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Section 1.0 Introduction

This document, together with the Draft Environmental Impact Report (Draft EIR), constitutes the Final Environmental Impact Report (Final EIR) for the Morgan Hill Devco Residential Project.

1.1 Purpose of the Final EIR

In conformance with the California Environmental Quality Act (CEQA) and CEQA Guidelines, this Final EIR provides objective information regarding the environmental consequences of the proposed project. The Final EIR also examines mitigation measures and alternatives to the project intended to reduce or eliminate significant environmental impacts. The Final EIR is intended to be used by the City of Morgan Hill (City) and any Responsible Agencies in making decisions regarding the project. Pursuant to CEQA Guidelines Section 15090(a), prior to approving a project, the lead agency shall certify that:

(1) The Final EIR has been completed in compliance with CEQA;
(2) The Final EIR was presented to the decision-making body of the lead agency, and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and
(3) The Final EIR reflects the lead agency's independent judgment and analysis.

1.2 Contents of the Final EIR

CEQA Guidelines Section 15132 specify that the Final EIR shall consist of:

a) The Draft EIR or a revision of the Draft;
b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
c) A list of persons, organizations, and public agencies commenting on the Draft EIR;
d) The Lead Agency's responses to significant environmental points raised in the review and consultation process; and
e) Any other information added by the Lead Agency.

1.3 Public Review

In accordance with CEQA and the CEQA Guidelines (Public Resources Code Section 21092.5[a] and CEQA Guidelines Section 15088[b]), the City shall provide a written response to a public agency on comments made by that public agency at least 10 days prior to certifying the EIR. The Final EIR and all documents referenced in the Final EIR are available for public review at the City of Morgan Hill, Community Development Department on weekdays during normal business hours. The Final EIR is also available for review on the City's website: https://www.morganhill.ca.gov/2041/New-Horizons-Hill-Morgan-Hill-Devco-LLC.

Section 2.0 Draft EIR Public Review Summary

The Draft EIR for the Morgan Hill Devco Residential Project, dated November 2023, was circulated to affected public agencies and interested parties for a 61-day review period from November 3, 2023 through January 3, 2024. The City undertook the following actions to inform the public of the availability of the Draft EIR:

- A Notice of Availability (NOA) of Draft EIR was published on the City's website (https://www.morganhill.ca.gov/2041/New-Horizons-Hill-Morgan-Hill-Devco-LLC);
- Notification of the availability of the Draft EIR was mailed to project-area residents and other members of the public who had indicated interest in the project;
- The Draft EIR was delivered to the State Clearinghouse on November 3, 2023, as well as sent to various governmental agencies, organizations, businesses, and individuals (see Section 3.0 for a list of agencies, organizations, businesses, and individuals that received the Draft EIR); and
- Copies of the Draft EIR were made available on the City's website (https://www.morganhill.ca.gov/2041/New-Horizons-Hill-Morgan-Hill-Devco-LLC), City Hall, Public Library, and City Council Chambers.

Section 3.0 Draft EIR Recipients

CEQA Guidelines Section 15086 requires that a local lead agency consult with and request comments on the Draft EIR prepared for a project of this type from responsible agencies (government agencies that must approve or permit some aspect of the project), trustee agencies for resources affected by the project, adjacent cities and counties, and transportation planning agencies.

The NOA for the Draft EIR was sent to owners and occupants adjacent to the project site and to adjacent jurisdictions. The following agencies received a copy of the Draft EIR from the City or via the State Clearinghouse:

- Association of Bay Area Governments/Metropolitan Transportation Commission
- Bay Area Air Quality Management District
- California Air Resources Board
- California Department of Fish and Wildlife, Bay Delta Region 3
- California Department of Forestry and Fire Protection
- California Department of Transportation, District 4
- California Regional Water Quality Control Board, Central Coast Region 3 (RWQCB)
- City of Gilroy
- City of San José
- County of Santa Clara
- Santa Clara Valley Water District
- Santa Clara Valley Transportation Authority
- Morgan Hill Unified School District
- Santa Clara County Roads & Airports, Planning Division
- Native America Heritage Commission
- PG&E Review Team
- City of Los Banos
- Santa Clara Valley Audubon Society
- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Indian Canyon Mutsum Band of Costanoan
- Muwekma Ohlone Indian Tribe of San Francisco Bay Area
- North Valley Yokuts Tribe
- The Ohlone Indian Tribe

- Rumsen Am:a Tur:ataj Ohlone
- Tamien Nation
- Tribal Cultural Resources Office

Section 4.0 Responses to Draft EIR Comments

In accordance with CEQA Guidelines Section 15088, this document includes written responses to comments received by the City of Morgan Hill on the Draft EIR.

Comments are organized under headings containing the source of the letter and its date. The specific comments from each of the letters and/or emails are presented with each response to that specific comment directly following. Copies of the letters and emails received by the City of Morgan Hill are included in their entirety in Appendix A of this document. Comments received on the Draft EIR are listed below.

Comment Letter and Commenter **Page of Response**

Master Responses

The Santa Clara Valley Water District (Valley Water) provided substantial comments on the Draft EIR, which are presented below under Comment Letter C. Many of these comments were highly technical involving modeling assumptions and methodologies used in the Drainage Report that was included as Appendix H of the Draft EIR, prepared by the consulting civil engineering firm Schaaf & Wheeler, Inc. (S&W). The detailed comments by Valley Water required similarly detailed, technical responses, which were prepared in consultation with S&W, and are attached as Appendix E to this Final EIR. Since many of the comments within the Valley Water letter raised the same concerns and questions, more general master responses that would be useful to the decision-makers and general public have been prepared in order to provide comprehensive answers in one location and avoid redundancy throughout the individual responses. Cross-references to master responses are made, when appropriate, in individual responses.

Master Response 1: Permitting and Regulatory Compliance – Valley Water requested the EIR clearly disclose that Valley Water and the U.S. Bureau of Reclamation (Bureau) own and operate a federal water line within the Bureau easement on the site. As such, Valley Water and the Bureau must review any improvements or utility connections that require excavation, impede or interfere with Valley Water or Bureau access, or encroach onto the Bureau easement. Pages 12 and 13 of the Draft EIR have been updated with a clarification that approval will be needed from the Bureau and/or Valley Water for improvements that require excavation, interfere with agency access to the federal water pipeline, or encroach into the easement. Refer to Section 5.0 Draft EIR Text Revisions.

Master Response 2: Primary Source of Water – The project applicant initially proposed to use the existing well closest to Tennant Creek (near proposed Lot 256, as shown on the tentative map) as the primary source of water for filling the pond, with the Bureau water line as a secondary source. However, the City will not allow the project to use water from either of the on-site wells because of the potential for cross contamination to occur from the well's proximity to a public system and because of the City's Water Conservation Ordinance. The text on page 11 of the Draft EIR has been revised to clarify that none of the wells on-site will be used as a water source for the project, and that the only water source for the project will be the City's water system. Additionally, pages 11 and 219 of the Draft EIR have been revised to delete statements about the project connecting to the federal pipeline. These revisions are reflected in Section 5.0 Draft EIR Text Revisions and would not result in a change to the projected water demand because the Draft EIR's calculations conservatively included non-potable water in the total water demand. The use of potable water for the recreational pond would not be compliant with the City's Water Conservation Ordinance. The typical demand for a single-family residence in Morgan Hill is 393gpd per the City's WSMP[1]. The pond's estimated 255 gpd would be less than the typical demand for a single-family residence in Morgan Hill; however, that water is meant to be used for a home, and to utilize that water instead for a non-public water amenity would not be consistent with the Water Conservation Ordinance.

Master Response 3: On-Site Drainage and Detention Basin – At the time the original Drainage Report was prepared by S&W (Appendix H in the Draft EIR), the plans and details of the storm drain

system installed for Tract 8481 were not available. Upon circulation of the Draft EIR, Valley Water provided records for the project area that show that the 36-inch storm drain reduces to a 21-inch pipe which increases in size to a 24-inch then 27-inch pipe, which discharges into the detention basin on-site. The detention basin was originally designed in 1993 to serve runoff from new development in Tract 8481 for a range of storm events up to a 100-year storm. The Drainage Report has been updated to account for the 21-, 24-, and 27-inch storm drain pipes and associated detention basin under existing conditions.

Per the revised Drainage Report, the project would remove the existing detention basin and construct a new, larger detention basin which would adequately mitigate the two-year through 100-year events, would limit post-project runoff to pre project levels at Tennant Creek, and would not induce flooding on neighboring or downstream properties. The proposed project conditions (including new, larger detention basin) were sized in order to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation implemented to handle runoff resulting from development in Tract 8481, and the impacts due to increased runoff from additional impervious surfaces from the project for storm events ranging from two-year up to the 100-year recurrence period.

The Revised Drainage Report is attached to this Final EIR as Appendix C, and replaces Appendix H in the Draft EIR. As discussed in detail in Final EIR Appendix C, the updated stormwater modeling supports the EIR's determination that drainage patterns under project conditions are not substantially altered from existing conditions. See also Final EIR Appendix E for additional technical responses from S&W to Valley Water.

Valley Water's comments raise concerns that the existing detention basin needs to be re-modeled. To ensure Valley Water's comments are addressed appropriately at the proper stage of entitlements, additional modeling will be completed prior to issuance of the Planning Division Design and Tentative Map Permit to account for the existing detention basin and its effects on downstream flow rate. Text has been added explaining this, along with a measure requiring completion of the hydraulic study to be documented as part of future permitting, to page 141 of the EIR. See Section 5.0 Text Revisions.

Master Response 4: Floodway and Flood Hazards – The revised Drainage Report (Final EIR Appendix C) accounts for realignment and widening of the Tennant Creek channel, the proposed storm drain improvements along Barrett Avenue, and concludes project impacts to the 100-year water surface elevation would be less than significant. The report also follows Valley Water's Drainage Manual criteria for estimating peak runoff hydrographs in assessing drainage impacts and mitigation.

As noted in Master Response 3 above, the proposed detention basin sizing was assessed for storm events ranging from two-year up to the 100-year recurrence period. The revised Drainage Study shows the 100-year water surface would be contained in the Tennant Creek channel. The project applicant will submit a Letter of Map Revision (LOMR) to FEMA to capture changes to the Tennant Creek channel and floodway. The LOMR would demonstrate through the revised modeling, new

base flood elevations (BFEs), new floodway encroachments, and tie-in with the effective model as required by FEMA, that the increased project runoff along with pre-existing runoff from Tract 8481 would be effectively detained and not result significant impacts to downstream properties. See also Appendix E for additional technical responses from S&W.

Federal and State Agencies

A. California Department of Transportation (dated January 3, 2024)

Comment A.1: Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Morgan Hill Devco Residential project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system.

The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities. The following comments are based on our review of the November 2023 DEIR.

Project Understanding

The proposed project would involve the development of 320 residential lots with areas for private open space and public open space. The project location is near State Route (SR)-101. The project would involve off site improvements to several local streets.

> **Response A.1:** The comment summarizes the project and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment A.2: Travel Demand Analysis

With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Vehicle Miles Traveled (VMT) analysis for land use projects, please review Caltrans' Transportation Impact Study Guide (*link*).

The project's VMT analysis and significance determination are undertaken in a manner consistent with the Office of Planning and Research's (OPR) Technical Advisory. Per the DEIR, this project is found to have a significant VMT impact.

Using Caltrans' Smart Mobility Framework Guide 2020 (*link*), the proposed project site is identified as a Suburban where community design and regional accessibility are weak. Given the place, type and size of the project, a robust Transportation Demand Management (TDM) plan should be developed to reduce VMT and greenhouse gas emissions from future development in this area. Please consider the following measures to mitigate the project's impact to VMT:

- Increased location efficiency
- Increased mixed-use development
- Increased transit accessibility
- Integration of affordable housing
- Pedestrian and bicycle network improvements
- Bus rapid transit
- Discounted transit programs
- Increase transit service frequency
- Provide local shuttles to increase transit outreach

The TDM plan should also be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take to achieve those targets.

Response A.2: As discussed in Section 8.5 Selection of Alternatives, a Location Alternative was considered but rejected because the project proposes development of a site controlled by the applicant of approximately 69 acres, and it is not expected that the applicant could acquire and develop a similar size site elsewhere in Morgan Hill that would be situated near transit or that would otherwise allow for substantially reduced VMT compared to the proposed project. Therefore, increased location efficiency through selection of an alternative location is not a infeasible alternative for this private development.

Pedestrian and bicycle network improvements are included on pages 192 and 193 of the Draft EIR. As described in the Draft EIR, the project would install controlled crossings at the intersection of Hill Road and Dunne Avenue that would improve pedestrian safety and install new sidewalks along the project site that would promote connectivity. Additionally, the Draft EIR identifies improvements along the project frontage at Hill Road and Barrett Avenue to accommodate the implementation of new bike lanes as planned in the Bikeways Master Plan.

Regarding transit accessibility, bus rapid transit, discounted transit programs, increased transit service frequency, and local shuttles, these items were deemed infeasible during preparation of the Draft EIR. As noted on page 193 of the Draft EIR, the nearest bus stop to the project site is located 1.5 miles away, and no bus routes exist that provide direct service between the project site and other pedestrian destinations in Morgan Hill. Due to the site's lack of transit access, the City deemed that discounted transit programs would be infeasible for the proposed project. The City does not currently have a bus rapid transit system; as such, the inclusion of bus rapid transit as part of the project would not be feasible. While the Draft EIR does not include a measure requiring the project to provide local shuttles for future project residents, mitigation measure MM TRN-1.1 does require the project applicant to make a financial contribution to the City's rideshare service (MoGo).

Overall, the project alone, at 320 housing units, would not be capable of increasing citywide transit availability and frequency.

Lastly, the City, as the Lead Agency, has determined that language about monitoring and reporting on the project's TDM program is not necessary at this stage of the entitlement process. A TDM Plan shall be developed, in consultation with a qualified traffic consultant and the City of Morgan Hill Development Services Director or Designee, during the Design Permit Process. Specific requirements regarding monitoring and reporting shall be developed at that time.

Comment A.3: Construction-Related Impacts

Project work that requires movement of oversized or excessive load vehicles on State roadways require a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits (*link*). Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).

Response A.3: As discussed on page 186 of the Draft EIR, the nearest State roadway to the project site is the US 101 freeway. If the project developer eventually intends to move such vehicles during construction over the state highway system, they would apply for the necessary permit. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment A.4: Transportation Impact Fees

We encourage the lead agency to consider identifying project-generated travel demand and assessing the costs of transit and active transportation improvements necessitated by the proposed project. The viable funding sources such as development and/or transportation impact fees may also be utilized to implement the planned transportation improvement projects to sufficiently mitigate project impact.

Response A.4: The Draft EIR discusses project-generated travel demand in Section 4.17.3 Non-CEQA Effects. The Transportation Analysis (TA) prepared by Hexagon Transportation Consultants identified six intersections that would be adversely affected by the project. These intersections are listed on page 207 of the Draft EIR, followed by a discussion of the improvements required for each intersection. The improvements would either be implemented by the project, paid in full by the project applicant, or the project would contribute a proportional fair share of the in-lieu cost for future implementation of the improvement. The costs shall be determined by the City prior to approval of tentative map and/or design review.

Comment A.5: Lead Agency

As the Lead Agency, the City is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling,

implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Response A.5: Refer to Response A.4 above.

Regional and Local Agencies

B. Santa Clara Valley Transportation Authority (dated December 28, 2023)

Comment B.1: VTA appreciates the opportunity to comment on the DEIR for the New Horizons project located on the northeast quadrant of Hill Road and Barrett Avenue. VTA has reviewed the document and has the following comments:

Pedestrian Access

VTA noticed a possible gap in the pedestrian/trail network in the site plan. Overall, the project does a nice job of providing pedestrian/trail connections throughout the site and to neighboring land uses, but there is a gap circled in the screenshot of Figure 3.6-2 below, which seems to require people to walk far out of their way to get to the clubhouse/common areas or over to the elementary school. VTA recommends the project expand the proposed trail network to provide access between Streets J/M and Street C.

Response B.1: The comment pertains to the design of the project's pedestrian/trail network. The City will take this recommendation into consideration during the Design Permit Process. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment B.2: Additionally, VTA recommends the new curb ramps provided be designed to be directional curb ramps, rather than diagonal, and it is suggested that curb extensions be included to help reduce crossing distances for pedestrians and slow down drivers.

> **Response B.2:** The comment pertains to the design of the project's curb ramps. The City will take this recommendation into consideration during the Design Permit Process. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment B.3: Lastly, VTA recommends against cul-de-sacs for emergency egress and overall site connectivity. If cul-de-sacs must be included in the design, they should include ADA-compliant pedestrian and bicycle access to adjacent roadways to reduce travel distances for residents.

> **Response B.3:** The comment pertains to the design of the project's site connectivity. The City will take this recommendation into consideration during the Design Permit Process. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment B.4: VMT and GHG Impacts and Mitigation Measures
The DEIR states that the project would cause a Significant and Unavoidable Impact in terms of Vehicle Miles Traveled (VMT), Impact TRN-1. The DEIR finds that the project would exceed the BAAQMD annual emissions bright-line threshold and service population threshold for greenhouse gas (GHG) emissions, Impact GHG-1. The DEIR identifies the implementation of a Transportation Demand Management (TDM) Plan in the mitigation measures to address both impacts – MM-TRN-1.1 and MM-GHG-1.1.

The DEIR and TA Report (Appendix J) include somewhat inconsistent descriptions of the measures proposed to partially mitigate the project's VMT impact. The DEIR states that the MM-TRN-1.1 would include preparation of a TDM plan, which shall require a financial contribution to the City's MoGo on-demand rideshare service as well as improvements to the pedestrian network. Appendix J states that this TDM plan would include a financial contribution to the MoGo service or provision of free transit passes to project homeowners and pedestrian improvements.

> **Response B.4:** The Transportation Analysis (TA) includes different sets of recommendations that could be implemented to mitigate the project's VMT impact. The TA does not require each recommendation to be implemented, and it is up to the discretion of the City as the Lead Agency to determine which recommendations are feasible for project implementation. The City reviewed these recommendations during preparation of the Draft EIR and determined that provision of free transit passes would be infeasible for the project because the project site is not located within proximity to transit. Further, as discussed on page 194 of the Draft EIR and page ii of the TA, the maximum reduction possible would reduce daily per capita VMT to 29.55, which would not reduce project VMT impacts to less than significant

levels (i.e., below the applicable threshold of 20.94 VMT daily per capita). For these reasons, this comment does not require text revisions to the Draft EIR or TA.

Comment B.5: VTA recommends that the City strengthen the TDM plans in MM-TRN-1.1 and MM-GHG-1.1 by requiring both a contribution to the MoGo service and provision of free transit passes to homeowners. The language about provision of free transit passes should state that the management entity/HOA would be required to provide one free pass per residential unit, rather than a "maximum of one transit subsidy per residential unit" since including a maximum without a minimum or specific number could allow the HOA to provide fewer passes than intended.

Response B.5: Refer to Response B.4 above explaining why the provision of free transit passes is infeasible for the project.

Comment B.6: VTA also recommends that the City include language about monitoring and reporting on the project's TDM program to ensure that it is maintained over time. Best practices for TDM monitoring typically include engaging a third-party consultant or contractor directed by the City but paid for by the developer or management entity/HOA.

Response B.6: As discussed under Response A.2, the City has determined that language about monitoring and reporting on the project's TDM program is not necessary at this time. A TDM Plan shall be developed, in consultation with a qualified traffic consultant and the City of Morgan Hill Development Services Director or Designee, during the Design Permit Process. Specific requirements regarding monitoring and reporting shall be developed at that time. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

C. Santa Clara Valley Water District (dated January 4, 2024)

Comment C.1: The Santa Clara Valley Water District (Valley Water) has reviewed the draft environmental impact report (EIR) for the proposed New Horizons project (Project), at the intersection of Barrett Avenue and Hill Road in Morgan Hill. Upon review of the draft EIR, Valley Water staff (Staff) has the following comments.

Section 1.2, MM HAZ-3.1 (Page xviii)
The draft EIR indicates (both in this section and Page 129, Abandoned Wells") *"the project applicant shall research well records from Valley Water and attempt to locate abandoned wells at the site."* Valley Water's Well Information App can be used to help located wells on the Project site: https://www.valleywater.org/contractors/doing-businesses-with-the-districts/wells-well-owners/well-information-app. While the app indicates two active water supply wells on the Project site, there could be unknown and abandoned wells on the Project site. Please coordinate this activity to identify and destroy wells with Valley Water's staff at the Well Permitting and Inspections Hotline: 408-630-2770 (https://www.valleywater.org/contractors/doing-businesses-with-the-districts/wells-well-owners)

Response C.1: As mentioned in the comment, mitigation measure MM HAZ-3.1 on page 129 of the Draft EIR requires wells identified during earthwork activities to be properly destroyed in accordance with Valley Water Ordinance 90-1. MM HAZ-3.1 also requires the project applicant or contractor to contact Valley Water's Wells Hotline immediately to assist in the identification of abandoned/unregistered wells or structures and help determine the appropriate means of addressing them. As stated on page 129 of the Draft EIR, the implementation of mitigation measure MM HAZ-3.1 would ensure that the abandonment of the well and septic system does not result in a significant environmental impact. Thus, this comment does not require text revisions to the Draft EIR.

Comment C.2: Section 3.2.1, Site Access, Circulation, and Parking (Page 3)
This section states a 36-foot driveway is proposed on Hill Road; however, Figures 3.2-4 and 3.2-6 show a cul-de-sac where a driveway is shown on Figure 3.2-5. Please clarify the circulation plan and street improvements; this needs to be consistent throughout the document.

Response C.2: Figure 3.2-5 has been revised to reflect the correct site design, which includes the cul-de-sac at Hill Road. See Section 5.0 Draft EIR Text Revisions.

Comment C.3: Valley Water owns and operates a federal water line (Santa Clara Conduit) within the US Bureau of Reclamation (Bureau) easement on the site. Any improvements that require excavation or will impede or interfere with Valley Water or Bureau access to construct, re-construct, inspect, operate, or maintain the pipeline requires Valley Water and Bureau approval, which may require re-design to comply.

Response C.3: Refer to Master Response 1.

Comment C.4: Section 3.2.4, Utilities (Page 9)
This section states there will be new utility connections in Hill Road which may encroach onto the Bureau easement. Please see Comment 2 for Bureau and Valley Water permitting requirements.

Response C.4: Refer to Master Response 1.

Comment C.5: Additionally, this section mentions a proposal to connect to the Bureau pipeline for back-up non-potable water supply. Please be aware that Valley Water surface water diversion policies do not allow for new pipeline diversions for residential landscape irrigation purposes. The EIR should be amended to assume backup non-potable water supplies will not be approved, and any analysis relying on this assumption should be amended accordingly.

Response C.5: Refer to Master Response 2.

Comment C.6: Section 3.2.4, Utilities (Page 11)

The second paragraph indicates *"The existing on-site well would provide the primary source of water."* If this sentence is referring to the water supply for the concrete-line pond, please add that detail to the sentence so there is no confusion that the well will be used for the potable or other water supply for the development.

Response C.6: Refer to Master Response 2.

Comment C.7: Also, based on Valley Water's Well Information App (referenced in Comment 1), there appears to be two water supply wells (09S03E23Q002 and 09S03E23Q003) located on the Project site. Which well will be used as the primary source of water? If the other well will not be used, it should be properly destroyed following Valley Water guidelines. Please note that page 125 of the draft EIR acknowledges that there are two water supply wells on the Project site.

Response C.7: As discussed in Master Response 2, Neither well will be used as a water source for the project. The text on page 11 of the Draft EIR has been revised to state there are two water supply wells on-site. Refer to Section 5.0 Draft EIR Text Revisions.

Also, refer to Response C.1 for an explanation of how MM HAZ-3.1 requires any abandoned or unused wells identified during earthwork activities to be properly destroyed in accordance with Valley Water Ordinance 90-1.

Comment C.8: Section 3.2.8, Off-Site Improvements
See Comment 2 regarding approval requirements for working within the Bureau easement.

Response C.8: Refer to Master Response 1.

Comment C.9: Section 4.4.1.1, Regulatory Framework (Page 53)
As a member of the Water Resources Protection Collaborative, the City of Morgan Hill has adopted the Guidelines and Standards for Land Use Near Streams, which provides guidance for land use activities in and around streams within Santa Clara County; this should be acknowledged in the 'Regional and Local' regulatory framework section.

Response C.9: Text has been added to Section 4.4.1.1 of the Draft EIR to describe the Santa Clara Valley Water Resources Protection Collaborative's Guidelines and Standards for Land Use Near Streams. Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.10: Section 4.4.1.2, Existing Conditions (Page 54)
The Land Cover and Wildlife Use section indicates that the project site has a *"…0.6-acre abandoned detention basin."* It should be noted that the detention basin is not abandoned and remains operational; the referenced detention basin was constructed to mitigate for increased runoff generated by Tract 8481.

Response C.10: The text in Section 4.4.1.2 of the Draft EIR has been revised to state the detention basin is not abandoned. Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.11: Section 4.4.1.2, Riparian Habitat (Page 59)
This section acknowledges that the project will impact Waters of the State and Waters of the U.S., but none of the mitigation measures, in particular MM BIO-5.1, includes the need to obtain approvals from the US Army Corps of Engineers (ACOE), the Central Coast Regional Water Quality Control Board (CCRWQCB) or California State Department of Fish and Wildlife (CDFW) for the proposed realignment and culvert modifications within Tennant Creek and the ephemeral drainage. These approvals (with the possible exception of the CDFW streambed alteration agreement, which may sometimes be included in Habitat Plan permitting) are required for Section 404 (ACOE) and Section 401 (CCRWQCB) approvals. Sometimes obtaining these approvals requires mitigation greater than proposed or plan modifications that may impact the project. ACOE and CCRWQCB may also determine that the project has a substantial adverse effect on federal and state wetlands. These agencies should be consulted to determine impacts.

Response C.11: The City acknowledges that a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers, Clean Water Act Section 401 Water Quality Certification (and possibly Porter-Cologne Water Quality Control Act waste discharge requirements) from the Central Coast Regional Water Quality Control Board, and Fish and Game Code Section 16 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) will be necessary for the proposed project's impacts. Page 13 of the Draft EIR indicates that discretionary approval of the project by these agencies may be necessary. Page 53 of the Draft EIR discusses regulation of wetland and riparian habitats by these agencies. Additionally, the Regulatory Setting section of the Biological Resources Report discusses in detail the need for the applicant to obtain these specific permits (refer to Appendix D to the Draft EIR).

Although the project will need to obtain these permits, obtaining the permits themselves is a regulatory process, and not substantive mitigation necessary to reduce impacts on stream, wetland, or riparian habitats to less than significant levels under CEQA. As discussed on page 76 of the Draft EIR, project impacts on regulated habitats are less than significant with compliance of the Santa Clara Valley Habitat Plan (Habitat Plan). The text in the Draft EIR has been revised to clarify Habitat Plan standards for new development within the Planned Development. Additionally, the text in the Draft EIR has been revised to include a standard for new development within the Planned Development to ensure necessary permits are obtained prior to construction of the project (refer to Section 5.0 Draft EIR Text Revisions).

Comment C.12: Section 4.4.2.1, Impact 'a,' Crotch's Bumble Bee (Page 70)
It is noted *"The Crotch's bumble bee is not a covered species under the Habitat Plan;"* however, the EIR should acknowledge that Crotch's bumble bee is listed by the California Department of Fish and

Wildlife (CDFW) as an endangered and threatened species. Any identification of Crotch's bumble bee within the Project site needs to be submitted to the California Natural Diversity Database (CNDDB).

Response C.12: The Crotch's bumble bee is considered a candidate for listing by CDFW under the California Endangered Species Act (CESA), as stated on page 59 of the Draft EIR. It was considered a candidate, then that status was removed in 2020 due to court rulings saying that invertebrates could not be listed under CESA. In 2022, court rulings determined that invertebrates could be listed under CESA so the bee's candidate status was restored, but it has never been officially listed as threatened or endangered. Although it receives the same protections as though it is listed, the Crotch's bumble bee is not listed as an endangered or threatened species as the comment suggests.

The City acknowledges that it is good practice to submit records of special-status species to the California Natural Diversity Database, but submitting such records is not necessary to further reduce project impacts on this species; therefore, the City does not intend to make submittal of a record (if observed) a project requirement. For these reasons, no revisions to the Draft EIR are necessary.

Comment C.13: Section 4.4.2.1, Impact 'b,' Impacts on Riparian Habitat or Other Sensitive Communities (Page 71)

The EIR states that *"Potential impacts to riparian habitat would be minimized through implementation of Habitat Conditions 3 and 4…"* The EIR needs to include discrete avoidance and minimization measures (listed under Table 6-2 of the VHP) that will be implemented to mitigate Project impacts and provide rationale in terms of how and/or why those measures would minimize Project impacts. A general statement indicating the Project will comply with Conditions 3 and 4 of the VHP does not adequately evaluate the Project's impacts on the riparian habitat, and the feasibility of offsetting or eliminating those impacts.

Response C.13: The City disagrees with the comment's assertion that the Draft EIR needs to indicate which of the discrete avoidance and minimization measures listed in Table 6-2 of the Habitat Plan apply to the project to reduce impacts on riparian habitat to less than significant levels. Table 6-2 of the Habitat Plan includes 115 measures, many of which do apply or may apply to the project. As with any Habitat Plan-covered activity, this project would comply with all applicable measures. The Draft EIR also includes standards required for new development within the planned development for compliance with the Habitat Plan.

The City also disagrees with the suggestion that the Draft EIR only evaluates the project's impacts on riparian habitat via a general statement regarding Habitat Plan compliance. Impacts of the project on riparian habitat are described in detail and are quantified on page 71 of the Draft EIR.

Comment C.14: Moreover, in addition to the Valley Habitat Plan (VHP), the project is also subject to additional conditions from other regulatory agencies (e.g., CA Department of Fish and Wildlife, Army Corps of Engineers, Regional Water Quality Control Board) that have jurisdiction over work within the in-stream area, and along the riparian corridor.

> **Response C.14:** As discussed in Response C.11 above, the Draft EIR discusses the permits that will be necessary from those regulatory agencies and the City acknowledges the applicant will need to comply with the conditions of such permits.

Comment C.15: Section 4.4.2.1, Impact 'b,' Impacts on Riparian Habitat or Other Sensitive Communities (Page 72)
It is asserted the proposed stream realignment, Barrett Avenue widening, and removal of the existing culvert are *"allowable uses in Habitat Plan riparian setbacks and would not require a riparian exception."* The reference to the VHP's "allowable uses" in this statement is unclear since the listed activities are all in-stream modifications that would be subject to the requirements specified under Condition 4 of the VHP – 'Avoidance and Minimization Measures for In-Stream Projects' and additionally, the avoidance and minimization measures outlined in Table 6-2 of the VHP.

> **Response C.15:** The Draft EIR's statement regarding certain activities being allowable uses in riparian setbacks refers to whether or not those activities are explicitly exempt from the Habitat Plan's riparian setback requirements. Page 6-53 of the Habitat Plan lists activities that are exempt from riparian setback requirements. Examples of Habitat Plan riparian setback exemptions that are applicable to the project include "covered activities that require work within or adjacent to streams such as bridges," which is applicable to the proposed Barrett Avenue widening, associated stream realignment, removal of the existing culvert, and construction of recreational trails. The project would still be required to comply with Condition 4 of the Habitat Plan, including the avoidance and minimization measures outlined in Table 6-2, but the Habitat Plan does not prohibit these activities that are exempt from riparian setback requirements from occurring within streams and riparian areas when there is a need for such activities. The project has been designed to avoid and minimize impacts on such regulated habitats to the extent practicable, but the remaining impacts are necessary to achieve the project's purpose. Therefore, no revisions to the Draft EIR are needed.

Comment C.16: Section 4.7.1.2, Existing Conditions, Groundwater (Page 105)
It is noted *"Groundwater depth on the project site is approximately 30 to 50 feet below ground surface and flows northwest."* The Appendix F Phase I ESA (Page 5) states that the 30 to 50 feet depth to water estimate was from a 2006 California Department of Conservation report. Were the 30 to 50 feet depth to groundwater measurements confirmed from the two water supply wells on the Project site? Valley Water does not have any active water level monitoring wells on the Project site, but recent (2023) water level data from nearby wells in adjacent parcels indicate groundwater level depths range from less than 10 feet to greater than 75 feet below land surface. This water

level data is available on the Valley Water Historical Groundwater Elevation data website: https://gis.valleywater.org/GroundwaterElevations/index.php.

Please also note that this website shows the Project site is in an area of generalized depth to first groundwater of 5 to 20 feet below land surface. As explained on the website, the generalized depth to first groundwater depicts the most shallow groundwater ever measured for an area as of 2018. Staff recommends using the more recent estimates of depth to first groundwater from Valley Water, rather than the 2006 CDC report. Staff also recommends relying on Valley Water's 2021 Groundwater Management Plan for detailed hydrogeologic information for the Llagas Subbasin beneath the project site.

Response C.16: While the Valley Water Historical Groundwater Elevation data website provided by the commenter contains more current information than the 2006 CDC report referenced in the Phase I ESA, the website shows depths for adjacent parcels rather than for the project site, as noted by the commenter.

The project applicant has provided the City with a site-specific Geotechnical Investigation that was prepared for the project by Quantum Geotechnical, Inc. in May 2020. According to this report, groundwater was encountered on-site at a depth of 23 feet. The geotechnical investigation conducted borings on the project site and is, therefore, the most accurate data available regarding groundwater on the project site. Text has been revised throughout the Draft EIR to reflect this information, and the Geotechnical Investigation Report has been added to the Draft EIR as Appendix K. See Section 5.0 Draft EIR Text Revisions and Appendix B to this Final EIR.

Comment C.17: Section 4.10.1.1 Environmental Setting, Regulatory Framework, Federal and State (Page 132)

a. Valley Water recommends adding a sub-section about the Sustainable Groundwater Management Act (SGMA) because the Project development will rely primarily on groundwater for the water supply, groundwater is the sole source of water supply for the City of Morgan Hill (Draft EIR, page 215), and Valley Water is the Groundwater Sustainability Agency (GSA) under SGMA. Valley Water's 2021 Groundwater Management Plan is the DWR approved Alternative to a Groundwater Sustainability Plan (GSP), and is available on Valley Water's website: https://www.valleywater.org/your-water/where-your-water-comes/groundwater/sustainable.

Response C.17: Text has been added to Section 4.10.1.1 of the Draft EIR to include a description of the Sustainable Groundwater Management Act as recommended by this comment. Refer to Section 5.0 Draft EIR Text revisions.

Comment C.18:

b. This section should include all relevant policies under Goals SSI-5 and SSI-6 in the Flood Hazards section of the City's General Plan. In particular, Policies SSI-5.1, 2, 3, 4, 5, 6, 7, 8,

and 9 and Policies SSI-6.2, 6, and 7. The EIR should discuss how the project is consistent with these policies and identify where the project is not consistent with these General Plan policies and identify all relevant mitigation to gain compliance.

Response C.18: Text has been added to Section 4.10.1.1 of the Draft EIR to include the policies listed in the comment and describe the project's consistency with the policies. Refer to Section 5.0 Draft EIR Text revisions.

Comment C.19: Section 4.10.1.2 Groundwater (Page 135)

a. It is noted *"The site is located in the Santa Clara Valley Subbasin of the Santa Clara Valley Groundwater Basin."* The site is within the Coyote Valley Recharge Area designated by the Santa Clara Valley Water District (Valley Water). 66." Please correct these sentences because the Project site located in the Llagas Subbasin, not the Coyote Valley. The sentence can be corrected as: *"The site is located in the Llagas Subbasin (DWR Basin Number 3-3.01), which is part of the larger Llagas Subbasin, as designated by the Santa Clara Valley Water District (Valley Water). 66."*

Response C.19: The referenced text in Section 4.10.1.2 of the Draft EIR has been revised to reflect the project site's location within the Llagas Subbasin, as recommended by the commenter. Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.20:

b. Footnote 66 references Valley Water's 2016 Groundwater Management Plan; it should be noted this has been suspended by the 2021 Groundwater Management Plan, which is available at the following link: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021_GWMP.pdf

Response C.20: The referenced footnote has been revised as recommended by the commenter. Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.21: Section 4.10.1.2, Existing On-Site Drainage

This section does not appear to accurately describe the existing storm drain system installed as part of Tract 8481, which includes the Project site. Valley Water records for the Tract 8481 improvements show the 36-inch storm drain reduces to a 21-inch pipe, which then increases in size to a 24-inch and finally a 27-inch pipe, which discharges into the retention basin. The retention basin was designed to mitigate increased runoff from Tract 8481 improvements for a range of storm events up to a 100-year storm. The outlet is a 21-inch pipe which connects to a 60-inch storm drain, which subsequently discharges into Tennant Creek, downstream of Barrett Avenue.

Response C.21: Refer to Master Response 3 and see Final EIR Appendix E for additional technical responses.

Comment C.22: Section 4.10.1.2, Flood Hazards (Page 135)

The EIR acknowledges existing special flood hazards identified by FEMA and states *"The project site is located within three FEMA flood hazard designations: Zone AE, AO, and X."* It should be noted that Tennant Creek, which traverses the westerly end of the project site, has an adopted regulatory floodway: an area which has been reserved to convey the 100-year flood, or 1% annual exceedance event without increasing FEMAs Base Flood Elevation (BFE), or the 100-year water surface elevation at any point. All encroachments within the regulatory floodway will require a no-rise certification through a detailed hydraulic study that is completed in accordance with FEMA's mapping guidelines and standards. According to 44 CFR 60.3(d)(3), any new construction or development, including fill within the limits of the regulatory floodway is prohibited, *"unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge."* The EIR should acknowledge the regulatory floodway in its discussion of existing flood hazards, along with the restrictions within this area.

Response C.22: Figure 4.10-1 on page 136 of the Draft EIR shows the flood hazard zones on the project site, including the regulatory floodway along Tennant Creek. The text on page 135 under the Flood Hazards subsection has been revised to include an explanation of the regulatory floodway. Refer to Section 5.0 Text Revisions.

Comment C.23: Section 4.10.2, Impact 'b,' (Page 140)

a. To accommodate some of the proposed landscaping amenities for the Project (e.g., pond, fountains), it is noted *"The project would require the pond to be pumped with approximately 0.36 acre-feet of non-potable water per year (118,000 gallons per year), with an evaporation rate of approximately 0.28 acre-feet. The pond would require a total of 0.64 acre-feet of water (211,400 gallons per year) in year one to both fill the pond and replenish to offset evaporative losses, and 0.28 acre-feet of water (93,400 gallons per year) per year in the following years to offset evaporative losses."* Initially, it is stated 0.36 acre-feet per year would need to be pumped to the pond, but it is subsequently stated that 0.28 acre-feet per year would be required to offset evaporative losses. The total volume required to maintain these amenities needs to be clarified.

Response C.23: The required volume of water initially to fill the pond is approximately 118,000 gallons, or 0.36 acre-feet. This assumes that the majority of the pond is eight feet deep, with a five-foot wide, 18-inch deep "ring" around the perimeter. The volume also accounts for the waterfall feature and assumes that it is one-foot deep on average. According to H.T. Harvey's March 2022 memo provided to the applicant (included as Appendix D to this Final EIR), the average evapotranspiration is 4.12 feet/year. Assuming that this rate applies to the waterfall and entire pond, the evaporation volume would be approximately 93,400 gallons (0.28 acre-feet) per year. Accounting for evaporation as described below, it will take approximately 93,400 gallons (0.28 acre-feet) to keep the pond full annually.

Once the pond is constructed, water can be introduced. As stated above, the volume of water required to initially fill the pond is approximately 118,000 gallons (0.36 acre-feet). Based on the expected evaporation rates, 0.28 acre-feet per year will be needed to keep the pond operational and full. In the first year, 0.64 acre-feet of water will be required to fill and operate/maintain the pond. In subsequent years, 0.28 acre-feet will be needed annually to maintain the water level. The excerpted text in the comment has been modified to clarify the amount required initially to fill the pond versus the ongoing annual amount of water required to keep the pond full to offset evaporative losses. Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.24:

b. Because the Project site is in the recharge area of the Llagas Subbasin and the proposed development will increase the impervious surface area, Valley Water supports the planned use of site design measures, including LID, BMPs, and infiltration features, such as detention and retention basins that meet Valley Water stormwater infiltration device guidelines, and maintain natural recharge to the groundwater basin.

Response C.24: As discussed on pages 139 and 140 of the Draft EIR, the project includes a detention basin and implements site design measures, low-impact development (LID) controls, and best management practices (BMPs) including infiltration features. The comment does not question the adequacy of the Draft EIR analysis and supports the project's design features. Therefore, no further response is required.

Comment C.25:

c. The last paragraph states *"The highest depth to the groundwater expected at the project site is 30 to 50 feet below ground surface. The maximum depth of excavation to install utilities building foundations proposed by the project is ten feet below ground surface. The groundwater is deep enough such that ground disturbance during construction would not interfere with groundwater flow or expose any aquifers."* As noted in Comment 8, Valley Water's Historical Groundwater Elevation website (https://gis.valleywater.org/GroundwaterElevations/index.php) indicates that the Project site is in an area of generalized depth to first groundwater of 5 to 20 feet below land surface. As explained on the website, the generalized depth to first groundwater depicts the most shallow groundwater ever measured for an area as of 2019. We recommend using the more recent (2019) estimates of depth to first groundwater from Valley Water, rather than the 2006 CDC report.

Response C.25: Refer to Response C.16 citing the site-specific Geotechnical Investigation prepared for the project. Text revisions have been made throughout the Draft EIR to reflect a groundwater depth of 23 feet below ground surface and the Geotechnical Investigation Report has been added as Appendix K to the Draft EIR.

Comment C.26: Section 4.10.2.1, Impact 'c,' Drainage (141)

a. To mitigate for increased runoff from the Project, the EIR cites Schaaf and Wheeler's (S&W) preliminary drainage report (Appendix H), which recommends construction of a detention pond at *"…Jackson Park, located adjacent to the northeast side of the site, to reduce post-project peak discharge to pre-project conditions to Tennant Creek under a 25-year storm event…Offsite runoff coming from tributary residential and open space areas would be rerouted through the detention basin, relocated at Jackson Park, to account for the increase in impervious area."* As noted in Comment 7, the existing detention basin was constructed to mitigate for increased runoff from Tract 8481. Furthermore, it was designed to ensure additional runoff from Tract 8481 – which includes the Project site as undeveloped Lots 20, 21, and 22 – does not exceed pre-project conditions (both in terms of volume and rate), and to also handle events up to the 100-year event. Tennant Creek is prone to frequent flooding: Valley Water has estimated the creek is subject to overtopping during recurrence intervals as frequent as the 2- or 3-year event. In addition to replacing the function of the existing detention basin, the project should be mitigating all increased runoff from the development of Lots 20, 21, and 22 in Tract 8481, for a range of storm events from the 2- or 3- year event up through the 100-year event. The drainage report identifies discharge points along Tennant Creek, from the upstream limit of the Project site to a point downstream of Barrett Avenue to analyze changes in the Project site's discharge into Tennant Creek, both under existing and proposed conditions. Thus, all mitigatory measures need to consider a range of events, including the 2-, 10-, 25-, and 100-year events so as not to induce flooding on neighboring or downstream properties.

Response C.26: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.27: Additionally, the relocated detention basin will need to be adequately designed to account for the volume of runoff it currently receives from Tract 8481, or alternatively, the volume of runoff that can no longer be routed to the relocated basin needs to be made whole through additional basins or mitigatory measures. Ultimately, the mitigatory measures need to account for both the existing run-on the site currently receives, and any additional runoff generated within the Project site. Consistent with existing mitigation measures implemented for neighboring developments, runoff under pre-project conditions cannot exceed post-project conditions, both in terms of volume and rate. The drainage study completed by S&W only considers the 25-year storm event to address the minimum requirements specified in the City of Morgan Hill's (City) storm water management plan.

Response C.27: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.28: Lastly, it should be noted a public service easement has been reserved for Tract 8481 to operate and maintain the existing detention basin. Relocation of the existing basin will need to include similar land rights to accommodate the operation and maintenance of this facility.

Response C.28: Text has been added to the Draft EIR clarifying the relationship between the project site and adjacent development (i.e. Tract 8481) that relies on the project site for stormwater detention. See Section 5.0 Text Revisions.

Comment C.29:

b. The feasibility of relocating the detention pond to Jackson Park needs to be further evaluated since it appears to be proposed at a higher elevation than the existing detention basin. Neighboring developments currently discharge runoff into the existing detention basin via gravity. If it is assumed the relocated basin will continue to collect runoff from these developments, it should be noted this will not be feasible without employing mechanical measures (i.e., pumps) to route runoff upslope to Jackson Park.

Response C.29: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.30:

c. The EIR also needs to analyze how changes in the storm drain system routing, Tennant Creek improvements (including any structures, grading or plantings), the proposed Barrett Avenue culvert, and outfall modifications in Tennant Creek will impact various storm event water surface elevations in the Tennant Creek special flood hazard areas, and in the Tennant Creek floodway. Water surface elevations need to be analyzed through the project site, upstream of the project site, and downstream of Barrett Avenue. Any changes which increase the FEMA effective water surface elevation in the floodway by more than 0.0-ft. at any point in the community will require a CLOMR to be submitted to and approved by FEMA prior to construction. If the project site will not create any new runoff discharging into Tennant Creek, then why are culvert improvements proposed? Any enlarging of the culvert capacity of even changes to current weir flow over Barrett Avenue may induce flooding downstream by increasing water surface elevations and/or increase the frequency of flooding downstream on Tennant Creek. It should be noted this area of Tennant Creek is subject to historical flooding.

Response C.30: Impacts due to project improvements are identified in the updated Drainage Report (Final EIR Appendix C). The project will obtain a Letter of Map Revision (LOMR) to capture changes made in the channel and floodplain would not result in impacts to downstream properties. See Appendix E for additional technical responses for this comment.

Comment C.31:

d. This section does not address changes in the Tennant Creek overflow (Zone AO) that may be impacted by the Project. According to the FEMA effective model for Tennant Creek for the 100-year special flood hazard condition, 420 cubic feet per second (CFS) flow approaches the Fountain Oaks culvert, 290 CFS continues through culvert, while 130 CFS travels through the neighborhood and exits overland as 'Zone AO' enters 'Zone AE' and the floodway

(shown as cross section 526 in the effective model). The EIR should include mitigation that requires the project to maintain the existing flood patterns through the project site.

Response C.31: The Zone AO creek overflow is addressed in the updated Drainage Report as likely being an overestimation of peak flow within Tennant Creek stemming from how the subbasins were delineated. See Appendix E for additional technical responses for this comment.

Comment C.32: Section 4.10.2, Impact 'c,' Hydromodification (Page 142)

a. The Hydromodification section states the following: *"the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek."* To reiterate Comment 18a, the existing detention basin was designed to handle a range of events, including the 2-, 10-, 25-, and 100-year events. Therefore, the proposed detention basin needs to be designed to mitigate for the noted range of events. Schaaf and Wheeler's Preliminary Drainage Study (Appendix H) may have considered the increased runoff generated by Tract 8481 as part of the tributary area for 'Sorel Drive at Barrett Avenue' (Preliminary Drainage Study, Table 3-2, Page 8), however the study appears to be assume that runoff would bypass the existing detention basin, and discharge directly into Tennant Creek by way of the existing 60-inch storm drain line along Barrett Avenue. It should be noted the existing detention basin increases the time of concentration within the drainage basin, which in turn attenuates the rate of runoff discharging into Tennant Creek. Modifications to the existing drainage pattern may increase flooding – both in terms of frequency and magnitude – for communities neighboring the Project site. The preliminary drainage study needs to evaluate whether the proposed modifications to the existing drainage pattern will increase both on- and offsite flooding.

Response C.32: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.33:

b. The hydromodification section states that the *"…project site grades will be filled so that flows will be contained in Tennant Creek and there will be no runoff across the site."* This statement needs to be clarified or revised as it is not clear how changes to grading within the site will eliminate runoff across the site when the Project proposes to substantially increase the impervious surface area within the site. Additionally, in the absence of a no-rise certification, improvements to "contain" flows within Tennant Creek cannot include fill or modifications with the regulatory floodway since it would further constrict the conveyance area reserved to discharge the base flood event (i.e., 100-year event). It should be noted the limits of the regulatory floodway already assumes the maximum allowable increase (i.e., 1-ft.) has been reached. Thus, as noted in Comment 16, 44 CFR (60.3(d)(3) does not permit any fill/improvements within the regulatory floodway, unless it can be demonstrated the 100-year water surface elevation will not increase by any amount greater than 0.0-ft.

Response C.33: The existing Zone AE currently extends overland outside of the channel limits throughout the project site. The Project proposes to increase grades up to the regulatory floodway limits in order to protect the site from Zone AE flooding, thereby limiting Zone AE to the channel limits. The project will submit a Conditional Letter of Map Revision/Letter of Map Revision (CLOMR/LOMR) to demonstrate the revised reach modeling, new BFEs, new floodway encroachments and tie-in with the effective model as required by FEMA.

The effective regulatory floodway encroachments do not assume the maximum allowable one-foot increase in all locations. The effective Flood Insurance Study (FIS) shows only an increase of 0.5 foot at Cross Section H (located just north of the project site) and 0.2 foot of increase at Cross Section G (located south of the project site at Tennant Avenue).

Comment C.34: Section 4.10.2., Impact 'c,' Flood Flows (Page 142)

a. The EIR asserts *"…the proposed project would not result in changes to the upstream or downstream 100-year water surface profile of the creek."* This conclusion is inconsistent with the results provided in Schaaf and Wheeler's Evaluation of Flood Hazards (Preliminary Drainage Report, Table 4-1, Page 12), which showed water surface elevation increases at several cross sections along Tennant Creek. The Project cannot result in any increases to the published 100-year water surface profile. As noted in Comment 14b, the regulatory floodway already assumes the maximum allowable increase has been reached; thus, improvements cannot further increase the 100-year water surface elevation. Moreover, the post-project conditions evaluated by Schaaf & Wheeler's analysis does not consider realignment and widening of the channel, or the proposed storm drain improvements along Barrett Avenue: of all which are proposed in earlier sections of the EIR.

Response C.34: Refer to Master Response 4 and see Appendix E for additional technical responses.

Comment C.35:

b. It is noted *"the grading associated with the proposed project would re-establish the Tennant Creek floodway and floodplain which would relocate the 100-year flooding to ensure areas of the project development are located outside of the 100-year flood zone."* The proposal to re-establish and relocate the floodway and floodplain needs to be clarified. As noted in Comment 16, modifications to the adopted regulatory floodway will require a no-rise certification, supported by a hydraulic analysis completed in accordance with FEMA standards for map revisions. Moreover, it is not clear how the floodplain itself would be re-established unless the identified FEMA special flood hazard areas (SFHA) within the site are to be preserved as open space areas. Based on prior plan reviews by Staff, residential units were proposed within the limits of FEMA's SFHA.

