PLANNING COMMISSION

AGENDA
Regular Meeting
Tuesday, April 27, 2021
7:00 p.m.

*** New Location***

This meeting is being held in accordance with the Brown Act as currently in effect under the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19 and the Governor's Executive Orders N-25-20 and N-29-20 that allow members of the Planning Commission, City staff, and the public to participate and conduct a meeting by teleconference, videoconference or both. To comply with public health orders, the requirement to provide a physical location for members of the public to participate in the meeting has been suspended.

Chair: A. J. Chippero
Vice Chair: Teri Denslow
Planning Commissioner: Bassam Altwal
Planning Commissioner: Frank Gavidia
Planning Commissioner: Ed Miller

A complete packet of information containing staff reports and exhibits related to each public item is available for public review on the City's website at www.ci.clayton.ca.us

Agendas are posted at: 1) City Hall, 6000 Heritage Trail; 2) Library, 6125 Clayton Road; 3) Ohm's Bulletin Board, 1028 Diablo Street, Clayton; and 4) City Website at www.ci.clayton.ca.us

Any writings or documents provided to a majority of the Planning Commission after distribution of the Agenda Packet and regarding any public item on this Agenda is available for review on the City's website at www.ci.clayton.ca.us

If you have a physical impairment that requires special accommodations to participate, please call the City Clerk's office at least 72 hours in advance of the meeting at (925) 673-7300.To protect our residents, officials, and staff, and aligned with the Governor's executive order to Shelter-at-Home, this meeting is being conducted utilizing teleconferencing means consistent with State order that that allows the public to address the local legislative body electronically.

Most Planning Commission decisions are appealable to the City Council within 10 calendar days of the decision. Please contact Community Development Department staff

for further information immediately following the decision. If the decision is appealed, the City Council will hold a public hearing and make a final decision. If you challenge a final decision of the City in court, you may be limited to raising only those issues you or someone else raised at the public hearing(s), either in oral testimony at the hearing(s) or in written correspondence delivered to the Community Development Department at or prior to the public hearing(s). Further, any court challenge must be made within 90 days of the final decision on the noticed matter.

Instructions for Virtual Planning Commission Meeting Participation

To protect our residents, officials, and staff, and aligned with the Governor's executive order to Shelter-at-Home, this meeting is being conducted utilizing teleconferencing means consistent with State order that that allows the public to address the local legislative body electronically.

To follow or participate in the meeting:

Videoconference: To follow the meeting on-line, click this link: https://us02web.zoom.us/j/85193995757, or through the Zoom application, enter Webinar ID 851 9399 5757. No registration or meeting password is required.

Phone-in: Dial toll free (877) 853 5257. When prompted, enter the Webinar ID above.

E-mail Public Comments: If preferred, please e-mail public comments to the Interim Community Development Director at InterimCDD@ci.clayton.ca.us by 2:00 p.m. on the day of the Planning Commission meeting. All Email Public Comments will be forwarded to the entire Planning Commission.

Each person attending the meeting via video conferencing or telephone and who wishes to speak on an agendized or non-agendized matter shall have 3 minutes to speak.

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL**

4. **PRESENTATION AND ANNOUNCEMENTS**

   None

5. **ACCEPTANCE OF THE AGENDA:** The Planning Commission will discuss the order of the agenda, may amend the order, add urgency items, note disclosures or intentions to abstain due to conflict of interest on agendized public hearing or action items, and request Consent Calendar items be removed from the Consent Calendar for discussion. The Planning Commission may also remove items from the Consent Calendar prior to that portion of the Agenda.

6. **PUBLIC COMMENT (Non-Agenda Items):** This time has been set aside for members of the public to address the Planning Commission on items of general interest within the subject matter jurisdiction of the City. Although the Planning Commission values your comments, pursuant to the Brown Act, the Planning Commission generally cannot take any action on items not listed on the posted agenda. Three minutes will be allotted to each speaker.

7. **CONSENT CALENDAR:** The following routine matters may be acted upon by one motion. Individual items may be removed by the Planning Commission for separate discussion at this time or under Acceptance of the Agenda. The ordinance title is deemed to be read in its entirety and further reading waived on any ordinance listed on the Consent Calendar.

   A. **MINUTES:**
   Planning Commission Meeting of February 23, 2021
   Planning Commission Meeting of March 9, 2021

   Staff Recommendation: Approve the minutes of the February 23, 2021 and March 9, 2021 meetings

8. **PUBLIC HEARINGS**

   A. **Clayton Community Church – Requests for Environmental Review ENV-03-15, Use Permit UP-05-16, Site Plan Review Permit SPR-06-16, and Tree Removal Permit TRP-38-16.**
   Application by Clayton Community Church for approval of a Use Permit (UP-05-16), Site Plan Review Permit (SPR-06-16), and Tree Removal Permit (TRP-38-16) for a proposed new church located at 1027 Pine Hollow Court, Clayton (Assessor's Parcel No. 119-050-036). The subject property is approximately

4.4 acres and is currently developed with an approximately 1,300 square foot single-family residence (proposed to remain). The Use Permit application is required for a religious land use such as a church, synagogue, temple, or other place or worship, pursuant to Clayton Municipal Code §17.60.030(A)(3). The Site Plan Review Permit request involves consideration of the new building's architecture and associated site improvements including landscaping, parking, lighting, and fencing. The Tree Removal Permit request is for the proposed removal of 48 total trees on the property to accommodate construction of the building and other improvements and due to poor health and condition for some existing trees. A tree replacement plan is provided and includes 52 proposed new trees.

The Planning Commission is also asked to review the Initial Study and to consider whether to adopt the Mitigated Negative Declaration (MND) prepared for the proposed project (ENV-03-16), prior to considering whether to approve the requested permits.

Staff Recommendation: Adopt the MND, approve the Mitigation Monitoring and Reporting Program prepared for the project, and approve the requested permits, subject to conditions.

9. ACTION ITEMS

None

10. COMMUNICATIONS: This time is set aside for the Planning Commission to make requests of staff, and/or for issues of concern to Planning Commissioners to be briefly presented, prioritized, and set for future meeting dates. This time is also provided for staff to share any informational announcements with the Commission.

11. ADJOURNMENT

The next Planning Commission Regular Meeting is Tuesday, May 11, 2021.

Minutes
City of Clayton Planning Commission
Regular Meeting
Tuesday, February 23, 2021

1. CALL TO ORDER

Chair A.J. Chippero called the meeting to order at 7:00 p.m.

2. ROLL CALL

Present: Chair A.J. Chippero
Vice Chair Terri Denslow
Commissioner Bassam Altwal
Commissioner Frank Gavidia
Commissioner Ed Miller

Absent: None

3. PLEDGE OF ALLEGIANCE

Commissioner Gavidia lead the Pledge of Allegiance.

4. PRESENTATIONS AND ANNOUNCEMENTS

None.

5. ACCEPTANCE OF THE AGENDA

Chair Chippero moved and Commissioner Altwal seconded a motion to move Items 9.A and 9.B before Item 8.A on tonight's agenda. The motion passed 5-0.

6. PUBLIC COMMENT

None.

7. CONSENT CALENDAR

A. Approval of Planning Commission Meeting Minutes.

Approval of the minutes for the January 26, 2021, Planning Commission meeting.

Vice Chair Denslow moved and Commissioner Altwal seconded a motion to approve the January 26, 2021 Planning Commission meeting minutes, as amended. The motion passed 4-0-1 (Commissioner Miller abstained as he did not attend the January 26, 2021 Planning Commission meeting).

Approval of the minutes for the February 9, 2021, Planning Commission meeting.

Commissioner Altwal moved and Commissioner Miller seconded a motion to approve the February 9, 2021 Planning Commission meeting minutes, as amended. The motion passed 5-0.

9. ACTION ITEMS

A. PLANNING COMMISSION REPORT TO CITY COUNCIL (CHAIR CHIPPERO TO REPORT)

Chair Chippero requested that the Commission re-instate the rotation of each Commissioner to report at the City Council, with an alternative Commissioner to report in case the next scheduled Commissioner could not report, and with the order of the rotation occurring alphabetically by Commissioner last name.

Commissioner Gavidia indicated that he did not want to report to the City Council.

Commissioner Altwal moved and Commissioner Miller seconded a motion to approve the February 9, 2021 Planning Commission minutes. The motion passed 4-0-1 (Commissioner Gavidia abstained).

B. STRANAHAN PARKING

Commissioner Altwal inquired if his understanding was correct in that he recalled Community Development Director Matthew Feske suggesting a memorandum from the Planning Commission to be given to the City Council regarding Stranahan parking.

Director Feske indicated that, after extensive discussion regarding this issue, one of the suggestions that was brought up was that a memorandum from the Planning Commission be prepared. Director Feske also indicated that, at the last City Council meeting, a Councilmember explained that the Planning Commission should not initiate policy as that is the City Council's job.

Commissioner Gavidia indicated that he was not comfortable making a vote regarding this issue until the City Attorney was present to address two concerns:

- Does this constitute the Planning Commission attempting to make policy?
- If so, is it ok for the Planning Commission to make policy?

He suggested tabling the item until the City Attorney was present.

Commissioner Altwal indicated that the issue came as a result of the Planning Commissioners being asked for requests or to raise issues of concern that may briefly presented, presented, prioritized, and set aside for future meetings.

Commissioner Altwal moved and Vice Chair Denslow seconded a motion to table this item with no date. The motion passed 4-0-1 (Commissioner Gavidia abstained).

Commissioner Gavidia recused himself and left the meeting at 7:28 p.m.

