Transportation
John.Ristow@sanjoseca.gov
408-793-6942

cc:
Dave Shpak, San Jose to Merced Project Manager, High-Speed Rail Authority
Jessica Zenk, Deputy Director of Transportation, City of San José
Brian Stanke, Rail Planning Manager, City of San José

200 E Santa Clara Street, San José, CA 95113-1905 ***tel*** (408)535-3850 ***fax*** (408)292-6090 www.sanjoseca.gov

Response to Submission 1292 (John Ristow, City of San Jose, May 11, 2020)

1292-46

Refer to Standard Response SJM-Response-OUT-1: Public Outreach.

1292-47

Refer to Standard Response SJM-Response-OUT-1: Public Outreach.