Response C.35: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.36:

c. The last paragraph under the discussion of 'Flood Flows' (Section 4.10.2, Page 143) notes that *"The development shall apply for a Conditional Letter of Map Revision based on Fill through FEMA to show that the development is outside the floodplain."* It should be noted that as of July 1, 2023, the County of Santa Clara (County) has temporarily suspended all CLOMR-F and LOMR-F applications within the County. Additionally, based on the improvements specified in the EIR, a CLOMR-F would not be applicable due to the proposed in-channel improvements (e.g., proposed realignment/widening of existing channel, culvert improvements). Hydraulic analyses to support revisions to FEMA Flood Insurance Rate Maps (FIRM) cannot separate specific project improvements such as grading and evaluate its singular impact on existing SFHAs. Rather, a cumulative analysis, which accounts for all proposed project improvements, needs to be completed to determine the Project's overall impact on FEMA's SFHA. This cumulative analysis is especially important as it does not appear that Barrett Avenue improvements (completed as part of Tract 7157) were submitted to FEMA for inclusion in the special flood hazard area study. These improvements include the existing Barrett Avenue culverts and the 60-inch storm drain outfall at Barrett Avenue.

Response C.36: The project will submit a CLOMR/LOMR rather than a CLOMR-F to demonstrate the revised reach modeling, new BFEs, new floodway encroachments and tie-in with the effective model as required by FEMA. Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.37:

d. The last sentence under the discussion of 'Flood Flows' (Section 4.10.2, Page 143) asserts *"the proposed project would not redirect flood flows causing flooding on or off site."* As noted in comment 20c, this assertion needs to be supported by a hydraulic analysis that evaluates the cumulative impact of all proposed improvements. While Schaaf and Wheeler's evaluation of flood hazards in the Preliminary Drainage Report (Appendix H) does not consider modifications to the existing culvert at Barrett Avenue, it does not consider realignment and widening of the channel, both of which are proposed project improvements specified in earlier sections of the EIR. Results from the hydraulic analysis needs to support the conclusion that the project would not redirect flood flows or increase flooding on- or offsite.

Response C.37: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.38: Section 4.19.2.1, Impact 'a,' Water Facilities (Page 218)

As part of the project's utility improvements, the EIR states *"The proposed project would connect new water lines to the existing water mains in Barrett Avenue and Hill Road."* It should be noted that Santa Clara Conduit (SCC), which runs along Hill Road, is part of the Central Valley Project, and is used to deliver the County's federally contracted water supply. Valley Water operates and

maintains this facility on behalf of the Bureau. All proposed modification to or near the pipeline, including those that may impact its appurtenances (e.g., valves, vaults, etc.) are subject to review and approval by both Valley Water and the Bureau. Additionally, the Bureau has reserved easement along the length of the pipeline to accommodate the operation and maintenance of the pipeline (See Comment 2). Thus, all modifications within, through, or over the easement area – including changes to the existing grade – will also require review and approval by Valley Water and the Bureau. Per the easement deed, the Bureau has been granted *"the perpetual right, privilege and easement to construct, operate and maintain water pipelines, together with all fixtures, devices and appurtenances necessary to the operation of said pipelines, within, through, over and across the real property…"* Ultimately, the Project cannot impede Valley Waters ability to exercise these land rights. Assuming a connection to SCC is approved, it should be noted this is an interruptible source of raw water, subject to both planned and unplanned outages for extended periods of time. For this reason, the pipeline should not be relied upon as the development's primary source of raw water. A reliable groundwater supply well or a connection to a retail water service needs to be established. Lastly, since Valley Water has discretionary approval authority over this facility, Valley Water is considered a Responsible Agency under CEQA.

Response C.38: Refer to Master Response 1. Valley Water is acknowledged to be a responsible agency with discretionary authority over the project's implementation.

Comment C.39: Section 4.19.2.1, Impact 'a,' Storm Drainage (Page 218)
The draft EIR's discussion of Storm Drainage improvements proposes to remove existing storm drain lines, which currently convey flows in and out of the existing detention basin. The proposal to remove these existing lines is inconsistent with the EIR's earlier determination Section 4.10 – Hydrology and Water Quality, 'Drainage,' (Page 141), which asserted that *"the proposed project would not substantially alter the existing drainage pattern of the site or area…"* As noted in Comment 19a, the detention basin was constructed to mitigate for increased runoff, and attenuate flows discharging into Tennant Creek. Any proposed modification to the existing drainage system needs to ensure flooding along Tennant Creek is not increased, both in terms of frequency and magnitude.

Response C.39: Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.40: Section 4.19.2.1, Impact 'b,' Project Water Demand (Page 219)
The Project Water Demand section states that the project will create a new demand of 118,265 million gallons per day (MGD) of water, but it is not clear how that total is derived.

Response C.40: As described on Page 219 of the Draft EIR, the project's water demand was calculated using the City's unit demand factor of 1,700 gallons per day (gpd) per acre for Residential Detached Medium land uses. This demand factor was derived from the City's Water System Master Plan dated December 2021.

Multiplying the project site's size (69.4 acres) by the 1,700 gpd/acre factor results in

a demand of 117,980 gpd. In addition, the project's proposed pond requires approximately 255 gpd (based on evaporative losses). Adding together 117,980 gpd and 255 gpd results in an estimated total demand of 118,235 gpd. The referenced 118,265 million gpd is a typo and has been revised globally to remove the word "million". Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.41: The draft EIR concludes that the project is consistent with planned growth for Morgan Hill. This projection of future water supply and availability assumes increases in water conservation and demand management measures in both Morgan Hill's and Valley Water's Urban Water Management Plan. For the proposed project to meet its fair share of these water conservation assumptions, all available water conservation measures should be required of the project. Such measures should include:

- Prohibiting non-functional turf in private open space areas, lawn areas should be limited to areas supporting passive activities.
- Require hot water recirculation systems.
- Require dedication landscape meters and separate submeters to each unit and individual commercial spaces where applicable.
- Install weather or soil-based irrigation controllers.

Response C.41: As recommended by the commenter, all feasible water conservation measures would be implemented by the proposed project including the installation of landscape meters, hot water recirculation systems, and weather or soil-based irrigation controllers, consistent with the water conservation and demand management measures in the City's and Valley Water's Urban Water Management Plan. Refer to Section 5.0 Draft EIR Text Revisions.

Comment C.42: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum (Page 5)

Schaaf and Wheeler's memorandum notes *"the Rational Method was utilized to quantify the 25-year runoff for designing a storm drain system."* See comment 18a. The memorandum also states the proposed model includes the proposed fill in the floodplain and a pedestrian bridge, but it does not mention the changes to the Tennant Creek Overflow ('Zone AO'), the proposed storm drain routing changes, the proposed Barrett Avenue culvert crossing and storm drain outfall changes, etc. Also, the memorandum does not acknowledge that the existing capacity of Tennant Creek is very limited (estimated to only have capacity for a 2- or 3- year storm event); therefore, mitigation for only a 25-year event will increase the extent, and frequency of flooding for downstream properties, during those frequent events and up to a 100-year event as identified in FEMA effective studies.

Response C.42: Comment 18a refers to Comment C.26 about the Draft EIR's discussion of drainage. Refer to Master Response 3.

Regarding the overflow Zone AO shown in the effective FEMA FIS, this is largely due to the resolution of subbasin delineations and assumptions made in locating peak flows for drainage areas south of East Dunne Avenue at the start of the channel.

Changes to hydrologic drainage points resulting in changes to the effective Zone AO are discussed in detail in Appendix C.

Comment C.43: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 4 (Page 7)

a. The discussion for 'Impact 4' notes *"…the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek."* See Comments 18a.

Response C.43: Comment 18a refers to Comment C.26 about the Draft EIR's discussion of drainage. Refer to Master Response 3.

Comment C.44:

b. The discussion of post-project site drainage conditions notes that *"Runoff from offsite tributary residential and open space areas northeast of the project will be rerouted through the proposed basin…"* See Comments 18a, and 18b.

Response C.44: The Zone AO creek overflow is addressed in the updated Drainage Report as likely being an overestimation of peak flows within Tennant Creek stemming from how the subbasins were delineated. See Appendix E for additional technical responses for this comment.

Comment C.45: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 5 (Page 8)

The discussion detailing the existing site drainage conditions indicates "…no information of the basin is available…" and the existing detention basin "…is assumed to be private and does not provide detention for the City's storm drain system." This statement is in error as the basin was constructed as part of Track 8481, approved by the City, and the basin was dedicated to, and accepted by the City as a public service easement on the recorded Tract map. Additionally, the depiction of the storm drain is in error as compared to Tract 8481 Improvement Plans. See Comments 7 and 15, and 18a.

The discussion of post-project site drainage conditions notes that "runoff from offsite tributary residential and open space areas northeast of the project site will be rerouted through the proposed basin…" See comments 18a, and 18b.

Response C.45: Refer to Master Response 3.

Comment C.46: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 6 (Page 9)

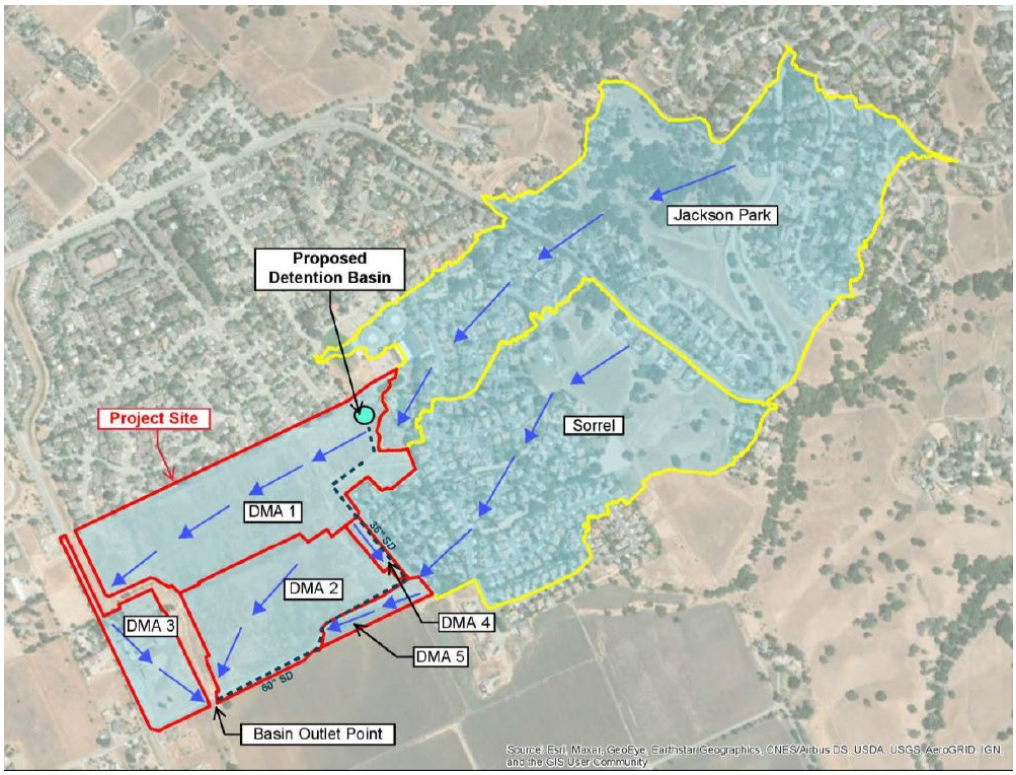
It is noted *"…the detention basin has been designed to the 25-year storm event,"* and based on the modeling results for the 100-year storm event in Tennant Creek *"the development will be out of the floodplain."* See Comments 20a, and 20c. This finding does not acknowledge that Tennant Creek

does not have sufficient capacity for frequent flood events and any increased runoff during these frequent events, which will increase the extent and frequency of flooding downstream. Receiving streams further downstream only have an approximate capacity for the 10-year event. The text supporting a finding of 'Less Than Significant' is inadequate.

Response C.46: Refer to Master Response 4.

Comment C.47: Additionally, Figure 6 provided on this page is illegible, and the outlet or discharge point for all DMAs is not clear. A full sized, legible copy of the figure, along with a clearly marked discharge point needs to be provided.

Response C.47: The revised drainage report (Appendix C) includes Figure 2-2 which shows the post-project conditions drainage areas, including clearly marked discharge points for the DMAs. A snip of the figure is included below.



Comment C.48: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 7 (Page 10)

a. The discussion for Impact 7 identifies the three special flood hazard areas overlapping the project site ('Zone AE,' 'Zone O,' and 'Zone X'), however this section needs to also acknowledge the regulatory floodway that has been established. See Comment 16.

Response C.48: The regulatory floodway discussion is now included in the revised Drainage Report (Final EIR Appendix C). The project will obtain a LOMR to address

changes to the channel, hydrology, floodway table, etc. to demonstrate no significant impacts would occur. Refer to Master Response 4.

Comment C.49:

b. The text states that the portion of 'Zone AO' not within Tennant Creek will be filled above the height of flooding. This will block 100-year flood flows of 130 CFS (as identified in the FEMA effective model) from leaving the Fountain Oaks neighborhood, which currently release overland across the Project site as 'Zone AO.' It is not clear where these flood flows will go if the proposed fill is obstructing the flow path. The texted does not support the 'Less than Significant Impact.'

Response C.49: The Zone AO creek overflow is addressed in the updated Drainage Report (Final EIR Appendix C) as likely being an overestimation of peak flow within Tennant Creek stemming from how the subbasins were delineated. See Appendix E for additional technical responses for this comment.

Comment C.50:

c. It is stated in the second paragraph that *"While the water surface elevations change throughout the site, the Project grading will re-establish Tennant Creek floodway and floodplain which will remove the 100-year flooding to be completely outside of the project limits. The development should apply for a CLOMR-F through FEMA to show that the development is outside the floodplain."* See Comment 20b.

Response C.50: Refer to Master Responses 3 and 4.

Comment C.51: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 1, Introduction

a. It is noted under the 'Objectives' discussion (Section 1.2, Page 3) that *"Project grading will also enable the Tennant Creek floodway and floodplain to be re-established so that all home sites may be elevated above the base flood, without changing the upstream or downstream 100-year water surface profile of the creek by more than six inches, as required by FEMA for remapping."* As previously noted, no increases to the 100-year water surface elevations are allowed within any point of the regulatory floodway. See Comment 16 and 20a.

Response C.51: Refer to Master Response 4.

Comment C.52:

b. The Report Outline (Section 1.3, Page 3) indicates preliminary hydrologic and hydraulic calculations are provided to evaluate the volume that would be needed to detain the 25-year storm event. See Comments 18a.

Response C.52: Refer to Master Response 3 and see Final EIR Appendix E for additional technical responses.

Comment C.53: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 2, Drainage Patterns and Conveyance

a. The section detailing the existing drainage conditions (Section 2.1, Page 5) notes that information regarding the design, sizing criteria, and function of the pre-existing stormwater retention basin, north of Barrett Avenue, are not available. See Comment 7. Additionally, it should be noted that Schaaf and Wheeler designed the detention basin.

Response C.53: Refer to Master Response 3.

Comment C.54:

b. The drainage study proposed a conceptual plan to relocate the existing detention basin to Jackson Park (Section 2.2, Page 5). See Comment 18b.

Response C.54: Refer to Master Response 3.

Comment C.55:

c. It is also noted *"approximately 150 acres of tributary residential and open space areas northeast of the project site (Figure 2-3)"* will be routed to the relocated detention basin. The southerly subcatchment (Total Stream Length 3179-ft.) does not account for Tracts 7157 and 8481. Additionally, portions of this subcatchment generally have existing grades that are lower in elevation compared to those at Jackson Park. See Comment 18b.

Response C.55: Refer to Master Responses 3 and 4.

Comment C.56: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 3, Project-Specific Drainage Requirements

a. As stated in other sections of the drainage study, the analysis considers the 25-year, 24-year storm event to adhere to the City's storm water management plan. The study needs to consider a range of events, including the 2-, 10-, 25-, and 100-year events, since Tennant Creek is prone to flooding. See Comments 18a and 19a.

Response C.56: Refer to Master Responses 3 and 4.

Comment C.57:

b. Tables 3-1 and 3-2 provided in Section 3.2 (Page 8) need to include results for the requested range of events, including the 2-, 10-, 25-, and 100-year, 24-hour storm events.

Response C.57: Refer to Master Responses 3 and 4.

Comment C.58: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 4

a. It is noted *"Potential impacts from Project improvements are assessed using information and hydraulic models first completed for the Santa Clara Valley Water District."* The flood impact analysis for the project needs to be evaluated using FEMA's effective model as the baseline conditions. If the referenced Santa Clara Valley Water District model is based on

the effective model, the analysis needs to ensure both the upstream and downstream ends of the studied reach are within 0.5-ft. of the published BFE (44 CFR 65.6(a)(2)). Additionally, all existing developments not included into the effective model need to be incorporated and evaluated cumulatively with the proposed project.

Response C.58: Adherence to 44CFR 65.6 (a)(2) is supported by the revised Drainage Report (Final EIR Appendix C) which includes a more detailed discussion of tie-in with the duplicate effective model. Refer to Master Response 3 and see Appendix E for additional technical responses.

Comment C.59:

b. Section 4.1 asserts *"all areas of potential improvements within Project limits would be located outside of regulatory flood areas."* This statement is not consistent with the improvements specified in earlier sections of the draft EIR, which proposes realignment of the stream, widening of the channel at Barrett Avenue, and removal of the existing culvert: all of which are occurring within the limits of the regulatory floodway.

Response C.59: Refer to Master Response 4.

Comment C.60:

c. Section 4.1.1 cites Ordinance Section C12-821(A), which maintains that the cumulative effect of development cannot increase the BFE by greater than one foot at any point within the County, *"until a regulatory floodway is adopted…"* It is then stated *"Since Tennant Creek has a defined floodway, and that floodway can be adjusted to coincide with the slightly realigned banks, this section of the of the ordinance does not apply…"* See Comment 16. This statement is only true if the Project fills in regulatory floodplain areas first. Additionally, this section refers to the County flood hazard ordinance; instead, it should refer to the City's flood hazard ordinance, particularly Section 15.80.200 – Floodways (B), which states *"Within an adopted regulatory floodway, prohibit encroachments, including fill, new construction, substantial improvement, and other development unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment shall not result in any increase in the base flood levels during the occurrence of the base flood discharge."* It should be noted that the base flood discharge is the FEMA base flood discharge, not the ACOE hydrology discharge.

Response C.60: The County ordinance reference has been corrected to the City's Municipal Code as noted. Since the project has components within the regulatory floodway, the project will submit a CLOMR/LOMR to reflect project changes and modify the effective Flood Insurance Rate Map.

Comment C.61:

d. Section 4.2 indicates the effective HEC-2 model *"was obtained from the Santa Clara Valley Water District's website."* Not all hydraulic models provided on Valley Water's website are FEMA effective models. Model outputs need to be verified with the County's Flood

Insurance Study (FIS) to confirm the water surface elevations and FIS flood flows are consistent with the Valley Water model. The FEMA FIS flood flows within Tennant Creek through the site range from 290 CFS to 420 CFS, depending on the location. Additionally, the FEMA floodway model needs to be analyzed for increases due to the Project.

Response C.61: The HEC-2 model obtained from Valley Water is labeled as the FIS Study dated 1996 by Nolte and Associates but was also reviewed against the effective FIS study and shows consistent BFE values to those shown on the FIS water surface profiles.

Comment C.62:

e. Section 4.2.4 notes that the *"proposed conditions are based on blocked obstructions (vertical walls) placed in the channel overbank as shown in the project workmap."* Since Tennant Creek has an adopted regulatory floodway, the effective model should have blocked obstructions that were assumed to determine the limits of the floodway (i.e., floodplain encroachments). The duplicate effective model, and all subsequent models use to evaluate project impacts need to ensure these ineffective flow areas are carried over from the effective model. This section also states ACOE hydrology was used in the analysis. When a FEMA special flood hazard area has been defined, FEMA effective hydrology and modeling must be used as the existing condition floodplain to determine compliance with federal flood hazard regulations. This section also states that the Barrett Avenue culverts will be increased in capacity from three (3) 30-inch culverts to five 8-foot by 2-foot box culverts. It is not clear why such an increase in capacity is required if the Project will not increase flood flows to Tennant Creek. It is of particular concern that increasing the capacity of the Barrett Avenue culvert will increase the extent and frequency of flooding in Tennant Creek to downstream and neighboring properties.

Response C.62: The duplicate effective model carries the ineffective flow areas through subsequent models. The FEMA hydrology is used for project tie-in at the upstream and downstream ends of the revised reach per 44 CFR 65.6 (a)(2) and is now clarified in the revised Drainage Report (Final EIR Appendix C). See Master Responses 4 and 4.

Also, the increase in culvert size at Barrett Avenue is proposed to limit backwater constraints now that the site proposes to raise its overall grade, keeping previous overland flooding contained in channel. Since the analysis performed uses steady state modeling, areas located downstream of Barrett Avenue will show no impact. While the upsizing of Barrett culverts does increase "available" capacity in the channel, it does not alter the peak discharge hydrology that was assumed for the steady state modeling.

Comment C.63:

f. Table 4-1, which summarizes the 100-year water surface elevation based on the assumed post-project conditions, show increases at several locations along the water surface profile. See comments 16.

> **Response C.63:** The comment is correct that the project shows changes to water surface elevations within the limits of the project. Outside of the project limits, the water surface elevations are shown to be unchanged. The project will submit a LOMR to revise channel water surface elevations following FEMA standards. See Master Response 4.

Comment C.64: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Attachment 1: Storm Drain Discharge and Detention Calculations
The outlet, or the assumed point of discharge along Tennant Creek needs to be specified for all drainage calculations.

> **Response C.64:** The outlet that is used as the basis of comparison between existing drainage conditions and proposed drainage conditions is identified as the intersection of Tennant Creek and Barrett Avenue and is shown visually in the revised drainage report (Final EIR Appendix C) via Figures 2-1 and 2-2.

Comment C.65: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Attachment 2: HEC-RAS Project Workmap
For the cross sections provided, the limits of the assumed floodplain encroachments need to be clarified.

> **Response C.65:** The supporting HEC-RAS model in Appendix C contains all requested floodplain encroachment stations. See Final EIR Appendices C and E.

Organizations, Businesses, and Individuals

D. Becker, Kathy (dated January 3, 2024)

Comment D.1: My husband and I attended the meeting you held regarding the New Horizons Development planned for the Barrett/Hill Road area. Most of the attendees at this meeting had received a community notice for this meeting, but we live on Mira Bella Circle. As such we live beyond the 600ft limit for sending out such community notices. Thank goodness for friends, we received the alert to your meeting.

Following your meeting I thought there would be a follow-up/alert via some form of social media to notify the other surrounding homes in the Jackson Meadows area to the New Horizons issues/concerns. I am frequently on NextDoor, Morgan Hill Community on FB and a variety of other local social media outlets. I did not see anything further so as I write this I still have serious concerns

that the majority of the Jackson Meadows residences no nothing about the continued development and assessments of this area. The billboard has been there so many years that most have either forget about it or ignore it. I know this is likely too late, but I honestly believe an effort should be made to notify or alert the thousands of residence in Jackson Meadows who will be very seriously impacted by this development.

You have asked those of us who attended to submit in writing our concerns. Here are some of mine. I apologize for coming in at the 11th hour but hope my input is considered.

Response D.1: The comment includes introductory text and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment D.2: As brought up by an individual who lives on or near Mira Bella Circle, those of us on Mira Bella Circle have primarily one way in and one way out in a case of emergency. As the gentleman pointed out, we had the Coe Park fire in August 2020 and while most of us had our vehicles loaded and read to leave it would have been a mad exodus for hundreds of us just from Mira Bella Circle alone. This does not factor in the hundreds to thousand more from Cantor Drive and ALL the surrounding streets/homes! With the city developing New Horizons there would be additional hundreds to thousands more people and vehicles trying to exit. In an emergency the small two lane Barrett that further dumps into the small two lane Hill Road are all that separates us from disaster and life or death. Seriously - we saw this happen several times in the Camp Fire, Napa, Santa Cruz! What are the considerations to remedy this type of horrific scenario in the event of a future fire, mudslide, earthquake or other tragedy?

Response D.2: The comment questions the adequacy of evacuation routes in the case of a wildfire or geologic emergency. As discussed on Pages 106 through 110 of the Draft EIR, the proposed project would be constructed consistent with the California Building Code and design-level geotechnical recommendations in order to avoid and reduce impacts from seismicity and geologic and soils hazards. Further, as discussed on Page 130 of the Draft EIR, the project would be constructed in accordance with current building and fire codes to ensure structural stability and safety, and site development plans would be reviewed by CalFire to ensure fire protection design features are incorporated and that adequate emergency access is provided.

As described on Page 225 of the Draft EIR, the City of Morgan Hill has an Emergency Operations Plan, updated annually, that establishes the emergency organization, assigns tasks, specific policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the Standardized Emergency Management System. The plan includes an analysis of natural and human-caused hazards, including wildfire. In addition, the City has an emergency alert system that notifies residents for evacuation when necessary. The project site is not located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones. The project site is located approximately 200

feet west of a High Fire Hazard Severity Zone and as designed, incorporates multiple points of access in and out of the new development. As discussed throughout the Draft EIR, the project would comply with the Emergency Operations Plan, which applies to all types of hazards, including wildfires and geologic hazards. (

For these reasons, the project was determined to be consistent with the City-adopted Emergency Operations Plan, and would have a less than significant CEQA impact pertaining to wildfire and geologic hazards.

Comment D.3: I brought up at the meeting about the intense traffic every morning and afternoon at Barrett, Trail Drive, Hill Road and Fountain Oak due to the parents dropping off and picking up their children from Jackson oak Academy. It is a sheer nightmare today that residences in all of Jackson Meadow are nearly held hostage every school day by the flood of parent vehicles in every single one of the streets I mentioned above from approximately 7:30am - 9am and again from 2pm - 3:30, sometimes 4pm every afternoon. Rarely do the parents adhere today to the stop signs and crosswalks throughout Jackson Meadows and the no left turns at Gallop and East Dunne. What are the city's plans to address these traffic issues that involve our children, pedestrians and others? We cannot simply ignore and allow for more fatalities. If the city and planning commission has not considered past fatalities due to poor logistics then please do so now!!!

Response D.3: The comment pertains to existing observed traffic conditions in the area. Section 4.17.3 Non-CEQA Effects in the Draft EIR includes a level of service (LOS) analysis for informational purposes, in accordance with the City's LOS General Plan Policy TR-3.4. The LOS analysis includes an analysis of AM and PM peak-hour traffic conditions for 12 signalized intersections, 12 unsignalized intersections, and one future intersection. As discussed on pages 198 and 199 and shown in Table 4.17-2 of the Draft EIR, implementation of the proposed project would not have an adverse effect on operations at any of the intersections because the intersections would continue to operate at acceptable LOS (D or better).

As shown in Table 4.17-3 of the Draft EIR, six intersections would operate at unacceptable LOS under Year 2030 Cumulative conditions. These include Hill Road/Fountain Oaks Drive and Hill Road/Barrett Avenue, both of which the commenter references. As discussed on pages 208 and 209 of the Draft EIR, the project would be required to implement a separate westbound left-turn lane on Fountain Oaks Drive, and a traffic signal with protected phasing on Hill Road or a roundabout at the Hill Road/Barrett Avenue intersection. Implementation of these improvements would reduce the intersections' LOS under cumulative conditions to acceptable LOS as well as improve traffic safety.

Comment D.4: I am retired now so in most instances I can try and set my schedule to AVOID Barrett and Hill Road and all other roads/streets that would allow me to leave Jackson Meadows with some measure of safety. I have not heard that the city or the city planning commission has considered the enormous amount of traffic on the Jackson Meadows surface streets to all of the vehicles

attempting to avoid using Hwy 101. This is truly disturbing as it has been going on for years and years. In 2024 it has become nearly impossible to get onto Hill Road or across the street using Barrett unit well after 9am. Cars coming from Foothill to Tennant to Hill rarely, if ever, use the stop signs so hoping for a break in traffic is a joke. We will add insult to misery by developing New Horizons without realistic road improvements and logistics to include stops lights, blinking pedestrian crossings, etc. I for one would like to see and hear what the actual plans are for moving hundreds and thousands more residences through the streets in a safe manner. Some the vehicles using these surface streets to avoid the highway are going as fast as 50-60 miles per hour on a two lane road and even passing!!!

Response D.4: As discussed under Response D.3, the project is required to implement a separate westbound left-turn on lane on Fountain Oaks Drive at the Hill Road/Fountain Oaks Drive intersection, and either a traffic signal with protected phasing or a roundabout at the Hill Road/Barrett Avenue intersection. These improvements would improve the LOS, reduce wait times for vehicles, and improve safety at these intersections. Further, pages 207 through 210 of the Draft EIR discusses the required improvements for the Condit Road/Main Avenue, Condit Road/Tennant Avenue, Murphy Avenue/Tennant Avenue, and Condit Road/Diana Avenue intersections. These include signal modifications, lane striping, and new traffic signals with protected phasing. These requirements would improve LOS as well as improve traffic safety in the area.

Comment D.5: Numerous Jackson Meadows, Jackson Oaks and Holiday Estate access the Pedro Ponds to walk. Many are crossing Hill Road to access the ponds either by themselves or with their precious pooches. I have seen on far too many occasions near misses on Hill in the area from East Dunne to the area that is slated to be New Horizons. What plans are in place to insure the safety of these people accessing the ponds? For years now with the horrifically increased traffic on Hill Road there hasn't been any crosswalk, blinking or otherwise considerations or development. What are the plans for this in todays increased traffic AND the development of New Horizons?

Response D.5: The San Pedro Pond is located approximately 830 feet northwest of the project site. Any crosswalk and lighting improvements related to access of the San Pedro Pond are out of the scope of the project. This comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately.

Comment D.6: We have lived on Mira Bella Circle for 26+ years and we have thoroughly enjoyed seeing and watching the wildlife that visits Jackson Meadows. With the development of New Horizons has the city considered the disruption to wildlife? I've seen the city not plan for disruption in wildlife in closing the dam. These wild animals are left with no immediate access to water and food. Let's remember, they were here first – we are just visitors…

Response D.6: A Biological Resources Report was prepared for the project by HT Harvey & Associates (see Appendix D to the Draft EIR). Under CEQA, a project is

required to analyze its potential impacts to candidate, sensitive, or special-status plant and animal species. As discussed on Pages 62 through 70 of the Draft EIR, the project would be required to implement mitigation measures MM BIO-1.1, 2.1, 3.1, and 4.1 to reduce any potential impacts to nesting birds, burrowing owls, roosting bats, and the monarch butterfly. As discussed on Page 71 of the Draft EIR, the project does not contain suitable habitat for special-status plants, and therefore would not have an impact on special-status plant species. The displacement of common animals using the site currently as habitat is acknowledged and disclosed in the Draft EIR, and is a common impact from development of vacant, undeveloped sites such as the subject site.

Comment D.7: Curious if the city has plans to insure this New Horizons development isn't invaded by the rats caused from the trash and garbage from the five (5) large homes across Barrett and that back up to the farm fields. I believe the homes and surrounding farm land are owned by Emily Chen. I believe she is well known to the city. She built these homes and there are dozens of residences in each of the homes who allow their trash and garbage to be thrown and tossed outside the homes. This has caused rats to invade areas of Mira Bella Circle and Barrett. Because each house has anywhere from 10-15+ cars per residence you have to factor those to the traffic issue AND a serious vehicle abandonment issue. Adding more people and homes to this immediate area will only make these three issues (rats, large amount of people per household, and hundreds or more vehicles) more pronounced.

Response D.7: This comment pertains to purported issues with rats on a property unrelated to the subject project site, and is not a comment regarding the project's potential environmental impacts. Pests such as rats are not considered an environmental issue under CEQA. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment D.8: Hill Road is both city and county. The portion that would run parallel to the New Horizon development is city property therefore it is maintained by the city. The other portion of Hill that runs to Tennant is county and is rarely maintained. Are there plans in the development that that portion of Hill and all of Barrett will be overseen and then care of by the city?

Response D.8: There are no plans for the City to take over the maintenance of portions of Hill Road or Barrett Road that are subject to County jurisdiction at this time. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment D.9: Barrett is overseen by the county and is never ever, ever taken care of. The rain created huge gullies alongside one side of Barrett years ago and they just get larger with each year of rains. The area tends to flood out where the creek runs under Barrett and the pot holes are simply getting larger. Who will be responsible for Barrett when/if New Horizons is developed?

Thank you Tiffany for your time and considerations of my input. I appreciate the fact that we can provide input and dearly, dearly hope some good come from it. I hope others provided input but I am sorry that there are likely many in Jackson Meadows who weren't afforded the opportunity. I also hope the city will take care of some very serious and dangerous traffic/road issues BEFORE New Horizons breaks ground. THIS IS TOO SERIOUS NOT TAKE PROACTIVE MEASURES NOW!!!

Response D.9: Refer to Response F.5.

E. Hanson Bridgett LLP (December 18, 2023)

Comment E.1: Our office represents Morgan Hill Devco, LLC, the applicant for the above-referenced project. We appreciate the City's publication of the Draft EIR, and the applicant looks forward to the completion of environmental review of this project. To that end, this letter focuses only on two impact areas, Agricultural Resources and Greenhouse Gases, where we found larger legal discrepancies with how the project was analyzed under CEQA, as detailed below.

These issues are important because, not only are the Agricultural Resource and portions of the Greenhouse Gas mitigations unwarranted under CEQA, they would result in monetary exactions that would increase the cost of delivering the project to the Morgan Hill community, and could impede the delivery of much-needed affordable housing for seniors, which is the central feature of the New Horizons project. The applicant therefore respectfully requests the changes detailed below, to ensure that the Draft EIR is processed in accordance with the requirements under CEQA and constitutional principles governing lawful mitigation measures.

Despite the persistent affordability crisis plaguing the state with each passing year, the housing crisis has been eclipsed by even stronger headwinds from rising construction costs, lack of financing, and the significant increase in cost of builders' risk insurance. As such, the applicant would prefer to reinvest the unnecessary mitigation costs back into the project, to deliver the highest quality amenities that can reasonably be provided for a project of this scale.

Response E.1: The comment includes introductory text regarding two issues (agricultural resources and greenhouse gases) that are discussed in more detail in following comments, for which responses are provided below, and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment E.2: The Draft EIR's Analysis of Agricultural Resources is Based on Outdated Mapping; Substantial Evidence Supports a Finding that the Property is not Prime Farmland

The City, as the lead agency under CEQA, must exercise its own judgment to establish a significance threshold for agricultural mitigation for the New Horizons project that reflects the existing conditions at the site, which has not been irrigated for more than 5 years. As noted in the CEQA Guidelines, "[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the [City], based to the extent possible on

scientific and factual data. An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." The site therefore cannot be designated as prime farmland, farmland of statewide importance, or unique farmland given the facts in this case that establish that no irrigation or farming of the site has occurred for at least five years.

In addition, a project-specific significance threshold is more appropriate than the default approach, particularly when the default approach is based on an outdated, general assumption about the site that is not supported by substantial evidence. In addition, project-specific thresholds do not need to formally adopted because the requirement for formal adoption applies only to significance thresholds of general application.

Here, the New Horizons Draft EIR follows the typical approach of analyzing impacts to agricultural lands by referring to the significance threshold in Appendix G, which generally states that the Farmland Mapping and Monitoring Program should be used to identify Prime Farmland or Farmland of Statewide Importance. The Department of Conservation (the "DOC"), however, defines Prime Farmand, Farmland of Statewide Importance, and Unique Farmland as follows:

> *Prime Farmland* has the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some point during the four years prior to the mapping date.
>
> *Farmland of Statewide Importance* is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
>
> *Unique Farmland* consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years to the mapping date.

The DOC provided the above statements in bold, underlined text, to punctuate the importance that irrigation and land cultivation are essential components for any land meeting the above designations. These are also essential features for agricultural mitigation measures under CEQA to withstand constitutional scrutiny.

For the New Horizons project, substantial evidence clearly supports the finding that the site has not been irrigated for more than five years. The attached, historical aerial imagery from Google Maps confirms that 2017 was the last year that irrigated row crops were planted at the site. The most recent update to the Farmland Mapping and Monitoring Program occurred in late 2022, or early 2023. The New Horizons project site therefore has remained unirrigated for more than four years

since the last mapping effort by the DOC. The same result would be found if the four-year period were measured from the City's publication of the Notice of Preparation in 2021.

The FMMP also cautions that its "data is not designed to be used for parcel specific planning purposes due to its scale and size of the minimum mapping unit." The FMMP is therefore akin to the US Army Corps' wetlands mapper: the Corps uses GIS and other desktop surveys to map out the areas where wetlands have the potential to occur. The Corps, however, does not base its jurisdictional delineation of wetland areas on the wetlands mapper when actual, site-specific conditions show that none of the criteria for wetlands exist onsite. Here, the FMMP, just like the Corps' wetlands mapper, cannot be used to supersede actual aerial data showing that the New Horizons site has not been irrigated for more than five or six years.

Accordingly, the applicant requests that the threshold of significance for potential impacts to Agricultural Resources in the Draft EIR be revised, as follows:

> 4.2.2.1 Project Impacts
>
> (a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance~~, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency,~~ to non-agricultural use?

This revision to the Draft EIR should be coupled with the incorporation of aerial slides from Attachment 1 to this letter, to document with substantial evidence in the Draft EIR that none of the project area has been irrigated for more than 5 years since the last update to the FMMP in 2022, and for more than 4 years since the publication of the NOP. As such, the applicant requests that the significant and unavoidable finding be revised to a less-than-significant impact, with no mitigation required, in accordance with CEQA and constitutional law.

> **Response E.2:** The comment requests that the project's significant and unavoidable impact to agricultural resources should be revised to a less than significant impact because the project site has not been irrigated or used for farming practices for the last five years, and that the Draft EIR relies on an outdated version of Important Farmland data.
>
> The latest Important Farmland data available on the California Department of Conservation's website is dated 2020.[1] Although Page 27 of the Draft EIR references the 2018 Important Farmland map, the same portions of the project site are labeled as Prime Farmland and Farmland of Statewide Importance on both the 2018 and 2020 maps. The purpose of the Farmland Mapping and Monitoring Program (FMMP)

[1] California Department of Conservation. "Farmland Mapping & Monitoring Program." Accessed January 19, 2024. https://www.conservation.ca.gov/dlrp/fmmp/

is to serve as a current inventory of agricultural resources, and the Draft EIR is consistent with the latest information available on the California Department of Conservation's website. If the last year site was last irrigated was 2017, that would fall within the stated requirement that land must have been used for irrigated agricultural production at some point during the four years prior to the mapping date (2020). For these reasons, this comment does not warrant text revisions to the Draft EIR.

Additionally, if the project site has not been irrigated or used for farming since 2017, the project proponent could consider contacting the Department of Conservation directly to request an update to the Important Farmland map to reflect the changed status of the site's agriculture use, and should the FMMP show the site no longer mapped as Prime Farmland or Farmland of Statewide Importance, the City could rely on the changed mapping status of the site at the time subsequent entitlement actions, e.g. Development Permits, tentative maps, etc. occur as the project is implemented over time.

Comment E.3: The Draft EIR's Analysis and Mitigation of Greenhouse Gas Emissions Should Be Based on the Most Current Guidance Adopted by the Bay Area Air Quality Management District

The GHG analysis in the Draft EIR refers to the Bay Area Air Quality Management District to establish a "bright-line" CEQA threshold. In 2023, however, BAAQMD updated its GHG CEQA threshold and on longer recommends using a bright-line or quantitative approach to calculate a project's GHG impacts and GHG reduction goals. The Draft EIR should be revised to incorporate BAAQMD's updated CEQA significance threshold, which it adopted after a lengthy rulemaking, to establish a qualitative and performance-based approach for reducing greenhouse gases, particularly for residential projects such as New Horizons. Alternatively, the Draft EIR should be revised to establish that compliance with BAAQMDs updated mitigation measures would adequately mitigate the project's potential impact to global climate change.

Under BAAQMD's updated GHG CEQA threshold, a project's GHG impact should be deemed less than significant if it incorporates certain Design Elements, or demonstrates Consistency with a Local GHG Reduction Strategy. Under the first test, if certain design elements are incorporated into the project, such as all-electric residential buildings, the City should find that the project will contribute its fair share in achieving California's long-term climate goals, and that the project would not cause a cumulatively considerable contribution to global climate change. Under the second threshold, the City should find that the project will have a less-than-significant impact on global climate change if the project is consistent with the City's local GHG reduction strategy. These performance-based mitigation measures supersede BAAQMD's previous approach to quantify GHG emissions and establish project-level quantified reductions. The Draft EIR mitigation measures should therefore be revised to allow compliance with BAAQMD's updated performance standards as mitigation measures that will achieve the necessary GHG reductions to ensure that the project will not have a significant impact on global climate change.

BAAQMD has moved away from recommending carbon credits as mitigation, focusing instead on measures that achieve GHG reductions and sequestration occurring within the community. This shift is based on the difficulty in enforcing carbon credits, and the fact that local plans should be favored, particularly where they demonstrate how the state's long-term GHG reduction targets can be achieved without the use of offsets. In addition, neither the applicant nor the City should be in the business of procuring and monitoring the veracity of carbon credits, when significant, verifiable reductions can be made locally. Finally, local mitigation provides greater co-benefits that improve the quality of life of the community.

Accordingly, the Draft EIR Should Rely on the City's Climate Action Plan, Pursuant to BAAQMD's Updated GHG CEQA Significance Threshold, to Find that the Project Will Have a Less-than-Significant Impact on Global Climate Change

The City's Climate Action Plan substantially complies with the requirements of a local reduction strategy. Compliance with the City's CAP effectively mitigates the project's potential impacts to global climate change, particularly because the New Horizons project will commit to building all-electric residential buildings, and will ensure that garages are equipped to be ready for electric-vehicle charging, in accordance with California Electrical Code, Article 625.

The City of Morgan Hill's CAP is an adequate GHG reduction strategy under BAAQMD's qualitative significance threshold, and meets the criteria of the CEQA Guidelines, particularly when reviewed in connection with the analysis in the City's General Plan EIR, which included a quantification of existing and proposed GHG emissions within City limits, through 2035. The City's 2035 General Plan EIR identified buildout scenarios of the proposed General Plan that would achieve BAAQMD's 2035 performance standards. The City's Climate Action Plan adopted in 2021 goes even further, by identifying actions needed to achieve a targeted 100% reduction in local GHG emissions by 2045.

In addition, MM GHG-1.1 states that "[t]he GHG reduction plan shall be implemented until the City adopts its GHG reduction plan consistent with the State's interim 2030 GHG emissions reduction target of 40 percent below 1990 levels." However, the City has already adopted a GHG reduction plan consistent with the State's 2030 reduction target. More importantly, the CAP targets a 100% reduction in local GHG emissions by 2045, and therefore is consistent with GHG reductions targets under California Executive Order B-55-18 and SB 100 (De Leon, 2018).

Accordingly, the Draft EIR should be revised to note that the project meets BAAQMD's CEQA threshold for GHG emissions without the incorporation of additional mitigation measures.

Thank you for considering these comments and, again, we look forward to the completion of environmental review for this project. Please do not hesitate to reach out to me or the applicant if you have any questions regarding our comments.

Response E.3: The comment suggests that the Draft EIR's greenhouse gas (GHG) emissions analysis should be revised in accordance with the Bay Area Air Quality Management District's (BAAQMD's) 2023 update. The comment also asserts that

this revision would minimize the significant and unavoidable GHG impact to less than significant levels and eliminate the need for mitigation measure MM GHG-1.1.

The commenter is correct that the 2023 BAAQMD guidelines state a project's GHG impact can be considered less than significant if the project incorporates certain design elements or demonstrates consistency with a Local GHG Reduction Strategy/ Climate Action Plan (CAP). As discussed on Page 114 of the Draft EIR and Page 32 of the Air Quality and GHG Report (Appendix B to the Draft EIR), the City's CAP does not have a specific metric ton GHG threshold for project-level construction or operation, nor does it have a CAP compliance checklist. The CAP is, therefore, does not qualify as a qualified CAP, and the project's GHG emissions cannot be covered by the CAP for purposes of CEQA. As such, the project was analyzed using the quantitative modeling approach, based on the BAAQMD GHG Guidelines in effect at the time the Draft EIR was prepared. CEQA allows for both quantitative and qualitative approaches to evaluating GHG emissions, and the BAAQMD GHG guidelines prior to 2023 recommended quantitative thresholds, and the Draft EIR's approach to evaluating GHGs was based on the quantitative BAAQMD thresholds in effect at the time the NOP was issued.

Furthermore, if the current BAAQMD qualitative approach was taken to analyze GHG emissions for this project, the project would continue to have a significant and unavoidable GHG emissions impact as a result of its significant and unavoidable VMT impact, since one of the current BAAQMD qualitative criteria for less than significant GHG emissions is for a project to have less than significant VMT. For these reasons, this comment does not warrant text revisions to the Draft EIR or GHG report.

F. Rose, Donna (dated January 3, 2024)

Comment F.1: These are my comments regarding the draft EIR report for the New Horizons project.

1. The street that I currently live on Sorrel Way at Fountain Oaks is planned to be opened up to support the new housing development as a through-street to Barrett. Currently, Sorrel on the other side of the existing field is Sorrel Road not Sorrel Way. Will our street continue to be Sorrel Way?

Response F.1: The proposed project would not change the name of the existing Sorrel Way. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment F.2: 2. What kind of safety feature will be added to the exit from the development on to Sorrel Way? Will there be a stop sign or a roundabout? Originally, the developer said there would be a surface grading difference installed to slow down traffic between Barrett and Fountain Oaks/E. Dunne. This doesn't appear to be mentioned in the EIR. What is the current safety plan for Sorrel Way?

Response F.2: The applicant proposes a four-way stop at the intersection of Sorrel Way and the proposed Street A. The plans also include a proposed 60-foot right-of-way at Barrett Avenue, which would be implemented as a speed reducing measure, given the relatively narrow travel lanes in a 60-foot right-of-way would serve to limit the speed of most drivers.

Comment F.3: 3. Planned residential parking appears to be insufficient for the amount of residents. How will parking on current nearby resident streets (e.g. Sorrel Way) not be negatively impacted?

Response F.3: As discussed on page 9 of the Draft EIR, the project would include a total of 1,190 off street parking spaces, consisting of 632 covered spaces, 538 uncovered apron spaces, 12 uncovered parking bays, and eight car ports. Street parking would also be available. The project, with 320 units, complies with the City of Morgan Hill's parking space requirements in Chapter 18.72.030 and Chapter 18.84 of the Municipal Code, which are summarized in the table below.

City of Morgan Hill Parking Space Requirements

Residential Land Use	Number of Required Parking Spaces
Multifamily Dwellings	
Studio or One-Bedroom	1 covered and 0.5 uncovered per unit
Two Bedroom	1 covered and 1 uncovered per unit
Three Bedroom	1 covered and 1.5 uncovered per unit
Senior Housing	
Multifamily	1 covered per unit
Single-family	50% of units with 2 covered spaces, 50% with 1 covered space
Single-Family Dwellings, Attached and Detached	2 covered per unit
Accessory Dwelling Units (ADUs)	None required for ADUs constructed within primary residence or accessory structure; none required for junior ADUs

As discussed throughout the Draft EIR, the project is estimated to generate 975 residents. The total number of 1,190 parking spaces is adequate for the estimated number of residents, applying the parking requirements noted above to the proposed units and factoring in the types of units and bedroom counts.

Comment F.4: 4. The EIR acknowledges traffic will be heavier at Fountain Oaks and Hill Road. This is a heavily trafficked area currently without the addition of these new houses. How does the city plan on addressing this issue?

Response F.4: While CEQA requires a vehicle miles traveled (VMT) approach for evaluating project impacts on transportation systems, the City sets forth Level of Service (LOS) standards and criteria for roadways in General Plan Policy TR-3 (refer to page 185 and 186 of the Draft EIR). As such, the Transportation Analysis prepared for the project evaluated the project's LOS impacts on 12 signalized intersections, 12 unsignalized intersections, and one future intersection. This discussion is included in the Draft EIR for informational purposes (refer to Section 4.17.3 Non-CEQA Effects beginning on page 196 of the Draft EIR).

As suggested by the commenter, traffic associated with the proposed project would degrade the LOS at the Fountain Oaks and Hill Road intersection to an unacceptable LOS E during the AM peak hour. As discussed on pages 208 and 209 of the Draft EIR, the project is required to implement a separate westbound left-turn lane on Fountain Oaks Drive. Implementation of this improvement would improve the intersection's LOS to an acceptable LOS C during the AM peak hour.

Comment F.5: 5. There is commonly flooding at the end of Sorrel Way at the existing field during the winter. This problem has been reported several times to the City. How will the developer solve, and not exacerbate, this problem?

Response F.5: As discussed on page 142 of the Draft EIR, the project site is known to experience flooding that has led to mudslides in the past. During the construction phase, a Stormwater Pollution Prevention Plan (SWPPP) and a Stormwater Management Plan (SWMP) will be prepared to avoid on-site erosion. Within the proposed project, the amount of open space will be reduced due to the new residential development. Refer to Master Response 4 for an explanation as to why the project would not worsen existing flooding issues.

G. Rose, Donna (dated January 3, 2024)

Comment G.1: I need to correct the street name from my last email. It is Sorrel Way on one side of the field and Sorrel Drive on the other side of the field. This is the street that the developers plan to open up and make a thorough-fare.

Response G.1: The comment makes a revision to prior Comment F.1, which was responded to in Response F.1, and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

H. Serrano, Abbie (dated January 2, 2024)

Comment H.1: Further to the City's DEIR meeting on December 4th, 2023, following are some of the concerns addressed regarding the New Horizons Development project located along Barrett Ave and Hill Road:

1. Pedestrian safety at San Pedro Pond: Pedestrian with pets and children cross Hill Road in front of the Ponds on a daily basis. There is no pedestrian crosswalk or additional lighting to ensure their safety.

Response H.1: Refer to Response D.5.

Comment H.2: 2. Water channel culvert that parallels Hill Road near Fountain Oaks Drive: During rainy season, this waterway has been known to flood causing road damage and slowing vehicular traffic to a crawl.

Response H.2: Refer to Master Response 4 for an explanation as to why the project would not worsen existing flooding issues.

Comment H.3: 3. Highway 101 commuters using city surface streets to bypass congested traffic on freeway: Tennant Ave, Murphy Rd, Hill Rd, Dunne Ave, E. Main Street are all being used as roadways to avoid traffic and adds to surface street congestion. Additionally, drivers recklessly disobey posted traffic speed limits, and pass cars into oncoming traffic without regard for pedestrian and cyclists safety.

Response H.3: This comment pertains to existing conditions that have been observed and does not question the adequacy of the Draft EIR analysis. To the extent commuters are avoiding US 101 Highway and diverting to local streets, those diverted trips are reflected in the traffic counts taken to document existing conditions for the project's traffic impact analysis and the traffic conditions reflecting the project implementation also account for those commute trips on local streets; therefore, no further response is required. The City will consider this comment separately.

Comment H.4: 4. During school session there is a significant and impacting amount of vehicular traffic along Barrett Ave, Fountain Oaks Drive and Trail Road. Parents regularly disobey speed limits, double park, park in red zones etc to drop off children at Nordstrom Elementary School. At times, it is difficult and dangerous to turn north and southbound onto Hill Drive from Fountain Oaks Drive and Barrett Avenue.