8. PUBLIC HEARINGS

A. Environmental Review ENV-02-16, Vesting Tentative Map MAP-01-16, General Plan Amendment GPA-02-18, Specific Plan Amendment SPA-01-18, Rezone ZOA-01-18, Development Plan Permit DP-01-19, and Tree Removal Permit TRP-31-19; Northwest of the intersection of Marsh Creek Road and Diablo Parkway (APN 119-070-008); West Coast Home Builders, Inc. A continued public hearing for review and consideration of the Initial Study/Mitigated Negative Declaration (IS/MND), Vesting Tentative Map, General Plan Amendment, Specific Plan Amendment, Rezone, Development Plan Permit, and Tree Removal Permit for a proposed six-lot detached single-family residential subdivision with associated subdivision improvements. This public hearing was continued from the October 27, 2020, Planning Commission meeting.

The continued item was re-opened.

Community Development Director Matthew Feske provided a presentation.

The developer provided a presentation and summarized changes that the developer requested be made to the draft Conditions of Approval.

Chair Chippero re-opened the continued public hearing.

Vincent Moita stated that he had submitted a letter dated December 18, 2020, and resubmitted the same letter this week, and he provided the following comments:

- This project could leave the City vulnerable to legal challenge if left the way it is.
- Per California Government Code Sections 66473.5 and 66474(B), a City cannot adopt a tentative map or parcel map if the City does not find that the provisions of the design or improvements are consistent with the General Plan or Specific Plan.
- The Development Plan proposed is not consistent with regard to the circulation roadway referenced as Saltbrush Lane.
- The Marsh Creek Road Specific Plan Circulation Element states that the road shall be built to a collector standard with a 48-foot right of way and 32 feet of pavement.
- The City is a granted a high level of deference in interpreting applicable codes.
- The 24-foot wide roadway provided in the project Conditions of Approval is inconsistent with the Marsh Creek Road Specific Plan Circulation Element which requires a roadway width of 32 feet.
- Requested an amendment to the Conditions of Approval to require a 32-foot roadway width.
- The name of roadway should remain Oak Creek Canyon Drive and not be changed to Saltbrush Lane

Chair Chippero closed the public hearing.

Chair Chippero provided the following comments and questions:

- Was there a reason why Figure 1 in the staff report was not on the vesting tentative map?
- Was the project dependent on utilities being extended from neighboring properties?

- Was there a reason the name of the project roadway was changed?
- There is a large amount of landscaping in the right-of-way of the project road.
- It appears that there would be a loss of landscaped area in the right-of-way of the project roadway if the project roadway is widened.
- The project plans and maps need to be corrected and more consistent in order to better review the project.
- The documents presented to the Planning Commission are inaccurate to the point that he would not be able to approve the project.

Vice Chair Denslow had the following comments and questions:

- If the project site was part of the Marsh Creek Road Specific Plan (MCRSP), she would fundamentally agree with the proposed buildout.
- The process to establish the MCRSP commenced in 1991 and took several years to finalize by the time it was adopted in 1995. A large amount of public input was involved in the establishment process.
- What was the intent and purpose behind the sequential development identified in the MCRSP?
- Saying the City would oversee the collection of the fees makes it seem like the total buildout is called for.
- The sequential wording feels intentional if the small road was built out now and the larger road later.
- Concerned that some of the residences do not provide guest parking.
- Parking considerations are an important component of any proposal.
- Conceptually trying to see the plan, the complete buildout, and parking.
- Without the road being completely built out, there would be no parking.
- There were three proposed street names provided for the project: Oak Creek Canyon Drive, Saltbrush Lane, and Sage Lane—why was Sage Lane proposed?
- Wondering if Mr. Moita, the property owner of the land adjacent to and east of the project site, submitted an application to annex to Clayton? If not, was the deterrent the expectation that this application would be denied because there would not be enough access?
- The proposed trail was not included on the drawings.
- The constraint map shows that Lot 4 and Lot 5 contain areas of greater than 26% slope.
- Recommend that the applicant perform community outreach.
- Why was the open space not provided in perpetuity through conservation?
- The applicant should find ways to promote alternative measures for sound attenuation to prevent the construction of extensive amounts of sound walls that would detract from the aesthetics of the area.
- Did not see the sound walls on the drawings, so found it difficult to understand if the project complies with the MCRSP.
- Alternatives need to be explored.
- Did not see the Alameda Whipsnake addressed in the environmental document.
- The survey of mitigation of rare plants references avoiding rare plants, but the study expires in 2021, which calls into the question the time-sensitive validity and applicable feasibility of avoiding rare plants.

- Regarding compliance related to the Design and Development Policies listed in the MCRSP, no artificial slopes are to be steeper than the natural slopes, which is inconsistent with the constraints map that shows a 2:1 slope above Lots 3, 4, and 5.
- No concrete or masonry sound wall may be constructed; so what is the material of the proposed sound wall?
- Setback of the pipeline needs to be considered.
- It appears that the Tolling Agreement shall be extended to June 21, 2021, and shall be extended through any appeals that may be filed.
- Noted that the proposed on-site detention basin was changed to private from previously being public.
- The plans show a 56-foot right-of-way, and the Conditions of Approval call for a 48-foot right of way. Given that the setback is 37.5 feet, this setback would be reduced further if the right-of-way were 56 feet wide.
- The landscape plans are difficult to read and, overall, it is difficult to review plans that are out of date and to make an assessment based on the information provided.

Commissioner Altwal had the following comments and questions:

- Given the financing direction described in MCRSP Policy IM-14, his understanding was that individual developers should meet the needs of potential future developers while the City could collect the money from the future developers and pay the individual developer for costs incurred by construction of infrastructure and other improvements.
- Noted that MCRSP Policy IM-14 indicated that it can be very expensive for developers who provide improvements at the outset of the project, and that the City could collect money to help developers with construction of infrastructure and other improvements.
- The developer team mentioned earlier that, if the other developers or other potential developers are willing to pay pro-rata share of costs for construction of infrastructure and improvements, then the developer team would be open to considering this arrangement. This is something worth looking at during this review process.
- Noted that he spent a considerable amount of time reviewing the MCRSP.
- There are conflicts between the figures, plans, and the design required by the MCRSP.
- Inquired of Mr. Moita whether the width of the project roadway is to be consistent with the 32-foot roadway width shown in the MCRSP. If so, then would Mr. Moita be willing to pay his share if and when the amount is calculated by the City?
- Who pays for the expansion of the project roadway?
- How would the City arrange for the original developer to pay in the future if the six residences have already been sold?
- Wanted to bring to the developer's attention that the Commission received two development packages, one in October 2020 and one before this meeting.
- Since the MCRSP indicates that all developments shall contribute affordable housing units, would the developer provide them off-site or on-site?
- How would the developer address the MCRSP requirement that open space should have public access when private open space is being proposed as part of the project?

- How would the developer address the steeper slopes being observable from Marsh Creek Road when the MCRSP stipulates that areas of a project site with slopes over 26 percent should not be visible from Marsh Creek Road?
- The MCRSP indicated that, in order for the City to approve the project with slopes greater than 26 percent, the City must make the finding that the development is not visible from Marsh Creek Road.
- Regarding traffic, the MCRSP specifies that Marsh Creek Road be signalized. How do we make sure that the developer pays for this improvement?
- Regarding the detailed routing for the road, the developer would need to coordinate with the City on a plan line study.
- Regarding the Conditions of Approval requiring architectural (and other) modifications to the plans, these modifications need to be shown on the plans, not just listed in the Conditions of Approval.
- Acknowledged that this was the first time he had seen a Tolling Agreement.
- The Commission needs to ensure that the proposed project-related sound walls comply with the MCRSP.
- Regarding the residential setbacks, the setback on Lot 1 does not show an 80-foot setback from Marsh Creek Road as required by the MCRSP.
- Expressed concerned about possible impacts to Lots 1, 2, and 3 caused by erosion generated by overflow from the water tank.
- Suggested there might be a conflict between attributes not being visible from Marsh Creek Road and having the sound walls that are visible from Marsh Creek Road.
- The drawings need to consistently reflect what is being proposed.
- There were a lot of differences between the requirements of the MCRSP and what was being presented to the Commission. What was presented to the Commission for this project was not accurate.

Commissioner Miller had the following comments and questions:

- What is the fiscal assurance for ultimate buildout and a 48-foot wide right-of-way?
- Is there a definition of pro-rata?
- Since the MCRSP allows for alternative open space, what is the alternate means of open space that the developer referred to?
- Regarding the affordable housing unit requirement, would the developer construct another housing unit to meet this requirement?
- It appears that the MCRSP is more for large-scale projects rather than a small six-unit “pocket” project.

Mr. Chen from the developer’s team had the following comments:

- No city builds out the ultimate infrastructure.
- Even with the 24-foot wide roadway, the developer was already exceeding the fair-share.
- For a 110-unit development, the six lots are five percent of the fair-share.
- Regarding Commissioner Altwal’s comments and questions:
  - The 48-foot right of way is defined in the MCRSP.
  - Each developer is responsible for their own development plan.
  - The developer has been coordinating with the Moitas since last year to find out if they are ready to move forward.

  - The problem with building out the 48 feet of right-of-way is that the Moitas do not know what they need infrastructurally since there are no defined infrastructure needs.
  - On page 126 of the MCRSP, there are several financing mechanisms identified; however, these are problematic since the neighboring property is located outside the City limits.
  - If the desire of the Planning Commission is to build out the 48-foot right-of-way, the developer would need to know what the Moitas plans are.
- Regarding the collection of fees, the City would have to conduct an impact fee analysis to ascertain what the infrastructure needs are.
- He did not think the City wanted to establish an impact fee for all the development in this area.
- The City needs to decide about the urban limit line and potential annexations.
- The proposed 48-foot right-of-way is in conformance with the MCRSP guidelines.
- The developer team will review the MCRSP as it pertains to guest parking on the street.
- The residences are proposed with three-car garages plus a driveway for guest parking.
- Regarding the street name, the developer would have to go through a street naming process that would require approval by the Clayton City Council.
- As stated in Objective 1 of the implementation plan, the pro-rata is based on fair-share.
- Of all potential developments, which total 116 units, pro-rata for the proposed project of six units is five percent. So, ultimately, the developer would be responsible for five percent of a 48-foot wide roadway.
- We would have already built a 24-foot road, and the Moitas would refund us based on the pro-rata amount.
- The MCRSP addresses pro-rata, no just upsizing. If we install an 8-inch water line and a 12-inch water line is needed, 95 percent of the cost of the water line would not be paid by us.
- We are already making the 48-foot dedication, and the small road would be maintained as a private road as part of the Homeowners' Association (HOA).
- We want to fulfill our affordable housing requirement and are willing to work with staff on the on-site or off-site location and the moderate income, low income, or very low income status.
- We are proposing private open space with a public access easement over the trail.
- The proposed trail connects to the east side of the project site.
- We are already proposing another trail along Marsh Creek Road.
- The developer will construct a public access trail along the easterly border connecting to Saltbrush Lane.
- The slope within the building area is basically level after grading.
- The City collects traffic impact fees, and there is a condition of approval requiring the traffic impact fee to be paid.
- From the developer's perspective, no improvements, traffic or otherwise, are required for Marsh Creek Road as a result of this project. This is supported by the California Environmental Quality Act (CEQA) analysis.

- Regarding setbacks, there is a dashed line that indicates the 80-foot setback, and none of the residential building footprints are proposed in this setback area.
- In the deeds, we are requesting that any impact generated by the Contra Costa Water District property be disclosed.
- Regarding the accessory dwelling unit (ADU), we are proposing to construct one on-site ADU that would be deed restricted.
- Regarding community engagement, we did not hand out flyers and have not had any community engagement as we were relying on notifications done by the City and the City posting the project information on their website.
- The City prefers private open space so the City does not have to maintain it and, instead, has the developer maintain it.
- Regarding the sound wall, we followed the requirements and, as part of the alternatives offered, we are proposing landscaping of the sound wall.
- Regarding the loss of landscaping if the roadway is widened, we understand that there is a large amount of landscaping in the right-of-way which we would remove and plant new landscaping after the road is widened.
- Regarding the avoidance of impacting rare plants, the project is located in the East Contra Costa County Habitat Conservation Plan (HCP) area, so we will provide payment pursuant to the HCP, which is a form of mitigation.
- Regarding the slope, when slope exceeds 2:1, there must be a bench for grading.
- The MCRSP Policy states that the grading should not exceed the natural slope and should not be a steep slope of 2:1 without mitigation. The bench is the mitigation for the slope.
- We are proposing to keep the subdivision maintenance private through establishment of an HOA.
- Regarding the diagrammatical inconsistencies, we will make corrections prior to submittal to the City of the final map.
- Regarding fencing, the locations and design are shown on Pages 13 – 16 of the IS/MND.

Mr. English from the developer's team had the following comments:

- The City required the street name change and gave us options, so we picked one.
- Sage Lane may have been what was proposed initially before the street name was changed to Saltbrush Lane.
- Regarding community engagement, we relied on the City's notification process.

Ms. Nina from the developer's team had the following comments:

- Legal question is if the tentative map is consistent with the MCRSP, which it is.
- The MCRSP does not require a full buildout of the road.
- The policy Mr. Moita refers to calls for Saltbrush Lane to have a build out of 32 feet; it does not dictate when the buildout is to occur.
- As currently proposed, the Conditions of Approval meet the needs of today.
- Discovery Builders has agreed to build out the ultimate infrastructure if and when the Moitas submit a development application.

- The property owners pay the fair-share of improvements which is consistent with MCRSP Policies IM-13 and IM-14.
- The Conditions of Approval satisfy the constitutional limitation of rough proportionality which means it must be in reasonable proportion to the development impact.
- Since we are reviewing a six-lot subdivision, requiring the construction of a collector road to serve a yet undefined development is out of proportion.
- The condition is written to dedicate the full 48-foot right-of-way.
- To answer Commissioner Miller's earlier question, it is unreasonable for us to front the cost when there is no timeframe for reimbursement or no timeframe for when the Moitas would move forward on development of their property.
- Even the first sentence of the condition states the developer shall build it fair-share which is compliance with the Nollan-Dolan court case that emphasizes fair-share and specifically defines proportionality.
- Regarding the Alameda Whipsnake, the biological resources assessment table in the IS/MND states that there is low potential for it to occur
- Regarding rare plants, the mitigation is provided on Page 43 of the IS/MND.
- If construction does not commence prior to Spring 2021, then a new rare plant report will be prepared.
- Compliance with HCP is mitigation in itself, and the HCP states that construction should avoid rare plants.

Mr. Sean from the developer's team had the following comments:

- The assurances are that you can condition the Moita development for the full construction of the road.
- If there is a fair-share, that would between the Moitas and us.
- If you have a full road improvement, there is a wide road with an abrupt end – basically a road to nowhere right now.
- No guarantee that the Moitas' property will ever be developed.
- We disagree that our development triggered the need for a traffic signal to be installed, especially since the idea that fair-share payment would be collected from future developments when, other than our project, there are no future proposed projects in this area of Clayton.
- The neighboring property asking roadway improvement for a speculative future development is not a constitutional fire share, violates the Mitigation Fee Act, and goes against the ruling on the Nollan-Dolan case.
- The owner of the neighboring property is talking about a speculative or theoretical development and is asking that Discovery Builders be burdened with a cost that is speculative or theoretical.
- Regarding MCRSP Policy IM-14, it is couched in "should" language and implementation needs to conform with the Constitution. This language gives the City wiggle room because there is no one-size-fits-all.
- It is not fair and not constitutional to require a full road for a hypothetical development.
- We disagree with the Condition of Approval requiring us to put all the money up front for all the infrastructure and the roadway.
- Without a project application for development being submitted for the neighboring property, and without any real efforts for proposing something concrete, what faith can we put into any development that may occur in the future?

- Until someone puts some effort into putting together a development proposal, with all due respect, we cannot take it seriously.
- The Constitution states fair-share. Requiring buildout is unconstitutional and exposes the City to vulnerability.

Chair Chippero allowed Mr. Moita to speak.

Mr. Moita then provided the following responses to Commissioners' questions:

- We are arguing about 24 feet versus 32 feet of pavement.
- The applicant is arguing that we have not defined a development, and that is not true because we have talked about 110-unit residential development.
- We have been working on this for years about this roadway access point.
- We have been trying to work with Seeno on the issue.
- This is the opportunity to have this done once and for all.
- In 1995, we applied for a minor subdivision and were denied.
- We are one of the originators of the MCRSP.
- Developers are sequential from west to east along Marsh Creek Road.
- We have been waiting for the Oak Creek Canyon development to come to fruition.
- We would pay our fair-share if the roadway were 32 feet in width with upsized utilizes servicing the 110 units that we would be proposing to develop.
- In the past, we have asked for the City Attorney to be involved in order for us to determine what the cost difference is for the utility upsizing that they should pay as a benefit of their project road in accordance with the MCRSP.
- This road would also provide access to a potential active open space/recreational park.

Director Feske provided the following comments:

- Speaking to his earlier comments about the difference between a vesting tentative map and a tentative map, he clarified that a vesting tentative map would entail the developer only needing to comply with current Conditions of Approval, fees, and codes.
- The question raised by Commissioner Altwal was referring to the other entitlements such as the rezone, development plan permit, etc.
- If those entitlements were to get close to expiration, then the developer's request for the entitlements to be extended would come back before the Planning Commission, and the Planning Commission would have the discretion to decide whether to approve the extension request.
- The City Council has the final say on street names.
- Mitigation measures were in the Mitigation Monitoring and Reporting Program.

Vice Chair Denslow moved and Commissioner Altwal seconded a motion to recommend to the City Council to deny the project, and directed staff to draft a resolution documenting findings of denial for the Commission's consideration at the next Regular Meeting of the Planning Commission. The motion passed 4-0.

10. PLANNING COMMISSION REQUESTS AND UPCOMING AGENDA DEVELOPMENT

This time is set aside for the Planning Commission to make requests of staff, and/or issues of concern to Planning Commissioners are briefly presented, prioritized, and set for future meeting dates.

None of the Planning Commissioners had requests or issues of concern.

11. ADJOURNMENT

The meeting was adjourned at 11:31 p.m. to the regularly-scheduled meeting of the Planning Commission on March 9, 2021.

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Minutes
City of Clayton Planning Commission
Regular Meeting
Tuesday, March 9, 2021

1. CALL TO ORDER

Chair A.J. Chippero called the meeting to order at 7:02 p.m.

2. PLEDGE OF ALLEGIANCE

Vice Chair Denslow lead the Pledge of Allegiance.

3. ROLL CALL

Present: Chair A.J. Chippero
Vice Chair Terri Denslow
Commissioner Frank Gavidia
Commissioner Ed Miller

Excused: Commissioner Bassam Altwal

Chair Chippero called for a moment of silence for the recent passing of a relative of Commissioner Altwal.

4. PRESENTATIONS AND ANNOUNCEMENTS

None.