Response H.4: This comment pertains to existing conditions observed around the elementary school and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately.

Comment H.5: 5. Hill Road is a low-lying roadway that often floods during the rainy season. The pavement inevitably erodes and causes large potholes that require annual repairs. During repairs, the roadways are completely shutdown or reduced to one lane only. This increases traffic congestion in area with limited egress.

Response H.5: This comment pertains to observations of existing conditions and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately.

Comment H.6: 6. Fire safety concerns: Most recently, the SCU fire engulfed Santa Clara County. Residents were placed on high-alert and advised to prepare for evacuations over several days. If the fire crested the mountain side along Harvey Bear Park and Anderson Lake, thousands of residents would be forced to evacuate within a short peroid of time causing massive gridlocks and chaos. For those owning 4-wheel drive vehicles, they drive off-road or on the sidewalks to save their lives. Families living near or off Trail Drive have very limited egress during natural disasters or emergencies. East Dunne Ave at Gallop Drive became a right turn only exit after a fatal vehicular accident at said intersection. This direction of travel forces drivers into danger should a fire were crest westbound from the mountains.

Response H.6: As discussed in Response D.2, the project would be constructed in accordance with current building and fire codes, site development plans would be reviewed by CalFire to ensure fire protection design features are incorporated and that adequate emergency access is provided, and the project has been determined to be consistent with the City's Emergency Operations Plan.

Comment H.7: 7. Barrett Avenue is a two-lane country road without any sidewalks or buffer for pedestrians or cyclist. Is there a plan to add sidewalks to the north and south sides of Barrett Avenue to ensure safety?

Response H.7: As discussed on Page 12 of the Draft EIR, the project proposes off-site improvements, including curb and gutter with landscape strip, sidewalk, and streetlight improvements along the project frontages at Hill Road and Barrett Avenue. As discussed on Page 193 of the Draft EIR, the project's proposed improvements along Hill Road will be required to accommodate the implementation of planned bike lanes along Hill Road. In addition, MM TRN-1.1 described on Page 194 of the Draft EIR requires the project to improve the surrounding pedestrian network by including sidewalks to allow for connections to adjacent properties. Further, as discussed on Page 209 of the Draft EIR, the project will be required to implement a traffic signal with protected phasing on Hill Road at the Hill Road and Barrett Avenue intersection, which would improve the intersection's LOS to an acceptable LOS B while increasing safety.

Comment H.8: 8. Jackson Park is slotted to be revamped and will include a dog park. Dog owners allow pets to run off leash at this park against the City's municipal code. I've never seen a police officer or code enforcement officer enforcing these laws.

Response H.8: The project proposes off-site improvements to Jackson Park including trail connection to Hill Road, infrastructure to improve drainage/flooding issues, and expansion of the park to include additional amenities. These additional amenities

would include a dog park. Figure 3.2-6 of the Draft EIR shows the project's Open Space Exhibit. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately during the Design Permit and off-site improvement agreement process. Park improvements will be reviewed by the Parks and Recreation Commission, and then by City Council.

Comment H.9: Is there a consideration for additional parking in the area, as it is all residential curbside parking only.

Response H.9: At this time, project plans do not propose additional parking at Jackson Park. The Jackson Park improvements have not been fully flushed out, as these improvements are intended to take place during Phase 2 of the project. The City will take this request for additional parking into consideration during the Design Permit and off-site improvement agreement process.

Comment H.10: 9. In 2017, Anderson Reservoir overflowed which caused the flooding and closure of N/B and S/B Highway 101. Drivers are forced onto Monterey Road to bypass the closure. This cause gridlock traffic in most areas east of Highway 101.

Response H.10: This comment pertains to conditions related to prior flooding experienced in 2017, and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately.

Comment H.11: 10. All three freeway onramps (Tennant Ave, E. Dunne Ave, Cochrane Rd.) to Highway 101 have metering lights with a designated commuter lane. As well-intended as these traffic signals are, some drivers cutoff other drivers by driving over the solid white lines and merging at the last minute to avoid sitting in traffic. In 2016, the Metropolitan Traffic Commission reported 24% of drivers in the commuter lane were solo drivers. Is there consideration for allowing 2-vehicles per green light to merge onto the freeway. Also, at westbound Cochrane Rd onto northbound 101 there is a "Stop at Red" traffic sign, yet there are several erected roadway pylons that would not allow for other traffic to flow onto the same traffic lane, requiring drivers to wait for the green traffic signal appears moot. This adds traffic backups on surface streets.

Response H.11: The referenced conditions observed at freeway onramps and roadways are unrelated to and not within the scope of the project. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately.

Comment H.12: 11. The field where the development site is set to construct is regularly visited by animal wildlife. I've seen deer, roadrunners, ducks, foxes, coyotes, and so forth graze on these lands as a mean for survival. Will there be any consideration for native plants and/or trees that they may continue to feed on?

Response H.12: Refer to Response D.6.

Comment H.13: 12. Is the city and Morgan Hill Police Department considering adding additional resources to their force? I've called the police department on several occasions and although the dispatchers answer promptly, I've waited over an hour for an officer to arrive at the scene of an assault where a mentally unstable man was vandalizing property and assaulted an elderly male causing injury. It seems the city continues to add housing without consideration for the impact on the 9-1-1 system.

Response H.13: Police Department's staffing is not within the scope of the CEQA analysis of the project, as CEQA is focused on whether the project would require or result in the need to construct new facilities or the modification of existing facilities to serve the project, i.e. physical activities that alter the environment, and not with staffing levels for various departments that would provide services to future project residents. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required. The City will consider this comment separately.

Comment H.14: 13. Will the project contain any retaining walls to reduce overall neighborhood noise? There are a handful of residences along Hill Rd and Barrett Ave that regularly have large annual parties, especially during the summer months. Some of these parties have live bands further disrupting residents. Will the city amend the noise ordinance to terminate at 10PM instead of the current 11PM curfew? South of Barrett Avenue is the Sheriff's Department jurisdiction. They habitually have extended response times to such calls. Will the city adopt a "brotherly code" where the Morgan Hill PD can enforce these laws in a timely manner?

Response H.14: This comment pertains to noise from existing residential areas near the site, and does not pertain to noise related to the proposed project. As this comment is unrelated to the EIR's analysis of the project's impacts, no further response is required. The commenter is encouraged to contact City code enforcement staff if there are noise complaints, including live music performances, from existing residences in the area.

Comment H.15: 14. There are 4 large residences at the east end of Trail Drive with a primary home and what appears to be an attached Additional Dwelling Unit. This area has become a boneyard for broken-down cars, trash strewn about and the city/sheriff does not appear to take an interest to addressing the sanitary issue which diminishes residents home value.

Response H.15: The referenced residences are not within the scope of the project. The comment does not pertain to the proposed project and does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

Comment H.16: 15. The addition of new homes in these areas will inevitably cause additional traffic congestion, including the downtown Morgan Hill area which is already overpopulated and congested. It can be difficult to find parking if one is to visit downtown Morgan Hill diners. Is there consideration for additional parking in downtown Morgan Hill to alleviate the parking dilemma?

Thank you for your consideration to this matter.

Response H.16: This comment pertains to parking in downtown Morgan Hill, which is unrelated to the project. The comment does not question the adequacy of the Draft EIR analysis; therefore, no further response is required.

I. Tanner, Tom (dated December 20, 2023)

Comment I.1: The following are questions/comments regarding the Draft EIR for the New Horizons project.

Transportation Analysis (Appendix J) uses an analysis methodology that does not closely match the real existing traffic volume from the nearby neighborhood. While the traffic study is based on accepted tools like VTA VMT Evaluation Tool and , the analysis is based on VMT per capita criteria (citywide average VMT per capita is currently 24.64) that does not accurately match existing neighbor vehicles per household and vehicle trips and probable matching/similar vehicles per household and vehicle trips for the project. The norm for vehicles per household in the existing neighbor is approximately 4 vehicles per domicile/household. Some neighborhoods (Trail Drive south of Barrett Ave) regularly have 40 vehicles for the 6 houses (almost 7 vehicles per house) on that segment of Trail Drive. Therefore ADT (average daily trips) and VMT per capita metrics are significantly understated for the transportation analysis making EIR alternatives and mitigations incorrect.

Response I.1: The vehicle miles traveled (VMT) evaluation completed for the project utilizes a tool developed by VTA in coordination with the 15 cities and towns within Santa Clara County. Local agencies, including the County and Cities of Morgan Hill and Gilroy, rely on the VTA VMT tool to complete required CEQA-required VMT analysis for proposed development projects. The VMT tool relies on the county-wide Travel Demand Model (TDM) which utilizes regional (Bay Area), County, and City-specific demographics including local-level household and job allocations to estimate project-generated VMT. The reported VMT for residential uses such as the proposed project utilizes average VMT per capita (i.e., VMT per resident) for home-based work trips. The use of average VMT per capita metric is consistent with guidance of the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.

Since VMT per capita is reflective of average length of home-based work trips for residents in the area of the project site, the number of residents and vehicles per household referenced by the commenter have no effect on the reported VMT per

capita. It should be noted that the reported average 33.25 VMT per capita for the proposed project is reflective of the average length of home-based work trips for residents in the area of the project site and is greater than the 24.64 VMT per capita referenced by the commenter. Additionally, as discussed on Page 193 of the Draft EIR, the transportation analysis analyzes the project against a threshold of 20.94 VMT per capita in accordance with OPR recommendations for 15 percent below the existing levels for residential land uses.

Furthermore, the VMT analysis indicated that the project would have a significant unavoidable impact. As discussed on Page 194 of the Draft EIR, implementation of mitigation measure MM TRN-1.1 would reduce the project's impacts to 29.55 VMT per capita, exceeding the 20.94 VMT per capita threshold, and cannot be mitigated further. Thus, presumptions of greater vehicles per household for the project will have no effect on the determination of impact, which is based on per capita, and not overall household, VMT. For these reasons, this comment does not warrant text revisions to the Draft EIR.

Comment I.2: Parking for the project is understated if Morgan Hill standards are utilized. The norm for vehicles per household in the existing neighborhood is approximately 4 vehicles per domicile/household. Some neighborhoods (Trail Drive south of Barrett Ave) regularly have 40 vehicles for the 6 houses (almost 7 vehicles per house) on that segment of Trail Drive.

Response I.2: Refer to Response F.3.

Comment I.3: Speed signage with Radar is not an effective mitigation. In order for this to be effective, local police/county sheriff/highway patrol has to have units actually monitor traffic speed and issue tickets. This will rarely be done (even if it is done, traffic speed resumes normal speed shortly after the monitoring is no longer done) so this mitigation will have no real effect on traffic speed.

Response I.3: The Draft EIR does not include a mitigation measure that requires speed signage with radar. As discussed on Pages 194 and 195 of the Draft EIR, the proposed Barrett Avenue roundabout has the potential to reduce the number of collisions and maintain low travel speeds through the intersection.

Comment I.4: Traffic analysis did not include the alternative of a 4 way stop at Hill Road and Barrett Avenue (as I requested in a previous email to Morgan Hill/Tiffany Brown). Most traffic on Hill Road is cut-through traffic (to avoid US 101) and is not from Morgan Hill residents but from the vehicles from outside Morgan Hill (from San Benito County, coming from Hwy 152/New Ave for example). When the Waze application from Google was first introduced, traffic on Hwy 17 was recommended to re-route through the Town of Los Gatos as a faster alternative to Hwy 17. Upon discovering this impact to its local streets, the Town implemented measures that would then have Waze from showing local streets as a better alternative than Hwy 17. Making the intersection of Hill Road and Barrett Ave as a 4 way stop sign intersection will discourage the non-Morgan Hill

vehicle traffic from using Hill Road northbound at Tennant Ave in the morning commute and evening commute traffic from southbound US 101 (often exiting at Cochran Ave then using east Morgan Hill local streets.) This alternative would be consistent with how Morgan Hill and Santa Clara County has recently installed stop signs (and created 3 way or 4 way stop intersections) on local streets to try to control traffic flow. Morgan Hill should implement this measure for Morgan Hill residents to improve and control cut-through traffic impacts.

Response I.4: The implementation of four-way stop control at the Barrett Avenue and Hill Road intersection may serve as a deterrent to the use of Hill Road as a regional cut-through route as suggested by the commenter. However, consideration of implementation of four-way stop control at the intersection as an interim measure to address the existing cut-through issue must be considered separate from the proposed project. As discussed on Page 209, the project analysis indicates the need to install a traffic signal at the Barrett Avenue and Hill Road intersection to facilitate the increase in traffic to and from Barrett Avenue. The installation of a traffic signal at the intersection will allow for safe controlled turn movements to and from Barrett Avenue and may also serve as a deterrent to the referenced use of Hill Road by cut-through traffic. For these reasons, this comment does not warrant text revisions to the Draft EIR.

Comment I.5: Traffic analysis did not consider the regional origin/destination of vehicle traffic (especially on Hill Road). See comment above.

Response I.5: The traffic operations analysis utilizes traffic counts at intersections which inherently include all traffic on the roadway system, including any potential cut-through traffic. However, the traffic analysis is not required to consider the origin/destination of vehicular traffic whether it be local or regional. Thus, this comment does not warrant text revisions to the Draft EIR.

J. Weyl, Denise (dated December 21, 2023)

Comment J.1: I am a homeowner on Trail Drive near the proposed 69.4 acre project bounded by Barrett Ave, Sorrel Dr, and Jackson Park. It's sad for me as a homeowner in this area for the past 25 years to see this large agricultural parcel about to be developed into over 300 residences. My concerns include: the traffic that will certainly increase as a result of this large new number of homes, water usage from this additional population in the age of increased drought, and the obliteration once again of Morgan Hill's largely agricultural/rural heritage.

I understand the need to increase the number of homes in Morgan Hill given the shortage of housing in the Bay Area, but it appears to me that there is unbridled development in our city everywhere you look. I hope that the availability of the necessary resources and infrastructure are being strongly considered, not just the additional tax dollars that the city will receive from new residents and taxpayers.

Response J.1: Refer to Responses D.3 and D.4 regarding the Draft EIR's LOS analysis for the project and requirements that would be implemented to reduce traffic and improve safety within the project vicinity.

Regarding water usage, page 219 of the Draft EIR discusses how the proposed project is consistent with the City's 2021 Water System Master Plan (WSMP). The WSMP assumed a water demand of 117,979 gpd for the project site, while the proposed project would result in a water demand of approximately 118,235 gpd, a negligible difference of less than 300 gpd, or less than one gpd per unit in the project. The City's 2020 Urban Water Management Plan (UWMP) determined that there is sufficient supply to meet water demands within the service area through 2045. The UWMP includes water shortage contingency actions which would serve to reduce water consumption during a drought in dry-year and multiple-dry year scenarios. The project is mostly consistent with the City's Water Conservation Ordinance (the purpose of which is to reduce water consumption within the City of Morgan Hill through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, and maximize the efficient use of water) because it would comply with General Plan Policies SSI-14.5 and SSI-14.8 ensuring that new development does not exceed water supply and is evaluated to ensure long-term water supplies are available. However, since the proposed pond would be unable to use non-potable water from the on-site wells or federal pipeline as originally proposed, the pond would use potable water, which would be considered wasteful under the City's Water Conservation Ordinance. The discussion on Page 219 of the Draft EIR has been revised accordingly. Refer to Section 5.0 Draft EIR Text Revisions.

Section 5.0 Draft EIR Text Revisions

This section contains revisions to the text of the Morgan Hill Devco Draft EIR dated November 2023. Revised or new language is underlined. All deletions are shown with a ~~line through the text~~.

Page iv List of Appendices; text will be REVISED and ADDED as follows:

Appendix A: NOP and Comments

Appendix B: Air Quality and Greenhouse Gas Analysis

Appendix C: Tree Inventory

Appendix D: Biological Resources Report

Appendix E: Architectural Survey Report

Appendix F: Phase I ESA

Appendix G: Supplemental Soil Quality Evaluation

Appendix H: ~~Flooding and~~ Revised Drainage Study

Appendix I: Noise and Vibration Report

Appendix J: Transportation Report

Appendix K: Geotechnical Investigation Report

Page 11 Section 3.2.4 Utilities; the text will be REVISED as follows:

The maximum depth of excavation for utilities would be 12 feet, and the maximum depth of excavation for the proposed pond would be 10 feet. The 0.5-acre pond would be concrete-lined, with a maximum depth of eight feet and a five-foot wide, 18-inch deep ledge. The proposed pond would include fountains that recirculate water using electric-powered pumps. ~~The existing on-site well would provide the primary source of water. To provide a back-up non-potable water supply, the project applicant proposes to connect to the federal pipeline located within the Hill Road right-of-way.~~ The project would use the City's potable water supply to serve residents and fill/maintain the pond. The estimated net amount of cut and fill to be exported is 25,617 cubic yards.

Page 12-13 Section 3.4 Uses of the EIR; text will be ADDED as follows:

The EIR would provide decision-makers in the City of Morgan Hill (the CEQA Lead Agency), responsible agencies, and the general public with relevant environmental information to use in consideration of the project.

The following responsible agencies could potentially have discretionary approval over the project:

- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)
- County of Santa Clara
- Santa Clara Valley Water District (Valley Water)
- United States Reclamation Bureau (Bureau)
- United States Army Corps of Engineers
- California Department of Transportation (CalTrans)

If the project is approved, the EIR could be used by the City in conjunction with appropriate discretionary approvals, including the following:

- Zoning Amendment
- Subdivision Map
- Design Permit
- Tree Removal Permit(s)
- Issuance of Demolition, Grading, Building, and Occupancy Permits
- Encroachment Permit from Bureau or Valley Water (for utility connections)
- Construction Approval from Bureau or Valley Water (for improvements that require excavation or impede with Bureau or Valley Water access to the federal water pipeline)

Page 53 Section 4.4.1.1 Regulatory Framework; text will be ADDED before the Morgan Hill 2035 General Plan heading as follows:

Santa Clara Valley Water Resources Protection Collaborative Guidelines and Standards for Land Use Near Streams

In August 2005, the Santa Clara Valley Water Resources Protection Collaborative adopted Guidelines and Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resources in Santa Clara County. The document provides guidance for land use activities in and around streams within Santa Clara County.[2] As a member of the Water Resources Protection Collaborative, the City of Morgan Hill adopted the Guidelines and Standards for Land Use Near Streams with Resolution Number 6112, dated August 22, 2007.

Page 54 Section 4.4.1.2 Existing Conditions; the text will be REVISED as follows:

Approximately 60 acres of the project is considered grain, row-crop, hay and pasture, disked/short-term fallowed land. The vegetation that was disked on-site includes wild oats, ripgut brome, and foxtail barley. Common forb species include patches of field bindweed, prickly lettuce, short-

[2] Valley Water. "Water Resources Protection Collaborative." Accessed January 11, 2024. https://www.valleywater.org/contractors/doing-businesses-with-the-district/permits-working-district-land-or-easement/water-resources-protection-collaborative

podded mustard, and perennial pepperweed. No native plant species were observed. An approximately 0.6-acre ~~abandoned~~ detention basin is present on the project site and was included in this land cover type because no wetland vegetation was observed and the vegetation within the basin was similar to the fallowed portions of the agricultural land.

Page 70 Section 4.4.1.2 Existing Conditions; the text will be ADDED as follows:

The Crotch's bumble bee is not a covered species under the Habitat Plan and is not listed as threatened or endangered, but is considered a candidate for listing by the CDFW. ~~However~~Regardless, the Crotch's bumble bee will benefit from the Habitat Plan conservation program (i.e., the preservation, enhancement, and management of numerous habitat types throughout the Habitat Plan Reserve System) to which the project applicant would contribute via payment of Habitat Plan impact fees, as both existing reserves and future acquisitions likely support Crotch's bumble bee, given the locations of recent occurrences in Santa Clara County. Therefore, the potential loss of small numbers of individual Crotch's bumble bees as a result of the project, as well as the permanent loss of potential nesting and foraging habitat, would not be considered a significant impact. **(Less than Significant Impact)**

Page 63 Section 4.4.2.1 Impact Discussion; text will be REVISED under checklist question a) as follows:

Habitat Plan~~Nitrogen Deposition Impacts on Serpentine Habitats~~

All development covered by the Habitat Plan is required to pay a nitrogen deposition fee as mitigation for cumulative impacts to serpentine plants in the Habitat Plan area. Nitrogen deposition is known to have damaging effects on many of the serpentine plants in the Habitat Plan area, as well as the host plants that support the Bay Checkerspot butterfly. All major remaining populations of the butterfly and many of the sensitive serpentine plant populations occur in areas subject to air pollution from vehicle exhaust and other sources throughout the Bay Area including the project area. Because serpentine soils tend to be nutrient poor, and nitrogen deposition artificially fertilizes serpentine soils, facilitating the spread of invasive plant species. The displacement of these species, and subsequent decline of the several federally listed species, including the butterfly and its larval host plants, has been documented on Coyote Ridge in central Santa Clara County.

Nitrogen tends to be efficiently recycled by the plants and microbes in infertile soils such as those derived from serpentine, so that fertilization impacts could persist for years and result in cumulative habitat degradation. The impacts of nitrogen deposition upon serpentine habitat and the Bay Checkerspot butterfly can be correlated to the amount of new vehicle trips that a project is expected to generate. The nitrogen deposition fees collected under the Habitat Plan for new vehicle trips will be used as mitigation to purchase and manage conservation land for the Bay Checkerspot butterfly and other sensitive species. The project, which would generate approximately 3,000 new daily vehicle trips by residents and therefore contribute to the effects of nitrogen deposition on serpentine plant and animal communities, would be subject to the Habitat Plan's nitrogen deposition impact fee~~implement the following standards.~~

In addition, all covered activities in the Habitat Plan are subject to certain conditions (as identified in Chapter 6 of the Habitat Plan) based on the project's location and type of project. As discussed in Section 4.4.1.2 Existing Conditions, the project is subject to conditions 1, 3, 4, 11, and 17 of the Habitat Plan. To ensure that the project complies with the nitrogen deposition fee and all applicable conditions of the Habitat Plan, the project would implement the following standards.

Standards Required for New Development within this Planned Development: The project shall implement the following standards to ensure compliance with the Habitat Plan's nitrogen deposition fee and applicable Habitat Plan conditions.

- The project shall implement the following standard permit condition to ensure compliance with the Habitat Plan's nitrogen deposition fee. Fees and conditions. The proposed project is covered pursuant to the Santa Clara Valley Habitat Plan (Habitat Plan) and subject to fees and conditions contained in the Habitat Plan. The project would comply with applicable fees and conditions prior to issuance of any grading permits. The project applicant shall submit the Santa Clara Valley Habitat Plan Coverage Screening Form to the Development Services Director or the Director's designee for approval and payment of applicable fees prior to the issuance of a grading permit. The Habitat Plan and supporting materials can be viewed at www.scv-habitatagency.org. Habitat Plan conditions applicable to the project include:
    - Condition 1. Avoid direct impacts on legally protected plant and wildlife species.
    - Condition 3. Maintain hydrologic conditions and protect water quality.
    - Condition 4. Avoidance and minimization for in-stream projects.
    - Condition 11. Stream and riparian setbacks.
    - Condition 17. Tricolored blackbird.
- Application Package. Prior to issuance of a grading permit, the project shall complete and submit a Habitat Plan Application Package. All fees shall be paid prior to issuance of a grading permit.
- Any additional conditions or mitigations required by the Habitat Plan shall be clearly stated on all plans that involve any ground disturbing activity (i.e., grading plans, improvement plans, paving plans, demolition plans or other plans for site clearing or temporary stockpile of dirt).

Implementation of the standards listed above would ensure that impacts to serpentine communities and species remain at less than significant levels. **(Less than Significant Impact)**

Page 69 Section 4.4.2.1 Impact Discussion; text will be REVISED under the California Red-legged Frog, California Tiger Salamander, Western Pond Turtle, and Bullfrogs subheading as follows:

Though the site provides low-quality habitat and is not important for the maintenance of any population of these species, project construction activities could result in the loss of small numbers

of individuals. Any loss of individuals of these species would be considered a significant impact. Compliance with Habitat Plan conditions through the implementation of standards required for new development, as discussed above~~under checklist question f) below~~, would reduce impacts to the California red-legged frog, California tiger salamander, and western pond turtles~~less than significant levels~~.

Page 69 Section 4.4.2.1 Impact Discussion; text will be REVISED under the Monarch Butterfly subheading as follows:

With implementation of mitigation measure MM BIO-4.1 listed above, potential impacts to monarch butterflies would remain at less than significant levels. Compliance with Habitat Plan conditions through the implementation of standards required for new development, as discussed above~~under checklist question f) below~~, would reduce impacts to monarch butterflies.

Page 70 Section 4.4.2.1 Impact Discussion; text will be REVISED under the Loggerhead Shrike and White-Tailed Kite subheading as follows:

Compliance with Habitat Plan conditions through the implementation of standards required for new development, as discussed above~~under checklist question f) below~~, would further reduce impacts to loggerhead shrike and white-tailed kites.

Page 71 Section 4.4.2.1 Impact Discussion; text will be REVISED under the Impacts on Riparian Habitat or Other Sensitive Communities subheading as follows:

Potential impacts to riparian habitat would be minimized through implementation of Habitat Conditions 3 and 4, which require implementation of design phase, construction phase, and post-construction phase measures, including programmatic BMPs, performance standards, and control measures, to minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality. By complying with the standards required for new development within this Planned Development listed in the discussion in ~~Impact BIO-1~~checklist question a), the project would implement these construction-period BMPs and post-construction stormwater requirements and would result in less than significant impacts. **(Less than Significant Impact)**

Page 72 Section 4.4.2.1 Impact Discussion; text will be ADDED under the Impacts due to Riparian Encroachment subheading as follows:

The applicant will obtain a riparian setback exception from the Habitat Plan and City of Morgan Hill during the Habitat Plan application process (required as part of the standards required for new development within the planned development listed above) and City approval process for all non-exempt project features, including the residential lot, emergency access road, and detention basin grading within the 35-foot riparian setback. Encroachment into the riparian buffer (i.e., development within the buffer) would represent a significant impact because of the ecological value of Tennant Creek and the degradation to the value that would occur due to encroachment.

Page 76 Section 4.4.2.1 Impact Discussion; text will be REVISED under checklist question c) as follows:

As discussed in Section 4.4.1.2 Existing Conditions, ~~W~~wetlands and other waters of the U.S. and waters of the state are present within Tennant Creek and the ephemeral drainage in the northeastern part of the project area. Jurisdictional wetlands located south of Barrett Avenue are supported by urban runoff from nearby storm drains. Approximately 0.02-acre of these low-quality jurisdictional wetlands would be permanently impacted during the project's proposed realignment of Tennant Creek and the improvement of Barrett Avenue. As such, the project may require permits from regulatory agencies, and will implement the standards required for new development within this Planned Development listed below.

Standards Required for New Development within this Planned Development: The project would obtain necessary permits as follows for the proposed realignment and culvert modifications within Tennant Creek and the ephemeral drainage.

- Prior to the issuance of a grading permit for activities that would impact wetlands, other waters of the state, and CDFW-regulated streams, the project applicant shall obtain a Clean Water Act Section 404 permit from the USACE, Clean Water Act Section 401 Water Quality Certification (and/or Porter-Cologne Waste Discharge Requirements, if applicable) from the Central Coast RWQCB, and Fish and Game Code Section 1600 Streambed Alteration Agreement from the CDFW, as applicable to the activities authorized by the grading permit..

Through implementation of the standards required for new development within the planned development for compliance with the Habitat Plan listed in the discussion in checklist question a), ~~T~~the project would comply with ~~HCP~~Habitat Plan conditions 3 and 4, ~~which require implementation of design phase, construction phase, and post-construction phase measures, including programmatic BMPs, performance standards, and control measures to minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality. The project would also~~ implement construction period BMPs and post-construction storm water requirements, and ~~. The project will also~~ pay Habitat Plan impact fees for impacts to wetlands and streams.

With compliance of Habitat Plan Conditions 3 and 4, ~~and~~ payment of applicable fees, and obtainment of necessary permits, impacts to state or federally protected wetlands would be less than significant. **(Less than Significant Impact)**

Page 77 Section 4.4.2.1 Impact Discussion; text will be REVISED under checklist question f) as follows:

As discussed in Section 4.4.1.2 Existing Conditions, the proposed project is a covered project under the Habitat Plan and is therefore required to comply with all applicable conditions. The project would implement the standards required for new development within this Planned Development listed in the discussion under impact checklist question a)~~below~~.

~~**Standards Required for New Development within this Planned Development:** The project would comply with applicable Habitat Plan conditions and fees prior to issuance of any grading permits. The project applicant shall submit the Santa Clara Valley Habitat Plan Coverage Screening Form to the Development Services Director or the Director's designee for approval and payment of applicable fees prior to the issuance of a grading permit. The Habitat Plan and supporting materials can be viewed at www.scv-habitatagency.org. Habitat Plan conditions applicable to the project include:~~

- ~~Condition 1. Avoid direct impacts on legally protected plant and wildlife species.~~
- ~~Condition 3. Maintain hydrologic conditions and protect water quality.~~
- ~~Condition 4. Avoidance and minimization for in-stream projects.~~
- ~~Condition 11. Stream and riparian setbacks.~~
- ~~Condition 17. Tricolored blackbird.~~

The proposed project would apply with all applicable conditions as required for new development within this Planned Development, including compliance with Habitat Plan nitrogen deposition fees and all applicable Habitat Plan conditions. ~~Furthermore, the project would implement the required Habitat conditions listed above, which would ensure compliance with the Habitat Plan by requiring the project applicant to pay nitrogen deposition fees for new vehicle trips.~~ Payment of nitrogen deposition~~These~~ fees would offset impacts by allowing for the purchase and management of conservation land for the Bay Checkerspot butterfly and other sensitive species, and compliance with Habitat Plan conditions 1, 3, 4, 11, and 17 would avoid impacts to protected species and maintain riparian conditions. **(Less than Significant Impact)**

Page 105 Section 4.7.1.2 Existing Conditions; text will be REVISED under the Groundwater subheading as follows:

Groundwater depth on the project site is approximately ~~30 to 50~~23 feet below ground surface and flows northwest.[3]

Page 132 Section 4.10 Hydrology and Water Quality; text will be REVISED as follows:

The discussion below is based, in part, on a Flooding and Drainage Study completed by Schaaf & Wheeler on ~~September 10, 2021~~April 5, 2024, and a Phase I Environmental Site Assessment

[3] ~~Cornerstone Earth Group. *Phase I Environmental Site Assessment and Soil Quality Evaluation. Villages at Jackson Square.* October 20, 2020.~~Quantum Geotechnical, Inc. *Geotechnical Investigation on Proposed Residential Development New Horizons at Hill Road & Barret Avenue.* May 15, 2020.

completed by Cornerstone Earth Group on October 20, 2020. Copies of these reports are included in this EIR as Appendixes H and F, respectively.

Page 132 Section 4.10.1.1 Regulatory Framework; text will be ADDED after the last paragraph as follows:

Sustainable Groundwater Management Act

Valley Water's 2016 Groundwater Management Plan (GWMP) for the Santa Clara and Llagas Subbasins describes groundwater sustainability goals, and the strategies, programs, and activities that support such goals. In 2019, the Department of Water Resources (DWR) approved the 2016 GWMP for both basins, determining it satisfies the objectives of SGMA. In 2021, Valley Water submitted to DWR the first required periodic update of the GWMP that describes updated groundwater management outcome measures, programs, and activities.

Page 134 Section 4.10.1.1 Regulatory Framework; text will be ADDED to the General Plan Policies table as follows:

Morgan Hill 2035 General Plan Policies: Hydrology and Water Quality

Policy	Description
SSI-5.1	**Development in Floodways and Floodplains.** Prohibit development in floodways and regulate development in floodplains to minimize flood damage and be consistent with the federal flood insurance program. (South County Joint Area Plan 15.05)
SSI-5.2	**Private Development in Flood-Prone Areas.** If development is allowed in flood-prone areas, provide flood control facilities or appropriate flood-proofing prior to or in conjunction with development at developers' expense. (South County Joint Area Plan 12.05)
SSI-5.3	**Flood Clearance.** Prior to the start of construction, a Flood Clearance shall be obtained from the Floodplain Administrator for the City of Morgan Hill that provides plans drawn to scale showing the nature, location, dimensions, and elevation of the area; existing or proposed structures, fill, storage of material, and drainage facilities, and floodproofing provisions. Specifically, the following information shall be required: • Proposed elevation in relation to mean sea level of the lowest floor (including basement) of all structures. • Proposed elevation in relation to mean sea level to which any structure will be floodproofed. • Appropriate elevation and floodproofing certifications. • Description of the extent to which any water course will be altered or relocated as a result of the proposed development. New residential buildings in the 100-year floodplain shall have their lowest floor elevation (excluding garage) floodproofed or raised a minimum of 1 foot above the base flood elevation (BFE). Substantially improved structures within the 100-year floodplain shall meet the same floodplain construction requirements as new buildings.
SSI-5.4	**Floodwater Diversion.** Require that new developments within flood hazard areas are done in a manner that will not cause floodwaters to be diverted onto adjacent property or increase flood hazards to properties located elsewhere unless secured through a flood easement or fee title buyout.

Morgan Hill 2035 General Plan Policies: Hydrology and Water Quality

Policy	Description
SSI-5.5	**Off-Site Impacts.** Require all local development to provide appropriate mitigation of off-site flooding impacts, including limiting runoff to pre-development levels and/or complete solutions to flooding and local drainage problems in the vicinity of the development, using such methods as detention or retention. (South County Joint Area Plan 12.08)
SSI-5.6	**New Development in Hazard Areas.** Consider risk of flood hazards and damage in new development proposals within flood hazard areas. Ensure that new construction is consistent with federal flood protection regulations.
SSI-5.7	**Raised Structures.** Where other mitigation measures do not solve the flooding problem, permit raising individual foundations (padding up structures) in appropriate situations; however, its use must be restricted in order to minimize the cumulative effects on adjacent areas. (South County Joint Area Plan 12.06)
SSI-5.8	**Water District Project Review.** Send all subdivisions and private and public project referrals where activity is located near to floodplain areas to Santa Clara Valley Water District for review prior to City approval.
SSI-5.9	**Riparian Natural Functions.** Restore and maintain the natural functions of riparian corridors, creeks, and channels to reduce flooding, convey stormwater flows, and improve water quality.
SSI-6.2	**Minimize Future Food Control Costs.** As flooding affects substantial areas of South County and the flood control projects now being constructed are designed to protect only existing developed and currently planned urban areas, manage land development to mitigate flooding problems and minimize the need for local public funding for additional flood control and local drainage facilities. (South County Joint Area Plan 12.00)
SSI-6.6	**Flood Management Design.** Encourage flood management designs that respect the natural topography and vegetation of waterways while retaining dynamic flow and functional integrity.
SSI-6.7	**Urban Creeks and Channels.** Preserve the existing floodplain capacity of urban creeks and channels.
SSI-16.2	**Drainage System Capacity.** Ensure that the level of detention or retention provided on the site of any new development is compatible with the capacity of the regional storm drainage system.
SSI-16.3	**Stormwater Management Plans.** Require a stormwater management plan for each proposed development, to be presented early in the development process and describe the design, implementation, and maintenance of the local drainage.

Page 134 Section 4.10.1.1 Regulatory Framework; text will be ADDED following the General Plan Policies table as follows:

Morgan Hill Municipal Code

Section 15.80.200 of the City's Municipal Code was enacted to reflect updates to floodplain management policies regulating property located in designated flood hazard areas. Per Section 15.8.200, "until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within Zones A1-30 and AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than one foot at any point within the City of Morgan Hill."

Page 135 Section 4.10.1.2 Existing Conditions; text will be REVISED under the Existing On-Site Drainage subheading as follows:

As stated above, the project site is bisected by Tennant Creek. Existing stormwater runoff across the project site presently drains in a generally northeasterly to southwesterly direction towards Tennant Creek. An existing stormwater ~~r~~detention basin is located on the project site just north of Barret Avenue. A public service easement has been reserved on the project site to operate and maintain the existing detention basin. An existing 36-inch diameter reinforced concrete pipe (RCP) storm drain system is located along Sorrel Drive which provides local drainage immediately east of the site. The storm drain ties into a 60-inch diameter RCP storm drain system in Barrett Avenue which discharges to Tennant Creek where the creek crosses Barrett Avenue.

Page 135 Section 4.10.1.2 Existing Conditions; text will be REVISED under the Groundwater subheading as follows:

The site is located in the ~~Santa Clara Valley~~ Llagas Subbasin (DWR Basin Number 3-3.01) ~~of the Santa Clara Valley Groundwater Basin. The site is within the Coyote Valley Recharge Area~~ as designated by ~~the Santa Clara Valley Water District (~~Valley Water~~)~~.[4] The site contains two creeks running through it; Tennant Creek along the western portion of the site and an unnamed ephemeral stream along the eastern portion of the site. According to the ~~Phase I ESA~~Geotechnical Investigation prepared by ~~Cornerstone Earth Group~~Quantum Geotechnical, Inc., groundwater lies at depths of approximately ~~30 to 50~~23 feet beneath the project site, with seasonal fluctuations in depth.

Page 135 Section 4.10.1.2 Existing Conditions; text will be ADDED under the Flood Hazards subheading as follows:

The project site is located within three FEMA flood hazard designations: Zone AE, AO, and X. Zone AE is a special flood hazard area subject to inundation by the one percent annual chance flood base flood elevation determined. The portion of the project site within Zone AE consists of Tennant Creek that crosses the western portion of the site. Zone AO is a special flood hazard area with flood depths of one to three feet (usually sheet flow on sloping terrain). On the project site, Zone AO consists of the overflow of Tennant Creek, and reaches depths of one foot. The Zone X designation is for areas of 0.2 percent (i.e., 500-year) chance flood; areas of one percent (i.e., 100-year) chance flood with average depths of less than one foot or with drainage areas less than one square mile. In addition, Tennant Creek has a defined regulatory floodway. Per Section 15.80.200 of the City's Municipal Code, until a regulatory floodway is adopted, no new construction, substantial development, or other development (including infill) is permitted within Zones AO and AE unless it

[4] Santa Clara Valley Water District. *Groundwater Management Plan*. November 2021. ~~November 22, 2016. Accessed September 16, 2021.~~ https://www.valleywater.org/your-water/where-your-water-comes-from/groundwater~~.~~

is demonstrated that the cumulative effect of the proposed development will not increase the water surface elevation of the base flood more than one foot at any point. Since Tennant Creek has an adopted regulatory floodway that can be adjusted to coincide with its current bank locations (the adopted floodway and current bank locations differ due to natural changes over time), this section of the ordinance does not apply. Surrounding areas adjacent to the site are in Zone D, an area of undetermined flood hazards. Flood zones are shown on Figure 4.10-1.

Page 140 Section 4.10.1.3 Project Impacts; text will be REVISED under the checklist question b) discussion as follows:

Since the site is mostly undeveloped, new development would substantially increase impervious surfaces, which could impact groundwater recharge. However, the project would be required to implement site design measures, LID, and BMPs, which include infiltration features such as detention and retention basins, that would contribute to groundwater recharge and minimize stormwater runoff. The proposed pond and fountains ~~would be filled using groundwater~~would be filled using the City's water system and would include a waterfall feature that would re-circulate water from the pond to the top of the waterfall. The ~~project would require the pond to be pumped with~~ required volume of water initially to fill the pond is approximately 0.36 acre-feet of non-potable water per year (118,000 gallons per year)~~,~~. This assumes that the majority of the pond is eight feet deep with a five-foot wide, 18-inch deep "ring" around the perimeter. This volume also accounts for the waterfall feature and assumes it is one foot deep on average. The ~~with an~~average evapotranspiration rate ~~of~~is approximately 0.28 acre-feet per year (93,4000 gallons per year). Based on these assumptions, ~~T~~the pond would require a total of 0.64 acre-feet of water (211,400 gallons per year) in year one to both fill the pond and replenish to offset evaporative losses~~,~~. ~~and~~In subsequent years, 0.28 acre-feet of water (93,400 gallons per year) ~~per year in the following years to offset evaporative losses~~would be needed annually to maintain the water level.

The highest depth to groundwater expected at the project site is ~~30 to 50~~23 feet below ground surface. The maximum depth of excavation to install utilities building foundations proposed by the project is ten feet below ground surface. The groundwater is deep enough such that ground disturbance during construction would not interfere with groundwater flow or expose any aquifers. The project site is not an aquifer recharge facility (i.e., streams or ponds); therefore, development of the project site would not substantially interfere with aquifer recharge. **(Less than Significant Impact)**

Page 141 Section 4.10.1.3 Project Impacts; text will be REVISED under the checklist question c) discussion as follows:

Drainage

The City of Morgan Hill and Valley Water design standards require that post-project peak discharge into Tennant Creek does not exceed the pre-project peak discharge for the 2-, 10-, 25-, and 100-year return periods. The proposed detention basin will need to accommodate, in addition to the new runoff generated by the project, the peak reduction provided by an existing detention basin on

the project, which was originally designed and installed to mitigate peak flow runoff from the development east of the project site (Tract 8481).

Under existing conditions, on-site runoff flows generally northeast to southwest towards Tennant Creek. Water then continues to Corralitos Creek and eventually drains to Monterey Bay. The proposed project would increase the site's impervious area from 39,450 square feet (one percent of the site to 2,109,300 square feet (72 percent of the site), which would increase the runoff generated from the site into Tennant Creek.

Schaaf & Wheeler's Drainage Report for the proposed project modeled the pre-project (existing) conditions and post-project conditions. The pre-project conditions include two 36-inch culverts within the project site between Fountain Oaks Drive and Barrett Avenue, three 30-inch culverts at Barrett Avenue, detention basin, and storm drain infrastructure (including 21-, 24-, and 27-inch drains that divert flows from the Jackson Park subbasin before entering the 54-inch main in Barrett Avenue). The post-project conditions include grading to raise the site out of the floodplain, culvert improvements and channel grading along Barrett Avenue, a pedestrian bridge across Tennant Creek (assumed to be set above the 10-year water surface level), and ~~The proposed project would construct~~ a proposed ~~retention~~ detention basin ~~in~~ just downstream of Jackson Park, located adjacent to the northeast side of the site~~.~~. The proposed detention basin is intended to reduce post-project peak discharge to pre-project conditions to Tennant Creek under ~~a~~ 2-, 10-, 25-, and 100-year storm events. Pumping of stormwater flows from the Sorrel subbasin is not anticipated or included as part of the post-project conditions.

Surface runoff created by the proposed project would be captured by the storm drain network and runoff which would be treated via the underground treatment systems and basins. Offsite runoff coming from tributary residential and open space areas would be rerouted through the detention basin, relocated at Jackson Park, to account for the increase in impervious area. The onsite storm drainpipe system would be designed for a 10-year storm event and the detention basin has been designed for a 25-year storm event. Additionally, the Drainage Report determined that a 100-year storm event in Tennant Creek would not result in flooding of the project site beyond the regulatory floodway.

The proposed project will generally maintain the existing drainage pattern towards Tennant Creek because stormwater flowing from the project site would be captured by proposed stormwater networks and treated by subsurface treatment systems before entering the stormwater system and detention basin. The existing detention basin would be relocated to the northeast portion of the site, west of Jackson Park, to detain offsite flows so that the total flow to Tennant Creek pots development will be the same as the existing flow under ~~a~~ 2-, 10-, 25-, and 100-year storm events. Runoff from off-site, tributary residential and open space areas northeast of the project site would be rerouted through the proposed basin and collected in the proposed storm drain system, replacing an existing surface swale drainage feature at the eastern edge of the site. The detention basin would be designed to detain more water than necessary to compensate for the increase in flows caused by the proposed project. Modeling in Schaaf & Wheeler's Drainage Report reflected the optimized diversion and storage requirements for the detention basin downstream of Jackson

Park. Consistent with the findings of the report, the project shall comply with the requirement below to ensure peak post-project discharge is below the pre-project discharge for each return period (2-, 10-, 25-, and 100-year).

Required for New Development within this Planned Development: The project shall ensure the Jackson Park Detention Basin is sized to provide at least 3.4 acre-feet of storage.

The project is at the master plan stage of development review and additional details will be developed as individual planning permit applications are filed to implement the master plan. As such, the project shall implement the following requirement.

Required for New Development within this Planned Development: As part of the submission of the Development permit and tentative map, the applicant shall provide a hydraulic study prepared by a qualified engineer that analyzes the runoff produced by that portion of the project to confirm that it conforms to the assumptions used in the Drainage Report. Should the additional hydrologic modeling indicate a need to increase on-site detention basin capacity that would require project design changes (such as a deeper detention basin than currently proposed) additional environmental review shall be conducted, as necessary, to account for additional construction activities prior to issuance of the Development entitlement.

Through the incorporation of drainage features and grading included in the proposed project and the requirements above, the flow rate of runoff would remain similar to the existing runoff and the creek water level would remain unchanged. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces and would have a less than significant impact. **(Less than Significant Impact)**

Hydromodification

The site experiences flooding and has led to mudslides in the past. During the construction phase, a Stormwater Pollution Prevention Plan (SWPPP) and a Stormwater Management Plan (SWMP) will be prepared to avoid on-site erosion. Within the proposed project, the amount of open space will be reduced due to the new residential development. However, the proposed detention basin on the northeastern corner of the site is designed to limit the 2-, 10-, 25-, and 100-year site discharge to be at the existing conditions rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek. This results to no significant increase in channel velocity relative to the existing condition. In addition, the project site grades will be filled so that flows will be contained in Tennant Creek and there will be no runoff across the site. Therefore, since the risk of increased erosion is negligible the project would have a less than significant level with Conditions of Approval HYD-1 and HYD-2 incorporated as a result of the project. **(Less than Significant Impact)**

Page 142 Section 4.10.1.3 Project Impacts; text will be REVISED under the checklist question d) discussion as follows:

Flood Flows

The project drainage improvements were analyzed in the Drainage Report, and it was determined that the proposed project would not result in changes to the upstream or downstream 100-year water surface profile of the creek. After construction, the proposed project would be located in two FEMA flood hazard designations. Zone AE, which would consist of Tennant Creek that crosses the western portion of the site, and Zone X. The Zone X designation is for areas of 0.2 percent (i.e., 500-year) chance flood~~;~~ and areas of one percent (i.e., 100-year) chance flood with average depths of less than one foot or with drainage areas less than one square mile. For areas within Zone AE that are not part of the channel's extent, the project site will be graded to be higher than the base flood elevation.

While the water surface elevations change throughout the site, the grading associated with the proposed project would re-establish the Tennant Creek floodway and floodplain which would relocate the 100-year flooding to ensure areas of the project development are located outside of the 100-year flood zone. The project would implement the standard below to ensure the project is developed outside of the floodplain.

Required for New Development within this Planned Development: The development shall apply for a Conditional Letter of Map Revision based on Fill (CLOMR-F) through FEMA to show that the development is outside the floodplain. After construction, the proposed project would submit the modeling results in the Drainage Report in a Letter of Map Revision (LOMR-F) application to revise the floodplain extents over the project site.

With implementation of the standard discussed above, the project would submit CLOMR/LOMR applications that would re-establish floodway limits, demonstrate changes to channel base flood elevations based on new hydrology and project components. This would ensure consistency with General Plan policies SSI-5.1 through SSI-5.9, SSI-6.2, SSI-6.6, and SSI-6.7 calling for flood proofing, flood clearance, and analysis of flood hazards and off-site impacts. Thus, the proposed project would not redirect flood flows causing flooding on or off site. **(Less than Significant Impact)**

Page 219 Section 4.19.2.1 Project Impacts; text will be REVISED under the checklist question b) discussion as follows:

~~Project Water Demand~~

The City's unit demand factor of 1,700 gpd per acre for Residential Detached Medium land uses was used to calculate the water demand.[5] At 69.4 acres, the proposed project would have a water

[5] City of Morgan Hill. *Water System Master Plan.* December 2021. Table ES.2, page ES-7.

demand of 117,980 gpd. In addition, after the initial year of filling the pond, the proposed pond's ~~non-~~potable water demand ~~drawing groundwater supplies from the site's on-site well and federal pipeline in Hill Road~~ would be approximately 0.28 acre-feet per year (or 93,400 gallons per year or 255 gpd). In total, the project's water demand would be approximately 134 acre-feet per year (~~118,265~~118,235 gpd or ~~43,655,055~~43,155,775 gallons per year) compared to 117,979 gpd assumed for the site under the 2021 WSMP.

As discussed in Section 4.19.1.2 Existing Conditions, based on the 2021 WSMP, the City's groundwater supply wells have a remaining capacity of approximately 2.6 mgd. As a result, there would be sufficient water supplies available to serve the project and impacts would be less than significant. Thus, the proposed project is considered consistent with the 2021 WSMP assumptions and General Plan. The project is ~~also~~mostly consistent with the City's Water Conservation Ordinance (the purpose of which is to reduce water consumption within the City of Morgan Hill through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, ~~prevent waste of water,~~ and maximize the efficient use of water) because it would ~~not introduce any water wasting features and~~ comply with General Plan Policies SSI-14.5 and SSI-14.8 ensuring that new development does not exceed the planned water supply and is evaluated to ensure long-term water supplies are available. Consistent with the City's Water Conservation Ordinance and Valley Water's Urban Water Management Plan, the project would include the installation of landscape meters, hot water recirculation systems, and weather or soil-based irrigation systems. However, the project's use of potable water to fill the recreational pond would be considered a water wasting feature under the City's Water Conservation Ordinance. It should, however, be noted that the pond's estimated 255 gpd would be less than the typical demand for a single-family residence in Morgan Hill, which is 393 gpd according to the City's WSMP.[6]

Based on the above discussion, there would be sufficient water supplies available to serve the project and impacts would be less than significant. **(Less than Significant Impact)**

[6] City of Morgan Hill. *Water System Master Plan.* Table 3.4: Water Demand Unit Factor Analysis. December 2023.

Appendix A: Draft EIR Comment Letters

California Department of Transportation

DISTRICT 4
OFFICE OF REGIONAL AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

January 3, 2024

SCH #: 2021060587
GTS #: 04-SCL-2023-01240
GTS ID: 31359
Co/Rt/Pm: SC/101/R15.511

Tiffany Brown, Senior Planner
City of Morgan Hill
17555 Peak Avenue
Morgan Hill, CA 95037

Re: Morgan Hill Devco Residential Project – Draft Environmental Impact Report (DEIR)

Dear Tiffany Brown:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Morgan Hill Devco Residential Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system.

The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities. The following comments are based on our review of the November 2023 DEIR.

Project Understanding
The proposed project would involve the development of 320 residential lots with areas for private open space and public open space. The project location is near State Route (SR)-101. The project would involve off site improvements to several local streets.

Travel Demand Analysis
With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Vehicle Miles Traveled (VMT) analysis for land use projects, please review Caltrans' Transportation Impact Study Guide (*link*).

The project's VMT analysis and significance determination are undertaken in a manner consistent with the Office of Planning and Research's (OPR) Technical Advisory. Per the DEIR, this project is found to have a significant VMT impact.