5. ACCEPTANCE OF THE AGENDA

Chair Chippero called for a vote to accept the agenda. The agenda was accepted by vote of 4-0.

6. PUBLIC COMMENT

None.

Commissioner Gavidia recused himself and left the meeting at 7:07 p.m.

7. CONSENT CALENDAR

A. Approval of Planning Commission Minutes of February 23, 2021 Meeting.

Vice Chair Denslow stated that she did not intend to vote to approve the draft minutes of the February 23, 2021 meeting.

Commissioner Miller moved and Vice Chair Denslow seconded the motion to continue the item to the next regular meeting of the Planning Commission on March 23, 2021, to allow staff to make various corrections to the draft minutes. The motion passed 3-0.

8. PUBLIC HEARINGS

None.

9. ACTION ITEMS

A. A Resolution of the Clayton Planning Commission recommending that the Clayton City Council deny without prejudice the proposed subdivision and development of six detached single-family residences on approximately 9.03acres located on the north side of Marsh Creek Road at the intersection with Diablo Parkway, APN 119-070-008, because the proposed project does not conform with the Marsh Creek Road Specific Plan.

There were no public comments on the item.

Vice Chair requested revisions be made to the draft resolution to include minor corrections, to add the previous dates of public hearings at which the application had been considered, and to add text pertaining to inconsistency of the proposed project's 2:1 slopes to the Marsh Creek Road Specific Plan (Specific Plan).

Community Development Director Matthew Feske clarified that 2:1 slopes are allowed by the Specific Plan if mitigation is included, and that the project included a bench as its mitigation, such that the 2:1 slopes were not inconsistent with the Specific Plan.

In response to questions from Commissioner Miller, both Chair Chippero and Director Feske clarified that staff prepared the resolution of denial in accordance with the direction of the Planning Commission at its February 23 meeting, and that Conditions of Approval would not be adopted for a denial.

Vice Chair Denslow moved and Commissioner Miller seconded the motion to adopt the resolution of denial, as amended to include minor corrections and the dates of previous public hearings on the application. The motion passed 3-0.

10. PLANNING COMMISSION REQUESTS AND UPCOMING AGENDA DEVELOPMENT

This time is set aside for the Planning Commission to make requests of staff, and/or issues of concern to Planning Commissioners are briefly presented, prioritized, and set for future meeting dates.

Chair Chippero confirmed with Director Feske that Planning Commission agendas and other Planning Commission information were posted on the City website.

Commissioner Miller shared that he planned to attend the upcoming training academy about which Director Feske had informed them.

11. ADJOURNMENT

The meeting was adjourned at 7:26 p.m. to the regularly-scheduled meeting of the Planning Commission on April 6, 2021.

AGENDA REPORT

To:	**Honorable Chair and Planning Commissioners**
From:	**Dana Ayers, AICP** **Interim Community Development Director**
Prepared By:	**Holly Pearson, AICP** **Contract Planner**
Date:	**April 27, 2021**
Subject:	**Agenda Item 8.A** **Clayton Community Church – Requests for Environmental Review ENV-03-15, Use Permit UP-05-16, Site Plan Review Permit SPR-06-16, and Tree Removal Permit TRP-38-16.**

SUMMARY

This is a public hearing on an application by Clayton Community Church for approval of a Use Permit (UP-05-16), Site Plan Review Permit (SPR-06-16), and Tree Removal Permit (TRP-38-16) for a proposed new church located at 1027 Pine Hollow Court, Clayton (Assessor's Parcel No. 119-050-036). The subject property is approximately 4.4 acres and is currently developed with an approximately 1,300 square foot single-family residence (proposed to remain). The Use Permit application is required for a religious land use such as a church, synagogue, temple, or other place or worship, pursuant to Clayton Municipal Code §17.60.030(A)(3). The Site Plan Review Permit request involves consideration of the new building's architecture and associated site improvements including landscaping, parking, lighting, and fencing. The Tree Removal Permit request is for the proposed removal of 48 total trees on the property to accommodate construction of the building and other improvements and due to poor health and condition for some existing trees. A tree replacement plan is provided and includes 52 proposed new trees.

The Planning Commission is also asked to review the Initial Study and to consider whether to adopt the Mitigated Negative Declaration (MND) prepared for the proposed project (ENV-03-16), prior to considering whether to approve the requested permits.

RECOMMENDATION

Staff recommends that the Planning Commission receive and consider the staff report and all information provided and submitted to date, receive and consider any public testimony and, if determined to be appropriate:

1) Adopt Planning Commission Resolution No. 02-2021 adopting the Clayton Community Church Initial Study/Mitigated Negative Declaration (IS/MND) and Mitigation Monitoring and Reporting Program (MMRP) (ENV-03-16) (see Attachment A); and

2) Adopt Planning Commission Resolution No. 03-2021 approving the Use Permit Application (ENV-03-16), Site Plan Review Permit (SPR-06-16), and Tree Removal Permit (TRP-38-16) for construction of a new 13,998 square foot church (see Attachment B).

PROJECT INFORMATION

Applicant/Property Owner:	Clayton Community Church 6055 Main Street Clayton, CA 94517
Location:	1027 Pine Hollow Court (Assessor's Parcel No. 119-050-036-1)
General Plan Designation:	RD – Rural Estate
Zoning Classification:	R-40-H (Single Family Residential, minimum lot area 40,000 square feet with horses allowed)
Surrounding General Plan Designations:	North: E – Elementary School South: RD – Rural Estate East: TC – Town Center; MLD – Multifamily Low Density West: LD – Single Family Low Density
Surrounding Zoning Classifications:	North: R-40-H South: R-40-H East: PF – Public Facility; PD – Planned Development West: R-15 (Single Family Residential, min. lot area 15,000 sf)
Environmental Review:	An Initial Study/Mitigated Negative Declaration (IS/MND) and Mitigation Monitoring and Reporting Program was prepared in accordance with the California Environmental Quality Act (CEQA), discussed in further detail below.

Public Notice: On April 16, 2021, a Public Hearing Notice was published in the Contra Costa Times, posted on the notice boards, and mailed to owners of property located within 300 feet of the project site.

Authority: Section 17.60.030 of the Clayton Municipal Code (CMC) authorizes the Planning Commission to approve a Use Permit in accordance with the standards of review in CMC Section 17.60.040.

Section 17.44.020 of the CMC authorizes the Planning Commission to approve a Site Plan Review Permit in accordance with the standards of review in CMC Section 17.44.040.

Section 15.70.030.C of the CMC authorizes the Planning Commission to approve, conditionally approve, or deny a tree removal permit.

BACKGROUND

Clayton Community Church proposes to construct a new 13,998 square foot church building, including a sanctuary, classrooms, and offices, on an approximately 4.4-acre property at 1027 Pine Hollow Court, just west of Clayton's Town Center. The offices for Clayton Community Church are currently located at 6055 Main Street, and church services are held at Diablo View Middle School (300 Diablo View Lane). The church has been operating in Clayton for more than 20 years.

The subject property has a zoning designation of R-40-H (Single Family Residential, minimum lot size 40,000 square feet, horses allowed) and a General Plan land use designation of RD – Rural Estate. The surrounding area is predominantly residential, with single family residences to the south and across the street on Pine Hollow Court to the west. Mount Diablo Elementary School is immediately to the north (see Vicinity Map on page 4). The eastern portion of the property slopes downward toward Mitchell Creek, which runs immediately to the east of the parcel, with an average slope of about 26 percent. The proposed new church building would be located on the northern central portion of the project site, which is relatively flat, with parking to the north, west, and south of the building. There would be no construction or improvements on the sloped portion of the site.

The existing single-family dwelling on the property, located on the southwestern portion of the lot, was constructed in 1952. The dwelling is proposed to remain on the site when the proposed church building is constructed; it would be used as a residence for church staff. There are also three existing accessory structures on the property that are proposed for demolition: a wooden barn built in the late 1800s and a small storage shed on the northwestern portion of the site along Pine Hollow Court, and another storage structure at the northern property line bordering the school property.

PROJECT OVERVIEW

The proposed new church building would include a sanctuary, education classrooms, ministry offices, a prayer room, a small kitchen facility and storage areas. Most of the building footprint would be single-story, with portions at the center and eastern side of building rising to two stories. The church would have various adjacent outdoor spaces, including an elevated wood deck on the east side of the building, several small patios and porches on the north, west and south sides, and a small children's playground. Vehicular access to the site would be provided by a new driveway from Pine Hollow Court, along the western boundary of the site. The church would have 160 car parking spaces (157 regular and three tandem) as well as bicycle racks with space to accommodate 18 bikes. New landscaping and trees would be planted along the front (west) and side (north and south) property lines as well as in planting areas in the interior of the parking lot. Existing trees that are healthy and not located within the proposed development footprint would be retained.

The site plan, floor plans, and parking lot configuration have been revised since the version of the plans that was included for public review in February 2021 with the draft Initial Study/Mitigated Negative Declaration (IS/MND). These revisions were made to comply with Contra Costa County Fire Protection District requirements for emergency vehicle access and turnaround. To accommodate the required access and turnaround facility needed for fire safety, the project design was changed to provide paved access roadways within 150 feet of all portions of the building's exterior walls and to include a turnaround bay for emergency vehicles in the northern portion of the parking lot. These changes necessitated reducing the building footprint and relocating some of the floor area (2,857 square feet) to a second story. Staff has reviewed the revised project design and finds that it is consistent with the development and design standards in the Clayton Zoning Code. In addition, updates have been made to the IS/MND according to the California Environmental Quality Act (CEQA) guidelines, with the conclusion that the project revisions do not result in any new significant impacts.

Weekly church activities at the site would include:

- two Sunday morning worship services (9:00 and 10:15 am), with concurrent nursery care and children's education programs;
- church staff meetings (Monday mornings) and worship team meetings (Tuesday evenings);
- women's craft group (Tuesday mornings);
- women's group (Wednesday mornings);
- "Crosswalk" program for elementary school children (Wednesday afternoons);
- youth group (Wednesday evenings);
- women's and men's bible study groups (Thursday evenings); and
- Alcoholics Anonymous meetings (Sunday evenings).

The expected total attendance for Sunday worship services is 433 people. Other groups, meetings and activities would range from 10 to 40 participants.

In addition, the church would host two monthly events – a worship night on a Friday evening (expected attendance 50 people) and a men's breakfast on a Saturday morning (expected attendance 40 people). Annual holiday church services would include Christmas Eve (two services at 5:00 and 7:00 pm) and Easter Sunday (two services 9:00 and 10:45 am). Total attendance for each holiday would be approximately 600 people.

The proposed classroom spaces in the building would be used for the educational programming for children and youth offered in conjunction with Sunday services, as well as for after-school programs. The church is not proposing to operate a school facility.

USE PERMIT APPLICATION

Clayton's zoning code requires a Use Permit for a religious land use such as a church, synagogue, temple, or other place or worship in any zoning district in the city. Section 17.60.040 of the City's zoning code sets forth standards of review for Use Permit applications, including parking and site access, traffic, noise, air quality, lighting, litter, and crime.

Parking and Access

Vehicular access to the site would be via a single driveway on Pine Hollow Court at the northern end of the property. The proposed project has 160 parking spaces, including 125 standard spaces (of which three are tandem), six handicapped-accessible spaces, 13 compact spaces and 16 spaces reserved for clean air/vanpool/electric vehicles (with conduit run for electric vehicle charging). The amount of parking provided is based on a breakdown of the uses associated with different areas of the building as shown on the floor plan (see the "Project Data" tables on Sheet A-002, and the corresponding floor plans on Sheets A-111 and A-112 of the project plans, Attachment C) and the off-street parking space requirements set forth in Schedule 17.37.030A of the Clayton Zoning Code.

The layout of the building includes 4,709 square feet of assembly space (sanctuary, stage and lobby) with a parking requirement of one space per 50 square feet of floor area; 4,448 square feet of education space (nursery, child and youth classrooms and adult education space) with a parking requirement of one space per 100 square feet of floor area; and 4,841 square feet of office space (ministry offices and other miscellaneous spaces within the building) with a parking requirement of one space per 250 square feet of floor area. Based on the above, the total parking requirement for the project is 157 spaces. As noted above, the applicant proposes to provide the 157 parking spaces required per the zoning code, plus three additional tandem spaces.

Figure 1: Vicinity Map

Staff supports this method of calculating the parking requirement since, during peak usage periods (Sunday mornings), the three use categories noted would not all generate car trips and parking demand at the same time. As noted above, the church anticipates total attendance at Sunday worship services will be 433 people, split between the two services (or an average of about 217 people for each of the two time slots). This attendance number includes adults and children/youth, with most attendees traveling to the church in pairs or groups of three or more. Children and teens would use the classroom spaces at the same time adults attend services in the sanctuary or social activities in other areas of the building. Therefore, the proposed parking of 160 spaces is sufficient to meet the expected parking demand.

This conclusion is supported by the traffic study conducted by TJKM Transportation Consultants as part of the environmental review process for the project (see Attachment D). TJKM performed a traffic impact analysis which looked at the number of vehicle trips the project would generate and which included an analysis of parking. The traffic study notes that TJKM has conducted past studies measuring parking demand at other churches in the Bay Area, which have shown an average parking demand of one space per 2.0–2.5 attendees in the main worship service. Based on this number, TJKM states that the typical Sunday morning parking demand for the proposed Clayton Community Church would be 104-130 spaces.

For special events when church attendance would be higher, such as Christmas Eve and Easter services, the applicant is in discussion with the Mount Diablo Unified School District regarding a potential shared parking agreement that would allow the church to use parking spaces at the adjacent Mount Diablo Elementary School as overflow parking for special church events during non-school hours, and also would allow the school to use the church's lot for additional parking during school hours. This shared parking arrangement would work particularly well for these two institutions, since the church's busy holiday services would occur at times when the school is not in session, and school's peak parking demand would occur during weekdays or on Saturdays (e.g. during sports events at the school) when there would be little or no activity at the church. This arrangement would provide adequate parking for the church's holiday worship services without resulting in spillover parking onto neighborhood streets (see letter from the Mount Diablo Unified School District regarding shared parking, Attachment E).

Section 17.37.040 of the Clayton Zoning Code requires bicycle parking spaces for new commercial, public and quasi-public development projects in the amount of one space plus ten percent of the required number of vehicle parking spaces required per code. For the Clayton Community Church project, this equates to 17 required bicycle parking spaces (one plus ten percent of 157 vehicle spaces, or one plus 16 spaces). The applicant proposes 18 bike parking spaces on the project site, located just south of the main entrance to the building.

Traffic Congestion

The TJKM traffic study evaluated the anticipated traffic volumes and conditions associated with the Clayton Community Church project. The study looked at vehicle trip generation rates for the church based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, the industry standard for traffic impact analysis. In addition to the number of expected car trips, TJKM's methodology considered the project's impacts on roadway operations during peak times (Sunday mornings) as measured by traffic delay at road intersections in the vicinity of the project site. The traffic study found that the proposed church would generate 401 vehicle trips on Sundays, 101 daily trips on weekdays and 87 daily trips on Saturdays. It further concluded that all intersections studied would continue to operate at an acceptable Level of Service (LOS) of A or B[1] during the Sunday peak hour. This level of traffic generation is considered acceptable under the City of Clayton General Plan policies related to traffic impacts for new development projects.

The TJKM study also considered the relationship between weekday traffic associated with the church and that associated with Mt. Diablo Elementary School. TJKM traffic engineers compared the daily school schedule and drop-off/pickup times for students with the weekly operations plan for the proposed church in order to identify any days and times when traffic for each of the two uses would overlap. Not surprisingly, vehicle trips for the school would occur primarily on weekday mornings and afternoons (relatively quiet times in terms of activities at the church), and the majority of vehicle trips related to church attendance would occur on Sunday mornings when the school is closed.

In addition to the LOS analysis, the TJKM traffic study points out that the church project fits the criteria for a Small Project as well as a Locally Serving Project under the Contra Costa Transportation Authority's (CCTA) guidelines for traffic analysis using the Vehicle Miles Traveled (VMT) methodology. This means that per CCTA guidance, the church project can be assumed to have a less than significant impact on vehicle miles traveled.

In summary, most of the traffic associated with the church would not coincide with peak travel times in general (weekday commuter traffic) or for the adjacent school. Thus, the proposed new church facility would not result in significant traffic impacts in the surrounding area.

Noise

The IS/MND prepared pursuant to CEQA analyzed potential noise issues related to the project. The primary noise sources associated with the ongoing operation of the proposed church were identified as on-site traffic circulation, activity in the parking lot such as vehicle doors opening and closing, and activity at the children's playground on the north side of the building. Noise measurements were performed on the project site

[1] *Level of Service (LOS) is a term used to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay, and safety. LOS is expressed by a letter from A to F, with A indicating the best conditions and F indicating the worst.*

to document the existing ambient noise levels, and these were compared to the anticipated noise levels generated by operations and activities at the church. The expected noise levels from church activities, as perceived both outside and inside the residences in the surrounding area (the nearest land uses considered to be "noise sensitive"), would remain below the maximum noise thresholds established for new development in the Noise Element of the Clayton General Plan (60 Ldn[2] for exterior noise and 45 Ldn for interior noise).

The noise analysis in the IS/MND also considered short-term noise increases due to construction of the new building. The analysis concluded that although the use of heavy construction equipment at the project site would result in temporary noise levels exceeding the thresholds outlined in the General Plan, the implementation of standard mitigation measures related to construction noise – including limiting construction activity to daytime weekday hours, use of temporary noise barriers, use of mufflers on construction equipment and vehicles, and advance notification of construction schedules to nearby residences – would minimize the impacts of the short-term noise increase associated with construction of the new building.

See pages 114-128 of the IS/MND (Attachment G) for a detailed discussion about noise issues for the project.

Air Quality

The IS/MND prepared for the project also evaluated potential air quality issues associated with the proposed church. Emissions of air pollutants related to the church would derive mainly from short-term construction activity and from ongoing vehicular traffic to and from the church. Pollutant levels from these sources were estimated and compared to the applicable air quality standards and regulations set by the Bay Area Air Quality Management District (BAAQMD). In general, the air pollutants generated by building construction and ongoing traffic associated with the church would fall below the thresholds established by the BAAMQD and would be consistent with regional air quality plans and standards. The IS/MND includes a mitigation measure to decrease emissions of diesel particulate matter, or DPM, from construction equipment in order to reduce the potential health risks related to DPM to less than significant levels.

See pages 51-62 of the IS/MND (Attachment G) for a detailed discussion about air quality issues for the project.

Lighting

This analysis of site lighting as it relates to review criteria for the Use Permit focuses on the parking lot lighting, which is subject to the standards in Section 17.37.090 (G) (Parking Lot Design Standards – Lighting) of the Clayton Zoning Code. Exterior building lighting is discussed under "Architectural Design" in the Site Plan Review Permit section below.