Using Caltrans' Smart Mobility Framework Guide 2020 *(link)*, the proposed project site is identified as a Suburban where community design and regional accessibility are weak. Given the place, type and size of the project, a robust Transportation Demand Management (TDM) plan should be developed to reduce VMT and greenhouse gas emissions from future development in this area. Please consider the following measures to mitigate the project's impact to VMT:

- Increased location efficiency
- Increased mixed-use development
- Increased transit accessibility
- Integration of affordable housing
- Pedestrian and bicycle network improvements
- Bus rapid transit
- Discounted transit programs
- Increase transit service frequency
- Provide local shuttles to increase transit outreach

The TDM plan should also be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take to achieve those targets.

Construction-Related Impacts
Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits *(link)*. Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).

Transportation Impact Fees
We encourage the lead agency to consider identifying project-generated travel demand and assessing the costs of transit and active transportation improvements necessitated by the proposed project. The viable funding sources such as development and/or transportation impact fees may also be utilized to implement the planned transportation improvement projects to sufficiently mitigate project impact.

Lead Agency
As the Lead Agency, the City is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Marley Mathews, Transportation Planner, via LDR-D4@dot.ca.gov. For future early coordination opportunities or project referrals, please contact LDR-D4@dot.ca.gov.

Sincerely,

YUNSHENG LUO
Branch Chief, Local Development Review
Office of Regional and Community Planning

c: State Clearinghouse

Santa Clara Valley Transportation Authority

December 28, 2023

City of Morgan Hill Department of Development Services
17575 Peak Avenue
Morgan Hill, CA 95037

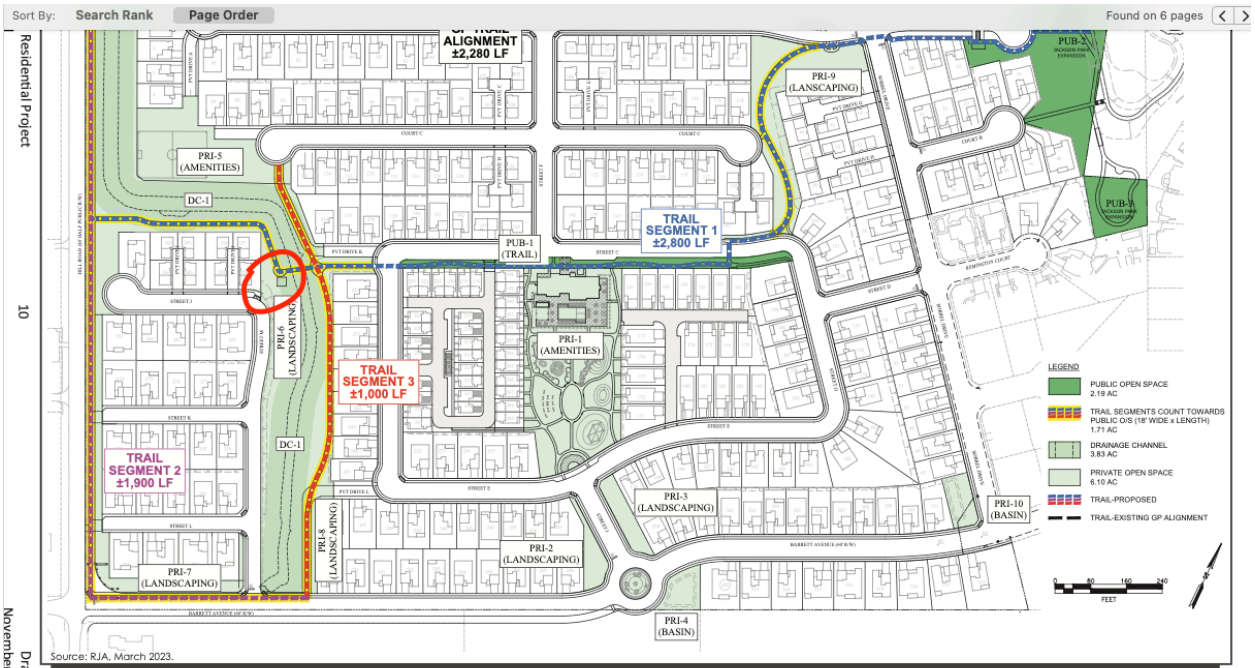
Attn: Tiffany Brown
By Email: Tiffany.Brown@MorganHill.CA.gov

Dear Tiffany,

VTA appreciates the opportunity to comment on the DEIR for the New Horizons project located on the northeast quadrant of Hill Road and Barrett Avenue. VTA has reviewed the document and has the following comments:

Pedestrian Access

VTA noticed a possible gap in the pedestrian/trail network in the site plan. Overall, the project does a nice job of providing pedestrian/trail connections throughout the site and to neighboring land uses, but there is a gap circled in the screenshot of Figure 3.2-6 below, which seems to require people to walk far out of their way to get to the clubhouse/common areas or over to the elementary school. VTA recommends the project expand the proposed trail network to provide access between Streets J/M and Street C.



Additionally, VTA recommends the new curb ramps provided be designed to be directional curb ramps, rather than diagonal, and it is suggested that curb extensions be included to help reduce crossing distances for pedestrians and slow down drivers.

Lastly, VTA recommends against cul-de-sacs for emergency egress and overall site connectivity. If cul-de-sacs must be included in the design, they should include ADA-compliant pedestrian and bicycle access to adjacent roadways to reduce travel distances for residents.

VMT and GHG Impacts and Mitigation Measures

The DEIR states that the project would cause a Significant and Unavoidable Impact in terms of Vehicle Miles Traveled (VMT), Impact TRN-1. The DEIR also finds that the project would exceed the BAAQMD annual emissions bright-line threshold and service population threshold for greenhouse gas (GHG) emissions, Impact GHG-1. The DEIR identifies the implementation of a Transportation Demand Management (TDM) Plan in the mitigation measures to address both impacts – MM-TRN-1.1 and MM-GHG-1.1.

The DEIR and TA Report (Appendix J) include somewhat inconsistent descriptions of the measures proposed to partially mitigate the project's VMT impact. The DEIR states that the MM-TRN-1.1 would include preparation of a TDM plan, which shall require a financial contribution to the City's MoGo on-demand rideshare service as well as improvements to the pedestrian network. Appendix J states that this TDM plan would include a financial contribution to the MoGo service or provision of free transit passes to project homeowners and pedestrian improvements.

VTA recommends that the City strengthen the TDM plans in MM-TRN-1.1 and MM-GHG-1.1 by requiring both a contribution to the MoGo service and provision of free transit passes to homeowners. The language about provision of free transit passes should state that the management entity/HOA would be required to provide one free pass per residential unit, rather than "a maximum of one transit subsidy per residential unit" since including a maximum without a minimum or specific number could allow the HOA to provide fewer passes than intended.

VTA also recommends that the City include language about monitoring and reporting on the project's TDM program to ensure that it is maintained over time. Best practices for TDM monitoring typically include engaging a third-party consultant or contractor directed by the City but paid for by the developer or management entity/HOA.

Thank you again for the opportunity to review this project. If you have any questions, please do not hesitate to contact me at 408-321-5830 or lola.torney@vta.org.

Sincerely,

Lola Torney
Interim Land Use Manager

MH1805

Valley Water

Clean Water • Healthy Environment • Flood Protection

File: 32650
Tennant Creek

January 4, 2024

Tiffany Brown
City of Morgan Hill
Development Services
17575 Peak Avenue
Morgan Hill, CA 95037
tiffany.brown@morganhill.ca.gov

Subject: Draft Environmental Impact Report for New Horizons (Hill-Morgan Hill Devco, LLC) Project on Barrett Avenue and Hill Road

Dear Tiffany:

The Santa Clara Valley Water District (Valley Water) has reviewed the draft environmental impact report (EIR) for the proposed New Horizons project (Project), at the intersection of Barrett Avenue and Hill Road in Morgan Hill. Upon review of the draft EIR, Valley Water staff (Staff) has the following comments:

1. **Section 1.2, MM HAZ-3.1 (Page xviii):**
   The draft EIR indicates (both in this section and Page 129, Abandoned Wells) *"the project applicant shall research well records form Valley Water and attempt to locate abandoned wells at the site."* Valley Water's Well Information App can be used to help locate wells on the Project site: https://www.valleywater.org/contractors/doing-businesses-with-the-district/wells-well-owners/well-information-app. While the app indicates two active water supply wells on the Project site, there could be unknown and abandoned wells on the Project site. Please coordinate this activity to identify and destroy wells with Valley Water's staff at the Well Permitting and Inspections Hotline: 408-630-2660 (https://www.valleywater.org/contractors/doing-businesses-with-the-district/wells-well-owners)

2. **Section 3.2.1, Site Access, Circulation, and Parking (Page 3):** This section states a 36-foot driveway is proposed on Hill Road; however, Figures 3.2-4 and 3.2-6 show a cul-de-sac where a driveway is shown on Figure 3.2-5. Please clarify the circulation plan and street improvements; this needs to be consistent throughout the document. Valley Water owns and operates a federal water line (Santa Clara Conduit) within the US Bureau of Reclamation (Bureau) easement on the site. Any improvements that require excavation or will impede or interfere with Valley Water or Bureau access to construct, re-construct, inspect, operate, or maintain the pipeline requires Valley Water and Bureau approval, which may require re-design to comply.

3. **Section 3.2.4, Utilities (Page 9):** This section states there will be new utility connections in Hill Road which may encroach onto the Bureau easement. Please see Comment 2 for Bureau and Valley Water permitting requirements. Additionally, this section mentions a proposal to connect to the Bureau pipeline for back-up non-potable water supply. Please be aware that Valley Water surface water diversion policies do not allow for new pipeline diversions for residential landscape irrigation purposes. The EIR should be amended to assume backup non-potable water supplies will not be approved, and any analysis relying on this supply assumption should be amended accordingly.

4. **Section 3.2.4, Utilities (Page 11):**
   The second paragraph indicates *"The existing on-site well would provide the primary source of water."* If this sentence is referring to the water supply for the concrete-line pond, please add that detail to the sentence so there is no confusion that the well will be used for the potable or other water supply for the development. Also, based on Valley Water's Well Information App (referenced in Comment 1), there appears to be two water supply wells (09S03E23Q002 and 09S03E23Q003) located on the Project site.

Which well will be used as the primary source of water? If the other well will not be used, it should be properly destroyed following Valley Water guidelines. Please note that page 125 of the draft EIR acknowledges that there are two water supply wells on the Project site.

5. **Section 3.2.8, Off-Site Improvements:** See Comment 2 regarding approval requirements for working within the Bureau easement.

6. **Section 4.4.1.1, Regulatory Framework (Page 53):**
As a member of the Water Resources Protection Collaborative, the City of Morgan Hill has adopted the Guidelines and Standards for Land Use Near Streams, which provides guidance for land use activities in and around streams within Santa Clara County; this should be acknowledged in the 'Regional and Local' regulatory framework section.

7. **Section 4.4.1.2, Existing Conditions (Page 54):**
The Land Cover and Wildlife Use section indicates that the project site has a *"...0.6-acre abandoned detention basin."* It should be noted that the detention basin is not abandoned and remains operational; the referenced detention basin was constructed to mitigate for increased runoff generated by Tract 8481.

8. **Section 4.4.1.2, Riparian Habitat (Page 59):**
This section acknowledges that the project will impact Waters of the State and Waters of the U.S., but none of the mitigation measures, in particular MM BIO-5.1, includes the need to obtain approvals from the US Army Corps of Engineers (ACOE), the Central Coast Regional Water Quality Control Board (CCRWQCB) or California State Department of Fish and Wildlife (CDFW) for the proposed realignment and culvert modifications within Tennant Creek and the ephemeral drainage. These approvals (with the possible exception of the CDFW streambed alteration agreement, which may sometimes be included in Habitat Plan permitting) are required for Section 404 (ACOE) and Section 401 (CCRWQCB) approvals. Sometimes obtaining these approvals requires mitigation greater than proposed or plan modifications that may impact the project. ACOE and CCRWQCB may also determine that the project has a substantial adverse effect on federal and state wetlands. These agencies should be consulted to determine impacts.

9. **Section 4.4.2.1, Impact 'a,' Crotch's Bumble Bee (Page 70):**
It is noted *"The Crotch's bumble bee is not a covered species under the Habitat Plan;"* however, the EIR should acknowledge that Crotch's bumble bee is listed by the California Department of Fish and Wildlife (CDFW) as an endangered and threatened species. Any identification of Crotch's bumble bee within the Project site needs to be submitted to the California Natural Diversity Database (CNDDB).

10. **Section 4.4.2.1. Impact 'b,' Impacts on Riparian Habitat or Other Sensitive Communities (Page 71):**
The EIR states that *"Potential impacts to riparian habitat would be minimized through implementation of Habitat Conditions 3 and 4..."* The EIR needs to include discrete avoidance and minimization measures (listed under Table 6-2 of the VHP) that will be implemented to mitigate Project impacts and provide rationale in terms of how and/or why those measures would minimize project impacts. A general statement indicating the Project will comply with Conditions 3 and 4 of the VHP does not adequately evaluate the Project's impacts on the riparian habitat, and the feasibility of offsetting or eliminating those impacts. Moreover, in addition to the Valley Habitat Plan (VHP), the project is also subject to additional conditions from other regulatory agencies (e.g., CA Department of Fish and Wildlife, Army Corps of Engineers, Regional Water Quality Control Board) that have jurisdiction over work within the in-stream area, and along the riparian corridor.

11. **Section 4.4.2.1. Impact 'b,' Impacts on Riparian Habitat or Other Sensitive Communities (Page 72):**
It is asserted the proposed stream realignment, Barrett Avenue widening, and removal of the existing culvert are *"allowable uses in Habitat Plan riparian setbacks and would not require a riparian exception."* The reference to VHP's "allowable uses" in this statement is unclear since the listed activities are all in-stream modifications that would be subject to the requirements specified under Condition 4 of the VHP – 'Avoidance and Minimization Measures for In-Stream Projects' and additionally, the avoidance and minimization measures outlined in Table 6-2 of the VHP.

12. **Section 4.7.1.2, Existing Conditions, Groundwater (Page 105):**
It is noted *"Groundwater depth on the project site is approximately 30 to 50 feet below ground surface and flows northwest."* The Appendix F Phase I ESA (Page 5) states that the 30 to 50 feet depth to water estimate was from a 2006 California Department of Conservation report. Were the 30 to 50 feet depth to groundwater measurements confirmed from the two water supply wells on the Project site? Valley Water does not have any active water level monitoring wells on the Project site, but recent (2023) water level data from nearby wells in adjacent parcels indicate groundwater level depths range from less than 10 feet to greater than 75 feet below land surface. This water level data is available on the Valley Water Historical Groundwater Elevation data website: https://gis.valleywater.org/GroundwaterElevations/index.php.

    Please also note that this website shows the Project site is in an area of generalized depth to first groundwater of 5 to 20 feet below land surface. As explained on the website, the generalized depth to first groundwater depicts the most shallow groundwater ever measured for an area as of 2018. Staff recommends using the more recent estimates of depth to first groundwater from Valley Water, rather than the 2006 CDC report. Staff also recommends relying on Valley Water's 2021 Groundwater Management Plan for detailed hydrogeologic information for the Llagas Subbasin beneath the Project site.

13. **Section 4.10.1.1 Environmental Setting, Regulatory Framework, Federal and State (Page 132):**
    a. Valley Water recommends adding a sub-section about the Sustainable Groundwater Management Act (SGMA) because the Project development will rely primarily on groundwater for the water supply, groundwater is the sole source of water supply for the City of Morgan Hill (Draft EIR, page 215), and Valley Water is the Groundwater Sustainability Agency (GSA) under SGMA. Valley Water's 2021 Groundwater Management Plan is the DWR approved Alternative to a Groundwater Sustainability Plan (GSP), and is available on Valley Water's website: https://www.valleywater.org/your-water/where-your-water-comes/groundwater/sustainable.

    b. This section should include all relevant policies under Goals SSI-5 and SSI-6 in the Flood Hazards section of the City's General Plan. In particular, Policies SSI-5.1, 2, 3, 4, 5, 6, 7, 8, and 9 and Policies SSI-6.2,6, and 7. The EIR should discuss how the project is consistent with these policies and identify where the project is not consistent with these General Plan policies and identify all relevant mitigation to gain compliance.

14. **Section 4.10.1.2, Groundwater (Page 135):**
    a. It is noted *"The site is located in the Santa Clara Valley Subbasin of the Santa Clara Valley Groundwater Basin."* The site is within the Coyote Valley Recharge Area designated by the Santa Clara Valley Water District (Valley Water). 66." Please correct these sentences because the Project site located in the Llagas Subbasin, not the Coyote Valley. The sentence can be corrected as: *"The site is located in the Llagas Subbasin (DWR Basin Number 3-3.01), which is part of the larger Llagas Subbasin, as designated by the Santa Clara Valley Water District (Valley Water). 66."*

    b. Footnote 66 references Valley Water's 2016 Groundwater Management Plan; it should be noted this has been superseded by the 2021 Groundwater Management Plan, which is available at the following link: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021_GWMP.pdf

15. **Section 4.10.1.2, Existing On-Site Drainage:**
This section does not appear to accurately describe the existing storm drain system installed as part of Tract 8481, which includes the Project site. Valley Water records for the Tract 8481 improvements show the 36-inch storm drain reduces to a 21-inch pipe, which then increases in size to a 24-inch and finally a 27-inch pipe, which discharges into the retention basin. The retention basin was designed to mitigate increased runoff from Tract 8481 improvements for a range of storm events up to a 100-year storm. The outlet is a 21-inch pipe which connects to a 60-inch storm drain, which subsequently discharges into Tennant Creek, downstream of Barrett Avenue.

16. **Section 4.10.1.2, Flood Hazards (Page 135):**
The EIR acknowledges existing special flood hazards identified by FEMA and states *"The project site is located within three FEMA flood hazard designations: Zone AE, AO, and X."* It should be noted that Tennant Creek, which traverses the westerly end of the project site, has an adopted regulatory floodway: an area which has been reserved to convey the 100-year flood, or 1% annual exceedance event without increasing FEMA's Base Flood Elevation (BFE), or the 100-year water surface elevation at any point. All encroachments within the regulatory floodway will require a no-rise certification through a detailed hydraulic study that is completed in accordance with FEMA's mapping guidelines and standards. According to 44 CFR 60.3(d)(3), any new construction or development, including fill within the limits of the regulatory floodway is prohibited, *"unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge."* The EIR should acknowledge the regulatory floodway in its discussion of existing flood hazards, along with the restrictions within this area.

17. **Section 4.10.2, Impact 'b,' (Page 140):**
    a. To accommodate some of the proposed landscaping amenities for the Project (e.g., pond, fountains), it is noted *"The project would require the pond to be pumped with approximately 0.36 acre-feet of non-potable water per year (118,000 gallons per year), with an evaporation rate of approximately 0.28 acre-feet. The pond would require a total of 0.64 acre-feet of water (211,400 gallons per year) in year one to both fill the pond and replenish to offset evaporative losses, and 0.28 acre-feet of water (93,400 gallons per year) per year in the following years to offset to offset evaporative losses."* Initially, it is stated 0.36 acre-feet per year would need to be pumped to the pond, but it is subsequently stated that 0.28 acre-feet per year would be required to offset evaporative losses. The total volume required to maintain these amenities needs to be clarified.

    b. Because the Project site is in the recharge area of the Llagas Subbasin and the proposed development will increase the impervious surface area, Valley Water supports the planned use of site design measures, including LID, BMPs, and infiltration features, such as detention and retention basins that meet Valley Water stormwater infiltration device guidelines, and maintain natural recharge to the groundwater basin.

    c. The last paragraph states *"The highest depth to groundwater expected at the project site is 30 to 50 feet below ground surface. The maximum depth of excavation to install utilities building foundations proposed by the project is ten feet below ground surface. The groundwater is deep enough such that ground disturbance during construction would not interfere with groundwater flow or expose any aquifers."* As noted in Comment 8, Valley Water's Historical Groundwater Elevation website (https://gis.valleywater.org/GroundwaterElevations/index.php) indicates that the Project site is in an area of generalized depth to first groundwater of 5 to 20 feet below land surface. As explained on the website, the generalized depth to first groundwater depicts the most shallow groundwater ever measured for an area as of 2019. We recommend using the more recent (2019) estimates of depth to first groundwater from Valley Water, rather than the 2006 CDC report.

18. **Section 4.10.2.1, Impact 'c,' Drainage (Page 141):**
    a. To mitigate for increased runoff from the Project, the EIR cites Schaaf and Wheeler's (S&W) preliminary drainage report (Appendix H), which recommends construction of a detention pond at *"…Jackson Park, located adjacent to the northeast side of the site, to reduce post-project peak discharge to pre-project conditions to Tennant Creek under a 25-year storm event…Offsite runoff coming from tributary residential and open space areas would be rerouted through the detention basin, relocated at Jackson Park, to account for the increase in impervious area."* As noted in Comment 7, the existing detention basin was constructed to mitigate for increased runoff from Tract 8481. Furthermore, it was designed to ensure additional runoff from Tract 8481 - which includes the Project site as undeveloped Lots 20, 21, and 22 - does not exceed pre-project conditions (both in terms of volume and rate), and to also handle events up to the 100-year event. Tennant Creek is

prone to frequent flooding: Valley Water has estimated the creek is subject to overtopping during recurrence intervals as frequent as the 2- or 3-year event. In addition to replacing the function of the existing detention basin, the project should be mitigating all increased runoff from the development of Lots 20, 21, and 22 in Tract 8481, for a range of storm events from the 2- or 3- year event up through the 100-year event. The drainage report identifies discharge points along Tennant Creek, from the upstream limit of the Project site to a point downstream of Barrett Avenue to analyze changes in the Project site's discharge into Tennant Creek, both under existing and proposed conditions. Thus, all mitigatory measures need to consider a range of events, including the 2-, 10-, 25-, and 100-year events so as not to induce flooding on neighboring or downstream properties.

Additionally, the relocated detention basin will need to be adequately designed to account for the volume of runoff it currently receives from Tract 8481, or alternatively, the volume of runoff that can no longer be routed to the relocated basin needs to be made whole through additional basins or mitigatory measures. Ultimately, the mitigatory measures need to account for both the existing run-on the site currently receives, and any additional runoff generated within the Project site. Consistent with existing mitigation measures implemented for neighboring developments, runoff under pre-project conditions cannot exceed post-project conditions, both in terms of volume and rate. The drainage study completed by S&W only considers the 25-year storm event to address the minimum requirements specified in the City of Morgan Hill's (City) storm water management plan.

Lastly, it should be noted a public service easement has been reserved for Tract 8481 to operate and maintain the existing detention basin. Relocation of the existing basin will need to include similar land rights to accommodate the operation and maintenance of this facility.

b. The feasibility of relocating the detention pond to Jackson Park needs to be further evaluated since it appears to be proposed at a higher elevation than the existing detention basin. Neighboring developments currently discharge runoff into the existing detention basin via gravity. If it is assumed the relocated basin will continue to collect runoff from these developments, it should be noted this will not be feasible without employing mechanical measures (i.e., pumps) to route runoff upslope to Jackson Park.

c. The EIR also needs to analyze how changes in the storm drain system routing, Tennant Creek improvements (including any structures, grading or plantings), the proposed Barrett Avenue culvert, and outfall modifications in Tennant Creek will impact various storm event water surface elevations in the Tennant Creek special flood hazard areas, and in the Tennant Creek floodway. Water surface elevations need to be analyzed through the project site, upstream of the project site, and downstream of Barrett Avenue. Any changes which increase the FEMA effective water surface elevation in the floodway by more than 0.0-ft. at any point in the community will require a CLOMR to be submitted to and approved by FEMA prior to construction. If the project site will not create any new runoff discharging into Tennant Creek, then why are culvert improvements proposed? Any enlarging of the culvert capacity or even changes to current weir flow over Barrett Avenue may induce flooding downstream by increasing water surface elevations and/or increase the frequency of flooding downstream on Tennant Creek. It should be noted this area of Tennant Creek is subject to historical flooding.

d. This section does not address changes in the Tennant Creek overflow (Zone AO) that may be impacted by the Project. According to the FEMA effective model for Tennant Creek for the 100-year special flood hazard condition, 420 cubic feet per second (CFS) flow approaches the Fountain Oaks culvert, 290 CFS continues through the culvert, while 130 CFS travels through the neighborhood and exits overland as 'Zone AO' across the Project site. Subsequently, flows re-enter Tennant Creek near the 90-degree elbow, where 'Zone AO' enters 'Zone AE' and the floodway (shown as cross section 526 in the effective model). The EIR should include mitigation that requires the project to maintain the existing flood patterns through the project site.

19. **Section 4.10.2, Impact 'c,' Hydromodification (Page 142):**
    a. The Hydromodification section states the following: *"the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek."* To reiterate Comment 18a, the existing detention basin was designed to handle a range of events, including the 2-, 10-, 25-, and 100-year events. Therefore, the proposed detention basin needs to be designed to mitigate for the noted range of events. Schaaf and Wheeler's Preliminary Drainage Study (Appendix H) may have considered the increased runoff generated by Tract 8481 as part of the tributary area for 'Sorel Drive at Barrett Avenue' (Preliminary Drainage Study, Table 3-2, Page 8), however the study appears to assume that runoff would bypass the existing detention basin, and discharge directly into Tennant Creek by way of the existing 60-inch storm drain line along Barrett Avenue. It should be noted the existing detention basin increases the time of concentration within the drainage basin, which in turn attenuates the rate of runoff discharging into Tennant Creek. Modifications to the existing drainage pattern may increase flooding - both in terms of frequency and magnitude - for communities neighboring the Project site. The preliminary drainage study needs to evaluate whether the proposed modifications to the existing drainage pattern will increase both on- and offsite flooding.

    b. The hydromodification section states the *"...project site grades will be filled so that flows will be contained in Tennant Creek and there will be no runoff across the site."* This statement needs to be clarified or revised as it is not clear how changes to grading within the site will eliminate runoff across the site when the Project proposes to substantially increase the impervious surface area within the site. Additionally, in the absence of a no-rise certification, improvements to "contain" flows within Tennant Creek cannot include fill or modifications with the regulatory floodway since it would further constrict the conveyance area reserved to discharge the base flood event (i.e.,100-year event). It should be noted the limits of the regulatory floodway already assumes the maximum allowable increase (i.e., 1-ft.) has been reached. Thus, as noted in Comment 16, 44 CFR 60.3(d)(3) does not permit any fill/improvements within the regulatory floodway, unless it can be demonstrated the 100-year water surface elevation will not increase by any amount greater than 0.0-ft.

20. **Section 4.10.2., Impact 'c,' Flood Flows (Page 142):**
    a. The EIR asserts *"...the proposed project would not result in changes to the upstream or downstream 100-year water surface profile of the creek."* This conclusion is inconsistent with the results provided in Schaaf and Wheeler's Evaluation of Flood Hazards (Preliminary Drainage Report, Table 4-1, Page 12), which showed water surface elevation increases at several cross sections along Tennant Creek. The Project cannot result in any increases to the published 100-year water surface profile. As noted in Comment 14b, the regulatory floodway already assumes the maximum allowable increase has been reached; thus, improvements cannot further increase the 100-year water surface elevation. Moreover, the post-project conditions evaluated by Schaaf and Wheeler's analysis does not consider realignment and widening of the channel, or the proposed storm drain improvements along Barrett Avenue: all of which are proposed in earlier sections of the EIR.

    b. It is noted *"the grading associated with the proposed project would re-establish the Tennant Creek floodway and floodplain which would relocate the 100-year flooding to ensure areas of the project development are located outside of the 100-year flood zone."* The proposal to re-establish and relocate the floodway and floodplain needs to be clarified. As noted in Comment 16, modifications to the adopted regulatory floodway will require a no-rise certification, supported by a hydraulic analysis completed in accordance with FEMA standards for map revisions. Moreover, it is not clear how the floodplain itself would be re-established unless the identified FEMA special flood hazard areas (SFHA) within the site are to be preserved as open space areas. Based on prior plan reviews by Staff, residential units were proposed within the limits of FEMA's SFHA.

    c. The last paragraph under the discussion of 'Flood Flows' (Section 4.10.2, Page 143) notes that *"The development shall apply for a Conditional Letter of Map Revision based on Fill through FEMA to show that the development is outside the floodplain."* It should be noted that as of July 1, 2023, the

County of Santa Clara (County) has temporarily suspended all CLOMR-F and LOMR-F applications within the County. Additionally, based on the improvements specified in the EIR, a CLOMR-F would not be applicable due to the proposed in-channel improvements (e.g., proposed realignment/widening of existing channel, culvert improvements). Hydraulic analyses to support revisions to FEMA Flood Insurance Rate Maps (FIRM) cannot separate specific project improvements such as grading and evaluate its singular impact on existing SFHAs. Rather, a cumulative analysis, which accounts for all proposed project improvements, needs to be completed to determine the Project's overall impact on FEMA's SFHA. This cumulative analysis is especially important as it does not appear that Barrett Avenue improvements (completed as part of Tract 7157) were submitted to FEMA for inclusion in the special flood hazard area study. These improvements include the existing Barrett Avenue culverts and the 60-inch storm drain outfall at Barrett Avenue.

d. The last sentence under the discussion of 'Flood Flows' (Section 4.10.2, Page 143) asserts *"the proposed project would not redirect flood flows causing flooding on or off site."* As noted in comment 20c, this assertion needs to be supported by a hydraulic analysis that evaluates the cumulative impact of all proposed improvements. While Schaaf and Wheeler's evaluation of flood hazards in the Preliminary Drainage Report (Appendix H) does consider modifications to the existing culvert at Barrett Avenue, it does not consider realignment and widening of the channel, both of which are proposed project improvements specified in earlier sections of the EIR. Results from the hydraulic analysis needs to support the conclusion that the project would not redirect flood flows or increase flooding on- or offsite.

21. **Section 4.19.2.1, Impact 'a,' Water Facilities (Page 218):**
As part of the project's utility improvements, the EIR states *"The proposed project would connect new water lines to the existing water mains in Barrett Avenue and Hill Road."* It should be noted that Santa Clara Conduit (SCC), which runs along Hill Road, is part of the Central Valley Project, and is used to deliver the County's federally contracted water supply. Valley Water operates and maintains this facility on behalf of the Bureau. All proposed modifications to or near the pipeline, including those that may impact its appurtenances (e.g., valves, vaults, etc.), are subject to review and approval by both Valley Water and the Bureau. Additionally, the Bureau has reserved easement along the length of the pipeline to accommodate the operation and maintenance of the pipeline (See Comment 2). Thus, all modifications within, through, or over the easement area - including changes to the existing grade – will also require review and approval by Valley Water and the Bureau. Per the easement deed, the Bureau has been granted *"the perpetual right, privilege and easement to construct, operate and maintain water pipelines, together with all fixtures, devices and appurtenances necessary to the operation of said pipelines, within, through, over and across the real property…"* Ultimately, the Project cannot impede Valley Water's ability to exercise these land rights. Assuming a connection to SCC is approved, it should be noted this is an interruptible source of raw water, subject to both planned and unplanned outages for extended periods of time. For this reason, the pipeline should not be relied upon as the development's primary source of raw water. A reliable groundwater supply well or a connection to a retail water service needs to be established. Lastly, since Valley Water has discretionary approval authority over this facility, Valley Water is considered a Responsible Agency under CEQA.

22. **Section 4.19.2.1, Impact 'a,' Storm Drainage (Page 218):**
The draft EIR's discussion of Storm Drainage improvements proposes to remove existing storm drain lines, which currently convey flows in and out of the existing detention basin. The proposal to remove these existing lines is inconsistent with the EIR's earlier determination Section 4.10 – Hydrology and Water Quality, 'Drainage,' (Page 141), which asserted that *"the proposed project would not substantially alter the existing drainage pattern of the site or area…"* As noted in Comment 19a, the detention basin was constructed to mitigate for increased runoff, and attenuate flows discharging into Tennant Creek. Any proposed modification to the existing drainage system needs to ensure flooding along Tennant Creek is not increased, both in terms of frequency and magnitude.

23. **Section 4.19.2.1, Impact 'b,' Project Water Demand (Page 219):**
The Project Water Demand section states that the project will create a new demand of 118,265 million gallons per day (MGD) of water, but it is not clear how that total is derived. The draft EIR concludes that the project is consistent with planned growth for Morgan Hill. This projection of future water supply and availability assumes increases in water conservation and demand management measures in both Morgan Hill's and Valley Water's Urban Water Management Plan. For the proposed project to meet its fair share of these water conservation assumptions, all available water conservation measures should be required of the project. Such measures should include:

    - Prohibiting non-functional turf in private open space areas, lawn areas should be limited to areas supporting passive activities.
    - Require hot water recirculation systems.
    - Require dedicated landscape meters and separate submeters to each unit and individual commercial spaces where applicable.
    - Install weather or soil-based irrigation controllers.

24. **Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum (Page 5):**
Schaaf and Wheeler's memorandum notes *"the Rational Method was utilized to quantify the 25-year runoff for designing a storm drain system."* See comment 18a.

    The memorandum also states the proposed model includes the proposed fill in the floodplain and a pedestrian bridge, but it does not mention the changes to the Tennant Creek Overflow ('Zone AO'), the proposed storm drain routing changes, the proposed Barrett Avenue culvert crossing and storm drain outfall changes, etc. Also, the memorandum does not acknowledge that the existing capacity of Tennant Creek is very limited (estimated to only have capacity for a 2- or 3- year storm event); therefore, mitigation for only a 25-year event will increase the extent, and frequency of flooding for downstream properties, during those frequent events and up to a 100-year event as identified in FEMA effective studies.

25. **Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 4 (Page 7):**
    a. The discussion for 'Impact 4' notes *"...the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek."* See Comments 18a.

    b. The discussion for Impact 4 notes *"...the project site will be filled so that flows will be contained in Tennant Creek and there will be no runoff across the site."* See Comment 19b.

26. **Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 5 (Page 8):**
    a. The discussion detailing the existing site drainage conditions indicates *"...no information of the basin is available..."* and the existing detention basin *"...is assumed to be private and does not provide detention for the City's storm drain system."* This statement is in error as the basin was constructed as part of Tract 8481, approved by the City, and the basin was dedicated to, and accepted by the City as a public service easement on the recorded Tract Map. Additionally, the depiction of the storm drain is in error as compared to Tract 8481 improvement Plans. See Comments 7 and 15, and 18a.

    b. The discussion of post-project site drainage conditions notes that *"Runoff from offsite tributary residential and open space areas northeast of the project will be rerouted through the proposed basin..."* See Comments 18a, and 18b.

27. **Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 6 (Page 9):**
It is noted *"...the detention basin has been designed to the 25-year storm event,"* and based on the modeling results for the 100-year storm event in Tennant Creek *"the development will be out of the floodplain."* See Comments 20a, and 20c. This finding does not acknowledge that Tennant Creek does

not have sufficient capacity for frequent flood events and any increased runoff during these frequent events, which will increase the extent and frequency of flooding downstream. Receiving streams further downstream only have an approximate capacity for the 10-year event. The text supporting a finding of 'Less Than Significant' is inadequate. Additionally, Figure 6 provided on this page is illegible, and the outlet or discharge point for all DMAs is not clear. A full sized, legible copy of the figure, along with a clearly marked discharge point needs to be provided.

28. **Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 7 (Page 10):**
    a. The discussion for Impact 7 identifies the three special flood hazard areas overlapping the project site ('Zone AE,' 'Zone O,' and 'Zone X'), however this section needs to also acknowledge the regulatory floodway that has been established. See Comment 16.

    b. The text states that the portion of 'Zone AO' not within Tennant Creek will be filled above the height of flooding. This will block 100-year flood flows of 130 CFS (as identified in the FEMA effective model) from leaving the Fountain Oaks neighborhood, which currently release overland across the Project site as 'Zone AO.' It is not clear where these flood flows will go if the proposed fill is obstructing the flow path. The text does not support the 'Less than Significant Impact.'

    c. It is stated in the second paragraph that *"While the water surface elevations change throughout the site, the Project grading will re-establish Tennant Creek floodway and floodplain which will remove the 100-year flooding to be completely outside of the project limits. The development should apply for a CLOMR-F through FEMA to show that the development is outside the floodplain."* See Comment 20b.

29. **Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 1, Introduction:**
    a. It is noted under the 'Objectives' discussion (Section 1.2, Page 3) that *"Project grading will also enable the Tennant Creek floodway and floodplain to be re-established so that all home sites may be elevated above the base flood, without changing the upstream or downstream 100-year water surface profile of the creek by more than six inches, as required by FEMA for remapping."* As previously noted, no increases to the 100-year water surface elevations are allowed within any point of the regulatory floodway. See Comment 16 and 20a.

    b. The Report Outline (Section 1.3, Page 3) indicates preliminary hydrologic and hydraulic calculations are provided to evaluate the volume that would be needed to detain the 25-year storm event. See Comments 18a.

30. **Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 2, Drainage Patterns and Conveyance:**
    a. The section detailing the existing drainage conditions (Section 2.1, Page 5) notes that information regarding the design, sizing criteria, and function of the pre-existing stormwater retention basin, north of Barrett Avenue, are not available. See Comment 7. Additionally, it should be noted that Schaaf and Wheeler designed the detention basin.

    b. The drainage study proposes a conceptual plan to relocate the existing detention basin to Jackson Park (Section 2.2, Page 5). See Comment 18b.

    c. It is also noted *"approximately 150 acres of tributary residential and open space areas northeast of the project site (Figure 2-3)"* will be routed to the relocated detention basin. The southerly subcatchment (Total Stream Length 3179-ft.) does not account for Tracts 7157 and 8481. Additionally, portions of this subcatchment generally have existing grades that are lower in elevation compared to those at Jackson Park. See Comment 18b.

31. **Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 3, Project-Specific Drainage Requirements:**
    a. As stated in other sections of the drainage study, the analysis considers the 25-year, 24-year storm event to adhere to the City's storm water management plan. The study needs to consider a range of events, including the 2-, 10-, 25-, and 100-year events, since Tennant Creek is prone to flooding. See Comments 18a and 19a.

    b. Tables 3-1 and 3-2 provided in Section 3.2 (Page 8) need to include results for the requested range of events, including the 2-, 10-, 25-, and 100-year, 24-hour storm events.

32. **Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 4:**
    a. It is noted *"Potential impacts from Project improvements are assessed using information and hydraulic models first completed for the Santa Clara Valley Water District."* The flood impact analysis for the project needs to be evaluated using FEMA's effective model as the baseline conditions. If the referenced Santa Clara Valley Water District model is based on the effective model, the analysis needs to ensure both the upstream and downstream ends of the studied reach are within 0.5-ft. of the published BFE (44 CFR 65.6(a)(2)). Additionally, all existing developments not included into the effective model need to be incorporated and evaluated cumulatively with the proposed project.

    b. Section 4.1 asserts *"all areas of potential improvements within Project limits would be located outside of regulatory flood areas."* This statement is not consistent with the improvements specified in earlier sections of the draft EIR, which proposes realignment of the stream, widening of the channel at Barrett Avenue, and removal of the existing culvert: all of which are occurring within the limits of the regulatory floodway.

    c. Section 4.1.1 cites Ordinance Section C12-821(A), which maintains that the cumulative effect of development cannot increase the BFE by greater than one foot at any point within the County, *"until a regulatory floodway is adopted…"* It is then stated *"Since Tennant Creek has a defined floodway, and that floodway can be adjusted to coincide with the slightly realigned banks, this section of the of the ordinance does not apply…"* See Comment 16. This statement is only true if the Project fills in regulatory floodplain areas first. Additionally, this section refers to the County flood hazard ordinance; instead, it should refer to the City's flood hazard ordinance, particularly Section 15.80.200 – Floodways (B), which states *"Within an adopted regulatory floodway, prohibit encroachments, including fill, new construction, substantial improvement, and other development unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment shall not result in any increase in the base flood levels during the occurrence of the base flood discharge."* It should be noted the base flood discharge is the FEMA base flood discharge, not the ACOE hydrology discharge.

    d. Section 4.2 indicates the effective HEC-2 model *"was obtained from the Santa Clara Valley Water District's website."* Not all hydraulic models provided on Valley Water's website are FEMA effective models. Model outputs need to be verified with the County's Flood Insurance Study (FIS) to confirm the water surface elevations and FIS flood flows are consistent with the Valley Water model. The FEMA FIS flood flows within Tennant Creek through the site range from 290 CFS to 420 CFS, depending on the location. Additionally, the FEMA floodway model needs to be analyzed for increases due to the Project.

    e. Section 4.2.4 notes that the *"proposed conditions are based on blocked obstructions (vertical walls) placed in the channel overbank as shown in the project workmap."* Since Tennant Creek has an adopted regulatory floodway, the effective model should have blocked obstructions that were assumed to determine the limits of the floodway (i.e., floodplain encroachments). The duplicate effective model, and all subsequent models used to evaluate project impacts need to ensure these ineffective flow areas are carried over from the effective model. This section also states ACOE hydrology was used in the analysis. When a FEMA special flood hazard area has been defined,

FEMA effective hydrology and modeling must be used as the existing condition floodplain to determine compliance with federal flood hazard regulations. This section also states that the Barret Avenue culverts will be increased in capacity from three (3) 30-inch culverts to five 8-foot by 2-foot box culverts. It is not clear why such an increase in capacity is required if the Project will not increase flood flows to Tennant Creek. It is of particular concern that increasing the capacity of the Barrett Avenue culvert will increase the extent and frequency of flooding in Tennant Creek to downstream and neighboring properties.

f. Table 4-1, which summarizes the 100-year water surface elevation based on the assumed post-project conditions, show increases at several locations along the water surface profile. See Comments 16.

33. **Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Attachment 1: Storm Drain Discharge and Detention Calculations:**
The outlet, or the assumed point of discharge along Tennant Creek needs to be specified for all drainage calculations.

34. **Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Attachment 2: HEC-RAS Project Workmap:**
For the cross sections provided, the limits of the assumed floodplain encroachments need to be clarified.

If you have any further questions regarding Valley Water's comments on the draft EIR, you may contact me at (408) 630-3066, or reach me via email at bhwang@valleywater.org.

Thank you,

BENJAMIN HWANG, P.E.
Associate Engineer - Civil
Community Projects Review Unit

Cc: Y. Arroyo, B. Hwang, R. Saleh, V. De La Piedra, J. Gurdak, M. Richert, M. Martin, B. Kassab, J. Pfister, File

From: Kathy Becker
To: Tiffany Brown
Cc: Kathy Home Emails Becker
Subject: [EXTERNAL] New Horizons Development Concerns
Date: Wednesday, January 3, 2024 4:59:25 PM

Hi Tiffany,

My husband and I attended the meeting you held regarding the New Horizons Development planned for the Barrett/Hill Road area. Most of the attendees at this meeting had received a community notice for this meeting, but we live on Mira Bella Circle. As such we live beyond the 600ft limit for sending out such community notices. Thank goodness for friends, we received the alert to your meeting.

Following your meeting I thought there would be a follow-up/alert via some form of social media to notify the other surrounding homes in the Jackson Meadows area to the New Horizons issues/concerns. I am frequently on NextDoor, Morgan Hill Community on FB and a variety of other local social media outlets. **I did not see anything further so as I write this I still have serious concerns that the majority of the Jackson Meadows residences no nothing about the continued development and assessments of this area. The billboard has been there so many years that most have either forget about it or ignore it. I know this is likely too late, but I honestly believe an effort should be made to notify or alert the thousands of residence in Jackson Meadows who will be very seriously impacted by this development.**

You have asked those of us who attended to submit in writing our concerns. Here are some of mine. I apologize for coming in a the 11th hour but hope my input is considered.

1. As brought up by an individual who lives on or near Mira Bella Circle, those of us on Mira Bella Circle have primarily one way in and one way out in a case of emergency. As the gentleman pointed out, we had the Coe Park fire in August 2020 and while most of us had our vehicles loaded and read to leave it would have been a mad exodus for hundreds of us just from Mira Bella Circle alone. This does not factor in the hundreds to thousand more from Cantor Drive and ALL the surrounding streets/homes! With the city developing New Horizons there would be additional hundreds to thousands more people and vehicles trying to exit. **In an emergency the small two lane Barrett that further dumps into the small two lane Hill Road are all that separates us from disaster and life or death. Seriously - we saw this happen several times in the, Camp Fire, Napa, Santa Cruz! What are the considerations to remedy this type of horrific scenario in the event of a future fire, mudslide, earthquake or other tragedy?**

2. I brought up at the meeting about the intense traffic every morning and afternoon at Barrett, Trail Drive, Hill Road and Fountain Oak due to the parents dropping off and picking up their children from Jackson oak Academy. It is a sheer nightmare today that residences in all of Jackson Meadow are nearly held hostage every school day by the flood of parent vehicles in every single one of the streets I mentioned above from approximately 7:30am - 9am and again from 2pm - 3:30, sometimes 4pm every afternoon. Rarely do the parents adhere today to the stop signs and crosswalks throughout Jackson Meadows and the no left turns at Gallop and East Dunne. **What are the city's plan to address these traffic issues that involve our children, pedestrians and others? We cannot simply ignore and allow for more fatalities. If the city and planning commission has not considered past fatalities due to poor**

logistics then please do so now!!!

3. I am retired now so in most instances I can try and set my schedule to AVOID Barrett and Hill Road and all other roads/streets that would allow me to leave Jackson Meadows with some measure of safety. **I have not heard that the city or the city planning commission has considered the enormous amount of traffic on the Jackson Meadows surface streets to all of the vehicles attempting to avoid using Hwy 101.** This is truly disturbing as it has been going on for years and years. In 2024 it has become nearly impossible to get onto Hill Road or across the street using Barrett unit well after 9am. **Cars coming from Foothill to Tennant to Hill rarely, if ever, use the stop signs so hoping for a break in traffic is a joke. We will add insult to misery by developing New Horizons without realistic road improvements and logistics to include stops lights, blinking pedestrian crossings, etc. I for one would like to see and hear what the actual plans are for moving hundreds and thousands more residences through the streets in a safe manner. Some the vehicles using these surface streets to avoid the highway are going as fast as 50-60 miles per hour on a two lane road and even passing!!!**

4. Numerous Jackson Meadows, Jackson Oaks and Holiday Estate access the Pedro Ponds to walk. Many are crossing Hill Road to access the ponds either by themselves or with their precious pooches. I have seen on far too many occasions near misses on Hill in the area from East Dunne to the area that is slated to be New Horizons. **What plans are in place to insure the safety of these people accessing the ponds? For years now with the horrifically increased traffic on Hill Road there hasn't been any crosswalk, blinking or otherwise considerations or development. What are the plans for this in todays increased traffic AND the development of New Horizons?**

5. We have lived on Mira Bella Circle for 26+ years and we have thoroughly enjoyed seeing and watching the wildlife that visits Jackson Meadows. With the development of New Horizons has the city considered the disruption to wildlife? I've seen the city not plan for disruption to wildlife in closing the dam. These wild animals are left with no immediate access to water and food. Let's remember, they were here first - we are just visitors…

6. **Curious if the city has plans to insure this New Horizons development isn't invaded by the rats caused from the trash and garbage from the five (5) large homes across Barrett and that back up to the farm fields.** I believe the homes and surrounding farm land are owned by Emily Chen. I believe she is well know to the city. She built these homes and there are dozens of residences in each of the homes who allow their trash and garbage to be thrown and tossed outside the homes. This has caused rats to invade areas of Mira Bella Circle and Barrett. Because each house has anywhere from 10-15+ cars per residence you have to factor those to the traffic issue AND a serious vehicle abandonment issue. Adding more people and homes to this immediate area will only make these three issues (rats, large amount of people per household, and hundreds or more vehicles) more pronounced.

7. Hill Road is both city and county. The portion that would run parallel to the New Horizon development is city property therefore it is maintained by the city. The other portion of Hill that runs to Tennant is county and is rarely maintained. Are there plans in the development that that portion of Hill and all of Barrett will be overseen and then care of by the city?

8. Barrett is overseen by the county and is never ever, ever taken care of. The rain created huge gullies alongside one side of Barrett years ago and they just get larger with each year of

rains. The area tends to flood out where the creek runs under Barrett and the pot holes are simply getting larger. **Who will be responsible for Barrett when/if New Horizons is developed?**

Thank you Tiffany for your time and considerations of my input. I appreciate the fact that we can provide input and dearly, dearly hope some good come from it. I hope others provided input but I am sorry that there are likely many in Jackson Meadows who weren't afforded the opportunity. **I also hope the city will take care of some very serious and dangerous traffic/road issues BEFORE New Horizons breaks ground. THIS IS TOO SERIOUS NOT TAKE PROACTIVE MEASURES NOW!!!**

Thank you again for this opportunity!

Sincerely,
Kathleen (Kathy) and Blaine Becker

[redacted]

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December 18, 2023

VIA E-MAIL tiffany.brown@morganhill.ca.gov

Tiffany Brown
Senior Planner, Development Services
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037

Re: Draft EIR Comments - New Horizons
(Project No. ZA2021-0001, SD2021-0003, EA2018-0016)

Dear Tiffany:

Our office represents Morgan Hill Devco, LLC, the applicant for the above-referenced project. We appreciate the City's publication of the Draft EIR, and the applicant looks forward to the completion of environmental review for this project. To that end, this letter focuses only on two impact areas, Agricultural Resources and Greenhouse Gases, where we found larger legal discrepancies with how the project was analyzed under CEQA, as detailed below.

These issues are important because, not only are the Agricultural Resource and portions of the Greenhouse Gas mitigation measures unwarranted under CEQA, they would result in monetary exactions that would increase the cost of delivering the project to the Morgan Hill community, and could impede the delivery of much-needed affordable housing for seniors, which is the central feature of the New Horizons project. The applicant therefore respectfully requests the changes detailed below, to ensure that the Draft EIR is processed in accordance with the requirements under CEQA and constitutional principles governing lawful mitigation measures.[1]

Despite the persistent affordability crisis plaguing the state with each passing year, the housing crisis has been eclipsed by even stronger headwinds from rising construction costs, lack of financing, and the significant increase in cost of builders' risk insurance. As such, the applicant would prefer to reinvest the unnecessary mitigation costs back into the project, to deliver the highest quality amenities that can reasonably be provided for a project of this scale.

[1] See, 14 Cal. Code Reg. § 15041 "Authority to Mitigate" …. "A lead agency for a project has authority to require feasible changes… in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as the "nexus" and "rough proportionality" standards established by case law. (*Nollan v. California Coastal Comm.* (1987) 483 U.S. 825, *Dolan v. City of Tigard* (1994) 512 U.S. 374, *Ehrlich v. City of Culver City*, (1996) 12 Cal.4th 854.)"

In addition, the U.S. Supreme Court recently granted a petition for writ of certiorari to review legislatively-imposed fees in California (See, *Sheetz v. County of El Dorado* --- S.Ct. ----, 2023 WL 6319652 (Mem).)

The Draft EIR's Analysis of Agricultural Resources is Based on Outdated Mapping; Substantial Evidence Supports a Finding that the Property is not Prime Farmland

The City, as the lead agency under CEQA, must exercise its own judgment to establish a significance threshold for agricultural mitigation for the New Horizons project that reflects the existing conditions at the site, which has not been irrigated for more than 5 years. As noted in the CEQA Guidelines, "[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the [City], based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."[2] The site therefore cannot be designated as prime farmland, farmland of statewide importance, or unique farmland given the facts in this case that establish that no irrigation or farming of the site has occurred for at least five years.