[2] *Ldn is an abbreviation that signifies the average day-night noise levels, as measured in decibels.*

The parking lot lighting standards for residential districts in the Zoning Code state that outdoor light sources for parking facilities must not exceed 10 feet in height, and illumination at ground level must not exceed 0.5 foot-candles. However, the code provides that "additional illumination for safety purposes may be required by the approving body."

The applicant has submitted a photometric site plan showing the proposed parking lot lighting and illumination levels (Sheet E-01 of project plans, Attachment C). The lighting details on Sheet E-02 show the light fixtures at a height of 10 feet above the ground (the height of the parking lot lighting is also illustrated on the south building elevation, sheet A-201). The photometric plan demonstrates a maximum illumination level of 2.9 foot-candles in some locations directly under the light fixtures, with values ranging from 0.03 to 1.0 foot-candles throughout most of the parking lot.

For non-residential districts, the standard for the maximum illumination at ground level for parking lot lighting is 3.0 foot-candles. While the proposed church is located in a residential zoning district, through the Use Permit review process, staff supports the higher illumination level that is allowed for non-residential properties. Because the church's weekly operations plan includes evening activities between the hours of 7:00 pm and 9:00 pm, it is important to consider the safety of the parking lot for attendees arriving at and leaving the church property after dark. Staff believes the brighter illumination levels allowed for non-residential districts are necessary to provide a safe environment in the parking lot. The proposed light fixtures, shown on Sheet E-02 of Attachment C, would direct light downward to help maintain a dark sky at night. In addition, a condition of approval has been recommended that would require the parking lot lights to be dimmed after 10:00 p.m. (Condition 99).

Litter

The proposed church is not a use that would typically be expected to generate litter, as would a use such as a fast-food restaurant or convenience store. To prevent litter on and around the subject property, Condition of Approval 41 requires implementation of a parking lot sweeping program, and Condition 42 requires that the site be kept clean of litter and debris at all times. In addition, the applicant would be required per Condition 87 to submit a signed operation and maintenance agreement to the City, which provides a basis for enforcement of the sweeping and anti-litter requirements.

Crime

Clayton experiences relatively low levels of crime. According to the website CityRating.com, which maintains various social, demographic and economic statistics and indicators for communities throughout the United States, Clayton's property crime rate is 50.6 percent lower than the national average, and its violent crime rate is 91.6 percent lower than the national average. Furthermore, a church is not a land use type that is typically associated with high crime risk.

The most likely crime risk associated with the proposed church is vehicle break-ins and theft of items from vehicles occurring after dark. As noted above, staff's recommendation for allowing increased parking lot lighting levels is intended to maximize safety in parking areas and around the building at night. Good parking lot lighting is an effective way to minimize the risk of vehicle-related theft and robbery/assault of church visitors and staff. In addition, church staff intends to install security cameras and an alarm system on the premises to increase safety and prevent crime.

Concentration of Activities

The Zoning Code standards of review for a Use Permit refer to the possible concentration of a particular activity in an area to the detriment of public health, safety and welfare. Establishing a new church in the proposed location would not lead to a concentration of activities, as there are no other religious facilities in the vicinity of the subject property. In addition, a religious institution is not a land use type that tends to cause detrimental effects on public health, safety or welfare.

SITE PLAN REVIEW PERMIT

The Site Plan Review Permit process, as outlined in CMC Chapter 17.44, is intended to ensure that new development is compatible with Clayton's character and does not create adverse impacts on adjacent properties. The Site Plan Review Permit involves consideration of the project's compliance with applicable development standards (such as building height, building setbacks) as well as architectural design, site planning, safety, open space, landscaping, parking, and vehicular access. It also considers protection of solar access, privacy, and views for adjacent properties.

Single Family Residential (R-40-H) Development Standards

Lot Area and Width

The minimum lot area for parcels in the R-40-H Single Family Residential zone is 40,000 square feet, and the minimum lot width is 140 feet. The subject property far exceeds these minimum standards with a lot area of 4.4 acres square feet, and a width of approximately 540 feet.

Building Height

In the R-40-H zone, the maximum building height is 35 feet. The Clayton Zoning Code (section 17.04.62) defines building height as "[t]he distance measured vertically from a point on the base plane to the highest point on the building or structure. The base plane is an imaginary plane created at the perimeter of the building or structure at the natural or finished grade, whichever is lower." The maximum height of the proposed church is 29 feet 8 inches (height from finished grade to the top of the parapet wall) for the sanctuary portion of the building. On the eastern side of the building, where the property slopes down toward Mitchell Creek, the height from the base plane to the top of the parapet wall is also 29 feet 8 inches. The second-story element at the eastern side of

the building is stepped back to maintain a lower height adjacent to the slope. Building heights are shown on the elevation drawings, Sheets A-201 and A-202.

Setbacks

Minimum required building setbacks for the R-40-H zone are 40 feet (front), 20 feet (side) with a 40-foot aggregate side setback, and 15 feet rear. The proposed church building has significantly larger setbacks than these minimum requirements:

- Proposed front setback: 117 feet
- Proposed side setback (south): 255 feet 4 inches
- Proposed side setback (north): 87 feet 2 inches
- Proposed rear setback: 128 feet

Architectural Design

Architectural Style and Concept; Exterior Colors and Materials

The proposed design of the building is a simple and utilitarian architectural style using natural building materials such as wood and stone that reflect the rustic and semi-rural setting. The south (front) elevation is dominated by the main entry to the building, which features floor-to-ceiling windows and glass doors and a large curved canopy supported by stone columns. The exterior walls are primarily horizontal wood cement board siding with two contrasting tones – a medium-tone natural wood finish and a white finish – alternating with sections of white stucco. The building also incorporates stone accents matching the entryway pillars throughout the exterior, including planters and horizontal stone bands along some sections of the building. Other decorative accents include wood window frames, shutters and fascia.

The east, west and north elevations (side and rear) have simple white wood railings and columns surrounding covered patios and walkways. The building's roof is mostly flat, with sloping metal roofs over the porches and covered walkways along the building's perimeter. All facades of the building feature changes in wall planes and materials to visually break up the building's mass and create interest. The design also incorporates decorative elements such as large wall-mounted trellises and an arbor on the north façade that integrate landscaping with the building design. A large, painted white wood cross would be mounted on the building's northern exterior wall.

Staff finds that the materials, colors and size of the proposed building are complementary to and compatible with those of existing buildings in the vicinity of the project site.

Exterior Lighting

Wall-mounted, round farmhouse style light fixtures are proposed to be spaced evenly along all sides of the building. The rustic look of the proposed fixtures is complementary to the building design.

Signage

The property has four proposed signs that are subject to the sign provisions in Chapter 15.08 of the Clayton Municipal Code. A 26.5 square foot (3 feet 5 inches high by 7 feet 9 inches wide) wood monument sign with the church name and logo is proposed to be installed at the main driveway entrance along Pine Hollow Road. A wall sign with large black metal lettering reading “Clayton Community Church” would be mounted directly on the building face above the main entrance on the south side of the building; total size of this sign would be approximately 41 square feet (1 foot 6 inches high by 27 feet 5 inches wide). Two smaller wood and metal wall signs displaying the building’s address number and the acronym “CCC”, each 6 square feet in size (2 feet high by 3 ffeet wide), would be placed on the west side of the building on either side of the entry doors leading to the office and classrooms.

The design and materials of the signs are consistent with the overall building and site design. The aggregate area of the four signs is 79.5 square feet. For noncommercial locational signs (i.e., signs identifying a noncommercial use) in residential zones, including the R-40-H zone, for lots greater than 40,000 square feet (approximately 1 acre) the Planning Commission may approve aggregate sign area exceeding the base standard of 24 square feet. In the case of the church property, which is 4.4 acres, staff finds that the aggregate sign area of 79.5 square feet as proposed is appropriate relative to the size and scale of the lot and the building. The only sign that would be prominently visible from the street is the wood monument sign at the driveway entrance, and this sign has a simple, natural look and low height (3 feet 5 inches) that would blend inconspicuously into the semi-rural neighborhood setting. See sheet A-502 of the project plans (Attachment C) for signage details.

Site Design

Open Space

The zoning code does not prescribe open space requirements for the proposed project; however, an evaluation of open space as it relates to the overall site design is provided as part of the Site Plan Review process.

Approximately 39 percent of the project site, specifically the sloped area on the eastern side of the lot, will remain undisturbed and in a natural state. This area will remain as vegetated open space. In addition, the building and site design incorporate several outdoor seating areas around the perimeter of the building. Dedicated outdoor open spaces include a 700 square foot deck on the east side and smaller porches/patios on the north and west sides of the building. These areas provide space for church members and visitors to gather, relax and socialize outdoors.

Landscaping

The applicant has proposed a varied and visually appealing landscape plan that meets the City’s requirements for water-efficient landscaping. Proposed new trees on the site include Valley Oak (Quercus lobata) and Crape Myrtle (Lagerstroemia xf ‘Tuscarora’)

along the site perimeters and Box Elder (Acer negundo), Western Redbud (Cercis occidentalis) and Raywood Ash (Fraxinus oxycarpa 'Raywood') in the bio-swale areas. Several species of shrubs are proposed, including Australian Fuchsia (Correa 'dusky bells'), Fortnight Lily (Dietes irridoides), Lavender (lavandula spp.), Yarrow (Achillea millefolium), Mexican and Cleveland sage (Salvia leucantha and S. clevelandii), and others. The ground cover species Kurapia (Phyla nodiflora) is also proposed. All new trees and plantings are classified as low water use species, except for Western Redbud which is defined as a moderate water usage tree.