In addition, a project-specific significance threshold is more appropriate than the default approach, particularly when the default approach is based on an outdated, general assumption about the site that is not supported by substantial evidence.[3] In addition, project specific thresholds do not need to be formally adopted because the requirement for formal adoption applies only to significance thresholds of general application.[4]

Here, the New Horizons Draft EIR follows the typical approach of analyzing impacts to agricultural lands by referring to the significance threshold in Appendix G, which generally states that the Farmland Mapping and Monitoring Program should be used to identify Prime Farmland or Farmland of Statewide Importance. The Department of Conservation (the "DOC"), however, defines Prime Farmland, Farmland of Statewide Importance, and Unique Farmland as follows:

> ***Prime Farmland*** has the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. **Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date**.
>
> ***Farmland of Statewide Importance*** is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. **Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date**.
>
> ***Unique Farmland*** consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. **Land must have been cropped at some time during the four years prior to the**

[2] 15 Cal. Code Reg. 15064(b); see also *Clover Valley Found. v City of Rocklin* (2011) 197 Cal.App.4th 200, 243, ruling that the lead agency properly found a project would not cause significant aesthetic impacts due to site-specific conditions noted in the EIR: a slope buffered views to the ridgeline, and existing residential development already occurred in the area.
[3] 14 Cal Code Reg. §15064.7(b); see also *Save Cuyama Valley v County of Santa Barbara* (2013) 213 Cal.App.4th 1059
[4] *Id.*

mapping date.[5]

The DOC provided the above statements in bold, underlined text, to punctuate the importance that irrigation and land cultivation are essential components for any land meeting the above designations. These are also essential features for agricultural mitigation measures under CEQA to withstand constitutional scrutiny.

For the New Horizons project, substantial evidence clearly supports the finding that the site has not been irrigated for more than five years. The attached, historical aerial imagery from Google Maps confirms that 2017 was the last year that irrigated row crops were planted at the site. The most recent update to the Farmland Mapping and Monitoring Program occurred in late 2022, or early 2023.[6] The New Horizons project site therefore has remained unirrigated for more than four years since the last mapping effort by the DOC. The same result would be found if the four-year period were measured from the City's publication of the Notice of Preparation in 2021.

The FMMP website also cautions that its "data is not designed to be used for parcel specific planning purposes due to its scale and the size of the minimum mapping unit." The FMMP is therefore akin to the US Army Corps' wetlands mapper: the Corps uses GIS and other desktop surveys to map out the areas where wetlands have the potential to occur. The Corps, however, does not base its jurisdictional delineation of wetland areas on the wetlands mapper when actual, site-specific conditions show that none of the criteria for wetlands exist onsite. Here, the FMMP, just like the Corps' wetlands mapper, cannot be used to supersede actual aerial data showing that the New Horizons site has not been irrigated for more than five or six years.

Accordingly, the applicant requests that the threshold of significance for potential impacts to Agricultural Resources in the Draft EIR be revised, as follows:

4.2.2.1 Project Impacts

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

This revision to the Draft EIR should be coupled with the incorporation of aerial slides from Attachment 1 to this letter, to document with substantial evidence in the Draft EIR that none of the project area has been irrigated for more than 5 years since the last update to the FMMP in 2022, and for more than 4 years since the publication of the NOP. As such, the applicant requests that the significant and unavoidable finding be revised to a less-than-significant impact, with no mitigation required, in accordance with CEQA and constitutional law.

[5] https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland%20Mapping%20and%20Monitoring%20Program%20Ag%20Removal%20protocol.pdf

[6] Gov. Code § 65570 notes that "Commencing on December 31, 2018, and continuing biennially thereafter, the department shall update and send counties copies of current Important Farmland Series maps."

The Draft EIR's Analysis and Mitigation of Greenhouse Gas Emissions Should Be Based on the Most Current Guidance Adopted by the Bay Area Air Quality Management District

The GHG analysis in the Draft EIR refers to the Bay Area Air Quality Management District to establish a "bright-line" CEQA threshold. In 2023, however, BAAQMD updated its GHG CEQA threshold and no longer recommends using a bright-line or quantitative approach to calculate a project's GHG impacts and GHG reduction goals. The Draft EIR should be revised to incorporate BAAQMD's updated CEQA significance threshold, which it adopted after a lengthy rulemaking, to establish a qualitative and performance-based approach for reducing greenhouse gases, particularly for residential projects such as New Horizons.[7] Alternatively, the Draft EIR should be revised to establish that compliance with BAAQMD's updated mitigation measures would adequately mitigate the project's potential impact to global climate change.

Under BAAQMD's updated GHG CEQA threshold, a project's GHG impact should be deemed less than significant if it incorporates certain Design Elements,[8] or demonstrates Consistency with a Local GHG Reduction Strategy.[9] Under the first test, if certain design elements are incorporated into the project, such as all-electric residential buildings, the City should find that the project will contribute its fair share in achieving California's long-term climate goals, and that the project would not cause a cumulatively considerable contribution to global climate change. Under the second threshold, the City should find that the project will have a less-than-significant impact on global climate change if the project is consistent with the City's local GHG reduction strategy. These performance-based mitigation measures supersede BAAQMD's previous approach to quantify GHG emissions and establish project-level quantified reductions. The Draft EIR mitigation measures should therefore be revised to allow compliance with BAAQMD's updated performance standards as mitigation measures that will achieve the necessary GHG reductions to ensure that the project will not have a significant impact on global climate change.

BAAQMD has moved away from recommending carbon credits as mitigation, focusing instead on measures that achieve GHG reductions and sequestration occurring within the community.[10] This shift is based on the difficulty in enforcing carbon credits,[11] and the fact that local plans should be favored, particularly where they demonstrate how the state's long-term GHG reduction targets can be achieved without the use of offsets.[12] In addition, neither the applicant nor the City should be in the business of procuring and monitoring the veracity of carbon credits,[13] when significant, verifiable reductions can be made locally. Finally, local mitigation provides greater co-benefits that improve the quality of life of the community.

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[7] See, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-6-project-climate-impacts_final-pdf.pdf?rev=ce3ba3fe9d39448f9c15bbabd8c36c7f&sc_lang=en

[8] *Id.,* § 6.2.1

[9] *Id.,* § 6.2.2

[10] Bay Area Air Quality Management District, CEQA Guidelines (2022) p. C-15.

[11] See *Golden Door Properties vs. County of San Diego* (2020) 50 Cal.App.5th 467 (mitigation requiring carbon credits was unenforceable, and therefore inadequate under CEQA.)

[12] Bay Area Air Quality Management District, CEQA Guidelines (2022) p. C-15.

[13] While the State of California recently enacted AB 1305 (Gabriel, 2023), which aims to reduce fraud in connection with voluntary carbon offsets, the law is primarily oriented at disclosure of environmental claims, and the voluntary carbon market remains significantly unregulated. (See, https://www.sidley.com/en/insights/newsupdates/2023/10/california-enacts-novel-disclosure-requirements-for-the-voluntary-carbon-market-and-green-claims.)

Accordingly, the Draft EIR Should Rely on the City's Climate Action Plan, Pursuant to BAAQMD's Updated GHG CEQA Significance Threshold, to Find that the Project Will Have a Less-than-Significant Impact on Global Climate Change

The City's Climate Action Plan substantially complies with the requirements of a local reduction strategy. Compliance with the City's CAP effectively mitigates the project's potential impacts to global climate change, particularly because the New Horizons project will commit to building all-electric residential buildings, and will ensure that garages are equipped to be ready for electric-vehicle charging, in accordance with California Electrical Code, Article 625.

The City of Morgan Hill's CAP is an adequate GHG reduction strategy under BAAQMD's qualitative significance threshold, and meets the criteria of the CEQA Guidelines, particularly when reviewed in connection with the analysis in the City's General Plan EIR, which included a quantification of existing and proposed GHG emissions within City limits, through 2035. The City's 2035 General Plan EIR identified buildout scenarios of the proposed General Plan that would achieve BAAQMD's 2035 performance standards.[14] The City's Climate Action Plan adopted in 2021 goes even further, by identifying actions needed to achieve a targeted 100% reduction in local GHG emissions by 2045.

In addition, MM GHG-1.1 states that "[t]he GHG reduction plan shall be implemented until the City adopts its GHG reduction plan consistent with the State's interim 2030 GHG emissions reduction target of 40 percent below 1990 levels." However, the City has already adopted a GHG reduction plan consistent with the State's 2030 reduction target. More importantly, the CAP targets a 100% reduction in local GHG emissions by 2045, and therefore is consistent with the GHG reduction targets under California Executive Order B-55-18 and SB 100 (De Leon, 2018).

Accordingly, the Draft EIR should be revised to note that the project meets BAAQMD's CEQA threshold for GHG emissions without the incorporation of additional mitigation measures.

Thank you for considering these comments and, again, we look forward to the completion of environmental review for this project. Please do not hesitate to reach out to me or the applicant if you have any questions regarding our comments.

Sincerely,

Hanson Bridgett LLP

Robin R. Baral
Senior Counsel

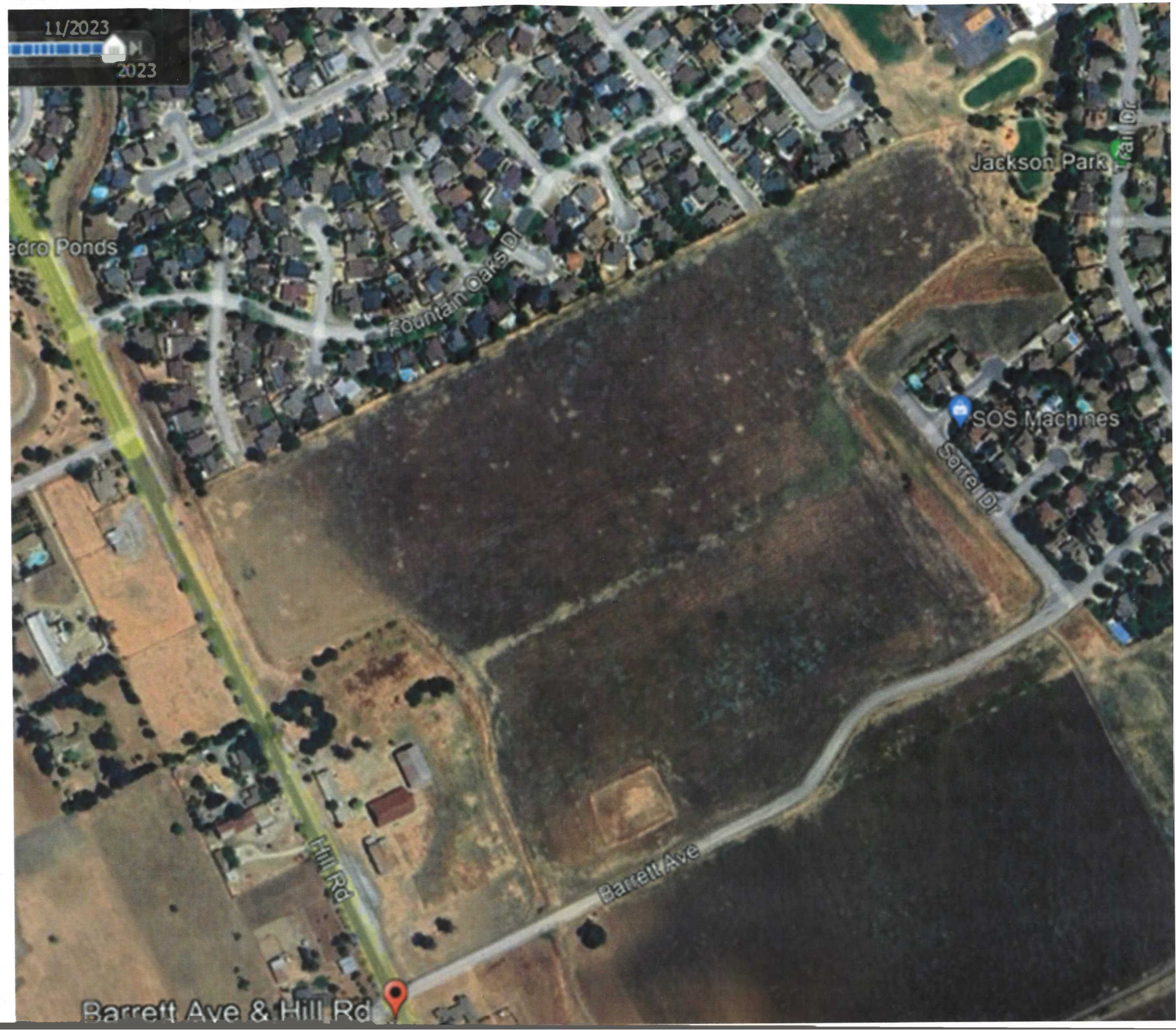
Attachment – Historical, aerial satellite imagery from 2018 through 2022

cc: Client
Don Larkin, City Attorney

[14] See Morgan Hill 2035 EIR, p. 4.7-27 – 28.

ATTACHMENT 1

Aerial Photos (2018 through 2022)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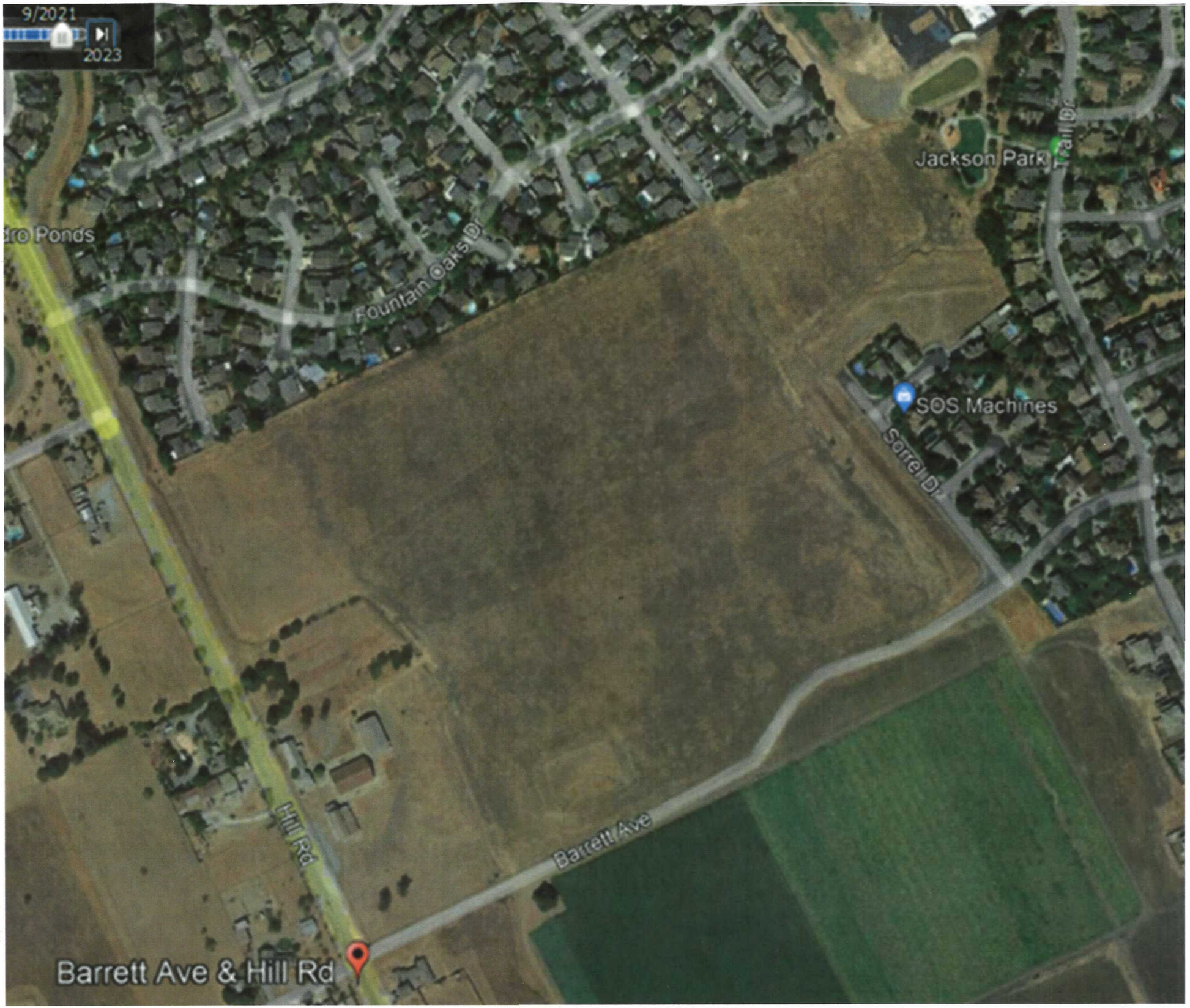
Fountain Oaks Dr
Jackson Park
Trail
SOS Machines
Barrett Ave
Hill Rd
Barrett Ave & Hill Rd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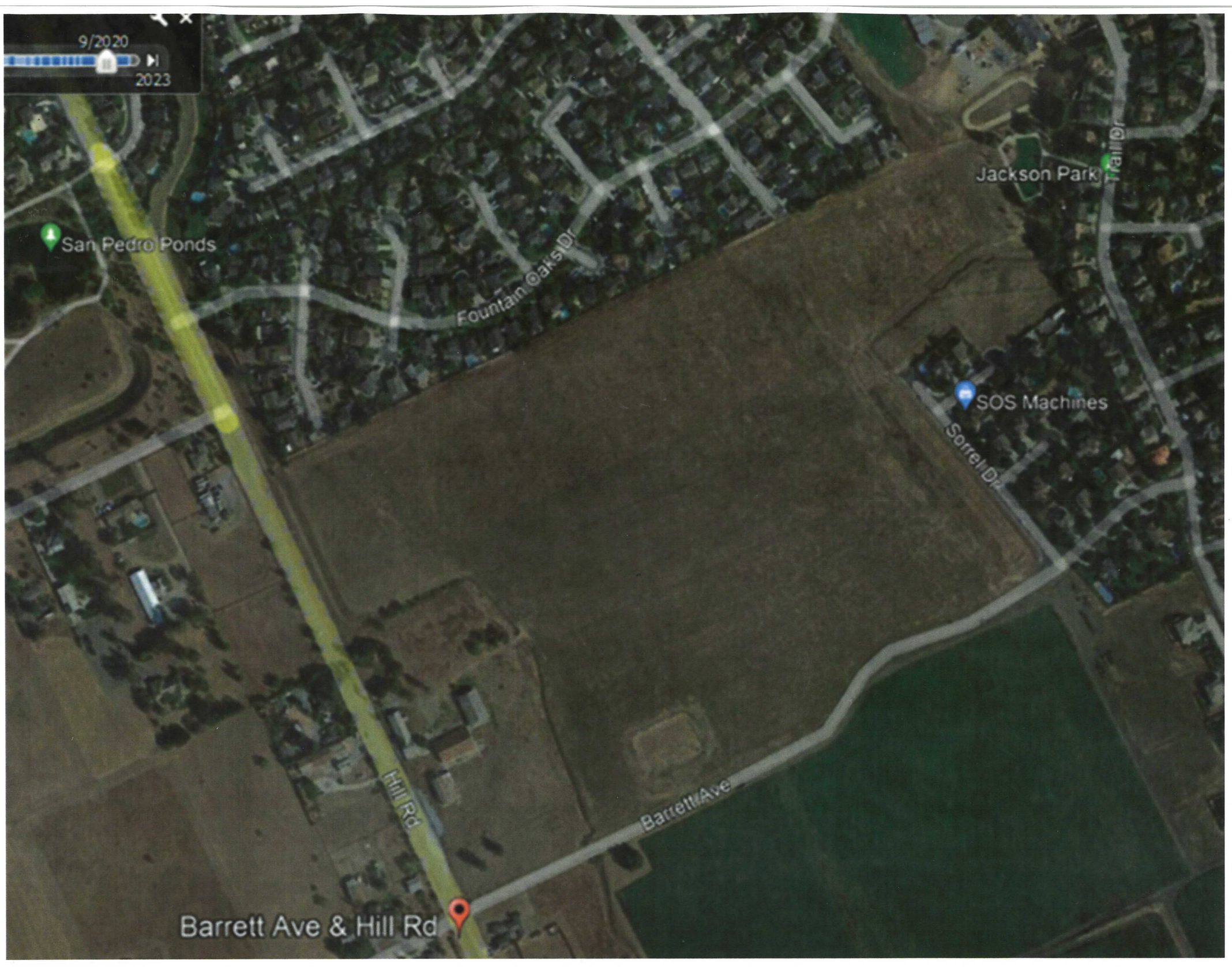
Barrett Ave
Barrett Ave & Hill Rd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Jackson Park
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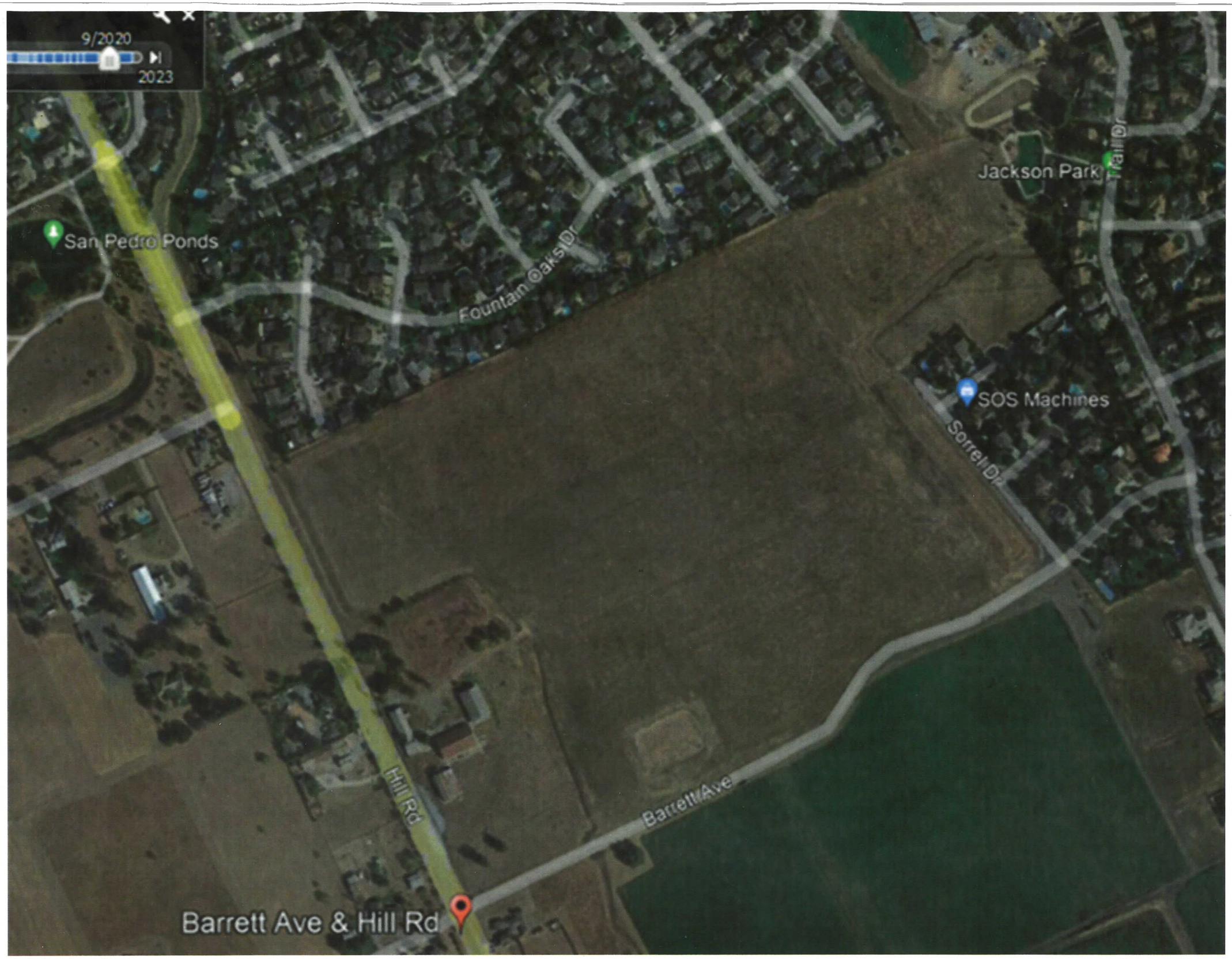
Hill Rd
Barrett Ave & Hill Rd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Jackson Park
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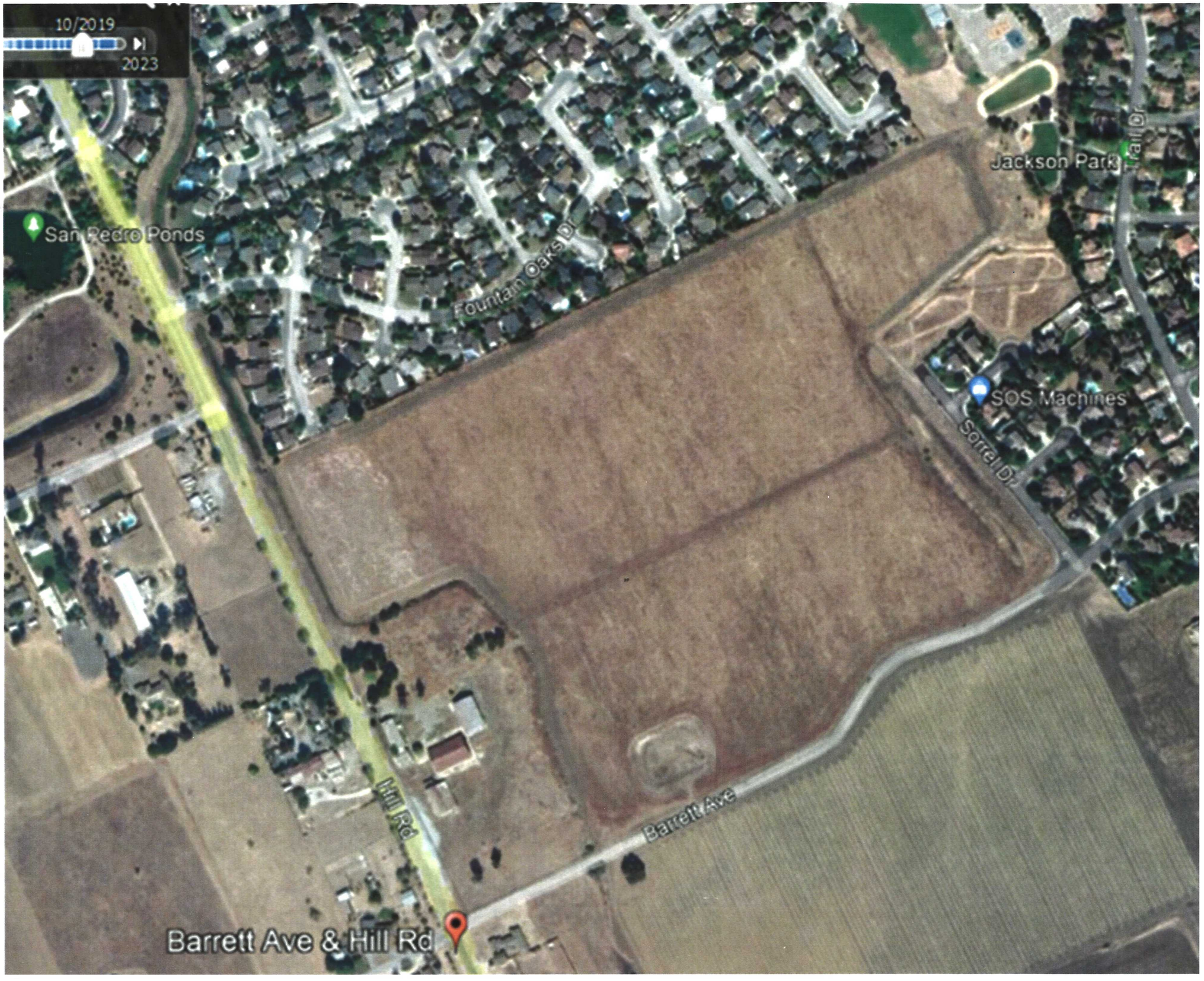
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2023
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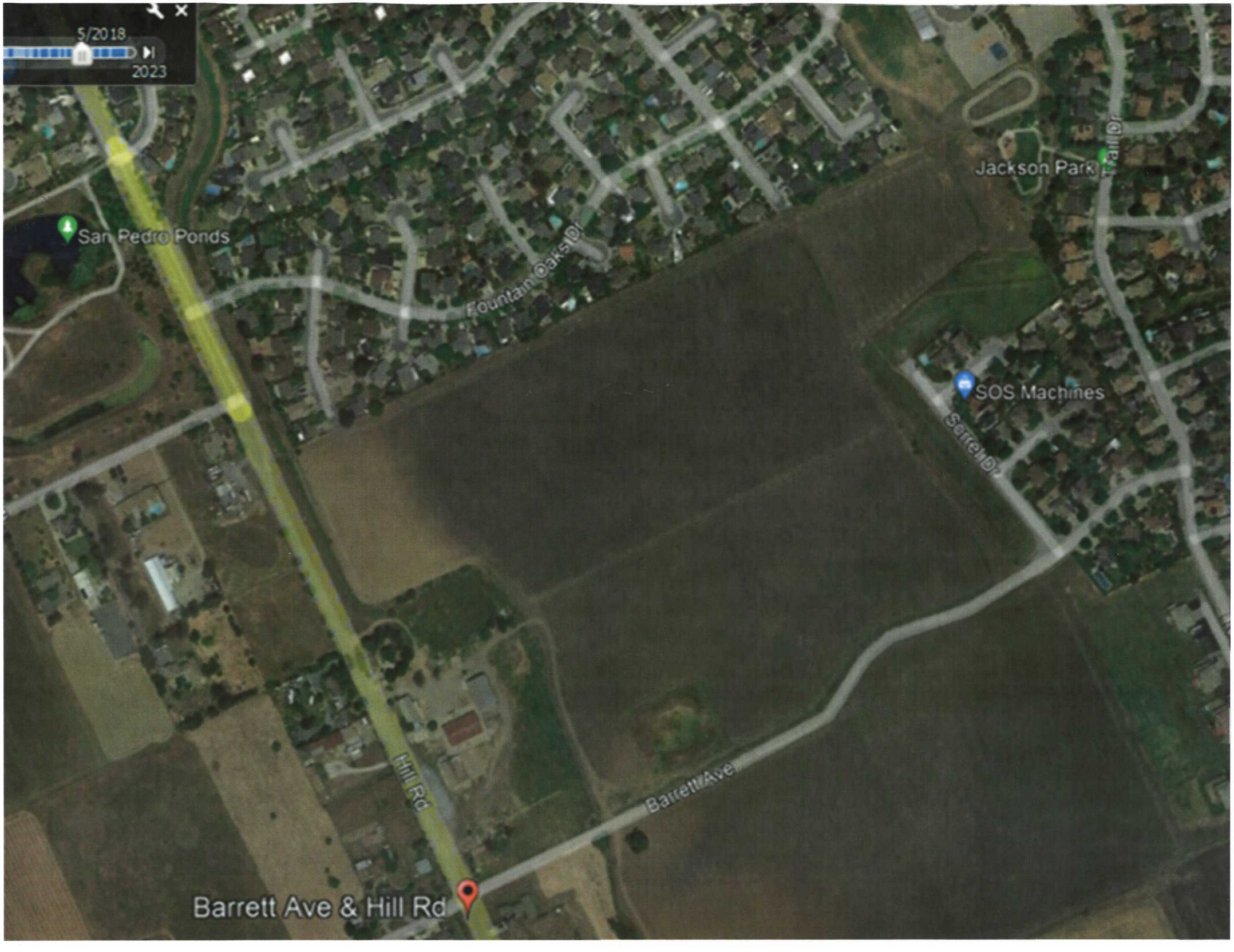
Sorrel Dr
Barrett Ave
Mill Rd
Barrett Ave & Hill Rd


5/2018
2023
San Pedro Ponds
Fountain Oaks Dr
Jackson Park
Trail Dr
SOS Machines
Sorrel Dr
Barrett Ave
Hill Rd
Barrett Ave & Hill Rd

From: [redacted]
To: Tiffany Brown
Subject: [EXTERNAL] Subject: Draft EIR Comment
Date: Wednesday, January 3, 2024 4:22:39 PM

Hello, Tiffany:

These are my comments regarding the draft EIR report for the New Horizons project:

1. The street that I currently live on Sorrel Way at Fountain Oaks is planned to be opened up to support the new housing development as a through-street to Barrett. Currently, Sorrel on the other side of the existing field is Sorrel Road not Sorrel Way. Will our street continue to be Sorrel Way?

2. What kind of safety feature will be added to the exit from the development on to Sorrel Way? Will there be a stop sign or a roundabout? Originally, the developer said there would be a surface grading difference installed to slow down traffic between Barrett and Fountain Oaks/E. Dunne. This doesn't appear to be mentioned in the EIR. What is the current safety plan for Sorrel Way?

3. Planned residential parking appears to be insufficient for the amount of residents. How will parking on current nearby resident streets (e.g. Sorrel Way) not be negatively impacted?

4. The EIR acknowledges traffic will be heavier at Fountain Oaks and Hill Road . This is a heavily trafficked area currently without the addition of these new houses. How does the city plan on addressing this issue?

5. There is commonly flooding at the end of Sorrel Way at the existing field during the winter. This problem has been reported several times to the City. How will the developer solve, and not exacerbate, this problem?

Thank you,

Donna Rose
[redacted]

From: [redacted]
To: Tiffany Brown
Subject: [EXTERNAL] Subject: Draft EIR Comment - correction
Date: Wednesday, January 3, 2024 4:31:27 PM

Tiffany:

I need to correct the street name from my last email. It is Sorrel Way on one side of the field and Sorrel Drive on the other side of the field. This is the street that the developers plan to open up and make a thorough-fare.

THank you,
Donna Rose

From: [redacted]
To: Tiffany Brown
Subject: [EXTERNAL] New Horizons Development DEIR Concerns
Date: Tuesday, January 2, 2024 4:37:50 PM

Hello Tiffany,

Further to the City's DEIR meeting on December 4th, 2023, following are some of the concerns addressed regarding the New Horizons Development project located along Barrett Ave and Hill Road:

1. Pedestrian safety at San Pedro Pond: Pedestrian with pets and children cross Hill Road in front of the Ponds on a daily basis. There is no pedestrian crosswalk or additional lighting to ensure their safety.

2. Water channel culvert that parallels Hill Road near Fountain Oaks Drive: During rainy season, this waterway has been known to flood causing road damage and slowing vehicular traffic to a crawl.

3. Highway 101 commuters using city surface streets to bypass congested traffic on freeway: Tennant Ave, Murphy Rd, Hill Rd, Dunne Ave, E. Main Street are all being used as roadways to avoid traffic and adds to surface street congestion. Additionally, drivers recklessly disobey posted traffic speed limits, and pass cars into oncoming traffic without regard for pedestrian and cyclists safety.

4. During school session there is a significant and impacting amount of vehicular traffic along Barrett Ave, Fountain Oaks Drive and Trail Road. Parents regularly disobey speed limits, double park, park in red zones etc to drop off children at Nordstrom Elementary School. At times, it is difficult and dangerous to turn north and southbound onto Hill Drive from Fountain Oaks Drive and Barrett Avenue.

5. Hill Road is a low-lying roadway that often floods during the rainy season. The pavement inevitably erodes and causes large potholes that require annual repairs. During repairs, the roadways are completely shutdown or reduced to one lane only. This increases traffic congestion in area with limited egress.

6. Fire safety concerns: Most recently, the SCU fire engulfed Santa Clara County. Residents were placed on high-alert and advised to prepare for evacuations over several days. If the fire crested the mountain side along Harvey Bear Park and Anderson Lake, thousands of residents would be forced to evacuate within a short peroid of time causing massive gridlocks and chaos. For those owning 4-wheel drive vehicles, they drive off-road or on the sidewalks to save their lives. Families living near or off Trail Drive have very limited egress during natural disasters or emergencies. East Dunne Ave at Gallop Drive became a right turn only exit after a fatal vehicular accident at said intersection. This direction of travel forces drivers into danger should a fire were crest westbound from the mountains.

7. Barrett Avenue is a two-lane country road without any sidewalks or buffer for pedestrians or cyclist. Is there a plan to add sidewalks to the north and south sides of Barrett Avenue to ensure safety?

8. Jackson Park is slotted to be revamped and will include a dog park. Dog owners allow pets to run off leash at this park against the City's municipal code. I've never seen a police officer or code enforcement officer enforcing these laws. Is there a consideration for additional parking in the area, as it is all residential curbside parking only.

9. In 2017, Anderson Reservoir overflowed which caused the flooding and closure of N/B and S/B Highway 101. Drivers are forced onto Monterey Road to bypass the closure. This cause gridlock traffic in most areas east of Highway 101.

10. All three freeway onramps (Tennant Ave, E. Dunne Ave, Cochrane Rd.) to Highway 101 have metering lights with a designated commuter lane. As well-intended as these traffic signals are, some drivers cutoff

other drivers by driving over the solid white lines and merging at the last minute to avoid sitting in traffic. In 2016, the Metropolitan Traffic Commission reported 24% of drivers in the commuter lane were solo drivers. Is there consideration for allowing 2-vehicles per green light to merge onto the freeway. Also, at westbound Cochrane Rd onto northbound 101 there is a "Stop at Red" traffic sign, yet there are several erected roadway pylons that would not allow for other traffic to flow onto the same traffic lane, requiring drivers to wait for the green traffic signal appears moot. This adds traffic backups on surface streets.

11. The field where the development site is set to construct is regularly visited by animal wildlife. I've seen deer, roadrunners, ducks, foxes, coyotes, and so forth graze on these lands as a mean for survival. Will there be any consideration for native plants and/or trees that they may continue to feed on?

12. Is the city and Morgan Hill Police Department considering adding additional resources to their force? I've called the police department on several occasions and although the dispatchers answer promptly, I've waited over an hour for an officer to arrive at the scene of an assault where a mentally unstable man was vandalizing property and assaulted an elderly male causing injury. It seems the city continues to add housing without consideration for the impact on the 9-1-1 system.

13. Will the project contain any retaining walls to reduce overall neighborhood noise? There are a handful of residences along Hill Rd and Barrett Ave that regularly have large annual parties, especially during the summer months. Some of these parties have live bands further disrupting residents. Will the city amend the noise ordinance to terminate at 10PM instead of the current 11PM curfew? South of Barrett Avenue is the Sheriff's Department jurisdiction. They habitually have extended response times to such calls. Will the city adopt a "brotherly code" where the Morgan Hill PD can enforce these laws in a timely manner?

14. There are 4 large residences at the east end of Trail Drive with a primary home and what appears to be an attached Additional Dwelling Unit. This area has become a boneyard for broken-down cars, trash strewn about and the city/sheriff does not appear to take an interest to addressing the sanitary issue which diminishes residents home value.

15. The addition of new homes in these areas will inevitably cause additional traffic congestion, including the downtown Morgan Hill area which is already overpopulated and congested. It can be difficult to find parking if one is to visit downtown Morgan Hill diners. Is there consideration for additional parking in downtown Morgan Hill to alleviate the parking dilemma?

Thank you for your consideration to this matter.

Sincerely,

Abbie Serrano
Abigail ReyesPena
[redacted]

Maria Kisyova

From: Tom Tanner [redacted]
Sent: Wednesday, December 20, 2023 2:19 PM
To: Tiffany Brown
Cc: 'Teri Tanner'
Subject: [EXTERNAL] New Horizons Project -- Draft EIR Comment

Hello Tiffany,

The following are questions/comments regarding the Draft EIR for the New Horizons project.

- Transportation Analysis (Appendix J) uses an analysis methodology that does not closely match the real existing traffic volume from the nearby neighborhood.
    - While the traffic study is based on accepted tools like VTA VMT Evaluation Tool and , the analysis is based on VMT per capita criteria (citywide average VMT per capita is currently 24.64) that does not accurately match existing neighbor vehicles per household and vehicle trips and probable matching/similar vehicles per household and vehicle trips for the project. The norm for vehicles per household in the existing neighbor is approximately 4 vehicles per domicile/household. Some neighborhoods (Trail Drive south of Barrett Ave) regularly have 40 vehicles for the 6 houses (almost 7 vehicles per house) on that segment of Trail Drive. Therefore ADT (average daily trips) and VMT per capita metrics are significantly understated for the transportation analysis making EIR alternatives and mitigations incorrect.

- Parking for the project is understated if Morgan Hill standards are utilized.
    - The norm for vehicles per household in the existing neighborhood is approximately 4 vehicles per domicile/household. Some neighborhoods (Trail Drive south of Barrett Ave) regularly have 40 vehicles for the 6 houses (almost 7 vehicles per house) on that segment of Trail Drive.

- Speed signage with Radar is not an effective mitigation
    - In order for this to be effective, local police/county sheriff/highway patrol has to have units actually monitor traffic speed and issue tickets. This will rarely be done (even if it is done, traffic speed resumes normal speed shortly after the monitoring is no longer done) so this mitigation will have no real effect on traffic speed.

- Traffic analysis did not include the alternative of a 4 way stop at Hill Road and Barrett Ave (as I requested in a previous email to Morgan Hill/Tiffany Brown)
    - Most traffic on Hill Road is cut-through traffic (to avoid US 101) and is not from Morgan Hill residents but from the vehicles from outside Morgan Hill (from San Benito County, coming from Hwy 152/New Ave for example). When the Waze application from Google was first introduced, traffic on Hwy 17 was recommended to re-route through the Town of Los Gatos as a faster alternative to Hwy 17. Upon discovering this impact to its local streets, the Town implemented measures that would then have Waze from showing local streets as a better alternative than Hwy 17. Making the intersection of Hill Road and Barrett Ave as a 4 way stop sign intersection will discourage the non-Morgan Hill vehicle traffic from using Hill Road northbound at Tennant Ave in the morning commute and evening commute traffic from southbound US 101 (often exiting at Cochran Ave then using east Morgan Hill local streets.) This alternative would be consistent with how Morgan Hill and Santa Clara County has recently installed stop signs (and created 3 way or 4 way stop intersections) on local streets to try to control traffic flow. Morgan Hill should implement this measure for Morgan Hill residents to improve and control cut-through traffic impacts.

- Traffic analysis did not consider the regional origin/destination of vehicle traffic (especially on Hill Road).
    - See comment above.

Best regards
Tom Tanner
[redacted]

Maria Kisyova

From: Denise Weyl [redacted]
Sent: Thursday, December 21, 2023 1:59 PM
To: Tiffany Brown
Subject: [EXTERNAL] Draft EIR Comment

Hello Tiffany. I am a homeowner on Trail Drive near the proposed 69.4 acre project bounded by Barrett Ave, Sorrel Dr, and Jackson Park. It's sad for me as a homeowner in this area for the past 25 years to see this large agricultural parcel about to be developed into over 300 residences. My concerns include: the traffic that will certainly increase as a result of this large new number of homes, water usage from this additional population in the age of increased drought, and the obliteration once again of Morgan Hill's largely agricultural/rural heritage.

I understand the need to increase the number of homes in Morgan Hill given the shortage of housing in the Bay Area, but it appears to me that there is unbridled development in our city everywhere you look. I hope that the availability of the necessary resources and infrastructure are being strongly considered, not just the additional tax dollars that the city will receive from new residents and taxpayers.

Sincerely,
Denise Weyl
[redacted]

Sent from my iPad

Appendix B: Geotechnical Investigation Report

GEOTECHNICAL INVESTIGATION

On

PROPOSED RESIDENTIAL DEVELOPMENT

New Horizons

At

Hill Road & Barrett Avenue
Morgan Hill, California

For

DR Horton Bay, Inc

By
Quantum Geotechnical, Inc.

Project No. D020.G
May 15, 2020

QUANTUM GEOTECHNICAL INC.

Project No. D020.G
May 15, 2020

Ms. Samantha Higbee
Due Diligence Manager
D.R. Horton Bay, Inc
6683 Owens Drive
Pleasanton, CA 94588

Subject: Proposed Residential Development
New Horizons
North East Corner of Hill Road and Barrett Avenue
Morgan Hill, California
PRELIMIONARY GEOTECHNICAL INVESTIGATION

Dear Ms. Higbee:

In accordance with your authorization, ***Quantum Geotechnical, Inc.,*** has investigated the geotechnical conditions at the subject site located in Morgan Hill, California

The accompanying report presents the results of our field investigation. Our findings indicate that development of the site for the proposed new residence is feasible provided the recommendations of this report are carefully followed and are incorporated into the project plans and specifications.

Should you have any questions relating to the contents of this report or should additional information be required, please contact our office at your convenience.

Sincerely,
Quantum Geotechnical, Inc.

Simon Makdessi, P.E., G.E.
President

6288 San Ignacio Avenue, Suite A, San Jose, CA 95119 Phone (408)-629-3822 Facsimile (408) 629-3825
1110 Burnett Avenue, Suite B, Concord, CA 94520 Phone: (925) 788-2751

TABLE OF CONTENTS

GEOTECHNICAL INVESTIGATION

PURPOSE AND SCOPE

The purpose of the investigation for the proposed new residential subdivision located at the north east corner of Hill Road and Barrett Avenue in Morgan Hill, California, was to determine the surface and subsurface soil conditions at the subject site. Based on the results of the investigation, criteria were established for the grading of the site, the design of foundations for the proposed development, and the construction of other related facilities on the property.

Our investigation included the following:

a. Field reconnaissance by the Soil Engineer;
b. Determine the general seismicity of the site in accordance with the 2019 CBC;
c. Drilling and sampling of two borings and ten test pits;
d. Performing five percolation tests;
c. Laboratory testing of soil samples;
d. Analysis of the data and formulation of conclusions and recommendations; and
e. Preparation of this written report.

PROPOSED DEVELOPMENT

It is our understanding that the proposed project consists of developing the site for the construction of 24 single family homes, a park and associated improvements. Grading details are not known at this time but given the level nature of the site terrain, are anticipated to consist of cuts and fills of the order of 3 feet or less. The buildings are expected to be wood frame construction supported on a post-tensioned slab foundation.

SITE LOCATION AND DESCRIPTION

The subject site covers an area approximately 72 acres in size in the eastern part of Morgan Hill, CA. The site sits on approximately level terrain, within a sediment filled basin, at elevation approximately 351 feet above mean sea level (3). The site is bounded by Hill Road to the southwest, Barrett Avenue to the southeast, and existing residential divisions on the other sides. The site is roughly rectangular shaped, elongated to the east and west, and hosts a pre-existing

residential division that is not included in the development proposal. This division resides along the eastern portion of the site.

Based upon a review of historical images from Google Earth, as well as from the NETR database of historical aerials (5), the site until recently has been used for agriculture. The majority of the site consists of rows of soil tilled for crop growing. An irrigation canal approximately 10 feet deep exists on the western portion of the site, which separates the crop area from several farm buildings.

The site location and description are based on a site reconnaissance by the geotechnical engineer and on a site development plan by Camp & Camp Associates, dated 03-27-17.

GENERAL GEOLOGIC CONDITIONS

The site is located within the Coast Ranges Geomorphic Province of California. Throughout the Cenozoic Era, the western part of California has been affected by tectonic forces associated with lateral or transform plate motion between the North American and Pacific crustal plates, which has produced a complex system of northwest-trending faults - the San Andreas, Hayward, and Calaveras Fault systems being the most prominent. Uplift, erosion and subsequent re-deposition of sedimentary rocks within this province have been driven primarily by the northwest-southeast directed strike-slip movement of the tectonic plates and the associated northeast oriented compressional stress. The northwest-trending coastal mountain ranges are the result of an orogeny believed to have been occurring since the Pleistocene epoch (approximately 2-3 million years before present).

The site resides in level terrain at approximately 351 feet above mean sea level (3) on the southern end of the Santa Clara Valley. Based on a review of geologic maps (2)(4), the site resides in a basin between the Diablo Range to the east and the Santa Cruz Range to the west, and is underlain by Pleistocene alluvial sediments. These deposits will tend to consist of well consolidated silts and gravelly clays.

A review of the available literature reveals that the California Geological Survey has mapped this area in 2006 under the “Seismic Hazard Zone Report for the Mt. Sizer 7.5-Minute Quadrangle, Santa Clara County, California” (2). Based on a review of the hazard zone map for liquefaction and landslide potential, the site does not reside in an area of elevated potential for either of these

hazards. A review of the ABAG interactive liquefaction susceptibility map shows that the site does not reside in an area of elevated liquefaction susceptibility (1). According to the USGS Quaternary fault map (http://earthquake.usgs.gov/hazards/qfaults/map/), the site resides approximately 2.0 miles west of the Calaveras Fault and approximately 9.0 miles and 11.0 miles northeast of the Sargent and San Andreas Faults, respectively (7). These and adjacent faults and their proximity to the site are presented in Figure 1, "Site Vicinity and Fault Map".

INVESTIGATION

The field investigation was performed over the course of two days on April 13 and May 10, 2017, and included a reconnaissance of the site, the advancement of two soil borings, and the excavation of 10 soil test pits at the approximate locations shown on Figure 3, "Site Plan".

Test pits were excavated via a track-mounted excavator wielding a 30 inch bucket. The site geologist logged the soil, and samples of soil were taken to analyze and characterize the soil properties. The samples were sealed and returned to the laboratory for testing. Classifications made in the field were verified in the laboratory after further examination and testing.

The borings were advanced to maximum depth 33 feet using a truck mounted B-24 mobile drill rig utilizing 4.5 inch solid flight augers. Visual classifications were made from auger cuttings and the samples in the field. As the drilling proceeded, relatively undisturbed core samples were obtained by means of a 3.0 inch O.D. Modified California split-tube sampler containing 2.5 inch O.D. brass liners, and a 2.0 inch O.D. standard pin split tube sampler. The sampler was advanced into the soils at various depths under the impact of a 140-pound hammer having a free fall of 30 inches. The number of blows required to advance the sampler 12 inches into the soil, after seating the sampler 6 inches, were recorded on the boring logs.

The stratification of the soils, descriptions, location of undisturbed soil samples and blow counts are shown on the respective "Logs of Test Borings" and “Logs of Test Pits” contained within Appendix A.

Laboratory testing was conducted for Atterberg Limits, moisture density, gradation analysis, consolidation, and corrosion potential. The data received from the lab are presented on the boring logs/test pit logs.

In addition, a total of four areas are designated to have bio-filtration basins. A total of five percolation tests were performed at the locations shown on Figure 3, by drilling an 8 inch diameter hole to a depth of 7 feet, placing a 4 inch perforated pipe centered in the hole that extended a few inches above the ground surface, and filling the annulus with pea gravel to the ground surface. The material encountered in the Percolation Test Holes varied, but were consistent with those encountered in the borings and test pits, and consisted of a clayey gravel and clayey sand. The percolation test holes were filled with water to saturate the hole overnight. The percolation test was performed the next day by filling water to the top and the drop in water level within the pipe was measured at 30 minute intervals. The depth was measured relative to the top of pipe. The test was terminated when the water level drop was similar for 3 consecutive readings. The average water level drop during the last 3 readings is recorded as the percolation rate. The measured percolation rates are as follows;

P1 4.6"/hr

P2 4.6"/hr

P3 8.6"/hr

P4 12"/hr

P5 7.3"/hr

These rates are superseded by the infiltration testing conducted by Cornerstone Earth Group. Please see the project's Preliminary Stormwater Control Plan for more information.

SUBSURFACE CONDITIONS

Soil conditions within the test pits varied little throughout the site. Generally, soil profiles consisted of 3 to 5 feet of fine sandy clay to silt over 5 to 10 feet of clayey sand with varying amounts of gravel. Significant cobbles were encountered at depth throughout the site.

Ground water was encountered at 23 foot depth in our deeper boring, Q-1, at the time of our exploration. No other borings or test pits yielded any groundwater. Fluctuations in the groundwater table can be expected with changes in seasonal rainfall, urbanization, and construction activities at or in the vicinity of the site.

A more thorough description and stratification of the soil conditions are presented on the respective "Logs of Test Borings" and "Logs of Test Pits" in Appendix A. The approximate locations of the borings are shown on Figure 3, "Site Plan" in Appendix A.

2019 CBC SEISMIC DESIGN CRITERIA

The potential damaging effects of regional earthquake activity should be considered in the design of structures. The seismic design should be in accordance with Chapter 16 of the 2019 California Building Code (CBC). The 2019 CBC utilizes the design procedures outlined in the ASCE 7-16 Standard.

Using the criteria in Chapter 20 of ASCE 7-16, the site is classified as Site Class D. The seismic design parameters have been developed using the online "Seismic Design Maps" tool by the Structural Engineering Association (SEA) and Office of Statewide Health Planning and Development (OSHPD) and a site location based on longitude and latitude.

The parameters generated for the subject site for a latitude 37.13142° N and longitude 121.60975° W, are presented in Table 1 on the following page. According to Section 11.4.8 of ASCE 7-16, a ground motion hazard analysis shall be performed when the coefficient S_1 has a value greater than or equal to 0.2 for Site Class D and E sites. A ground motion hazard analysis is excepted if the C_s value is determined by equation 12.8-2 of ASCE 7-16. This is to be determined by the structural engineer. In the event that the calculated C_s values do not trigger a ground motion hazard analysis, the following parameters may be used.

Table 1
2019 CBC Seismic Design Criteria

Seismic Parameter	Coefficient	Value
Site Class – Stiff Soil		D
Peak Ground Acceleration (Site Modified)	PGA_M	0.867
Mapped MCE Spectral Acceleration at Short-Period 0.2 secs	S_s	1.893
Mapped MCE Spectral Acceleration at a Period of 1.0s	S_1	0.697
Adjusted MCE, 5% Damped Spectral Response Acceleration at Short Period of 0.2s	S_{MS}	1.893
Adjusted MCE, 5% Damped Spectral Response Acceleration at Period of 1.0s	S_{M1}	1.185
Design 5% Damped Spectral Response Acceleration at Short Period of 0.2s for Occupancy Category I/II/III	S_{DS}	1.262
Design 5% Damped Spectral Response Acceleration at Period of 1.0s for Occupancy Category I/II/III	S_{D1}	0.789

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

GENERAL

1. From a geotechnical point of view, the site is suitable for the construction of the proposed residential development provided the recommendations presented in this report are incorporated into the project plans and specifications.

2. The most prominent geotechnical feature of the site as encountered in the borings and test pits is the presence of near surface gravelly soil. In some test pits the gravelly soil collapsed at depth. The underground contractor must be made aware of this condition and review the boring logs and test pits to evaluate the stability of trenching activities.

DEMOLITION

3. The site will require demolition of existing structures and grubbing of trees. In addition, old irrigation pipes may be present in the field that will require removal. We recommend that in the area of the open field be investigated during the initial grading to evaluate the depth of disturbance and presence of any old foundations, or piping that may lead to septic tanks. Excavations created by the removal of the structures or grubbing of trees may cause disturbed/loose areas, and where this occurs the loose material should be excavated and replaced as engineered fill, or if it is less than 1 foot in thickness, can be compacted in place, prior to placing fill.

4. If any excavations are loosely backfilled without our knowledge and these excavations are not located and backfilled during grading, future settlement of these loosely filled excavations could occur and may cause damage to structures and improvements.

GRADING

5. The grading requirements presented herein are an integral part of the grading specifications presented in Appendix B of this report and should be considered as such.

6. The site contains significant vegetation cover and stripping of vegetation and topsoil may be required. Vegetation conditions may be different at the time of grading, and the extent of any

stripping, mowing or discing as part of site preparation, will be revaluated at the time of grading. Any strippings will be stockpiled in an approved area that is unaffected by grading operations until their future use. Organically contaminated soil material may be utilized in landscape areas located outside the building footprint.

7. After site preparation, the top 8 inches of exposed ground should be scarified and compacted to a degree of relative compaction of at least 90% at 2 percent above optimum moisture content as determined by ASTM D1557-12 Laboratory Test Procedure.

8. The site may be brought to the desired finished grades by placing engineered fill in lifts of 8 inches in uncompacted thickness and compacting to a minimum relative compaction of 90% at 2 percent above optimum moisture content for lean clay soil as determined by ASTM D1557- 12 Laboratory Test Procedure.

9. All soils encountered during our investigation except those within the top few inches of predominantly organic material, are suitable for use as engineered fill when placed and compacted at the recommended moisture content and provided it does not contain any debris.

SURFACE AND SUBSURFACE DRAINAGE

10. All finish grades should be provided with a positive gradient to an adequate discharge point in order to provide rapid removal of surface water runoff away from all foundations. No ponding of water should be allowed on the pad or adjacent to the foundations. Surface drainage must be designed by the project Civil Engineer and maintained by the property owners at all times. The pad should be graded in a manner that surface flow is to a controlled discharge system.

11. Lot slopes and drainage must be provided by the project Civil Engineer to remove all storm water from the pad and to minimize storm and/or irrigation water from seeping beneath the structures. Should surface water be allowed to seep under the structure, foundation movement resulting in structural cracking and damage will occur. Where possible, finished grades around the perimeter of the structures should be compacted and should be sloped at a minimum 2% gradient away from the exterior foundation. Surface drainage requirements constructed by the builder should be maintained during landscaping. In particular, the creation of planter areas confined on all sides by

concrete walkways or decks and the residence foundation is not desirable since any surface water due to rain or irrigation becomes trapped in the planter area with no outlet. If such a landscape feature is necessary, surface area drains in the planter area or a subdrain along the foundation perimeter must be installed.

12. Continuous roof gutters are recommended. According to local government requirements, roof downspout and drain flows should be directed to at grade bio-filtration areas, or raised planter boxes next to the building perimeter, where possible. From a geotechnical and maintenance point of view it is undesirable to discharge water into at grade bio-filtration areas near foundations, because of the possibility of water ponding for sustained periods of time.

BIO-FILTRATION FACILITIES

13. As mentioned earlier, it is undesirable to discharge water into at grade bio-filtration areas near foundations, because of the possibility of water ponding for sustained periods of time, potentially creating excessive moisture related issues. However, certain design features could be made to minimize such potential effects. In addition, the property owners must always maintain the bio-filtration area to ensure that they are performing as designed and that water does not pond in the area for longer than 48 hours.

14. Typically, the bio-filtration areas consist of an 18 inch layer of sandy loam over 18 inches of permeable gravel material. The top of the bio-filtration area is typically approximately 1 foot below pad grade, therefore, the base of the bio-filtration area will be approximately 4 feet below pad grade. The base of the bio-filtration area will typically contain a perforated pipe to drain any water that may collect within 24 hours. In some situations, the bio-filtration areas may be located immediately adjacent the building structure.

15. Where bio-filtration areas are located closer than 5 feet of the building, the section of loose loam and gravel will provide reduced lateral support, and we recommend a deepened footing be constructed along the perimeter the building adjacent to the bio-filtration area and extending 3 feet beyond in plan length. The depth of the deepened footing will depend on how close the bio-filtration area is located to the building perimeter. As a guide, the footing is to be deepened such that when an imaginary line inclined at 45 degrees from the outside edge base of the footings, it extends below the base of the bio-filtration area excavation. Where bio-filtration areas are located further

than 5 feet, no special design is required. Provided the bio-filtration facility is lined with an impermeable liner, no waterproofing of the deepened footing is required.

16. Where bio-filtration areas are located closer than 3 feet of street pavements, a deepened curb footing is required. Where bio-filtration areas are located closer than 1 foot of street pavements, because pavements do not have a positive connection to a deepened curb/footing, the deepened curb/footing may need to be designed as a retaining wall rigid enough to create minimal lateral deflections.

17. Where bio-filtration areas are located closer than 2 feet of hardscape areas, a deepened edge footing is required. The deepened edge should extend at least 1 foot below the subgrade. Where the bio-filtration area is immediately adjacent the hardscape, the deepened edge is to extend at least 3 inches below the base of the bio-filtration system.

FOUNDATIONS

18. The proposed residential structures may be satisfactorily supported on a post-tensioned slab foundation.

Post Tensioned Slab on Grade

19. Post-tensioned slabs should be designed using the following criteria which is based on the design method presented in the Post-Tensioning Institute, Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundations on Expansive Soils (PTI DC10.5-12), 2012. Using the relevant site soil and climatic parameters, the recommended geotechnical criteria for use in the design of the post-tensioned slabs is as follows;

	Swelling Mode	
	Center Lift	Edge Lift
Edge Moisture Variation Distance (e_m)	9.0 feet	5.1 feet
Differential Soil Movement (y_m)	0.69 inches	1.19 inches

It is noted the soil conditions at pad grade may vary due to planned grading. We recommend the final slab design be determined during grading.

20. The maximum allowable bearing pressure at the base of the slab and for localized thickened footings should not exceed 2,000 p.s.f. for dead plus sustained live loads.

21. As indicated earlier, bio-filtration areas may be designed close to the foundation. Where bio-filtration areas are located closer than 5 feet of the building, the section of loose loam and gravel, will provide reduced lateral support, and we recommend a deepened footing be constructed along the perimeter the building adjacent to the bio-filtration area and extending 3 feet beyond in plan length. The depth of the deepened footing will depend on how close the bio-filtration area to the building perimeter. As a guide, the footing is to be deepened such that when an imaginary line inclined at 45 degrees from the outside edge base of the footings, it extends below the base of the bio-filtration area excavation.

General Construction Requirements for Post Tensioned Slab-on-Grade

22. Prior to construction of the slab, the slab subgrade should be observed by the Soil Engineer to verify that all under-slab utility trenches greater than 18 inches in width have been properly backfilled and compacted, and that no loose or soft soils are present on the slab subgrade.

23. The slab subgrade should be soaked to saturation (minimum 5% above optimum) to a depth of 12 to 18 inches prior to placement of the capillary break or vapor retarder/barrier. This should be verified and approved by the Soil Engineer. The penetration of a thin metal probe to a depth of 10-12 inches generally indicates sufficient saturation.

24. The four (4) inch (minimum thickness) layer of gravel typically placed to provide a capillary break beneath concrete slab-on-grade floors may be omitted beneath the monolithically poured mat slab foundations provided that the slabs are at least 10 inches thick as recommended above. If it is desired to use a 4 inch layer or thinner of gravel section, the gravel should consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3% of the oven dry weight of the sample. The material shall be ¾" minus material with no more than 3% passing the #200 sieve, as specified in Appendix C.

25. A moisture vapor retarder/barrier is recommended beneath all slabs-on-grade that will be

covered by moisture-sensitive flooring materials such as vinyl, linoleum, wood, carpet, rubber, rubber-backed carpet, tile, impermeable floor coatings, adhesives, or where moisture-sensitive equipment, products, or environments will exist. We recommend that design and construction of the moisture vapor retarder/barrier conform to Section 1805 of the 2013 CBC and relevant sections of American Concrete Institute (ACI) guidance documents 302.1R-04, 302.2R-06 and 360R-10.

26. The moisture vapor retarder/barrier can be placed above the 4 inches of gravel or directly on the soil subgrade and should consist of a minimum 10 mils thick polyethylene with a maximum perm rating of 0.1 in accordance with ASTM E 1745. Seams in the moisture vapor retarder/barrier should be overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the moisture vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed. The installation of the vapor retarder membrane must be in conformance with ASTM E1643.

27. A minimum of two inches of wetted sand should be placed over the vapor retarder membrane to facilitate curing of the concrete and to act as a cushion to protect the membrane. The perimeter of the mat should be thickened to bear on the prepared building pad and to confine the sand. During winter construction, sand may become saturated due to rainy weather prior to pouring. Saturated sand is not desirable because the sand cushion may become over saturated, and boil into the concrete causing undesirable structural monopolies of sand pockets within the slab. As an alternate, a sand-fine gravel mixture that is stable under saturated conditions may be used. However, the material must be approved by the Soil Engineer prior to use.

28. Alternatively, the sand layer may be eliminated provided the concrete has a maximum water/cement ratio of 0.45 and a 10 mil Class A vapor retarder membrane, such as Stego® Wrap. In any case, the vapor retarder/barrier should have a maximum perm rating of 0.3 in accordance with ASTM E 1745. Seams in the moisture vapor retarder/barrier should be overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed.

29. It is our understanding that the preferred post-tensioned slab section is to consist of a slab with concrete having a water/cement ratio of no greater than 0.45, over a vapor retarder membrane underlain by soil subgrade. The sand and gravel sections that are sometimes typically used will not be utilized for this project. This is acceptable from a geotechnical point of view.

30. Any exterior concrete flatwork such as steps, patios, or sidewalks should be designed independently of the slab, and expansion joints should be provided between the flatwork and the structural unit.

MISCELLANEOUS CONCRETE FLATWORK

31. Miscellaneous flatwork, driveways, and walkways may be designed with a minimum thickness of 4.0 inches. Control joints should be constructed to create squares or rectangles with a maximum spacing of 15 feet on large slab areas. Walkways should be separated from foundations with a thick expansion joint filler. Control joints should be constructed into walkways at a maximum of 5 feet spacing.

RETAINING WALLS

32. Retaining walls should be designed to resist lateral pressures exerted from a media having an equivalent fluid weight as follows:

Active Condition	=	45 p.c.f. for horizontal backslope
At-rest Condition	=	60 p.c.f.
Passive Condition	=	275 p.c.f.
Coefficient of Friction	=	0.35

33. For a non-horizontal backslope, the active condition equivalent fluid weight can be increased by 1.5 p.c.f. for each 2 degree rise in slope from the horizontal.

34. Active conditions occur when the top of the wall is free to move outward. At-rest conditions apply when the top of wall is restrained from any movement.

35. It should be noted that the effects of any surcharge, traffic or compaction loads behind the walls must be accounted for in the design of the walls.

36. The above criteria are based on fully drained conditions. If drained conditions are not possible, then the hydrostatic pressure must be included in the design of the wall. An additional

linear distribution of hydrostatic pressure of 63 p.c.f. should be adopted, in this case.

37. In order to achieve fully-drained conditions, a drainage filter blanket should be placed behind the wall. The blanket should be a minimum of 12 inches thick and should extend the full height of the wall to within 12 inches of the surface. If the excavated area behind the wall exceeds 12 inches, the entire excavated space behind the 12-inch blanket should consist of compacted engineered fill or blanket material. The drainage blanket material may consist of either granular crushed rock and drain pipe fully encapsulated in geotextile filter fabric or Class II permeable material that meets CalTrans Specification, Section 68, with drainage pipe but without fabric. A 4-inch perforated drain pipe should be installed in the bottom of the drainage blanket and should be underlain by at least 4 inches of filter type material. A 12-inch cap of clayey soil material should be placed over the drainage blanket. All back drains should be outlet to suitable drainage devices. Retaining wall less than 3 feet in height should be provided with backdrains or weep holes.

38. As an alternate to the 12-inch drainage blanket, a pre-fabricated strip drain (such as Miradrain) may be used between the wall and retained soil. In this case, the wall must be designed to resist an additional lateral hydrostatic pressure of 30 p.c.f.

39. Piping with adequate gradient shall be provided to discharge water that collects behind the walls to an adequately controlled discharge system away from the structure foundation.

40. It is recommended that the retaining walls or soundwalls be founded on a spread footing or pier foundation system. Spread and pier footing design criteria are given below.

RETAINING WALL/SOUNDWALL FOUNDATION - SPREAD FOOTINGS

41. Spread footings should have a minimum depth of eighteen (18) inches below lowest adjacent pad grade (i.e., trenching depth) for soil subgrade. At this depth, the recommended design bearing pressure for continuous footings should not exceed 2,500 p.s.f. due to dead plus sustained live loads and 3,300 p.s.f. due to all loads which include wind and seismic.

42. To accommodate lateral loads, the passive resistance of the foundation soil can be utilized. The passive soil pressures can be assumed to act against the front face of the footing below a depth of one foot below the ground surface. It is recommended that a passive pressure equivalent to that of a fluid weighing 275 p.c.f. be used. The weight of the soil above the footing can be used in the frictional calculations. For design purposes, an allowable friction coefficient of 0.35 can be assumed

at the base of the spread footing.

RETAINING WALL/SOUNDWALL FOUNDATION - PIER FOOTINGS

43. The piers should be designed on the basis of skin friction acting between the soil and the pier. For the soils at the site, an allowable skin friction value of 300 p.s.f. can be used for combined dead and live loads, below a depth of 1 feet. This value can be increased by one-third for total loads which include wind or seismic forces. The size, depth and spacing of the piers is to be determined by the structural engineer.

44. To resist lateral loads, the passive resistance of the soil can be used. The soil passive pressures can be assumed to act against the lateral projected area twice the pier diameter. It is recommended that a passive pressure equivalent to that of a fluid weighing 275 p.c.f be used below 1 foot of final pad grade.

PAVEMENT AREAS

45. R-value tests were not performed as part of this investigation, as the soil expected at subgrade level is not known, will be variable, and depends on the planned grading. Assuming the subgrade material will consist of the on-site clayey material, we will assume an R-value of 5 for preliminary design. However, the final pavement section design will be based on collecting actual subgrade samples during construction.

46. Based on an R-Value of 5, the following flexible pavement sections are recommended.

Traffic Index	AC (inches)	Class II[1] AB (inches)
4.5	3.0	10.0
5.0	3.0	12.0
5.5	3.0	14.0
6.0	4.0	13.5
7.0	4.0	17.0

Notes: [1]Minimum R-Value = 78

R-Value = Resistance Value

All Layers in compacted thickness to Cal-Trans Standard Specifications

47. After underground facilities have been placed in the areas to receive pavement and removal of excess material has been completed, the upper 6 inches of the sub-grade soil shall be scarified, moisture conditioned, and compacted to a minimum relative compaction of 95% in accordance with the grading recommendations specified in this report.

48. All aggregate base material placed subsequently should be compacted to a minimum relative compaction of 95% based on the ASTM Test Procedure of D1557-12 (latest edition). The construction of the pavement areas should conform to the requirements set forth by the latest Standard Specifications of the Department of Transportations of the State of California and/or City of Morgan Hill, Department of Public Works.

49. If planter areas are provided within or immediately adjacent to the pavement areas, or if permeable pavers are used for some areas of pavement, provisions should be made to control irrigation and surface water from entering the pavement subgrade. Water entering the pavement section at subgrade level, which does not have a means for discharge, could cause softening of this zone and lead to pavement failure. We recommend that for areas of permeable pavers, the subgrade be graded to a low point where a subdrain is constructed to discharge any accumulated water.

UTILITY TRENCHES

50. Applicable safety standards require that trenches in excess of 5 feet must be properly shored or that the walls of the trench slope back to provide safety for installation of lines. If trench wall sloping is performed, the inclination should vary with the soil type. The underground contractor should request an opinion from the Soil Engineer as to the type of soil and the resulting inclination.

51. With respect to state-of-the-art construction or local requirements, utility lines are generally bedded with granular materials. These materials can convey surface or subsurface water beneath the structures. It is, therefore, recommended that all utility trenches which possess the potential to transport water be sealed with a compacted impervious cohesive soil material or lean concrete where the trench enters/exits the building perimeter.

52. Utility trenches extending underneath all traffic areas must be backfilled with native or approved import material and compacted to a relative compaction of 90% to within 6 inches of the

subgrade. The upper 6 inches should be compacted to 95% relative compaction in accordance with Laboratory Test Procedure ASTM D1557 (latest edition). Backfilling and compaction of these trenches must meet the requirements set forth by the City of Morgan Hill, Department of Public Works. Utility trenches within landscape areas may be compacted to a relative compaction of 85%.

PROJECT REVIEW AND CONSTRUCTION MONITORING

53. All grading and foundation plans for the development must be reviewed by the Soil Engineer prior to contract bidding or submitted to governmental agencies so that plans are reconciled with soil conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final grading specifications.

54. ***Quantum Geotechnical, Inc.*** should be notified at least two working days prior to site clearing, grading, and/or foundation operations on the property. This will give the Soil Engineer ample time to discuss the problems that may be encountered in the field and coordinate the work with the contractor.

55. Field observation and testing during the demolition and/or foundation operations must be provided by representatives of ***Quantum Geotechnical, Inc.*** to enable them to form an opinion regarding the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the earthwork construction and the degree of compaction comply with the specification requirements. Any work related to the grading and/or foundation operations performed without the full knowledge and under the direct observation of the Soil Engineer will render the recommendations of this report invalid. This does not imply full-time observation. The degree of observation and frequency of testing services would depend on the construction methods and schedule, and the item of work.

REFERENCES

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6. Structural Engineers Association and Office of Statewide Health Planning and Development. 2018. “Seismic Design Maps”. Accessed January 22, 2019 from web site: https://seismicmaps.org/.

7. U.S. Geological Survey and California Geological Survey. 2006. "Quaternary fault and fold database for the United States". Accessed January 22, 2019 from USGS web site: http//earthquakes.usgs.gov/regional/qfaults/.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. It should be noted that it is the responsibility of the owner or his representative to notify ***Quantum Geotechnical, Inc.,*** in writing, a minimum of two working days before any clearing, grading, or foundation excavations can commence at the site.

2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings and from a reconnaissance of the site. Should any variations or undesirable conditions be encountered during the development of the site, ***Quantum Geotechnical,*** will provide supplemental recommendations as dictated by the field conditions.

3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans and the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

4. At the present date, the findings of this report are valid for the property investigated. With the passage of time, significant changes in the conditions of a property can occur due to natural processes or works of man on this or adjacent properties. In addition, legislation or the broadening of knowledge may result in changes in applicable standards. Changes outside of our control may render this report invalid, wholly or partially. Therefore, this report should not be considered valid after a period of two (2) years without our review, nor should it be used, or is it applicable, for any properties other than those investigated.

5. Not withstanding all the foregoing, applicable codes must be adhered to at all times

APPENDIX A

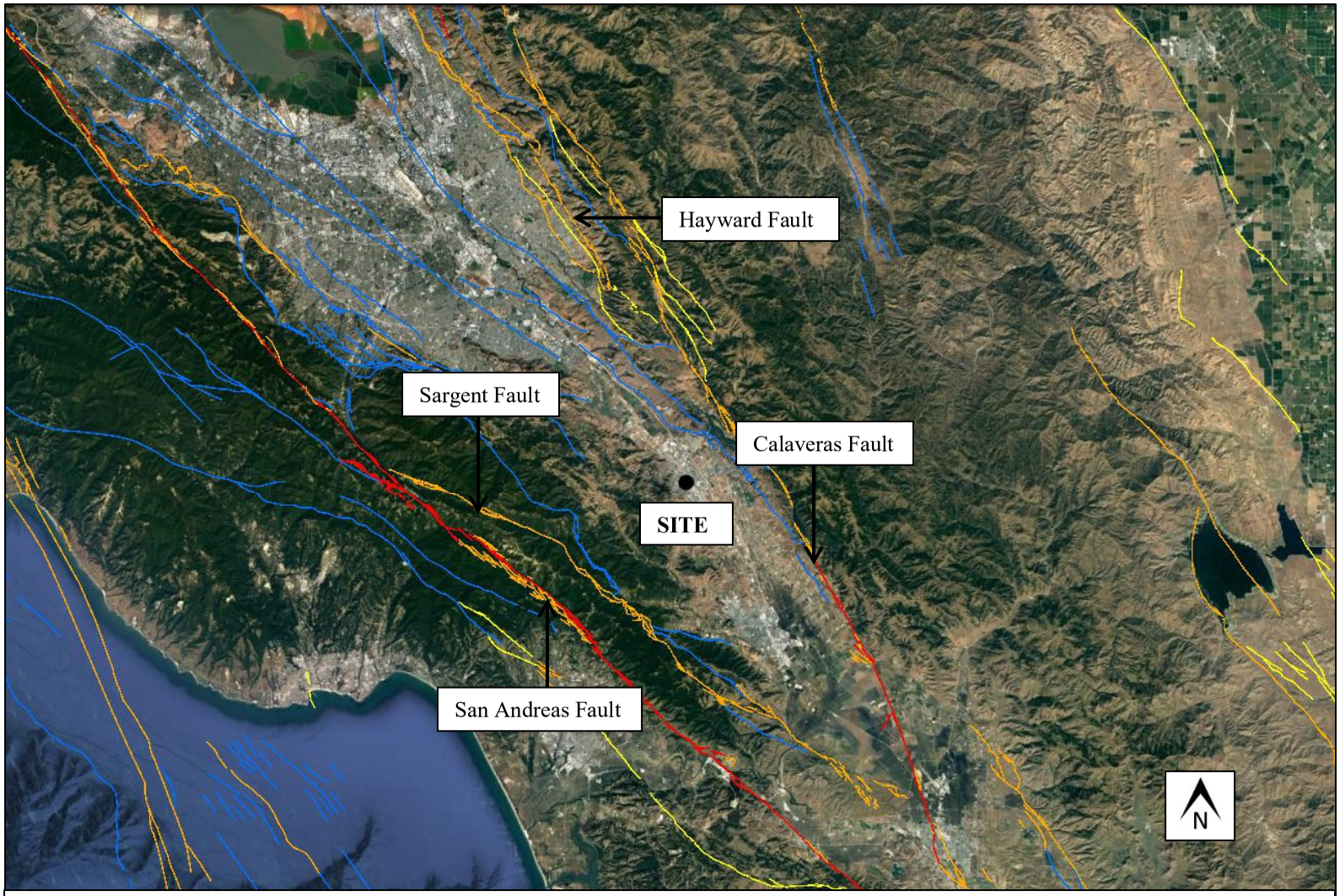
Figure 1 - Site Vicinity and Fault Map

Figure 2 - Regional Geologic Map

Figure 3 - Site Plan

Logs of Test Borings

Logs of Test Pits



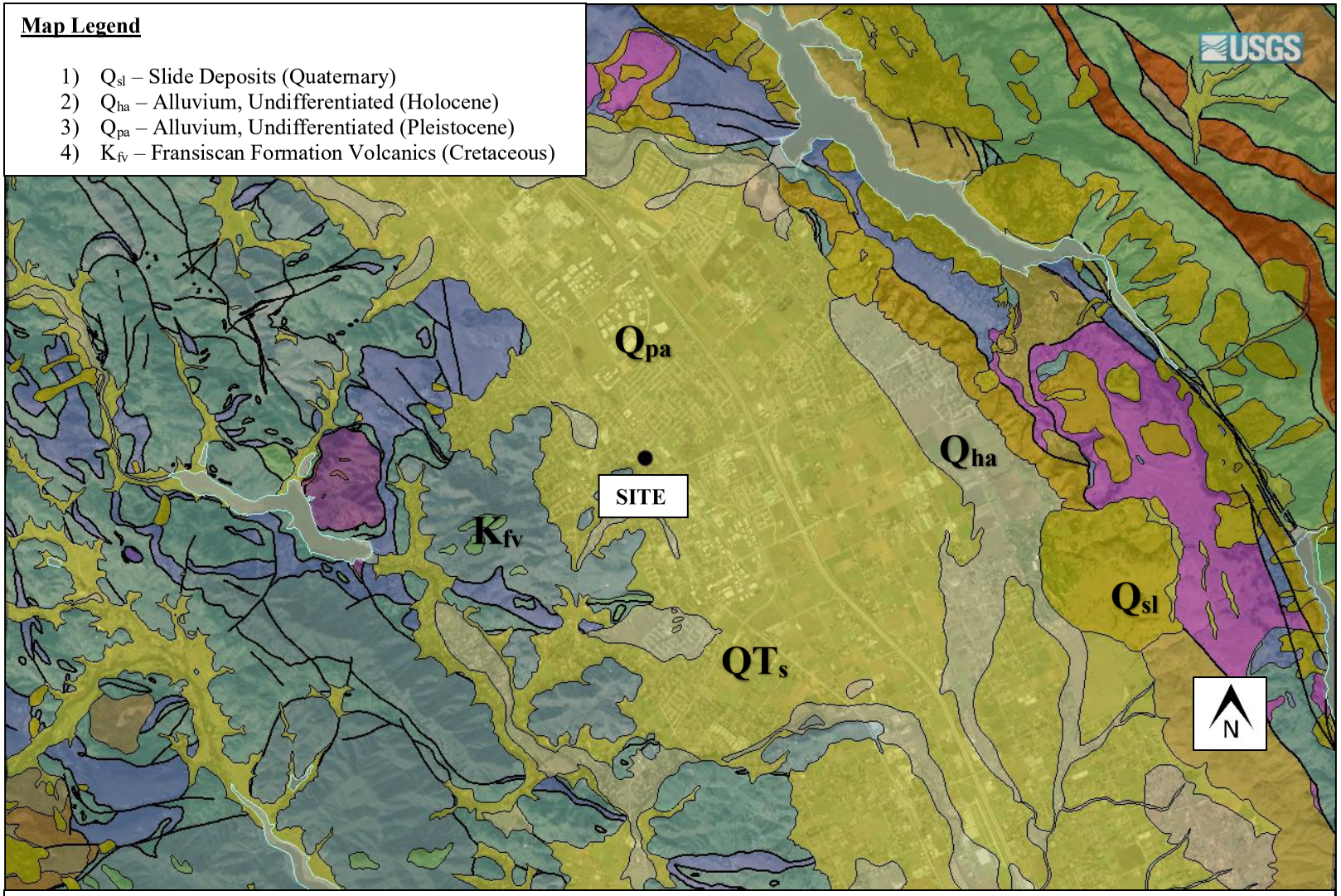
1. Base Map: Google Earth, 2020
2. Fault Map Overlay: U.S. Geological Survey and California Geological Survey. 2020. Quaternary fault and fold database for the United States. Accessed May 18, 2020 from USGS web site: http//earthquakes.usgs.gov/regional/qfaults/.

0 10 20 40 Miles

QUANTUM GEOTECHNICAL, INC.	SITE VICINITY AND FAULT MAP			
	Proposed Residential Development Hill Rd. and Barrett Ave., Morgan Hill	Project No. D020.G	Drawn by: D.T.	Figure No. 1

Map Legend

1) Q_{sl} – Slide Deposits (Quaternary)
2) Q_{ha} – Alluvium, Undifferentiated (Holocene)
3) Q_{pa} – Alluvium, Undifferentiated (Pleistocene)
4) K_{fv} – Fransiscan Formation Volcanics (Cretaceous)

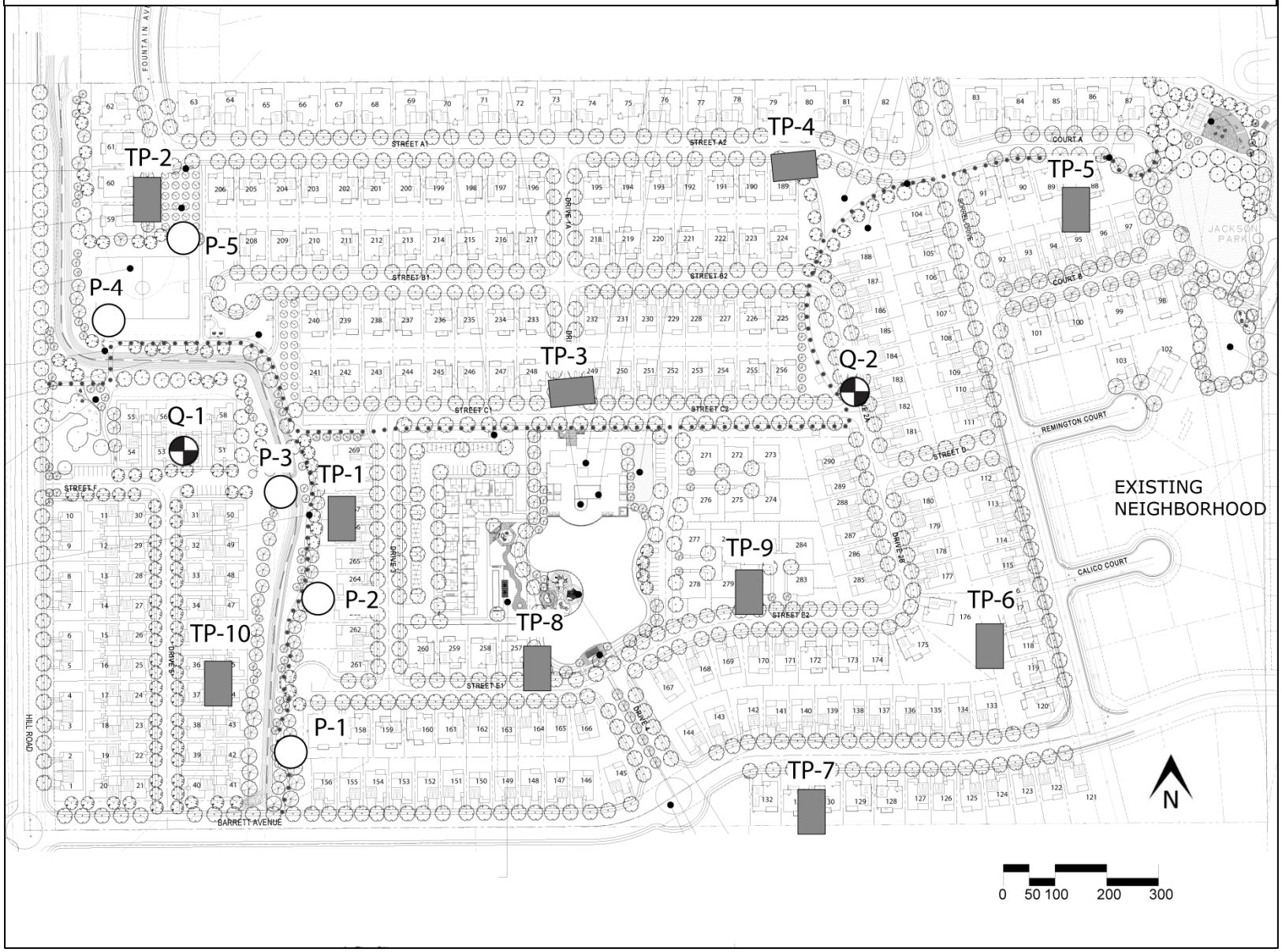


1. Base Map: Google Earth, 2020
2. Geologic Map Overlay: Graymer, R.W., Moring, B.C., Saucedo, G.J., Wentworth, C.M., Brabb, E.E., and Knudsen, K.L. 2006. "Geologic Map of the San Francisco Bay Region". USGS. Scientific Investigations Map 2918.

0 1 2 4 Miles

QUANTUM GEOTECHNICAL, INC.	REGIONAL GEOLOGICAL MAP			
	Proposed Residential Development Hill Rd. and Barrett Ave., Morgan Hill	Project No. D020.G	Drawn by: D.T.	Figure No. 2

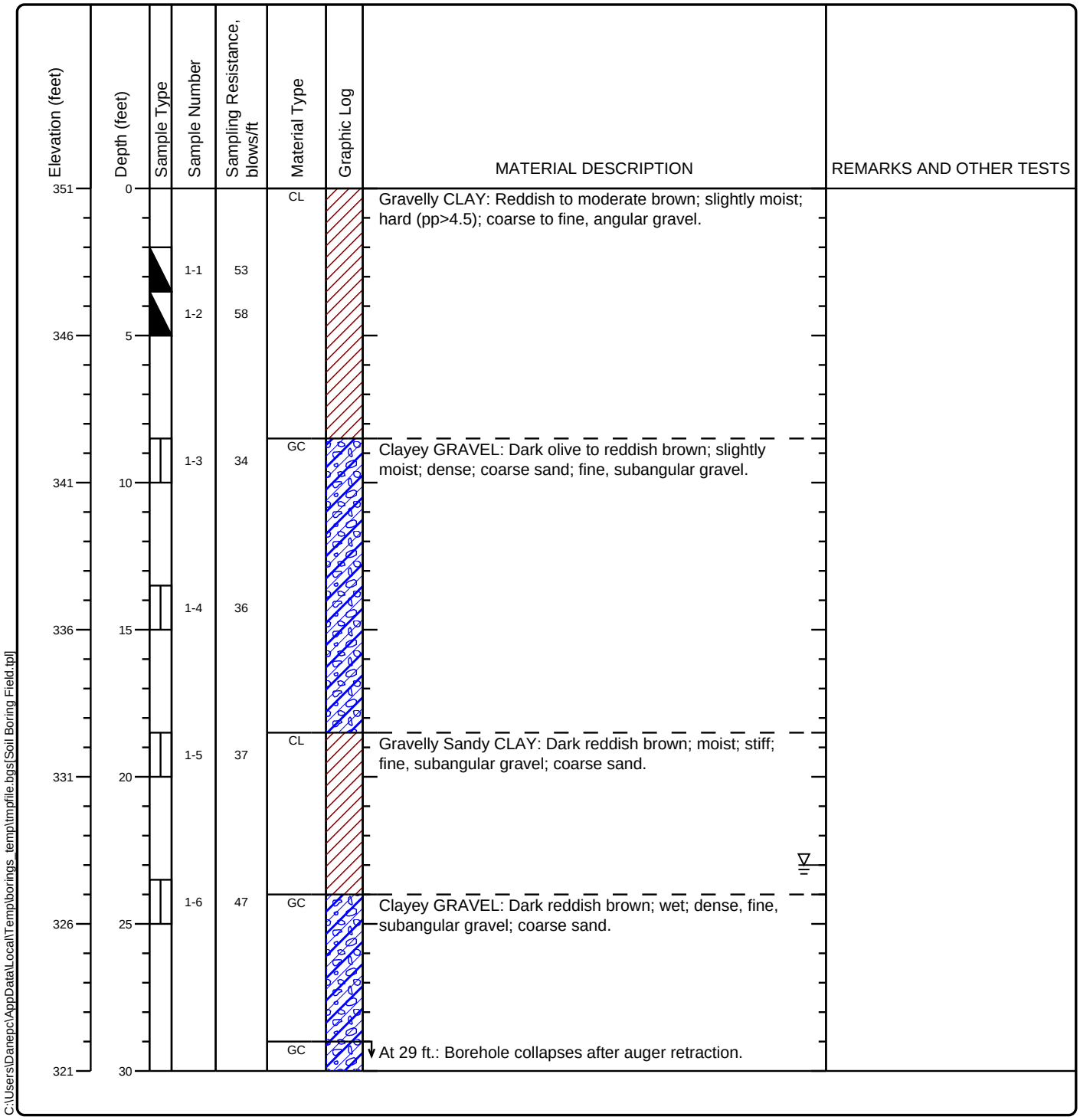
Modified from Image Source: D.R. Horton, *New Horizons at Morgan Hill*, Master Site Plan, Job Number 233-034, Produced 03-25-20.



QUANTUM GEOTECHNICAL, INC.	SITE PLAN			
	Proposed Residential Development Hill Rd. and Barrett Ave., Morgan Hill	Project No. D020.G	Drawn by: D.T.	Figure No. 3

Project: **New Horizons** Project Location: **Hill Rd. and Barrett Ave., Morgan Hill** Project Number: **D020.G**	Log of Boring Q-1 **Sheet 1 of 2**	**Quantum Geotechnical, Inc.** 1110 Burnett Ave., Ste. B, Concord, Ca 94520

Date(s) Drilled **04-10-17**	Logged By **DT**	Checked By **SM**
Drilling Method **Solid Flight**	Drill Bit Size/Type **4.5 in.**	Total Depth of Borehole **33 ft.**
Drill Rig Type **Mobile B-24**	Drilling Contractor **Hillside Drilling**	Approximate Surface Elevation **351 ft. amsl.**
Groundwater Level and Date Measured **23 ft.**	Sampling Method(s) **Modified California, SPT**	Hammer Data **Rope and Cathead**
Borehole Backfill **Soil**	Location **See Site Plan**	



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Project: **New Horizons**
Project Location: **Hill Rd. and Barrett Ave., Morgan Hill**
Project Number: **D020.G**

Log of Boring Q-1

Sheet 2 of 2

Quantum Geotechnical, Inc.
1110 Burnett Ave., Ste. B, Concord, Ca 94520

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
321	30				GC		▼At 29 ft.: Borehole collapses after auger retraction.	
							Bottom of Boring at 33 ft. Groundwater first encountered at 23 ft.	
316	35							
311	40							
306	45							
301	50							
296	55							
291	60							
286	65							

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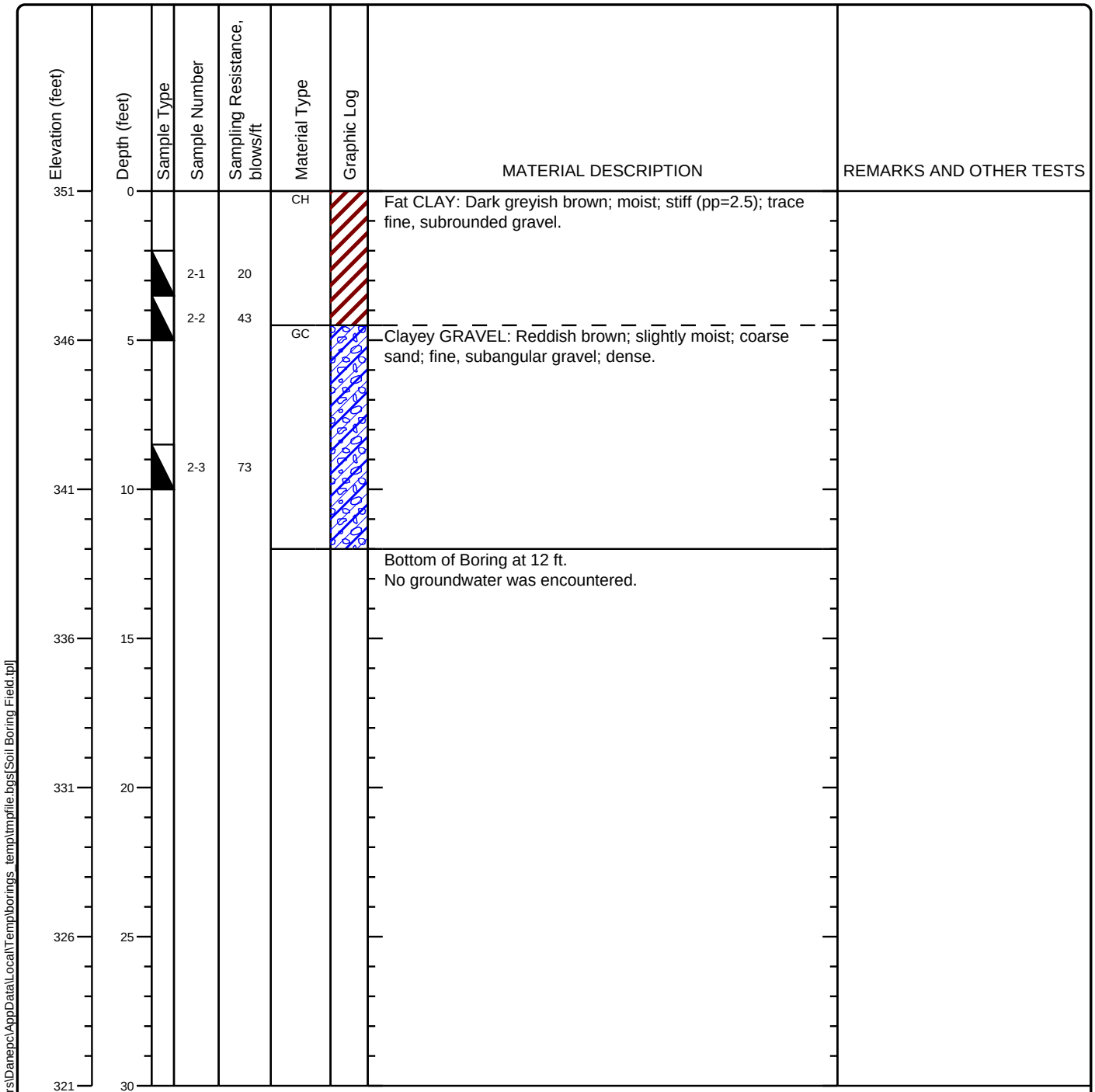
Project: **New Horizons** Project Location: **Hill Rd. and Barrett Ave., Morgan Hill** Project Number: **D020.G**	Log of Boring Q-2 **Sheet 1 of 1**	**Quantum Geotechnical, Inc.** 1110 Burnett Ave., Ste. B, Concord, Ca 94520

Date(s) Drilled **04-10-17**	Logged By **DT**	Checked By **SM**
Drilling Method **Solid Flight**	Drill Bit Size/Type **4.5 in.**	Total Depth of Borehole **12 ft.**
Drill Rig Type **Mobile B-24**	Drilling Contractor **Hillside Drilling**	Approximate Surface Elevation **351 ft. amsl.**
Groundwater Level and Date Measured **None Encountered**	Sampling Method(s) **Modified California**	Hammer Data **Rope and Cathead**
Borehole Backfill **Soil**	Location **See Site Plan**	



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Project: **New Horizons** Project Location: **Hill Rd. and Barrett Ave., Morgan Hill** Project Number: **D020.G**	Key to Log of Boring **Sheet 1 of 1**	**Quantum Geotechnical, Inc.** 1110 Burnett Ave., Ste. B, Concord, Ca 94520

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9

COLUMN DESCRIPTIONS

1 Elevation (feet): Elevation (MSL, feet).
2 Depth (feet): Depth in feet below the ground surface.
3 Sample Type: Type of soil sample collected at the depth interval shown.
4 Sample Number: Sample identification number.
5 Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.
6 Material Type: Type of material encountered.
7 Graphic Log: Graphic depiction of the subsurface material encountered.
8 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
9 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.

FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity
COMP: Compaction test
CONS: One-dimensional consolidation test
LL: Liquid Limit, percent
PI: Plasticity Index, percent
SA: Sieve analysis (percent passing No. 200 Sieve)
UC: Unconfined compressive strength test, Qu, in ksf
WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS

Fat CLAY, CLAY w/SAND, SANDY CLAY (CH)
Lean CLAY, CLAY w/SAND, SANDY CLAY (CL)
Clayey GRAVEL (GC)

TYPICAL SAMPLER GRAPHIC SYMBOLS

Auger sampler
Bulk Sample
3-inch-OD California w/ brass rings
CME Sampler
Grab Sample
2.5-inch-OD Modified California w/ brass liners
Pitcher Sample
2-inch-OD unlined split spoon (SPT)
Shelby Tube (Thin-walled, fixed head)

OTHER GRAPHIC SYMBOLS

Water level (at time of drilling, ATD)
Water level (after waiting)
Minor change in material properties within a stratum
Inferred/gradational contact between strata
Queried contact between strata

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

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Figure B-1

LOGS OF TEST PITS

Depth	USCS Soil Type	Soil Description
TP-1		
0-3.5 ft:	SC-CL	Sandy CLAY: Dark greyish brown; dry to slightly moist; stiff.
3.5-11.5 ft:	GC	Gravelly CLAY: Orange brown; slightly moist; cobbles to fine gravel; coarse to medium sand.
TP-2		
0-2.5 ft:	ML	SILT: Moderate brown; slightly moist; medium stiff; trace fine, subrounded gravel.
2.5-15.5 ft:	GC	Gravelly CLAY: Orange to reddish brown; slightly moist; cobbles of weathered, rounded sandstone and siltstone; coarse to fine, subangular gravel; coarse to medium sand.
TP-3		
0-3.5 ft:	SC-CL	Sandy CLAY: Greyish brown; moist; stiff.
3.5-15.5 ft:	GC-SC	Clayey SAND and GRAVEL: Orange brown; moist; rounded cobbles; coarse to fine, subrounded gravel; coarse to medium sand.
TP-4		
0-4 ft:	CH	Fat CLAY: Greyish brown; moist; very stiff.
4-15 ft:	SC-CH	Clayey SAND: Orange brown; moist; fine, subrounded gravel; medium sand; stiff.
TP-5		
0-5 ft:	CH-CL	Silty CLAY: Greyish brown; slightly moist; stiff to very stiff.
5-12.5 ft:	SC	Clayey SAND: Orange brown; slightly moist; coarse, subrounded gravel; coarse to medium sand.
TP-6		
0-5 ft:	CH	Fat CLAY: Greyish brown; moist; stiff to very stiff.
5-12 ft:	SC	Clayey SAND: Orange brown; slightly moist; medium sand.
TP-7		
0-5 ft:	CH	Fat CLAY: Moderate to dark greyish brown; moist; stiff.
5-13 ft:	SC	Clayey SAND: Orange brown; slightly moist.
TP-8		
0-3 ft:	CH-CL	Silty CLAY: Moderate brown with mottled light brown, black and red; slightly moist; stiff.
3-5 ft:	MH	Clayey SILT: Tan brown; slightly moist; hard; fine sand and gravel.
5-13 ft:	SC-GC	Clayey GRAVEL and SAND: Orange brown; slightly moist; medium sand; cobbles to fine, subrounded gravel.
TP-9		
0-4.5 ft:	CH	Fat CLAY: Greyish brown; slightly moist; hard.
4.5-6.5 ft:	GC-SC	Clayey GRAVEL and SAND: Orange brown; slightly moist; medium sand; cobbles to fine, subrounded gravel.
TP-10		
0-4 ft:	MH-ML	Clayey SILT: Greyish to moderate brown; dry to slightly moist; hard.
4-13 ft:	GC-SC	Clayey GRAVEL and SAND: Orange brown; slightly moist; medium sand; cobbles to fine, subrounded gravel.

Appendix B

The Grading Specification

Guide Specifications for Rock Under Floor Slabs

THE GRADING SPECIFICATIONS
on
Proposed Residential Development
New Horizons
Corner of Hill Road
and Barrett Avenue
Morgan Hill, California

1. General Description

1.1 These specifications have been prepared for the grading and site development of the subject residential development. ***Quantum Geotechnical Inc.***, hereinafter described as the Soil Engineer, should be consulted prior to any site work connected with site development to ensure compliance with these specifications.

1.2 The Soil Engineer should be notified at least two working days prior to any site clearing or grading operations on the property in order to observe the stripping of organically contaminated material and to coordinate the work with the grading contractor in the field.

1.3 This item shall consist of all clearing or grubbing, preparation of land to be filled, filling of the land, spreading, compaction and control of fill, and all subsidiary work necessary to complete the grading of the filled areas to conform with the lines, grades, and slopes as shown on the accepted plans. The Soil Engineer is not responsible for determining line, grade elevations, or slope gradients. The property owner, or his representative, shall designate the person or organizations who will be responsible for these items of work.

1.4 The contents of these specifications shall be integrated with the soil report of which they are a part, therefore, they shall not be used as a self-contained document.