In addition, native grasses and some existing trees would remain on the undisturbed areas of the project site (see Tree Removal Permit section on page 16-17 for more information about existing trees to remain). As a whole, the landscape plan complements and enhances the building design, softening the built and paved elements and creating an attractive overall site.

Parking Lot Design

Section 17.37.090 of the Clayton Zoning Code contains standards for parking lot design and landscaping. Parking may not be located within a required setback. For the R-40-H zone, the minimum front setback is 40 feet, and the parking spaces along the western (street frontage) side of the property meet this required setback. In addition, the parking lot design meets all dimensional standards for parking spaces, drive aisles and driveways.

Landscape design in general is discussed in the preceding paragraphs. With respect to the zoning standards for parking lot landscaping, all new trees around the site perimeter are proposed to be 24-inch box trees as required by the code. The code allows some flexibility for meeting the standards for parking lot landscaping (per section 17.37.090(H)(9)). In the case of the church project, there are space constraints due to physical site conditions, most notably the large portion of the lot that is sloped. For safety and environmental protection, the development footprint is limited to the flat portion of the site, which results in a smaller amount of available site area to meet the parking and stormwater management requirements. There is not sufficient space within the development footprint area to comply with all parking lot landscaping requirements. The following is a summary of required and proposed element of the parking lot landscaping.

REQUIRED	PROPOSED
Internal planting areas equal to at least 10 percent of total parking lot area. [17.37.090 (H)(2)]	Internal planting areas are 4,184 square feet, approximately 6.7 percent of the total parking lot area (62,450 sf).
Parking lot planting areas must have a minimum width of 5 feet. [17.37.090 (H)(3)]	Internal parking lot planting areas are approximately 4 feet 7 inches wide.

REQUIRED	PROPOSED
A minimum of one tree for every three parking spaces (i.e,. 52 trees) must be evenly distributed throughout the parking lot. [17.37.090 (H)(5)]	There are 49 proposed trees spaced throughout the perimeter and internal planting areas of the parking lot.

Section 17.37.090 (H)(9) provides that innovative landscape designs may be substituted for the above standards, subject to the approval of the approving body. Staff believes that the design of parking lot landscaping is innovative and makes efficient use of the available space and meets the intent of the zoning code standards, even though the available site area is not large enough to fully comply with the standards noted above.

Fencing

The property currently has several different types of fencing around the perimeter of the lot and along the hillside on the site's interior. The existing fencing along the Pine Hollow Court frontage (west property line) would be removed, while the existing 6-foot tall chain link and 4-foot tall metal post and screen fencing along the side and rear property lines and the interior hillside would remain.

A new, 5-foot tall, high-quality horizontal wood fence would be constructed along the Pine Hollow Court frontage at the front of the property to screen the parking lot from view from the street. New wood fencing (5-foot high vertical picket) would also be installed around the children's playground at the north side of the building. See sheet A-106 of the project plans (Attachment C) for fencing details.

Solar Access, Privacy and Views

Due to the relatively low building height (less than 30 feet), large lot size, generous building setbacks and ample space surrounding the building, the proposed church would not create impacts on adjacent or nearby properties related to solar access, privacy or views. The distance from the proposed church to the nearest residence (to the west) is approximately 208 feet; thus, the building would not cast shadows on surrounding properties. The large setbacks would also reduce the visual prominence of the building as viewed from the public right-of-way and surrounding properties. Furthermore, the second-story element of the building, at 2,857 square feet, is a relatively small portion of the total building footprint of 11,141 square feet. The tallest part of the building, at 29 feet 8 inches, is more than 5 feet lower than the maximum building height allowed by code in the R-40-H zone. Thus, the impacts to views of the proposed church would be comparable to those of a two-story residence, which is allowed by right in the R-40-H zone. Trees and new fencing are proposed along the street frontage of the property which will provide screening to increase privacy for the residences located to the west.

Safety

The standards of review for a Site Plan Review Permit (CMC Section 17.44.040) reference factors related to general safety, including seismic, landslide, flooding, fire, and traffic. Traffic issues are discussed above in the section on Use Permit criteria on pages 7-8. Seismic, landslide, flooding and fire hazards were analyzed as part of the environmental review conducted pursuant to CEQA and are summarized below.

The IS/MND prepared for the project assessed seismic risks and notes that the project site is not located within an Alquist-Priolo Fault Zone (regulatory zones surrounding the surface traces of active faults in California). The analysis concluded that although there are several active faults in the region, adherence to the seismic design provisions of the California Building Code would allow the proposed church to resist minor to moderate earthquakes without structural damage. Therefore, the project would not create or exacerbate seismic safety concerns.

A geotechnical investigation and report was prepared for the project site, as part of the CEQA environmental review process. Soil samples were taken at various depths and analyzed, and historical aerial photographs were reviewed. The geotechnical investigation concludes that the eastern sloped portion of the site, which as a slope of 3:1, has a low to moderate chance of landslide. Other conditions related to soil stability, including potential lateral spreading and subsidence, were also analyzed. In response to soil and slope conditions on the site, the geotechnical consultant recommended drilled, cast-in-place friction piers to support the proposed deck on the eastern side of the building where the site begins to slope down toward the creek. This engineering treatment would maximize building safety and reduce the risk of property damage in the event of a landslide.

The IS/MND also evaluated the potential for flooding due to construction of the proposed church. The analysis notes that runoff from impervious surfaces on the project site (such as parking areas, walkways and the building roof) would be collected and conveyed to onsite bio-retention basins. Stormwater would flow from these basins to underground drainage pipes, and from there would be discharged through flow restrictors, which would limit the amount and velocity of water flowing out, to two new outfalls within the slope on the east side of the project site. This onsite stormwater treatment and discharge system would function such that runoff would flow down the natural slope into Mitchell Creek, which is the same condition that currently exists. Therefore, there would be no increased risk of erosion, siltation or flooding due to the proposed development. Moreover, the project site is not located within a 100-year floodplain (per FEMA Flood Insurance Rate Maps, the project is located in Zone X, outside of the 0.2 percent annual chance floodplain).

The project is required to comply with all provisions of Chapter 7A of the California Building Code related to design and construction of new buildings located within a wildland-urban interface, including installation of automatic fire sprinklers and a fire alarm system. The landscape plan does not include trees or other dense vegetation

located directly adjacent to building, which reduces potential fire hazard by avoiding fuel for a wildfire that would pose a heightened risk to the building.

TREE REMOVAL PERMIT

As part of the project, the applicant is requesting approval of a Tree Removal Permit to remove both protected and non-protected trees to accommodate the proposed development. The applicant has submitted an arborist report dated December 15, 2020 (see Attachment F). This report analyzed the health of existing trees on the project site and made recommendations for both removal and preservation of existing trees, due to the proposed development as well as the condition of the trees.

A brush fire occurred on the project site in July 2020 that damaged many of the existing trees. The arborist report recommends removal of a total of 48 trees – 35 trees that are located within the development footprint, 11 trees that are not impacted by the proposed construction but which were damaged by the fire or are dead, and two trees that are considered weeds. The applicant intends to follow these recommendations for tree removal. Sheet A-103 of the project plans (Attachment C) depicts the existing trees to be removed and those to be preserved, with numbers corresponding to the tree tag numbers in the arborist report

For the purpose of determining compliance with the Tree Protection Ordinance (CMC Chapter 15.70), the City would require replacement of the trees proposed for removal that are (a) in fair to good health, and (b) are species identified as “protected trees” per CMC Section 15.70.015(C).

Of the 48 trees to be removed, nine are protected species. Of those nine, one is in “good” health, six are in “fair” health, and two are in “poor-fair” or “poor” health. The seven trees to be removed that are in “fair” or “good” health are listed in the following table:

Tree Tag #	Species	Health	Trunk Diameter
353	Valley Oak	Fair	22 inches
375	Valley Oak	Fair	10 inches
379	Valley Oak	Fair	24 inches
386	Valley Oak	Fair	12 inches
387	Valley Oak	Good	18 inches
390	Valley Oak	Fair	14 inches
395	Valley oak	Fair	16 inches

The Tree Protection Ordinance [CMC Section 15.70.040(A)(1)] requires planting of replacement trees with a cumulative trunk diameter of at least 50 percent of the trunk diameter of the trees to be removed. For the proposed project, the cumulative trunk diameter of the trees to be removed listed in the table above is 116 inches. Thus, the required cumulative trunk diameter for replacement trees is at least 58 inches (0.50 x

116). The applicant proposes to plant 52 new trees, as shown on the landscape plan (sheet L-01 of Attachment C), with a cumulative trunk diameter of 1,338 inches.

GENERAL PLAN CONFORMITY

Land Use Element

The "Residential Designations" section of the Land Use Element (pages II-5 and II-6), states:

> [T]he following uses are allowed in each of the General Plan residential categories, provided they meet the requirements of the underlying zoning district, applicable specific plan policies and guidelines, and applicable general plan policies:
>
> - Churches and places of worship

Thus, a church as a land use is consistent with the General Plan. As noted above in the section on Single Family Residential (R-40-H) development standards, the project meets the requirements of the underlying zoning district (with the exception of standards for parking lot lighting, as discussed above, where the zoning code allows for variations in these standards at the discretion of the approving body). The subject property is not located within a specific plan area.

Community Design Element

A central goal of the Community Design Element is to maintain the rural character of Clayton's neighborhoods. The proposed project is consistent with this goal because the building design incorporates natural materials such as wood siding and stone columns and planters that give the building a natural, rustic feel that fits well within the rural setting. The site design maintains generous building setbacks and abundant open space around the building, which are in keeping with the low intensity of development in this semi-rural community. The low building height also helps to maintain the low scale and profile of development and preserve views of natural features in the area such as hills and trees.