2. Tests

The standard test used to define maximum densities of all compaction work shall be the ASTM D1557-12 Laboratory Test Procedure. All densities shall be expressed as a relative compaction in terms of the maximum dry density obtained in the laboratory by the foregoing standard procedure.

3. Clearing, Grubbing, and Preparing Areas To Be Filled

3.1 If encountered, all vegetable matter, trees, root systems, shrubs, debris, and organic topsoil shall be removed from all structural areas and areas to receive fill.

3.2 If encountered, any soil deemed soft or unsuitable by the Soil Engineer shall be removed. Any existing debris or excessively wet soils shall be excavated and removed as required by the Soil Engineer during grading.

3.3 All underground structures shall be removed from the site such as old foundations, abandoned pipe lines, septic tanks, and leach fields.

3.4 The final stripped excavation shall be approved by the Soil Engineer during construction and before further grading is started.

3.5 After the site has been cleared, stripped, excavated to the surface designated to receive fill, and scarified, it shall be disked or bladed until it is uniform and free from large clods. The native subgrade soils shall be moisture conditioned and compacted to the requirements as specified in the grading section of this report. Fill can then be placed to provide the desired finished grades. The contractor shall obtain the Soil Engineer's approval of subgrade compaction before any fill is placed.

4. Materials

4.1 All fill material shall be approved by the Soil Engineer. The material shall be a soil or soil-rock mixture which is free from organic matter or other deleterious substances. The fill material shall not contain rocks or lumps over 6 inches in greatest dimension and not more than 15% larger than 2-1/2 inches. Materials from the site below the stripping depth are suitable for use in fills provided the above requirements are met.

4.2 Materials existing on the site are suitable for use as compacted engineered fill after the removal of all debris and organic material. All fill soils shall be approved by the Soil Engineer in the field.

4.3 Should import material be required, it should be approved by the soil Engineer before it is brought to the site.

5. Placing, Spreading, and Compacting Fill Material

5.1 The fill materials shall be placed in uniform lifts of not more than 8 inches in uncompacted thickness. Each layer shall be spread evenly and shall be thoroughly blade mixed during the spreading to obtain uniformity of material in each layer. Before compaction begins, the fill shall be brought to a water content that will permit proper compaction by either (a) aerating the material if it is too wet, or (b) spraying the material with water if it is too dry.

5.2 After each layer has been placed, mixed, and spread evenly, either import material or native material shall be compacted to a relative compaction designated for engineered fill.

5.3 Compaction shall be by footed rollers or other types of acceptable compacting rollers. Rollers shall be of such design that they will be able to compact the fill to the specified density. Rolling shall be accomplished while the fill material is within the specified moisture content range. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient trips to ensure that the required density has been obtained. No ponding or jetting shall be permitted.

5.4 Field density tests shall be made in each compacted layer by the Soil Engineer in accordance with Laboratory Test Procedure ASTM D1556-15 or D6938-10. When footed rollers are used for compaction, the density tests shall be taken in the compacted material below the surface disturbed by the roller. When these tests indicate that the compaction requirements on any layer of fill, or portion thereof, has not been met, the particular layer, or portion thereof, shall be reworked until the compaction requirements have been met.

5.5 No soil shall be placed or compacted during periods of rain nor on ground which contains free water. Soil which has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limits hereinbefore described or approved by the Soil Engineer. Approval by the Soil Engineer shall be obtained prior to continuing the grading operations.

6. Pavement

6.1 The proposed subgrade under pavement sections, native soil, and/or fill shall be compacted to a minimum relative compaction of 95% at 2% above optimum moisture content for a depth of 12 inches.

6.2 All aggregate base material placed subsequently should also be compacted to a minimum relative compaction of 95% based on the ASTM Test Procedure D1557-12. The construction of the pavement in the parking and traffic areas should conform to the requirements set forth by the latest Standard Specifications of the Department of Transportation of the State of California and/or City of Morgan Hill, Department of Public Works.

6.3 It is recommended that soils at the proposed subgrade level be tested for a pavement design after the preliminary grading is completed and the soils at the site design subgrade levels are known.

7. Utility Trench Backfill

7.1 The utility trenches extending under concrete slabs-on-grade shall be backfilled with native on-site soils or approved import materials and compacted to the requirements pertaining to the adjacent soil. No ponding or jetting will be permitted.

7.2 Utility trenches extending under all pavement areas shall be backfilled with native or approved import material and properly compacted to meet the requirements set forth by the City of Morgan Hill, Department of Public Works.*

7.3 Where any opening is made under or through the perimeter foundations for such items as utility lines and trenches, the openings must be resealed so that they are watertight to prevent the possible entrance of outside irrigation or rain water into the underneath portion of the structures.

8. Subsurface Line Removal

8.1 The methods of removal will be designated by the Soil Engineer in the field depending on the depth and location of the line. One of the following methods will be used.

8.2 Remove the pipe and fill and compact the soil in the trench according to the applicable portions of sections pertaining to compaction and utility backfill.

8.3 The pipe shall be crushed in the trench. The trench shall then be filled and compacted according to the applicable portions of Section 5.

8.4 Cap the ends of the line with concrete to prevent entrance of water. The length of the cap shall not be less than 5 feet. The concrete mix shall have a minimum shrinkage.

9. Unusual Conditions

9.1 In the event that any unusual conditions not covered by the special provisions are encountered during the grading operations, the Soil Engineer shall be immediately notified for additional recommendations.

10. General Requirements

Dust Control

10.1 The contractor shall conduct all grading operations in such a manner as to preclude windblown dirt and dust and related damage to neighboring properties. The means of dust control shall be left to the discretion of the contractor and he shall assume liability for claims related to windblown material.

GUIDE SPECIFICATIONS FOR ROCK UNDER FLOOR SLABS

Definition

Graded gravel or crushed rock for use under slabs-on-grade shall consist of a minimum thickness of mineral aggregate placed in accordance with these specifications and in conformance with the dimensions shown on the plans. The minimum thickness is specified in the accompanying report.

Material

The mineral aggregate shall consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3% of the oven dry weight of the sample.

Gradation

The mineral aggregate shall be of such size that the percentage composition by dry weight, as determined by laboratory sieves (U.S. Sieves) will conform to the following gradation:

Sieve Size	Percentage Passing
¾''	90-100
No. 4	25-60
No. 8	18-45
No. 200	0-3

Placing

Subgrade, upon which gravel or crushed rock is to be placed, shall be prepared as outlined in the accompanying soil report.

Appendix C: Revised Drainage Report

MORGAN HILL DEVCO LLC

New Horizons

Santa Clara County, California

Schaaf & Wheeler Project No. MDHC.01.20:003

DRAINAGE REPORT

4/5/2024

Schaaf & Wheeler
CONSULTING CIVIL ENINGEERS

Prepared by:

LAWRENCE D. JOHNSON, California RCE No. 84183 (Exp. 09/30/25)

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

Table of Contents

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ATTACHMENTS

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1 INTRODUCTION

This drainage report assesses the potential impact of the proposed New Horizons development on the peak tributary drainage discharge into Tennant Creek with hydrologic modeling. To meet both City and Valley Water peak runoff criteria the must demonstrate that post-project peak discharge into Tennant Creek does not exceed pre-project peak discharge for the 2-year, 10-year, 25-year, and 100-year return period events. Detention methods to off-set the increase in discharge generated by the development are proposed herein. This report also describes the estimation of the base flood (100-year) water surface elevation in the project vicinity and demonstrates that finish floor elevations will be outside of the 100-year Special Flood Hazard Zone.

1.1 PROJECT DESCRIPTION

New Horizons is a master planned community designated for single family residential use. It will be built on a 69-acre site that is currently an undeveloped parcel. Figure 1-1 provides a vicinity map of the project area located on the north side of Barrett Avenue, east of Hill Road in Morgan Hill, California. The site is adjacent to Tennant Creek, which drains to Corralitos Creek, Llagas Creek, the Pajaro River and ultimately Monterey Bay.

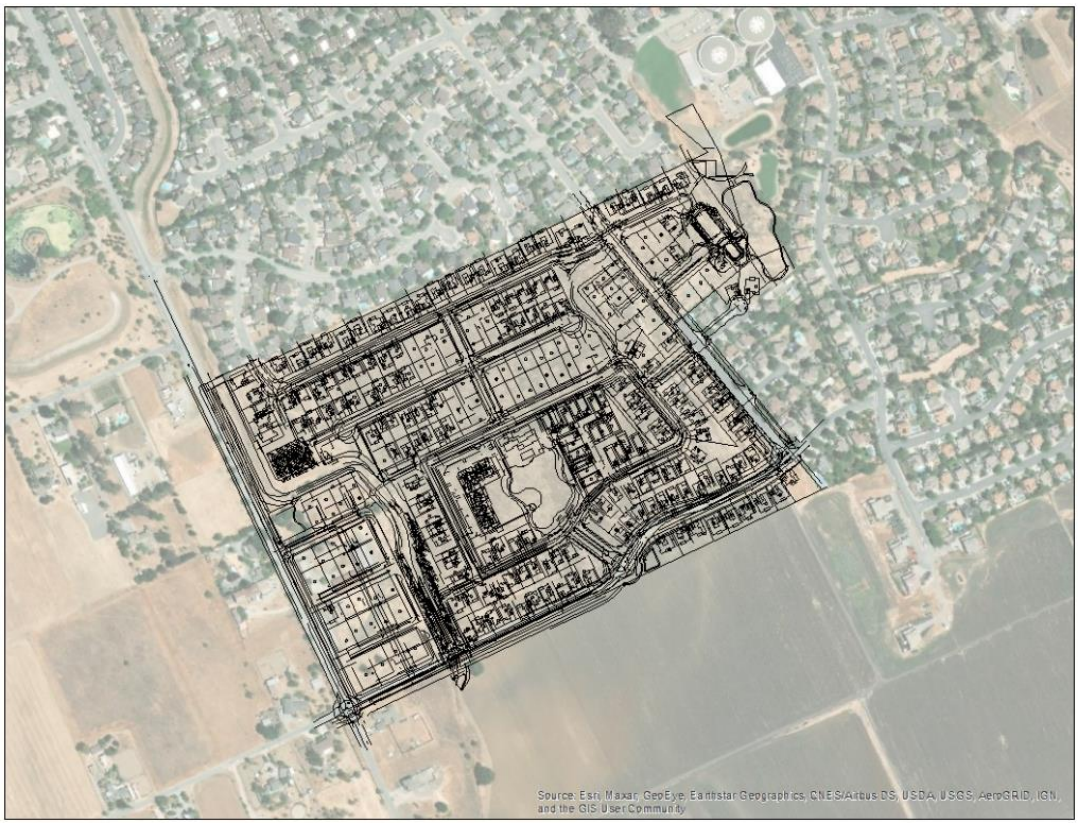


Figure 1-1: Project Site Location

The effective FEMA Flood Insurance Rate Map (FIRM) Number 06085C0463H dated May 18, 2009 shows the property lies almost entirely within an area of moderate flood hazard, Shaded Zone X, representing the 0.2 percent chance (500-year) annual flood. Tennant Creek's regulatory floodway and floodway fringe pass through the site along its western quarter, as shown in Figure 1-2.

Additionally, a Zone AO is shown onsite, stemming from a channel spill located at Fountain Oaks Drive.

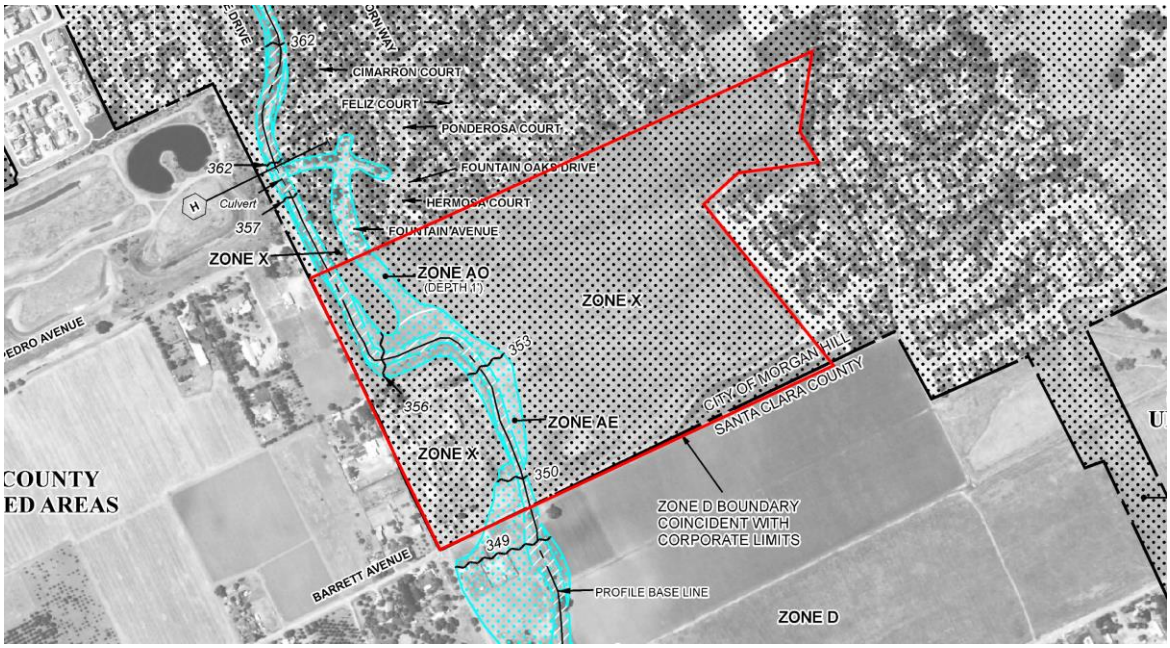


Figure 1-2: Flood Hazard Zones on Project Site

2 HYDROLOGIC ASSESSMENT

The City of Morgan Hill and Valley Water design standards require that post-development peak discharge into Tennant Creek does not exceed the pre-development peak discharge for the 2-year, 10-year, 25-year, and 100-year return period events. Pre-development is defined by the City's drainage guidelines as stormwater runoff conditions that exist onsite immediately before development occurs. To meet these requirements, a detention basin is proposed to store sufficient runoff upstream of the project area to ensure there is no increased discharge to Tennant Creek. For storage requirements larger than the space available for the detention basin upstream of the project area, on-site storage will be used.

The proposed detention basin will also need to accommodate the peak reduction provided by an existing retention basin on the project site which was originally designed and installed to mitigate peak flow runoff from the Tract 8481 development located to the east. Construction drawings for the retention basin and associated storm drain piping were provided by the City, dated February 5, 1993. Since the current retention basin and storm drain infrastructure is considered existing conditions, the project's proposed detention basin must consider its impacts to peak runoff into Tennant Creek when sizing the new detention basin. It is our understanding that the City may separately pursue confirmation of the retention basins original sizing and may opt to negotiate additional detention storage as part of the New Horizons development where practical. Confirmation of the existing retention basin design is not included in this report.

2.1 HYDROLOGIC MODELING

Hydrologic modeling is performed using HEC-HMS software, a computer model developed by the US Army Corps of Engineers. The methodology described herein, follows the guidance of the Santa Clara County Drainage Manual (2007). The model inputs are described below including the applied rainfall pattern and characterization of areas contributing runoff to the project site.

2.1.1 Rainfall Simulation (Design Storm)

A design storm is developed for the area draining to the site to estimate the distribution of rainfall depth for a specified storm duration resulting from the 2-year, 10-year, 25-year and 100-year return period events. Following the Santa Clara County Drainage Manual (SCCDM), a 24-hour storm duration is used, which is the standard for rainfall simulation. A simulated rainfall pattern is generated by multiplying the 24-hour total rainfall depth for the 2-year, 10- year, 25-year and 100-year return period events with the adopted 24-hour incremental rainfall pattern for Santa Clara County provided in fractions of total rainfall depth for 5-minute time periods.

The 24-hour rainfall depths are estimated using the Santa Clara Valley Water District's Return Period-Duration-Specific (TDS) Regional Equation for a given return period event. The TDS Regional Equation is provided below along with the equation inputs in Table 2-1:

$$x_{T,D} = A_{T,D} + B_{T,D}MAP$$

Where $x_{T,D}$ = precipitation depth for a specific return period and storm duration (inches)

T = return period (years)

D = storm duration (hours)

A,B = coefficients published in the County Drainage Manual

MAP = mean annual precipitation = 20 inches in Morgan Hill

The incremental rainfall pattern is provided in the SCCDM and is specific to the Mean Annual Precipitation (MAP) of 20-inches at the Project site. The MAP was estimated from the SCVWD's Mean Annual Precipitation Map San Francisco & Monterey Bay Region (1988). The pattern is based on a December 1955 rainfall event considered to be the storm of record for northern California. Parameters for calculating the precipitation depth for the return periods of interest are provided below in Table 2-1.

Table 2-1: 24-Hour Storm Total Precipitation

RETURN PERIOD	$A_{T,D}$	$B_{T,D}$	RAINFALL DEPTH (IN)
2-year	0.314185	0.096343	2.241
10-year	0.567017	0.162550	3.818
25-year	0.675008	0.195496	4.585
100-year	0.814046	0.243391	5.682

2.1.2 Subbasin Area and Existing Storm Drain Infrastructure.

The area draining to the project site is divided into several sub-basins as shown in Figure 2-1 for existing conditions and Figure 2-2 for post-project conditions. Delineation of the drainage areas was performed with topographic data from the National Elevation Dataset (NED).

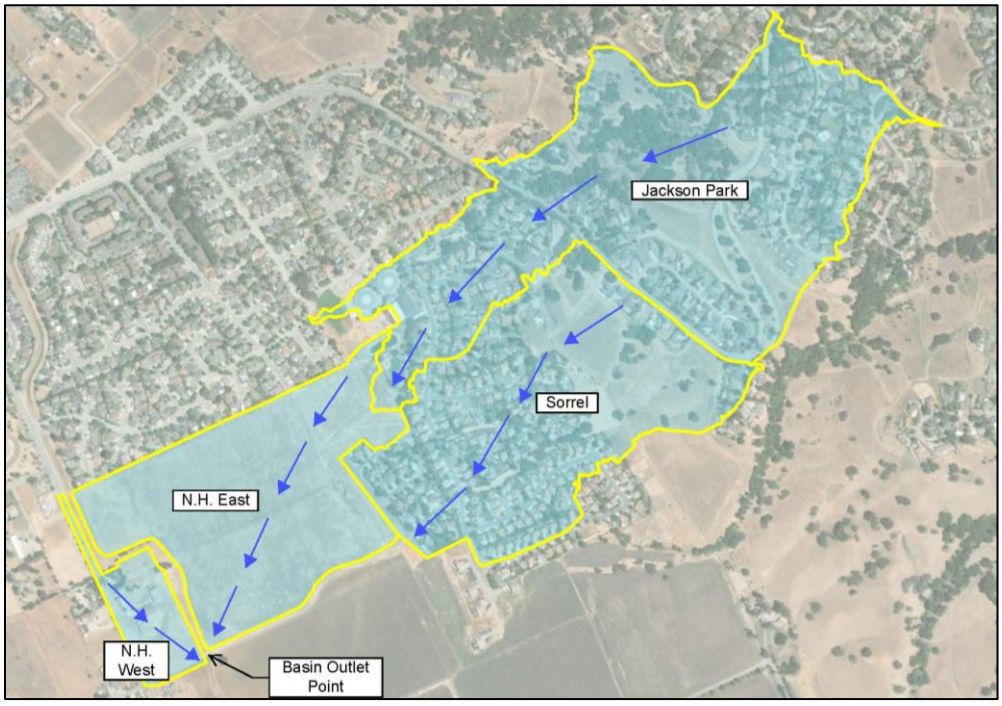


Figure 2-1: Existing Condition Drainage Areas

Additionally, Schaaf & Wheeler performed site visits to observe existing conditions regarding the storm drain infrastructure present within the upper watershed of Jackson Park. The existing retention basin and associated storm drain infrastructure within Sorrel Drive and Barrett Avenue was also incorporated into the existing conditions hydrology assessment using the City provided Tract 8481 construction drawings dated February 5, 1993. This generally consists of a 21-inch, 24-inch and 27-inch bypass which diverts flows from the Jackson Park subbasin prior to entering the 54-inch main in Barrett Avenue. The retention basin volume, invert elevations and outgoing 21-inch pipe were also included. Both the 60-inch storm drain in Barrett Avenue and the 21-inch retention outlet discharge into Tennant Creek at the defined Basin Outlet Point.

The sub-basins in the proposed project development site are outlined in red in Figure 2-2. The project proposes eliminating the retention basin and its associated storm drain piping. Additionally, a proposed detention basin would be located at the upstream end of DMA 1 with the intention of storing runoff from the Jackson Park subbasin to offset increases in runoff attributed to the project and to account for existing runoff that was previously retained as part of the Tract 8481 retention basin. It is important to note that both the existing retention basin and the proposed detention basin intend to store runoff from the same source basin being Jackson Park. Pumping of stormwater flows from the Sorrel subbasin is not anticipated for this project.

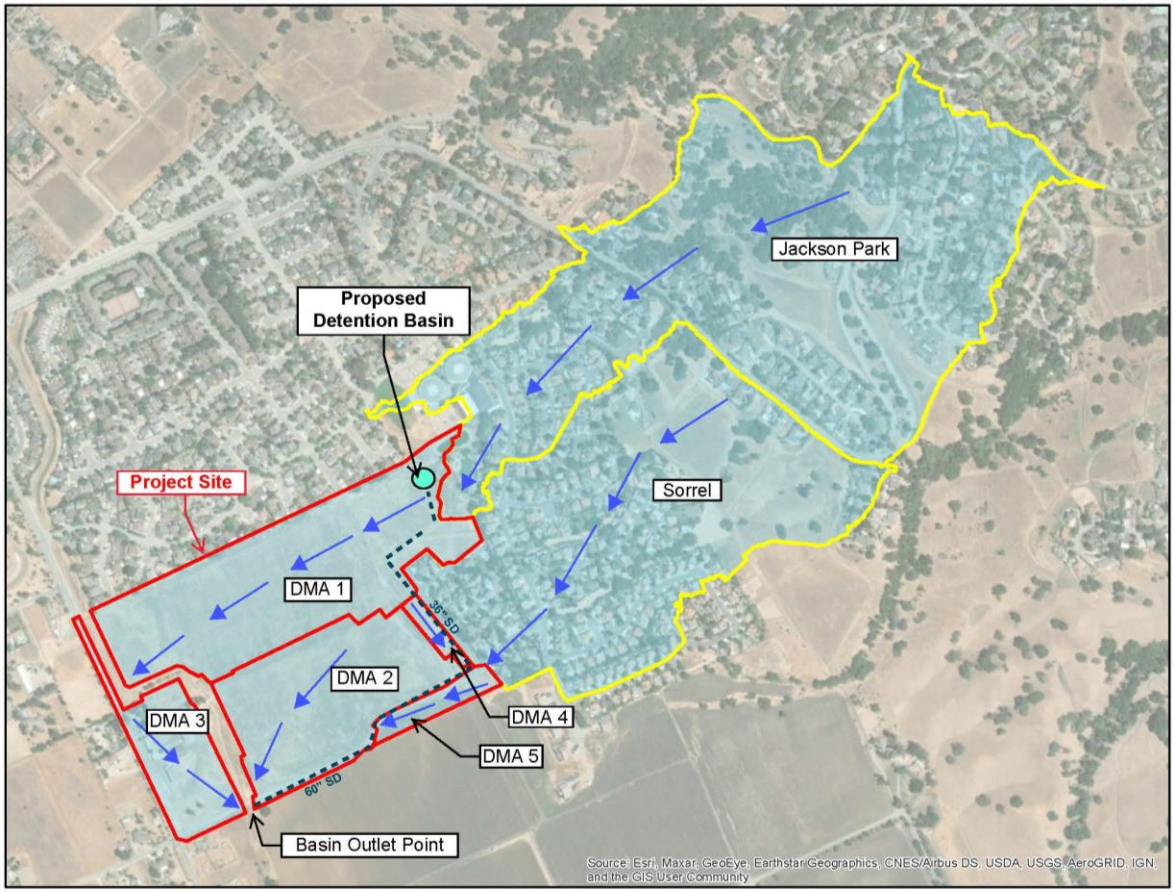


Figure 2-2: Post-Project Condition Drainage Areas

2.1.3 Watershed Parameters

For the unit hydrograph method, the following watershed parameters are used as inputs. Each parameter is briefly discussed below. Table 2-2 and 2-3 provide selected watershed parameters.

Table 2-2: Watershed Parameters for Existing Conditions

DRAINAGE AREA (FIGURE 2)	AREA (SQUARE MILES)	CN (AMC II)	CN (AMC II 1/4)	CN (AMC II 1/2)	IMPERVIOUS AREA (%)	BASIN LAG TIME (MIN)
Jackson Park	0.17	73	76.5	80	29	20.9
Sorrel	0.11	72	75.5	79	35	15.4
N.H. East	0.09	75	77.5	81	2	18.2
N.H. West	0.01	71	75.5	79	27	15.0
Total	**3.8**	-	-	-	-	-

Table 2-3: Watershed Parameters for Post-Project Conditions

DRAINAGE AREA (FIGURE 3)	AREA (SQUARE MILES)	CN (AMC II)	CN (AMC II 1/4)	CN (AMC II 1/2)	IMPERVIOUS AREA (%)	BASIN LAG TIME (MIN)
Jackson Park	0.17	73	76.5	80	29	20.9
Sorrel	0.11	72	75.5	79	35	15.4
DMA 1	0.049	71	75	79	52	19.0
DMA 2	0.033	71	75	79	56	12.0
DMA 3	0.01	71	75	79	58	10.0
DMA 4	0.00185	71	75	79	44	15.0
DMA 5	0.00404	71	75	79	47	8.0
Total	**3.8**	-	-	-	-	-

SCS Curve Number. The Curve Number (CN) characterizes a given soil and land cover to estimate potential losses from rainfall. These losses represent rainfall that is absorbed by tree cover and soils. CN for each drainage area is estimated from soil type taken from the National Resources Conservation Service (NRCS) and land use from the National Land Cover Database (2019). CN's vary based on antecedent moisture conditions (AMC) which represent prior soil saturation. The CN values used are from Appendix E of SCCDM. For this analysis, an AMC of II 1/2 is adopted for the 10-year, 25-year and 100-year return period event while an AMC of II ¼ is adopted for the 2-year return period as recommended in the SCCDM. The CN values used in the model are shown in Tables 2-2 and 2-3.

Percent Imperviousness. The percent imperviousness of each existing drainage area is estimated using the National Land Cover Database (2019) dataset. Recent aerial images from Google Earth are used as a visual verification. The vast majority of the drainage areas are undeveloped. Proposed percent impervious is estimated based on hardscape provided by RJA and the proposed site plan.

Basin Lag. The lag time is estimated for each drainage area to derive the SCS unit hydrograph. Lag time is a function of the drainage area length, slope, and roughness and represents the delay between the start of excess rainfall until the peak runoff at a drainage point. The SCS lag equation is provided below with input parameters for each drainage area given in Table 2-2 and Table 2-3:

$$t_{lag} = (0.862)24N\left(\frac{LL_c}{\sqrt{S}}\right)^{0.38} - \frac{D}{2}$$

Where t_{lag} = SCS basin lag (hours)

N = watershed roughness value (dimensionless)

L = longest flow path from catchment divide to outlet (miles)

L_c = length along flow path from a point perpendicular with the basin centroid to its outlet (miles)

S = effective slope along main watercourse (feet/mile)

D = duration of unit hydrograph (hours)

For small drainage areas (less than 0.05 square miles), lag time is calculated based on time of overland flow, conduit flow assuming velocity of 3 ft/sec, and initial overland flow collection (assumed to be 5 minutes). For urbanized area, initial overland flow is assumed to be ten minutes for a substantial drainage area, and five minutes if drainage area only includes street or parking lot sections.

2.1.4 Detention Basin

In the post-project condition, a detention basin is placed immediately downstream of Jackson Park. An inflow-diversion function is used to model an assumed orifice-controlled outlet for 2-year, 10-year, 25-year and 100-year return periods to offset the increase in discharge from the development project and to account for current peak runoff attenuation due to the existing retention basin. The inflow-diversion function that sets the amount of flow to be diverted downstream and the flow that is to be stored is optimized for each return period and is presented in the results (Table 2-7). Detailed detention basin orifice sizing/design shall be determined during detailed design.

2.1.5 On-Site Storage

In the post-project condition, on-site storage is alternatively evaluated for the 2-year storm because a detention basin large enough for the 2-year storm storage requirement is not feasible due to limited available space. As shown in Figure 2-3, the project site is divided into five drainage management areas (DMAs 1-5). In the hydrologic analysis, the storage capacity required in each DMA to offset the increase in discharge from the development project is determined and summarized in Table 2-8. An inflow-diversion function is used in each DMA to set the amount of flow to be diverted and the amount of flow to be stored.

2.2 MODEL RESULTS

The goal of this assessment is to determine whether a detention basin receiving runoff from Jackson Park can store adequate flow to offset the increase in discharge from the project development into Tennant Creek. The peak flow from Jackson Park must be greater than or equal to the increase in discharge attributed to the project in order to justify the placement of the detention basin downstream of Jackson Park. The peak flow results of each sub-basin are shown in Table 2-4 and Table 2-5.

Table 2-4: Existing Conditions Peak Runoff

SUB-BASIN	2-YEAR RETURN PERIOD PEAK FLOW (CFS)	10-YEAR RETURN PERIOD PEAK FLOW (CFS)	25-YEAR RETURN PERIOD PEAK FLOW (CFS)	100-YEAR RETURN PERIOD PEAK FLOW (CFS)
Jackson Park	20.6	56.1	73.7	100.1
Sorrel	16.9	43.1	56.2	75.8
N.H. East	4.7	24.4	34.2	49.1
N.H. West	1.3	3.6	4.8	6.6

Table 2-5: Post-Project Conditions Peak Runoff

SUB-BASIN	2-YEAR RETURN PERIOD PEAK FLOW (CFS)	10-YEAR RETURN PERIOD PEAK FLOW (CFS)	25-YEAR RETURN PERIOD PEAK FLOW (CFS)	100-YEAR RETURN PERIOD PEAK FLOW (CFS)
Jackson Park	20.6	56.1	73.7	100.1
Sorrel	16.9	43.1	56.2	75.8
DMA 1	9.6	21.4	26.9	34.9
DMA 2	8.6	17.9	22.5	29.3
DMA 3	2.4	5.0	6.2	8.1
DMA 4	0.5	1.1	1.4	1.9
DMA 5	1.0	2.2	2.8	3.7

Table 2-6: Detention Basin Feasibility

RETURN PERIOD	FLOW INCREASE ON PROJECT SITE (CFS)	JACKSON PARK PEAK FLOW (CFS)	CAN DETENTION OF JACKSON PARK OFFSET FLOW INCREASE?
2-year	16.1	20.6	YES
10-year	19.6	56.1	YES
25-year	20.8	73.7	YES
100-year	22.2	100.1	YES

Table 2-6 illustrates the increase in flow generated by the development for the 2-year, 10-year, 25-year and 100-year return periods. For each return period, the Jackson Park subbasin has a peak flow greater than the increase in flow generated by the development. Therefore, it is possible to place a detention

basin immediately downstream of Jackson Park to mitigate the net impact generated by the development.

Table 2-7 shows the optimized diversion and storage requirements for the detention basin downstream of Jackson Park to ensure that the post-project discharge to Tennant Creek does not exceed existing conditions. With the optimized parameters in Table 2-7, the peak discharge at the post-project outlet (Tennant Creek at Barrett Avenue) is shown to be under the existing conditions discharge at the same location for each return period.

Table 2-7: Off-Site Detention Basin Storage Downstream of Jackson Park Requirements

RETURN PERIOD	FLOW SENT TO DETENTION BASIN (CFS)	DETENTION STORAGE REQ. (AC-FT)	EXISTING CONDITION OUTLET POINT PEAK FLOW (CFS)	POST-PROJECT CONDITION OUTLET POINT PEAK FLOW (CFS)	IS PEAK RUNOFF LIMTIED TO PRE-PROJECT CONDITONS?
2-year	13.6	1.4	40.9	40.8	YES
10-year	21.1	0.8	115.2	114.5	YES
25-year	36.7	1.9	141.2	141.1	YES
100-year	58.6	3.4	180.7	180.5	YES

Based on table 2-7 shown above, it is recommended that the Jackson Park Detention Basin be sized to provide at least 3.4 acre-feet of storage. Additional sizing and freeboard criteria may also be required per the City of Morgan Hill's standard specifications.

3 EVALUATION OF FLOOD HAZARDS

The New Horizons site is located in a FEMA special flood hazard area Zone AE with defined base flood elevations per the effective FIS panel 06085C0463H (effective as of 5/18/2009). Potential impacts from project improvements are assessed using information and hydraulic models first completed for the Santa Clara Valley Water District as part of the Upper Llagas Creek Flood Protection Project submitted to FEMA as part of the project's CLOMR. These models utilize updated hydrology provided by the Army Corps of Engineers. Due to recent suspension of CLOMR-F/LOMR-F applications by FEMA, the project will be required to submit a CLOMR/LOMR based on new hydrology/hydraulics. The CLOMR/LOMR submission will re-establish floodway limits, demonstrate changes to channel BFE's based on new hydrology and project components including channel grading and culvert improvements at Barrett Avenue. The CLOMR/LOMR modeling will also demonstrate tie-in with the effective HEC-2 modeling at both upstream and downstream ends of the project.

3.1 RELEVANT SECTIONS OF CITY FLOOD ORDINANCE

City of Morgan Hill Municipal Ordinance 15.80.160 applies to projects constructed within Morgan Hill. This ordinance was enacted to reflect updates to floodplain management policies affecting real property located in designated flood hazard areas of the city.

3.1.1 Floodways

Per Ordinance Section 15.80.200 "until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within Zones A1-30 and AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than one foot at any point within the City of Morgan Hill." Since Tennant Creek has a defined regulatory floodway, and that floodway can be adjusted to coincide with its current bank locations, this section of the ordinance does not apply. Improvements within project limits would not increase the water surface elevation of the base flood at any point within or outside of the City of Morgan HIll beyond what is allowed by the ordinance.

3.2 HYDRAULIC MODELING

The approach for hydraulic modeling of the New Horizon's development includes submission of a CLOMR/LOMR based on updated hydrology, a revised floodway and channel/culvert improvements at Barrett Avenue. Three models are used to demonstrate tie-in at the project limits of study along with impacts to SFHA's or BFE's within the channel. These three models include:

Duplicate Effective Model: A copy of the model used in the effective FIS Study. The original FIS model is in HEC-2 format was imported into HEC-RAS as part of this study. This model is provided to demonstrate Pre Project and Post Project model tie-in upstream and downstream of the revised reach.

Pre Project (Existing) Conditions Model: The duplicate effective model is then modified to include any physical modifications to the floodplain that have occurred since the creation of the effective model. This includes:

- Existing twin 36-inch CMP Culverts within the project site
- Existing Three (3) 30-inch RCP Culverts located at Barrett Avenue

Additionally, the Pre Project Conditions Model also incorporates current hydrology provided by the Army Corps of Engineers as part of the Upper Llagas Flood Protection project. This pre-project conditions model was submitted and reviewed by FEMA as part of the Upper Llagas CLOMR submission.

Post Project Conditions Model: The pre project conditions model is modified to reflect the post project conditions. This includes physical changes to the floodplain, channel grading and culvert improvements along Barrett Avenue.

3.2.1 Duplicate Effective Model

The U.S. Army Corps of Engineers (USACE) Hydrologic Engineering Center's River Analysis System (HEC-RAS) computer program supersedes it's HEC-2 DOS based program. The effective HEC-2 model (5021002.DAT) was used to develop the duplicate effective model in HEC-RAS. The HEC-2 effective model for Tennant Creek was obtained from the Santa Clara Valley Water District's website:

https://www.valleywater.org/flooding-safety/hec-2-and-hec-ras-data-library

The Duplicate effective model was recreated in HEC-RAS for the reach near the proposed project. This includes recreating ineffective flow areas at the applicable cross sections. The model ties into the effective FIS profile at the upstream and downstream of the project area within +/- 0.5 foot meeting FEMA tie-in criteria, see profile panel 135P (February 19, 2014) of the effective FIS.

Small differences between the duplicative effective HEC-RAS model and the effective HEC-2 model are due to the fact that HEC-RAS applies improved and more modern computational procedures that were not available when HEC-2 was developed. These changes between HEC-2 and HEC-RAS include computational differences in conveyance, bridge and culvert hydraulics, critical depth, and calculation tolerances. These computational differences will create small differences in the model results.

Table 3-1: 100-Year Water Surface Elevation Comparison (NAVD 88)

RIVER STATION	HEC-2 EFFECTIVE MODEL WSE (FT)	DUPLICATE EFFECTIVE HEC_RAS WSE (FT)	DIFFERENCE (FT)
East Dunne Avenue			
546	364.06	364.07	-0.01
544	363.50	363.51	-0.01
542	361.85	361.84	0.01
540	361.76	361.75	0.01
538	361.70	361.68	0.02
536	361.66	361.64	0.02
534	357.21	357.20	0.01
Fountain Oaks Drive			
532	357.65	357.65	0.00
530	356.99	356.97	0.02
528	355.82	355.83	-0.01

RIVER STATION	HEC-2 EFFECTIVE MODEL WSE (FT)	DUPLICATE EFFECTIVE HEC_RAS WSE (FT)	DIFFERENCE (FT)
526	354.30	354.27	0.03
524	352.95	353.01	-0.06
522	350.11	349.97	0.14
520	347.38	347.16	0.22
518	343.14	343.15	0.25
516	341.68	341.43	0.29
514	340.99	340.70	-0.22
Tennant Avenue (Data continues to Confluence with East Little Llagas)			

3.2.2 Pre-Project Conditions Model

Modifications to the duplicate effective model were then made to the channel geometry to reflect pre-project existing conditions. Modifications made include:

- Twin 36-inch CMU culverts within the project area, between Fountain Oaks Dr. and Barrett Ave.

Figure 3-1: Existing Twin 36-inch CMP Culverts on the Project Site

- Three (3) 30-inch RCP culverts at the Barrett Avenue Crossing. Based on Tract 8481 records dating back to 1993 and site visit confirmation.

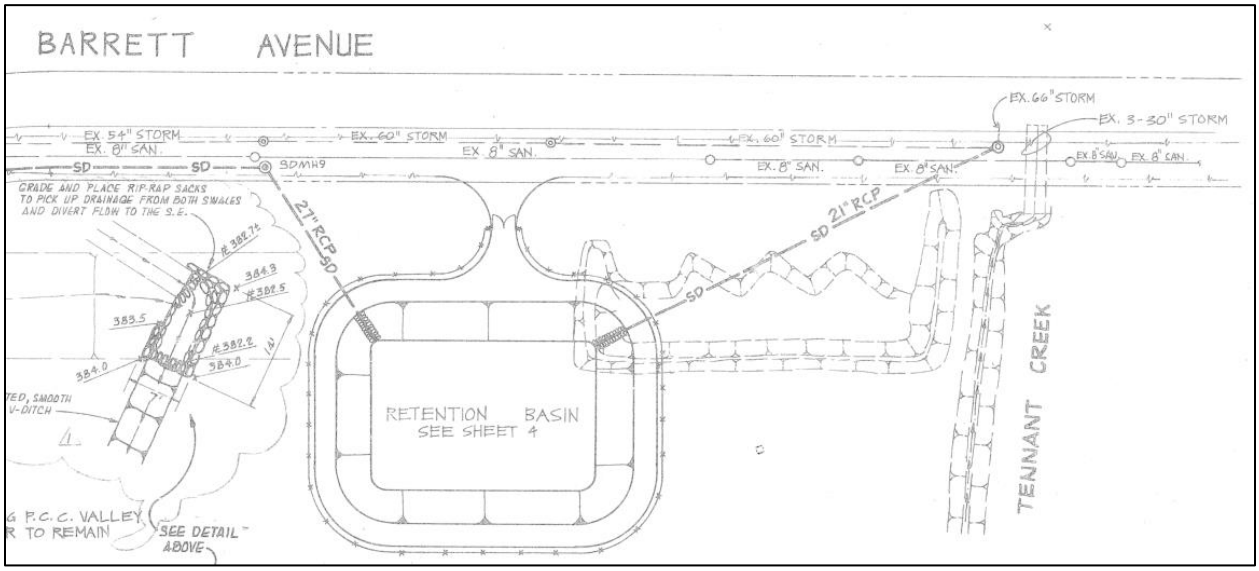


Figure 3-2: Existing 30-inch RCP Culverts at Barrett Avenue

To precisely capture incremental changes within Tennant Creek and the overbank in the project area, additional cross sections were interpolated throughout the project site using the duplicate effective model as a starting point. Channel and overbank elevations were interpolated using a combination of recent site topography and the 2006 Santa Clara County LiDAR (NAVD 88 vertical datum).

Lastly, the Army Corps of Engineers hydrology was used being the best available information. This hydrology was submitted and reviewed by FEMA as part of the Upper Llagas CLOMR submission. Peak flow comparisons show that the Corps hydrology generally yields estimates peak discharge values higher than the effective FEMA FIS within the project study area and is therefore conservative.

Table 3-2: FEMA FIS Vs ACOE 100 Year Peak Flow Rates in Tennant Creek

LOCATION	DRAINAGE POINT (FROM CORPS REPORT)	FEMA FIS 100-YR PEAK DISCHARGE CFS	ARMY CORPS 100-YR PEAK DISCHARGE CFS
1,250 feet upstream of Hill Avenue	7A	420	500
Downstream of Maple Avenue	7	650	890
Upstream of Confluence with East Little Llagas Creek	9	2015	1827

Due to the delineation of the drainage areas, the reach from East Dunne Avenue to the north end of the project site are locations where both the Corps and FEMA peak discharges were determined to be overly conservative. In this case, applying the peak flow at drainage point 7A to the top of the channel reach results in a spill occurring at Fountain Oaks Drive. To mitigate this issue, the Corps developed drainage area at 7A was subdivided to create a new drainage point 7A1 at East Dunne Avenue. Subdividing the peak flow rate was performed using log-linear regression and the peak discharge power law.

$$Q = \alpha A^{\theta}$$

Where:
Q = the peak discharge
α = coefficient determined from log-linear regression
A = the drainage area
Θ = coefficient determined from log-linear regression

The resulting 100-year peak discharge at East Dunne Avenue is approximately 270 cfs. This is followed by a peak discharge change in HEC-RAS at location 7A to approximately 500 cfs. This modification results in no channel spill shown at Fountain Oaks Drive. Supporting calculations for the log-linear regression are included in Attachment 4 for reference.

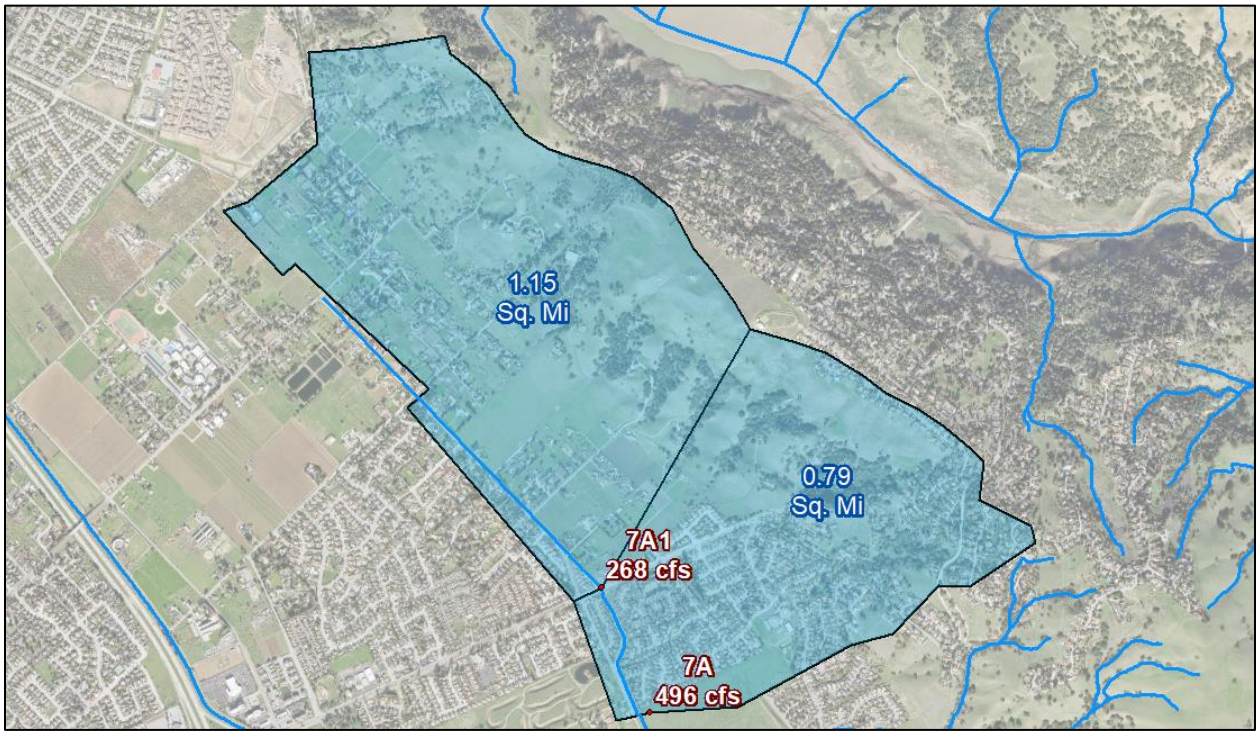


Figure 3-3: Log Linear Regression Drainage Area Modification

This summarizes the Pre-Project Conditions Model and provides a basis for comparison with project's proposed changes. The Pre-Project Conditions Model is shown to tie-in with the duplicate effective model within the defined MT-2 FEMA tolerance of 0.5 feet per 44 CFR 65.6(a)(2) and as described in the Guidance for Flood Risk Analysis and Mapping. Table 3-3 below shows the tie-in cross sections and a comparison of pre-project WSE's with the duplicate effective WSE's.

Table 3-3: 100-Year Water Surface Elevation Comparison (NAVD 88)

RIVER STATION	DUPLICATE EFFECTIVE WSE (FT)	PRE PROJECT CONDITIONS WSE (FT)	DIFFERENCE (FT)	MEETS FEMA CRITERIA
546	364.07	364.23	0.16	YES
518	343.15	343.48	0.33	YES

3.2.3 Post-Project Conditions Model

The pre-project conditions model was then further modified to determine the hydraulic impacts imparted by the proposed project. The pre-project conditions model was modified by adding obstructions for the left and right overbank where proposed grading will raise the site to remove the overbank from the floodplain. This model also includes a proposed pedestrian bridge which crosses Tennant Creek on the northwest end of the development. It is assumed that the proposed pedestrian bridge low chord will be set above the 100-year water surface level, thereby causing no hydraulic impact to the channel water surface profile. Lastly, culvert improvements are proposed along with channel grading at Barrett Avenue.

3.2.4 Project Impacts Comparison

Based on the assumptions identified above, the corrected effective WSE's can be compared to the proposed condition WSE's to determine the estimated impacts to the 100-year WSE's along Tennant Creek. Table 3-1 summarizes these differences below.

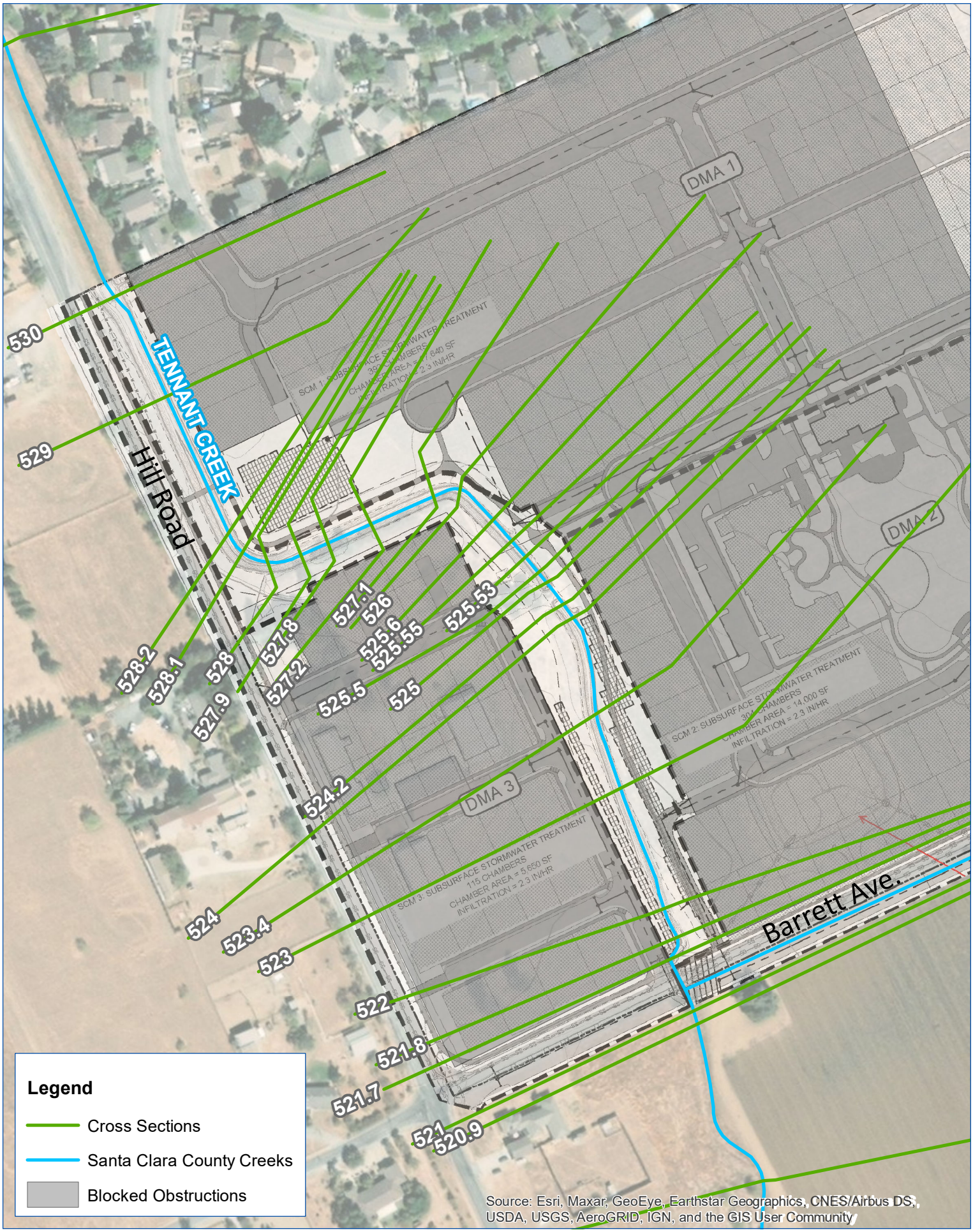
Table 3-4: 100-Year Water Surface Elevation Comparison (NAVD 88)

RIVER STATION	PRE-PROJECT CONDITIONS WSE (FT)	POST PROJECT CONDITIONS WSE (FT)	DIFFERENCE (FT)
546	364.23	364.23	0.00
544	362.55	362.55	0.00
542	360.76	360.75	-0.01
540	360.74	360.72	-0.02
538	360.7	360.69	-0.01
536	360.7	360.69	-0.01
Fountain Oaks Drive			
532	356.61	356.56	-0.05
530	355	355.22	0.22
529	354.49	354.84	0.35
Pedestrian Bridge			
528.2	354.31	354.29	-0.02
528.1	354.14	354.12	-0.02
528	353.79	353.76	-0.03
527.9	353.7	353.67	-0.03

RIVER STATION	PRE-PROJECT CONDITIONS WSE (FT)	POST PROJECT CONDITIONS WSE (FT)	DIFFERENCE (FT)
527.8	353.58	353.54	-0.04
527.2	353.41	353.36	-0.05
527.1	353.18	353.09	-0.09
526	353.16	353.03	-0.13
525.6	353.18	352.92	-0.26
525.55	353.15	352.59	-0.56
525.53	353.09	351.81	-1.28
525.5	353.01	351.39	-1.62
525	353.01	351.57	-1.44
524.2	350.67	351.32	0.65
524	350.99	351.40	0.41
523.4	350.68	351.19	0.51
523	350.16	351.01	0.85
522	349.87	349.87	0.00
521.8	349.48	349.24	-0.24
521.7	349.92	348.41	-0.51
Barrett Avenue			
521	347.46	347.24	-0.22
520.9	347.52	347.24	-0.28
520	346.4	346.4	0.00
518	343.48	343.48	0.00

Water surface elevations are shown to tie-in to the corrected effective profile on both the upstream and downstream sides of the project. Based on the above analysis, the New Horizon's project shows no significant impact to 100-year water surface elevations outside of the project limits along Tennant Creek. Finish floor elevations can be set using the proposed water surface elevations summarized in Table 3-4.

ATTACHMENT NO. 1: HEC-RAS PROJECT WORKMAP



Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

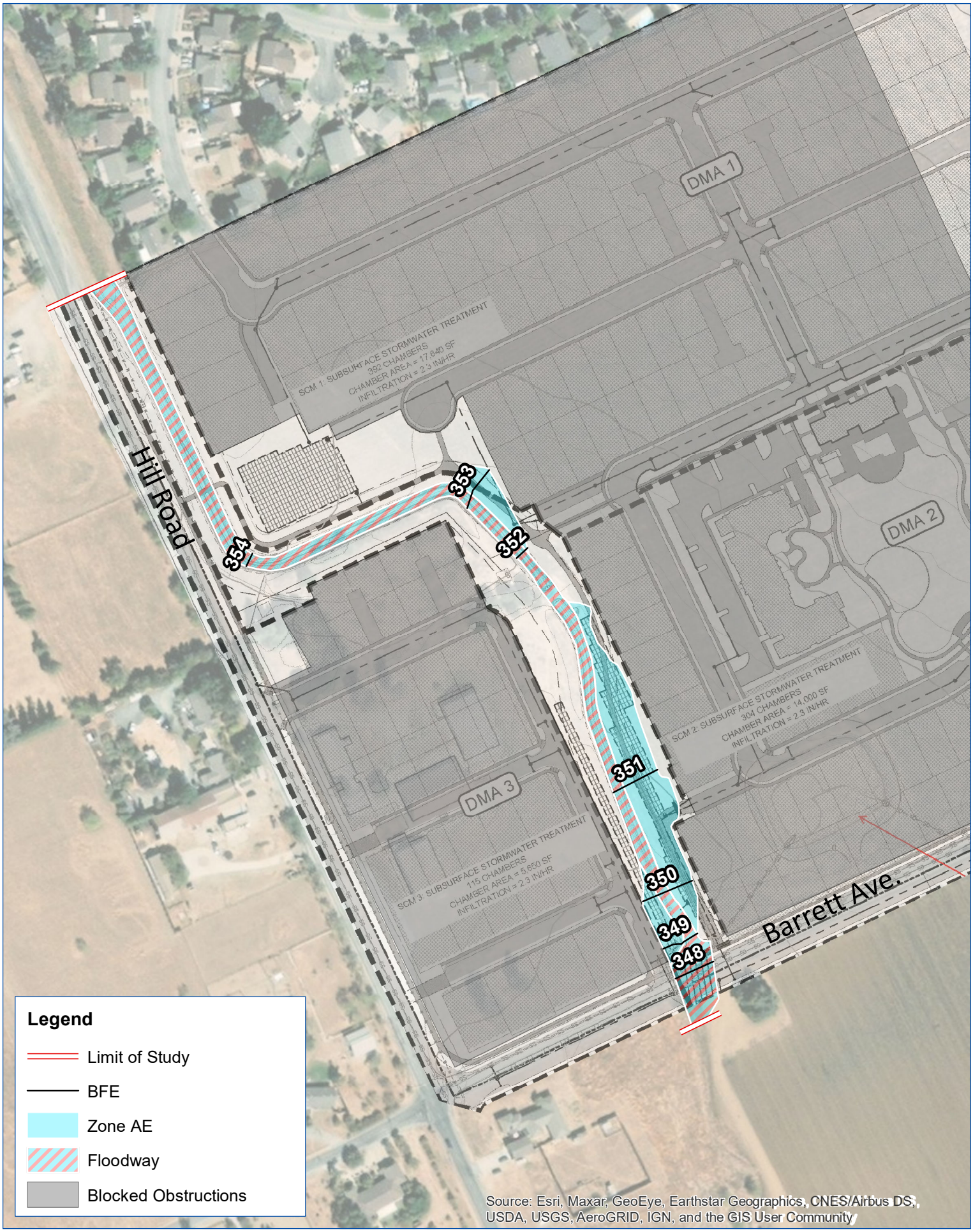
0 100 200 Feet

Attachment 2

HEC-RAS Project Workmap

New Horizons Flood Hazards | JUN 2021

ATTACHMENT NO. 2: PROJECT SPECIAL FLOOD HAZARD MAPPING



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CONSULTING CIVIL ENGINEERS

0 100 200 Feet

Attachment 3

Project Special Flood Hazard Mapping

New Horizons Flood Hazards | JUN 2021

ATTACHMENT NO. 3: HEC-RAS MODEL (DIGITAL)

ATTACHMENT NO. 4: LOG-LINEAR REGRESSION SUPPORTING CALCULATIONS

ATTACHMENT 4: LOG LINEAR REGRESSION CALCULATIONS

Tennant Creek Intermediate Discharge Estimates

Location	USACE CP	Drainage Area (mi^2)	10-year (cfs)	q10 (cfs/mi^2)	100-year (cfs)	q1 (cfs/mi^2)	log A	log q10	log q1
Unnamed Creek	7A	1.98	292	147	496	251	0.296665	2.168718	2.398816
Foothill Creek Confl	7	3.30	499	151	886	268	0.518514	2.179587	2.42892

$q=aA^n$

n10=	0.048993	n1=	0.135693
loga10=	2.154183	loga1=	2.358561
a10=	142.6209	a1=	228.329

check		check	
A	1.98	A	3.3
q	147.4747	q	268.4848
Q	292	Q	886

Location	USACE CP	Drainage Area (mi^2)	q10 (cfs/mi^2)	10-year (cfs)	q1 (cfs/mi^2)	100-year (cfs)
E Dunne Avenue	7A1	1.15	144	165	233	268
Unnamed Tributary	7A	1.98	147	292	251	496
Foothill Creek	7	3.30	151	499	268	886

Appendix D: Evaporation Estimates Memo

H. T. HARVEY & ASSOCIATES
Ecological Consultants
50 years of field notes, exploration, and excellence

Memorandum

March 8, 2022 **Project # 4046-01**

To: **Rocke Garcia, Morgan Hill Devco LLC**

From: **Steve Rottenborn**

Subject: **New Horizons Development Project – Evaporation Estimates**

Per your request, H. T. Harvey & Associates has assessed potential evaporation rates from a 0.5-acre lake proposed on the New Horizons development project to assist in coordination with the City of Morgan Hill regarding potential evaporation from the lake versus evaporation from a similar area of landscaped turf. As you know, H. T. Harvey & Associates does not have expertise in hydrology, so our estimates should be considered rough. However, we are providing you the information derived from our research into this issue.

Estimates of Evaporation from the Lake

The California Irrigation Management Information System (CIMIS) provides a map that depicts zones of average evapotranspiration rates in California[1]. According to this map (Figure 1), Morgan Hill is in a zone where evapotranspiration averages 49.4 inches/year (or 4.12 feet/year). For a 0.5-acre lake, that equates to 2.06 acre-feet/year.

To provide a second estimate, we reviewed pan evaporation rates provided by the Western Regional Climate Center[2]. That source provides pan evaporation rates for a number of locations in the western U.S.; the closest locations for which data are provided are Newark and San Luis Dam. Average annual evaporation rates from Newark and San Luis Dam are 62.30 and 105.84 inches, respectively. Because pan evaporation rates tend to be higher than evaporation from a lake, the Western Regional Climate Center recommends multiplying pan evaporation rates by 0.7 or 0.8 "to more closely estimate the evaporation from naturally existing surfaces such as a shallow lake". The adjusted evaporation rates for Newark and San Luis Dam are 46.73 and 79.38 inches, or 3.89 and 6.62 feet, respectively. Applying these rates to a 0.5-acre lake would result in annual evaporation rates of 1.95 to 3.31 acre-feet/year. We would expect evaporation in Morgan Hill to be higher than that in Newark, which is cooler and more moist than Morgan Hill, and lower than at San Luis Dam, which is warmer and drier. Therefore, evaporation from a 0.5-acre lake on the New Horizons project site should be between 1.95 and 3.31 acre-feet/year.

As we were researching this issue, we contacted a hydrology firm for assistance on where we could find evaporation data. They were unable to point us to a data source specifically for Morgan Hill, but they indicated

[1] https://cimis.water.ca.gov/App_Themes/images/etozonemap.jpg
[2] https://wrcc.dri.edu/Climate/comp_table_show.php?stype=pan_evap_avg

that on a previous project, they had estimated evaporation from a lake in Lake County to be 1.23 to 1.43 acre-feet/year.

Estimates of Evaporation from a Turf Lawn

We understand that the City of Morgan Hill has asked for a comparison of evaporation expected from the lake and that from landscaping. Following is an estimate of evapotranspiration from a turf lawn, if installed in place of the proposed lake, provided by our landscape architect staff:

Morgan Hill's annual evapotranspiration rate, ETo = approximately 49.4 inches/year (based on CIMIS data)

The crop coefficient (Kc) for cool season turf = 0.8

Evapotranspiration Adjustment Factor (ETAF) = Plant Factor (0.8 for high water use/Kc) / Irrigation Efficiency (0.75 for spray) = 1.07

Estimated total water use with a spray system = Eto x 0.62 x ETAF x Area (SF)
= 49.4 x 0.62 x 1.07 x 21,780
= 713,773 gallons/year = 2.19 acre-feet/year

Conclusions

The best estimate of evaporation from a 0.5-acre lake in Morgan Hill, based on CIMIS data, is approximately 2.06 acre-feet/year. Our estimate of evapotranspiration from a 0.5-acre, irrigated turf lawn is approximately 2.19 acre-feet/year. Therefore, water use for the lake is not expected to be substantially different from (and most importantly, not substantially higher than) an equivalent area of irrigated turf.

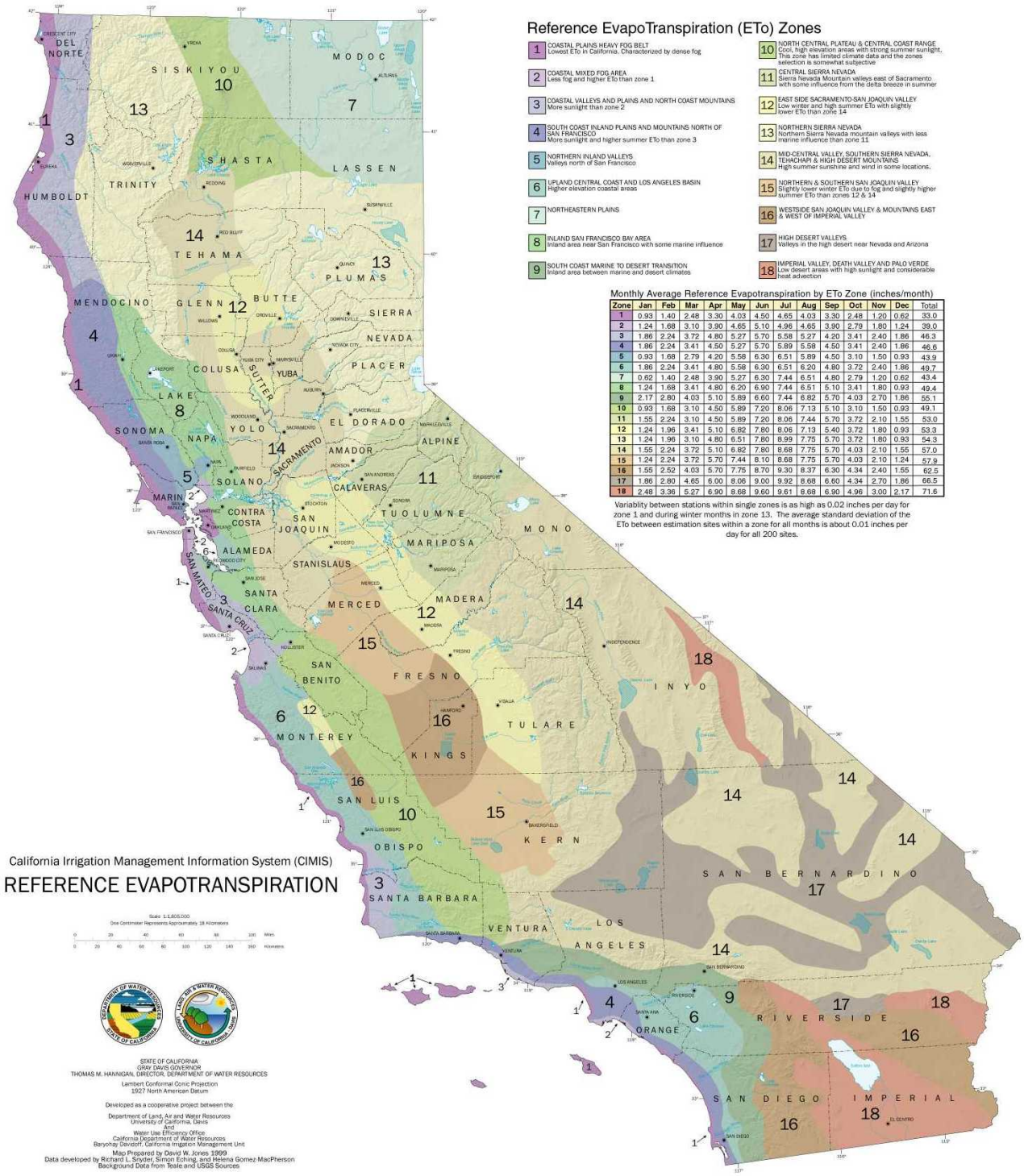


Figure 1. Evapotranspiration zones in California (source: California Irrigation Management Information System; https://cimis.water.ca.gov/App_Themes/images/etozonemap.jpg)

Appendix E: Schaaf & Wheeler, Inc. Technical Responses to Valley Water

FEIR APPENDIX E

Comment C.21: Section 4.10.1.2, Existing On-Site Drainage

This section does not appear to accurately describe the existing storm drain system installed as part of Tract 8481, which includes the Project site. Valley Water records for the Tract 8481 improvements show the 36-inch storm drain reduces to a 21-inch pipe, which then increases in size to a 24-inch and finally a 27-inch pipe, which discharges into the retention basin. The retention basin was designed to mitigate increased runoff from Tract 8481 improvements for a range of storm events up to a 100-year storm. The outlet is a 21-inch pipe which connects to a 60-inch storm drain, which subsequently discharges into Tennant Creek, downstream of Barrett Avenue.

Response C.21: The referenced 21-, 24-, and 27-inch storm drain pipes and associated retention basin have been incorporated into Schaaf & Wheeler's hydrologic modeling to account for attenuation and flow routing of the existing infrastructure along with any peak flow retention benefits provided by the existing retention basin. The Drainage Report has been updated to account for this under existing conditions. The revised Drainage Report is attached to this Final EIR as Appendix C, and replaces Appendix H in the Draft EIR.

Comment C.26: Section 4.10.2.1, Impact 'c,' Drainage (141)

a. To mitigate for increased runoff from the Project, the EIR cites Schaaf and Wheeler's (S&W) preliminary drainage report (Appendix H), which recommends construction of a detention pond at *"…Jackson Park, located adjacent to the northeast side of the site, to reduce post-project peak discharge to pre-project conditions to Tennant Creek under a 25-year storm event…Offsite runoff coming from tributary residential and open space areas would be rerouted through the detention basin, relocated at Jackson Park, to account for the increase in impervious area."* As noted in Comment 7, the existing detention basin was constructed to mitigate for increased runoff from Tract 8481. Furthermore, it was designed to ensure additional runoff from Tract 8481 – which includes the Project site as undeveloped Lots 20, 21, and 22 – does not exceed pre-project conditions (both in terms of volume and rate), and to also handle events up to the 100-year event. Tennant Creek is prone to frequent flooding: Valley Water has estimated the creek is subject to overtopping during recurrence intervals as frequent as the 2- or 3-year event. In addition to replacing the function of the existing detention basin, the project should be mitigating all increased runoff from the development of Lots 20, 21, and 22 in Tract 8481, for a range of storm events from the 2- or 3- year event up through the 100-year event. The drainage report identifies discharge points along Tennant Creek, from the upstream limit of the Project site to a point downstream of Barrett Avenue to analyze changes in the Project site's discharge into Tennant Creek, both under existing and proposed conditions. Thus, all mitigatory measures need to consider a

range of events, including the 2-, 10-, 25-, and 100-year events so as not to induce flooding on neighboring or downstream properties.

Response C.26: The Tract 8481 retention basin and associated storm drain infrastructure constructed in 1993 is now included as part of existing conditions. The proposed conditions (which incorporate a proposed detention basin) were assessed in order to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation of Lots 20, 21, and 22 in Tract 8481 and impacts due to additional impervious surfaces from the Project for storm events ranging from 2-year up to the 100-year recurrence period.

Comment C.27: Additionally, the relocated detention basin will need to be adequately designed to account for the volume of runoff it currently receives from Tract 8481, or alternatively, the volume of runoff that can no longer be routed to the relocated basin needs to be made whole through additional basins or mitigatory measures. Ultimately, the mitigatory measures need to account for both the existing run-on the site currently receives, and any additional runoff generated within the Project site. Consistent with existing mitigation measures implemented for neighboring developments, runoff under pre-project conditions cannot exceed post-project conditions, both in terms of volume and rate. The drainage study completed by S&W only considers the 25-year storm event to address the minimum requirements specified in the City of Morgan Hill's (City) storm water management plan.

Response C.27: The design intent of the proposed detention basin is to capture and detain stormwater from the Jackson Park subbasin to offset the project's impacts along with maintaining the previous mitigation from the Tract 8481 retention basin. The design intent of the detention basin does not include pump stations to send flows from the Sorrel subbasin to the proposed detention basin.

Comment C.29:

b. The feasibility of relocating the detention pond to Jackson Park needs to be further evaluated since it appears to be proposed at a higher elevation than the existing detention basin. Neighboring developments currently discharge runoff into the existing detention basin via gravity. If it is assumed the relocated basin will continue to collect runoff from these developments, it should be noted this will not be feasible without employing mechanical measures (i.e., pumps) to route runoff upslope to Jackson Park.

Response C.29: The drainage report demonstrates no increase in peak flows for the 2-year, 10-year, 25-year and 100-year recurrence intervals. While the project is not proposing to increase peak discharge into the Tennant Creek, the project does propose to raise the site in areas outside

of the regulatory floodway, thereby keeping the Zone AE within the channel limits. Upsizing of the Barrett culverts are intended prevent a backwater condition based on this reduction in the overland floodplain. It should be noted that increasing the size of the Barrett Avenue culverts does not increase peak discharges or hydrology downstream of the project which is supported by the steady state HEC-RAS modeling.

Comment C.30:

c. The EIR also needs to analyze how changes in the storm drain system routing, Tennant Creek improvements (including any structures, grading or plantings), the proposed Barrett Avenue culvert, and outfall modifications in Tennant Creek will impact various storm event water surface elevations in the Tennant Creek special flood hazard areas, and in the Tennant Creek floodway. Water surface elevations need to be analyzed through the project site, upstream of the project site, and downstream of Barrett Avenue. Any changes which increase the FEMA effective water surface elevation in the floodway by more than 0.0-ft. at any point in the community will require a CLOMR to be submitted to and approved by FEMA prior to construction. If the project site will not create any new runoff discharging into Tennant Creek, then why are culvert improvements proposed? Any enlarging of the culvert capacity of even changes to current weir flow over Barrett Avenue may induce flooding downstream by increasing water surface elevations and/or increase the frequency of flooding downstream on Tennant Creek. It should be noted this area of Tennant Creek is subject to historical flooding.

Response C.30: Response C.29: The drainage report demonstrates no increase in peak flows for the 2-year, 10-year, 25-year and 100-year recurrence intervals. While the project is not proposing to increase peak discharge into the Tennant Creek, the project does propose to raise the site in areas outside of the regulatory floodway, thereby keeping the Zone AE within the channel limits. Upsizing of the Barrett culverts are intended prevent a backwater condition based on this reduction in the overland floodplain. It should be noted that increasing the size of the Barrett Avenue culverts does not increase peak discharges or hydrology downstream of the project which is supported by the steady state HEC-RAS modeling.

Comment C.31:

d. This section does not address changes in the Tennant Creek overflow (Zone AO) that may be impacted by the Project. According to the FEMA effective model for Tennant Creek for the 100-year special flood hazard condition, 420 cubic feet per second (CFS) flow approaches the Fountain Oaks culvert, 290 CFS continues through culvert, while 130 CFS travels through the neighborhood and exits overland as 'Zone AO' enters 'Zone AE' and the floodway

(shown as cross section 526 in the effective model). The EIR should include mitigation that requires the project to maintain the existing flood patterns through the project site.

Response C.31: Regarding the Zone AO shown in the effective FEMA FIS, the Zone AO is caused by an assumed spill located at Fountain Oaks Drive. This spill is largely due to the resolution of subbasin delineations and assumptions made in locating peak discharges for drainage areas south of East Dunne Avenue at the start of the channel. This overestimates the peak flow present in the channel between East Dunne Avenue and Fountain Oaks Drive, leading to modeling which shows spill at Fountain Oaks Drive and a subsequent Zone AO designation. Schaaf & Wheeler utilized the Corps hydrology and further divided subbasins at Tennant Creek using log-linear regression and drainage area power law. This method is discussed in detail in the revised drainage report.

Comment C.32: Section 4.10.2, Impact 'c,' Hydromodification (Page 142)

a. The Hydromodification section states the following: *"the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek."* To reiterate Comment 18a, the existing detention basin was designed to handle a range of events, including the 2-, 10-, 25-, and 100-year events. Therefore, the proposed detention basin needs to be designed to mitigate for the noted range of events. Schaaf and Wheeler's Preliminary Drainage Study (Appendix H) may have considered the increased runoff generated by Tract 8481 as part of the tributary area for 'Sorel Drive at Barrett Avenue' (Preliminary Drainage Study, Table 3-2, Page 8), however the study appears to be assume that runoff would bypass the existing detention basin, and discharge directly into Tennant Creek by way of the existing 60-inch storm drain line along Barrett Avenue. It should be noted the existing detention basin increases the time of concentration within the drainage basin, which in turn attenuates the rate of runoff discharging into Tennant Creek. Modifications to the existing drainage pattern may increase flooding – both in terms of frequency and magnitude – for communities neighboring the Project site. The preliminary drainage study needs to evaluate whether the proposed modifications to the existing drainage pattern will increase both on- and offsite flooding.

Response C.32: The Tract 8481 retention basin and associated storm drain infrastructure constructed in 1993 are now included as part of existing conditions. The proposed conditions (including new detention basin) were then modified in order to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation in Tract 8481 and impacts due to additional impervious surfaces from the Project for storm events ranging from 2-year up to the 100-year recurrence period.

Valley Water's comments raise concerns that the existing retention basin needs to be modeled. To ensure Valley Water's comments are addressed appropriately at the proper stage of entitlements, additional modeling will be completed prior to issuance of the Planning Permit to account for the existing retention basin and its effects on downstream flow rate. Text has been added explaining this, along with a measure requiring completion of the hydraulic study to be documented as part of future permitting, to page 141 of the EIR. See Section 5.0 Text Revisions.

Comment C.33:

b. The hydromodification section states that the *"…project site grades will be filled so that flows will be contained in Tennant Creek and there will be no runoff across the site."* This statement needs to be clarified or revised as it is not clear how changes to grading within the site will eliminate runoff across the site when the Project proposes to substantially increase the impervious surface area within the site. Additionally, in the absence of a no-rise certification, improvements to "contain" flows within Tennant Creek cannot include fill or modifications with the regulatory floodway since it would further constrict the conveyance area reserved to discharge the base flood event (i.e., 100-year event). It should be noted the limits of the regulatory floodway already assumes the maximum allowable increase (i.e., 1-ft.) has been reached. Thus, as noted in Comment 16, 44 CFR (60.3(d)(3) does not permit any fill/improvements within the regulatory floodway, unless it can be demonstrated the 100-year water surface elevation will not increase by any amount greater than 0.0-ft.

Response C.33: The existing Zone AE currently extends overland outside of the channel limits throughout the project site. The Project proposes to increase grades up to the regulatory floodway limits in order to protect the site from Zone AE flooding, thereby limiting Zone AE to the channel limits. The project will submit a Conditional Letter of Map Revision/Letter of Map Revision (CLOMR/LOMR) to demonstrate the revised reach modeling, new BFEs, new floodway encroachments and tie-in with the effective model as required by FEMA.

The effective regulatory floodway encroachments do not assume the maximum allowable one-foot increase in all locations. The effective FIS shows only an increase of 0.5 foot at Cross Section H (located just north of the project site) and 0.2 foot of increase at Cross Section G (located south of the project site at Tennant Avenue).

Comment C.34: Section 4.10.2., Impact 'c,' Flood Flows (Page 142)

a. The EIR asserts *"…the proposed project would not result in changes to the upstream or downstream 100-year water surface profile of the creek."* This conclusion is inconsistent with the results provided in Schaaf and Wheeler's Evaluation of Flood Hazards (Preliminary

Drainage Report, Table 4-1, Page 12), which showed water surface elevation increases at several cross sections along Tennant Creek. The Project cannot result in any increases to the published 100-year water surface profile. As noted in Comment 14b, the regulatory floodway already assumes the maximum allowable increase has been reached; thus, improvements cannot further increase the 100-year water surface elevation. Moreover, the post-project conditions evaluated by Schaaf & Wheeler's analysis does not consider realignment and widening of the channel, or the proposed storm drain improvements along Barrett Avenue: of all which are proposed in earlier sections of the EIR.

Response C.34: The project proposes changes in WSE's along the revised reach, but shows no impacts outside of the revised reach (refer to Table 3-4 of the revised drainage study). The project is shown to tie-in to the effective FIS WSE's within +/- 0.5 feet per FEMA requirements. The regulatory floodway at the project's location does not assume the maximum allowable 1-foot increase in all locations. The effective FIS shows only an increase of 0.5 foot at Cross Section H (located just north of the project site) and 0.2 foot of increase at Cross Section G (located south of the project site at Tennant Avenue). The revised drainage study now clearly identifies the source effective HEC-2, Duplicate Effective Model, Pre-Project Conditions Model, and Post Project Conditions Model along with pertinent comparisons to demonstrate tie-in. The Pre-Project Conditions Model accounts for culverts both within the project site and at Barrett Avenue. The Post Project Conditions Model accounts for the project raising grades outside of the regulatory floodway and the upsizing of the Barrett Avenue culverts.

Comment C.35:

b. It is noted *"the grading associated with the proposed project would re-establish the Tennant Creek floodway and floodplain which would relocate the 100-year flooding to ensure areas of the project development are located outside of the 100-year flood zone."* The proposal to re-establish and relocate the floodway and floodplain needs to be clarified. As noted in Comment 16, modifications to the adopted regulatory floodway will require a no-rise certification, supported by a hydraulic analysis completed in accordance with FEMA standards for map revisions. Moreover, it is not clear how the floodplain itself would be re-established unless the identified FEMA special flood hazard areas (SFHA) within the site are to be preserved as open space areas. Based on prior plan reviews by Staff, residential units were proposed within the limits of FEMA's SFHA.

Response C.35: Re-establishment of the floodway is primarily due to the effective SFHA shapefiles no longer aligning with existing channel banks through the project site. The project will submit a LOMR to

demonstrate the revised reach modeling, new BFE's, new Floodway encroachments and tie-in with the effective model as required by FEMA.

Comment C.36:

c. The last paragraph under the discussion of 'Flood Flows' (Section 4.10.2, Page 143) notes that *"The development shall apply for a Conditional Letter of Map Revision based on Fill through FEMA to show that the development is outside the floodplain."* It should be noted that as of July 1, 2023, the County of Santa Clara (County) has temporarily suspended all CLOMR-F and LOMR-F applications within the County. Additionally, based on the improvements specified in the EIR, a CLOMR-F would not be applicable due to the proposed in-channel improvements (e.g., proposed realignment/widening of existing channel, culvert improvements). Hydraulic analyses to support revisions to FEMA Flood Insurance Rate Maps (FIRM) cannot separate specific project improvements such as grading and evaluate its singular impact on existing SFHAs. Rather, a cumulative analysis, which accounts for all proposed project improvements, needs to be completed to determine the Project's overall impact on FEMA's SFHA. This cumulative analysis is especially important as it does not appear that Barrett Avenue improvements (completed as part of Tract 7157) were submitted to FEMA for inclusion in the special flood hazard area study. These improvements include the existing Barrett Avenue culverts and the 60-inch storm drain outfall at Barrett Avenue.

Response C.36: The project will submit a CLOMR/LOMR rather than a CLOMR-F to demonstrate the revised reach modeling, new BFE's, new Floodway encroachments and tie-in with the effective model as required by FEMA.

Comment C.37:

d. The last sentence under the discussion of 'Flood Flows' (Section 4.10.2, Page 143) asserts *"the proposed project would not redirect flood flows causing flooding on or off site."* As noted in comment 20c, this assertion needs to be supported by a hydraulic analysis that evaluates the cumulative impact of all proposed improvements. While Schaaf and Wheeler's evaluation of flood hazards in the Preliminary Drainage Report (Appendix H) does not consider modifications to the existing culvert at Barrett Avenue, it does not consider realignment and widening of the channel, both of which are proposed project improvements specified in earlier sections of the EIR. Results from the hydraulic analysis needs to support the conclusion that the project would not redirect flood flows or increase flooding on- or offsite.

Response C.37:

The revised drainage study incorporates channel grading and culvert improvements at Barrett Avenue along with raising of grades throughout the project site. This effectively keeps the Zone AE contained in channel. Since the analysis performed

uses steady state modeling, areas located downstream of Barrett Avenue will show no impact since the upsizing of Barrett culverts does not alter the peak discharge hydrology.

Comment C.42: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum (Page 5)

Schaaf and Wheeler's memorandum notes *"the Rational Method was utilized to quantify the 25-year runoff for designing a storm drain system."* See comment 18a. The memorandum also states the proposed model includes the proposed fill in the floodplain and a pedestrian bridge, but it does not mention the changes to the Tennant Creek Overflow ('Zone AO'), the proposed storm drain routing changes, the proposed Barrett Avenue culvert crossing and storm drain outfall changes, etc. Also, the memorandum does not acknowledge that the existing capacity of Tennant Creek is very limited (estimated to only have capacity for a 2- or 3- year storm event); therefore, mitigation for only a 25-year event will increase the extent, and frequency of flooding for downstream properties, during those frequent events and up to a 100-year event as identified in FEMA effective studies.

Response C.42: Comment 18a refers to Comment C.26 about the Draft EIR's discussion of drainage. The revised drainage report (FEIR Appendix C) now follows the County's Drainage Manual criteria for estimating peak runoff hydrographs in assessing drainage impacts and mitigation. Existing storm drain infrastructure constructed in 1993 are now included as part of existing conditions. The proposed project conditions (including new detention basin) were sized to limit peak runoff at Tennant Creek to be at or below existing conditions. Proposed detention basin sizing was assessed for storm events ranging from two-year up to the 100-year recurrence period.

Regarding the overflow Zone AO shown in the effective FEMA FIS, this is largely due to the resolution of subbasin delineations and assumptions made in locating peak flows for drainage areas south of East Dunne Avenue at the start of the channel. Changes to hydrologic drainage points resulting in changes to the effective Zone AO are discussed in detail in the FEIR Appendix C.

Comment C.43: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 4 (Page 7)

a. The discussion for 'Impact 4' notes *"…the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek."* See Comments 18a.

Response C.43: The Tract 8481 retention basin and associated storm drain infrastructure constructed in 1993 are now included as part of existing conditions. The proposed conditions (including new detention basin) were then modified in order to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation of Lots 20, 21, and 22 in Tract 8481 and impacts due to additional impervious surfaces from the Project for storm events ranging from 2-year up to the 100-year recurrence period.

Comment C.44:

b. The discussion of post-project site drainage conditions notes that *"Runoff from offsite tributary residential and open space areas northeast of the project will be rerouted through the proposed basin…"* See Comments 18a, and 18b.

Response C.44: Regarding the overflow Zone AO shown in the effective FEMA FIS, this is largely due to the resolution of subbasin delineations and assumptions made in locating peak flows for drainage areas south of East Dunne Avenue at the start of the channel. This overestimates the peak flow present in the channel, leading to modeling which shows an overflow at Fountain Oaks Drive. Schaaf & Wheeler utilized the Corps hydrology and further divided subbasins at Tennant Creek using peak discharge and drainage area power law and a logarithmic linear regression. This method is discussed in detail in the revised drainage report.

Comment C.45: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 5 (Page 8)

The discussion detailing the existing site drainage conditions indicates "…no information of the basin is available…" and the existing detention basin "…is assumed to be private and does not provide detention for the City's storm drain system." This statement is in error as the basin was constructed as part of Track 8481, approved by the City, and the basin was dedicated to, and accepted by the City as a public service easement on the recorded Tract map. Additionally, the depiction of the storm drain is in error as compared to Tract 8481 Improvement Plans. See Comments 7 and 15, and 18a.

The discussion of post-project site drainage conditions notes that "runoff from offsite tributary residential and open space areas northeast of the project site will be rerouted through the proposed basin…" See comments 18a, and 18b.

Response C.45: The Tract 8481 retention basin and associated storm drain infrastructure constructed in 1993 are included as part of existing conditions in the revised drainage report, FEIR Appendix C. The proposed

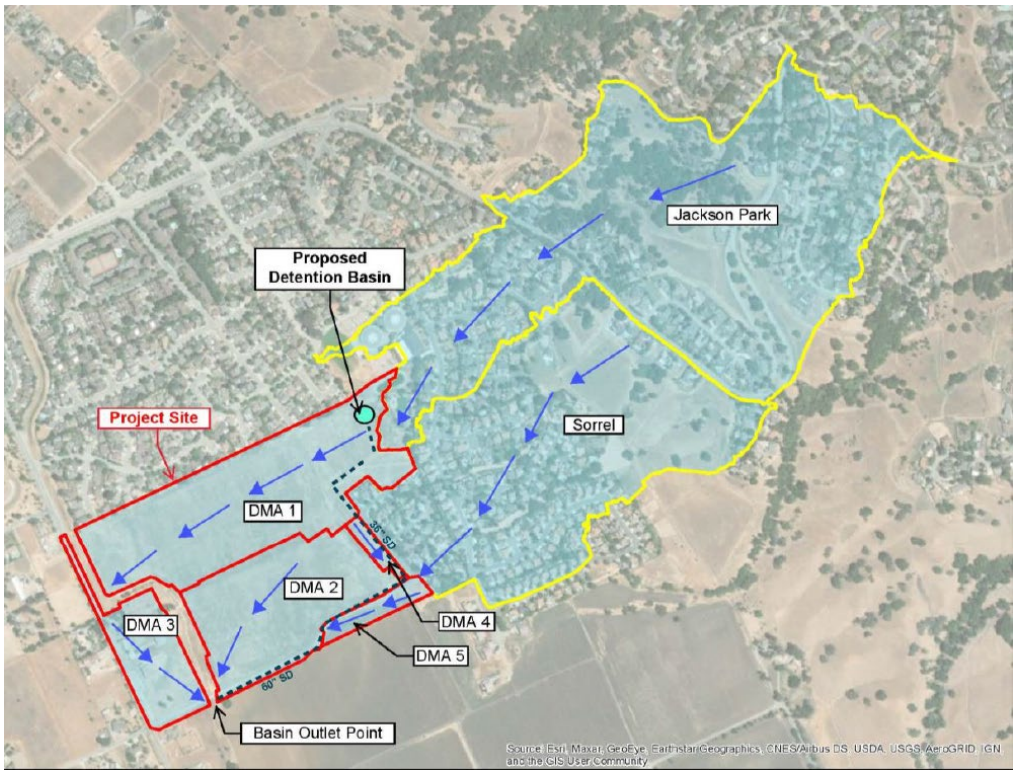
project conditions were sized to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation of Lots 20, 21, and 22 in Tract 8481 and impacts due to additional impervious surfaces from the Project for storm events ranging from 2-year up to the 100-year recurrence period.

Comment C.46: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 6 (Page 9)
It is noted *"…the detention basin has been designed to the 25-year storm event,"* and based on the modeling results for the 100-year storm event in Tennant Creek *"the development will be out of the floodplain."* See Comments 20a, and 20c. This finding does not acknowledge that Tennant Creek does not have sufficient capacity for frequent flood events and any increased runoff during these frequent events, which will increase the extent and frequency of flooding downstream. Receiving streams further downstream only have an approximate capacity for the 10-year event. The text supporting a finding of 'Less Than Significant' is inadequate.

Response C.46: The project is mitigating increases in runoff via the proposed detention basin. Peak flows following project implementation into Tennent Creek are therefore at or below existing conditions for the 2-year, 10-year, 25-year and 100-year return periods. Coupled with the subbasin adjustments discussed under comment responses C.18 and C.25 the revised drainage study (FEIR Appendix C) shows the 100-year water surface contained in channel. Since the analysis performed uses steady state modeling, areas located downstream of Barrett Avenue will show no impact since the upsizing of Barrett culverts does not alter the peak discharge hydrology.

Comment C.47: Additionally, Figure 6 provided on this page is illegible, and the outlet or discharge point for all DMAs is not clear. A full sized, legible copy of the figure, along with a clearly marked discharge point needs to be provided.

Response C.47: The revised drainage report (Appendix C) includes Figure 2-2 which shows the post-project conditions drainage areas, including clearly marked discharge points for the DMAs. A snip of the figure is included below.



Comment C.48: Appendix H – Schaaf and Wheeler Flooding and Drainage Study Memorandum, Impact 7 (Page 10)

a. The discussion for Impact 7 identifies the three special flood hazard areas overlapping the project site ('Zone AE,' 'Zone O,' and 'Zone X'), however this section needs to also acknowledge the regulatory floodway that has been established. See Comment 16.

Response C.48: The regulatory floodway discussion is now included in the revised drainage report (FEIR Appendix C). The project will issue a LOMR to address changes to the channel, hydrology, floodway table, etc.

Comment C.49:

b. The text states that the portion of 'Zone AO' not within Tennant Creek will be filled above the height of flooding. This will block 100-year flood flows of 130 CFS (as identified in the FEMA effective model) from leaving the Fountain Oaks neighborhood, which currently release overland across the Project site as 'Zone AO.' It is not clear where these flood flows will go if the proposed fill is obstructing the flow path. The texted does not support the 'Less than Significant Impact.'

Response C.49: Regarding the Zone AO shown in the effective FEMA FIS, the Zone AO is caused by an assumed spill located at Fountain Oaks Drive. This spill is largely due to the resolution of subbasin delineations

and assumptions made in locating peak discharges for drainage areas south of East Dunne Avenue at the start of the channel. This overestimates the peak flow present in the channel between East Dunne Avenue and Fountain Oaks Drive, leading to modeling which shows spill at Fountain Oaks Drive and a subsequent Zone AO designation. Schaaf & Wheeler utilized the Corps hydrology and further divided subbasins at Tennant Creek using log-linear regression and drainage area power law. This method is discussed in detail in the revised drainage report.

Comment C.50:

c. It is stated in the second paragraph that *"While the water surface elevations change throughout the site, the Project grading will re-establish Tennant Creek floodway and floodplain which will remove the 100-year flooding to be completely outside of the project limits. The development should apply for a CLOMR-F through FEMA to show that the development is outside the floodplain."* See Comment 20b.

Response C.50: A CLOMR/LOMR is anticipated for the project to remove the Zone AO and modify the SFHA alignment to reflect existing conditions. Additionally, this removal of the Zone AO was provided to and reviewed by FEMA as part of the Upper Llagas Flood Protection Project. Based on comments 18 and 25 responses, the Zone AO is anticipated to be removed as part of the FEMA submission

Comment C.51: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 1, Introduction

a. It is noted under the 'Objectives' discussion (Section 1.2, Page 3) that *"Project grading will also enable the Tennant Creek floodway and floodplain to be re-established so that all home sites may be elevated above the base flood, without changing the upstream or downstream 100-year water surface profile of the creek by more than six inches, as required by FEMA for remapping."* As previously noted, no increases to the 100-year water surface elevations are allowed within any point of the regulatory floodway. See Comment 16 and 20a.

Response C.51: The project does not intend to construct improvements within the regulatory floodway. The project does propose to improve the Barrett Avenue culverts along with associated channel grading. The project's hydraulic modeling will be submitted to FEMA via a CLOMR/LOMR identifying revised water surface elevations through the project site, revised hydrology and tie-ins to the effective water surface elevations both on the upstream and downstream ends of the study area. Re-establishment of the flood is due to the existing SFHA shapefiles not aligning with the current channel in physical space.

Comment C.52:

b. The Report Outline (Section 1.3, Page 3) indicates preliminary hydrologic and hydraulic calculations are provided to evaluate the volume that would be needed to detain the 25-year storm event. See Comments 18a.

Response C.52: The updated drainage report now assesses the 2-year through 100-year events for sizing proposed detention to limit post project peak flow rates to pre project rates or lower.

Comment C.53: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 2, Drainage Patterns and Conveyance

a. The section detailing the existing drainage conditions (Section 2.1, Page 5) notes that information regarding the design, sizing criteria, and function of the pre-existing stormwater retention basin, north of Barrett Avenue, are not available. See Comment 7. Additionally, it should be noted that Schaaf and Wheeler designed the detention basin.

Response C.53: Tract 8481 retention basin and associated storm drain infrastructure constructed in 1993 is now included as part of existing conditions. The proposed conditions (including new detention basin) were then modified in order to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation of Lots 20, 21, and 22 in Tract 8481 and impacts due to additional impervious surfaces from the Project for storm events ranging from 2-year up to the 100-year recurrence period.

Comment C.54:

b. The drainage study proposed a conceptual plan to relocate the existing detention basin to Jackson Park (Section 2.2, Page 5). See Comment 18b.

Response C.54: The design intent of the proposed detention basin is to capture and detain stormwater from the Jackson Park subbasin to offset the project's impacts along with previous mitigation from the Tract 8481 retention basin.

Comment C.55:

c. It is also noted *"approximately 150 acres of tributary residential and open space areas northeast of the project site (Figure 2-3)"* will be routed to the relocated detention basin. The southerly subcatchment (Total Stream Length 3179-ft.) does not account for Tracts 7157 and 8481. Additionally, portions of this subcatchment generally have existing grades that are lower in elevation compared to those at Jackson Park. See Comment 18b.

Response C.55: Response C.54: The design intent of the proposed detention basin is to capture and detain stormwater from the Jackson Park subbasin to offset the project's impacts along with previous mitigation from the Tract 8481 retention basin.

Comment C.56: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 3, Project-Specific Drainage Requirements

a. As stated in other sections of the drainage study, the analysis considers the 25-year, 24-year storm event to adhere to the City's storm water management plan. The study needs to consider a range of events, including the 2-, 10-, 25-, and 100-year events, since Tennant Creek is prone to flooding. See Comments 18a and 19a.

Response C.56: Information regarding the Tract 8481 retention basin was provided to Schaaf & Wheeler on February 15, 2024. The Tract 8481 retention basin and associated storm drain infrastructure constructed in 1993 are now included as part of existing conditions. The proposed conditions (including new detention basin) were then modified in order to limit peak runoff at Tennant Creek to be at or below existing conditions. This inherently accounts for previous mitigation of Lots 20, 21, and 22 in Tract 8481 and impacts due to additional impervious surfaces from the Project for storm events ranging from 2-year up to the 100-year recurrence period. Refer to S&W responses for comments 18 and 19..

Comment C.57:

b. Tables 3-1 and 3-2 provided in Section 3.2 (Page 8) need to include results for the requested range of events, including the 2-, 10-, 25-, and 100-year, 24-hour storm events.

Response C.57: The proposed detention is shown to mitigate the 2-year through 100 year events and does not induce flooding on neighboring or downstream properties.

Comment C.58: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Section 4

a. It is noted *"Potential impacts from Project improvements are assessed using information and hydraulic models first completed for the Santa Clara Valley Water District."* The flood impact analysis for the project needs to be evaluated using FEMA's effective model as the baseline conditions. If the referenced Santa Clara Valley Water District model is based on the effective model, the analysis needs to ensure both the upstream and downstream ends of the studied reach are within 0.5-ft. of the published BFE (44 CFR 65.6(a)(2)). Additionally, all existing developments not included into the effective model need to be incorporated and evaluated cumulatively with the proposed project.

Response C.58: Adherence to 44CFR 65.6 (a)(2) is supported by the revised drainage study (FEIR Appendix C) which includes a more detailed discussion of tie-in with the duplicate effective model.

Comment C.59:

b. Section 4.1 asserts *"all areas of potential improvements within Project limits would be located outside of regulatory flood areas."* This statement is not consistent with the improvements specified in earlier sections of the draft EIR, which proposes realignment of the stream, widening of the channel at Barrett Avenue, and removal of the existing culvert: all of which are occurring within the limits of the regulatory floodway.

Response C.59: The project does propose culvert improvements and associated channel grading at Barrett Ave. The project will submit a CLOMR/LOMR to revise the effective firm based on this improvement following FEMA standards.

Comment C.60:

c. Section 4.1.1 cites Ordinance Section C12-821(A), which maintains that the cumulative effect of development cannot increase the BFE by greater than one foot at any point within the County, *"until a regulatory floodway is adopted…"* It is then stated *"Since Tennant Creek has a defined floodway, and that floodway can be adjusted to coincide with the slightly realigned banks, this section of the of the ordinance does not apply…"* See Comment 16. This statement is only true if the Project fills in regulatory floodplain areas first. Additionally, this section refers to the County flood hazard ordinance; instead, it should refer to the City's flood hazard ordinance, particularly Section 15.80.200 – Floodways (B), which states *"Within an adopted regulatory floodway, prohibit encroachments, including fill, new construction, substantial improvement, and other development unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment shall not result in any increase in the base flood levels during the occurrence of the base flood discharge."* It should be noted that the base flood discharge is the FEMA base flood discharge, not the ACOE hydrology discharge.

Response C.60: The County ordinance reference has been corrected to the City's municipal code as noted. Since the project as components within the regulatory floodway, the project will submit a CLOMR/LOMR to reflect project changes and modify the effective FIRM.

Comment C.61:

d. Section 4.2 indicates the effective HEC-2 model *"was obtained from the Santa Clara Valley Water District's website."* Not all hydraulic models provided on Valley Water's website are FEMA effective models. Model outputs need to be verified with the County's Flood Insurance Study (FIS) to confirm the water surface elevations and FIS flood flows are

consistent with the Valley Water model. The FEMA FIS flood flows within Tennant Creek through the site range from 290 CFS to 420 CFS, depending on the location. Additionally, the FEMA floodway model needs to be analyzed for increases due to the Project.

Response C.61: The HEC-2 model obtained from Valley Water is labeled as the FIS Study dated 1996 by Nolte and Associates but was also reviewed against the effective FIS study and shows consistent BFE values to those shown on the FIS water surface profiles.

Comment C.62:

e. Section 4.2.4 notes that the *"proposed conditions are based on blocked obstructions (vertical walls) placed in the channel overbank as shown in the project workmap."* Since Tennant Creek has an adopted regulatory floodway, the effective model should have blocked obstructions that were assumed to determine the limits of the floodway (i.e., floodplain encroachments). The duplicate effective model, and all subsequent models use to evaluate project impacts need to ensure these ineffective flow areas are carried over from the effective model. This section also states ACOE hydrology was used in the analysis. When a FEMA special flood hazard area has been defined, FEMA effective hydrology and modeling must be used as the existing condition floodplain to determine compliance with federal flood hazard regulations. This section also states that the Barrett Avenue culverts will be increased in capacity from three (3) 30-inch culverts to five 8-foot by 2-foot box culverts. It is not clear why such an increase in capacity is required if the Project will not increase flood flows to Tennant Creek. It is of particular concern that increasing the capacity of the Barrett Avenue culvert will increase the extent and frequency of flooding in Tennant Creek to downstream and neighboring properties.

Response C.62: The duplicate effective model carries the ineffective flow areas through subsequent models. The FEMA hydrology is used for project tie-in at the upstream and downstream ends of the revised reach per 44 CFR 65.6 (a)(2) and is now clarified in the revised drainage report (FEIR Appendix C).

The increase in culvert size at Barrett Avenue is proposed to limit backwater constraints now that the site proposes to raise its overall grade, keeping previous overland flooding contained in channel. Since the analysis performed uses steady state modeling, areas located downstream of Barrett Avenue will show no impact. While the upsizing of Barrett culverts does increase "available" capacity in the channel, it does not alter the peak discharge hydrology that was assumed for the steady state modeling.

Comment C.63:

f. Table 4-1, which summarizes the 100-year water surface elevation based on the assumed post-project conditions, show increases at several locations along the water surface profile. See comments 16.

Response C.63: The project does show changes to water surface elevations within the limits of the project. Outside of the project limits, the water surface elevations are shown to be unchanged. The project will submit a LOMR to revise channel water surface elevations following FEMA standards.

Comment C.64: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Attachment 1: Storm Drain Discharge and Detention Calculations

The outlet, or the assumed point of discharge along Tennant Creek needs to be specified for all drainage calculations.

Response C.64: The outlet that is used as the basis of comparison between existing drainage conditions and proposed drainage conditions is identified as the intersection of Tennant Creek and Barrett Avenue and is shown visually in the revised drainage report (FEIR Appendix C) via Figures 2-1 and 2-2.

Comment C.65: Appendix H – Schaaf and Wheeler Preliminary Drainage Report, Attachment 2: HEC-RAS Project Workmap

For the cross sections provided, the limits of the assumed floodplain encroachments need to be clarified.

Response C.65: The supporting HEC-RAS model in Appendix C contains all requested floodplain encroachment stations.