Objective 1 of the Community Design Element is to "protect historical structures and sites of historical significance." The subject property is formerly part of a farm owned by the Frank family, who were early Clayton ranchers. The Frank family ranch is discussed in the Clayton Heritage Preservation 1994 Task Force Report. The City of Clayton relies on this report, prepared by the Heritage Preservation Task Force and accepted by the City Council, to determine whether structures and sites are considered historically significant. The Task Force Report also refers to "structures" on Pine Hollow Court but does not give any description of which structures are being referred to.

As part of the environmental review for the project pursuant to CEQA, Raney Planning and Management, the City's environmental consultant, conducted research including correspondence with the Clayton Historical Society to determine whether the existing barn on the site may have historical significance. The barn was built in the 1920s by

members of the Frank family. The outcome of Raney's inquiry into the status of the barn was that the structure is not considered a significant historical resource under CEQA. In recognition of the history of the site and its association with the Frank family, the applicant plans to install a plaque on the project site. The existing barn is proposed for demolition to accommodate construction of the new church and parking area.

Objective 2 of the Community Design Element is to "maintain landscape and natural vegetation found in Clayton as a means to provide greenery, open space, development buffer and rural atmosphere." The proposed project achieves this objective by leaving the slope adjacent to Mitchell Creek on the eastern side of the property undisturbed and retaining the natural vegetation and trees on this portion of the lot. Existing healthy trees are also retained elsewhere on the project site, such as the large California black walnut tree near the front property line. Native grasses along the southwestern corner of the lot would also be maintained, as shown on the landscape plan.

The proposed landscape design for the project is consistent with Policies 2c (Require creative landscaping for new developments) and 2d (Use vegetation as a screen to development) of the Community Design Element. As noted in the discussion on landscaping on page 13, the landscape plan features several different species for trees, shrubs, and ground cover, which would provide variety in terms of sizes, colors, and textures of foliage. The planting palette includes several species native to the area, such as Valley Oak, Western Redbud, California Rose and Yarrow. As noted, new trees are to be planted at close spacing along the street frontage of the property, as well as along the northern property line separating the proposed church from Mt. Diablo Elementary School to provide screening.

ENVIRONMENTAL REVIEW

In compliance with CEQA, the City retained Raney Planning & Management to prepare an Initial Study/Mitigated Negative Declaration (IS/MND) and Mitigation Monitoring and Reporting Program (MMRP) for the proposed project. The IS/MND was circulated for a 20-day public review period from February 12 to March 4, 2021. Following subsequent changes to the project design that were necessary to comply with Contra Costa County Fire Protection District access requirements, the IS/MND was revised to include minor changes, and the public comment period was extended to April 27, 2021. As reflected in the revised IS/MND, the project revisions would not result in any new significant impacts. The revised IS/MND and the MMRP are included as Attachments G and H to this staff report and have been posted for the duration of the extended comment period on the City's website at:
https://ci.clayton.ca.us/community-development/planning/development-activity/current-projects-clayton-community-church/.

The Initial Study evaluated the potential project-related environmental impacts as required under the State CEQA Guidelines. Potentially significant impacts were identified in the following areas: air quality; biological resources; cultural resources; geology and soils; hazards and hazardous materials; noise; and tribal cultural resources. All potential impacts in other categories—aesthetics, agriculture resources,

energy, greenhouse gas emissions, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation/circulation, utilities and service systems, wildfire, and mandatory findings of significance—were found to be less than significant.

Mitigation measures were identified that would reduce each of the potentially significant impacts to a less-than-significant level. Accordingly, a Mitigated Negative Declaration has been prepared pursuant to Article 6 of the State CEQA guidelines (State CEQA Guidelines, § 15070, *et seq*.) The evaluations, impacts, and mitigation measures are described in detail in the IS/MND. In addition, responses to public comments received on the IS/MND are included as Attachment I.

ATTACHMENTS

A. Planning Commission Resolution No. 02-2021
B. Planning Commission Resolution No. 03-2021
C. Project Plans
D. Traffic Study by TJKM
E. Letter from Mt. Diablo Unified School District re: Shared Parking
F. Arborist Report by Trees, Bugs, Dirt
G. Initial Study/Mitigated Negative Declaration
H Public Comments and Responses to Comments on Initial Study/Mitigated Negative Declaration
I. Public Comments Received in Response to Notice of Planning Commission Hearing on Proposed Project

Attachment A

Planning Commission
Resolution No. 02-2021

CITY OF CLAYTON
PLANNING COMMISSION
PROPOSED
RESOLUTION NO. 02-2021

A RESOLUTION OF THE CLAYTON PLANNING COMMISSION ADOPTING THE FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE CLAYTON COMMUNITY CHURCH PROJECT (ENV-03-16)

WHEREAS, the City received an application from Clayton Community Church requesting review and adoption of an Initial Study/Mitigated Negative Declaration (ENV-03-16), and review and approval sUse Permit (UP-05-16), Site Plan Review Permit (SPR-06-16) and Tree Removal Permit (TRP-38-16) for construction of a new 13,998 square foot church building on a 4.42-acre site ("Project") located at 1027 Pine Hollow Court, Assessor's Parcel No. 119-050-036-1; and

WHEREAS, pursuant to the California Environmental Quality Act ("CEQA," Public Resources Code §21000 *et seq.*) and the State CEQA Guidelines (California Code of Regulations, title 14, § 15000 *et seq*.), the City is the lead agency for the Project; and

WHEREAS, the City prepared an Initial Study/Mitigated Negative Declaration ("IS/MND") to evaluate the potential environmental impacts of the Project, in accordance with Section 15063 of the State CEQA Guidelines; and

WHEREAS, based on the information contained in the IS/MND, which concluded that the Project could have potentially significant impacts but that those impacts could be reduced to less than significant levels with implementation of certain mitigation measures, the City prepared a Mitigation Monitoring and Reporting Program (MMRP) pursuant to Public Resources Code section 21081.6 and State CEQA Guidelines section 15074(d); and

WHEREAS, availability of a draft IS/MND was duly noticed and circulated for an extended review period, with the public review comment period commencing on February 12, 2021, and ending April 27, 2021; and

WHEREAS, the Clayton Planning Commission has reviewed the IS/MND for the Project and the comments received thereon during the public review comment period; and

WHEREAS, proper notice of this public hearing was given in all respects as required by law; and

WHEREAS, on April 27, 2021, the Clayton Planning Commission held a duly-noticed public hearing on the IS/MND and MMRP and received and considered testimony and evidence, both oral and documentary; and

WHEREAS, the custodian of the Final IS/MND and record of the Project is the Community Development Department located at City Hall, 6000 Heritage Trail, Clayton, California, and the Final IS/MND is available for public review at City Hall in the Community Development Department, and the MMRP is attached as Exhibit A to this Resolution.

NOW, THEREFORE, BE IT RESOLVED, as follows:

1. The foregoing recitals are true and correct and are incorporated herein as substantive findings of this Resolution.

2. The Clayton Planning Commission has reviewed and considered the information contained in the IS/MND, the MMRP, the administrative record, and all other written and oral evidence presented to the Planning Commission for the Project.

3. The Clayton Planning Commission hereby finds, on the basis of the whole record before it (including the IS/MND, MMRP, and all comments received) that:

    a. The City of Clayton exercised overall control and direction over the CEQA review for the Project, including the preparation of the Final IS/MND and MMRP, and independently reviewed and considered the Final IS/MND and MMRP, as well as all comments and other information submitted to the City of Clayton in connection with the Project and the IS/MND; and

    b. The IS/MND contains a complete and accurate reporting of the environmental impacts associated with the Project, and the IS/MND has been completed in compliance with CEQA and the State CEQA Guidelines; and

    c. The evidence in the administrative record, including, without limitation, the analysis set forth in the IS/MND and its supporting technical studies, demonstrate that, with the incorporation of the identified mitigation set forth in the MMRP, the Project will not have any potentially significant environmental impacts; and

    d. There is no substantial evidence in the administrative record supporting a fair argument that the Project may have a significant effect on the environment with the incorporation of the mitigation measures identified in the MMRP; and

    e. The Final IS/MND and MMRP reflect the City's independent judgment and analysis and contain a complete, objective, and accurate reporting of the environmental impacts associated with the Project.

4. The Clayton Planning Commission hereby adopts the Clayton Community Church Initial Environmental Study/Mitigated Negative Declaration and approves the Mitigation Monitoring and Reporting Program attached as Exhibit A to this Resolution.

5. The documents and materials that constitute the record of proceedings on which these findings are based are located at Clayton City Hall, at 6000 Heritage Trail, Clayton, CA 94517.

PASSED AND ADOPTED by the Planning Commission of the City of Clayton at a regular meeting on the ____ day of _____, 2021.

APPROVED:

_____
A.J. Chippero
Chair

ATTEST:

_____
Dana Ayers
Interim Community Development Director

Planning Commission Resolution No. 02-2021
Exhibit A

Clayton Community Church Project
Mitigation Monitoring and Reporting Program

April 2021

The California Environmental Quality Act (CEQA) and the CEQA Guidelines require Lead Agencies to adopt a program for monitoring the mitigation measures required to avoid the significant environmental impacts of a project. The Mitigation Monitoring and Reporting Program (MMRP) ensures that mitigation measures imposed by the City are completed at the appropriate time in the development process.

The mitigation measures identified in the Initial Study/Mitigated Negative Declaration (IS/MND) for the Clayton Community Church Project (proposed project) are listed in the MMRP along with the party responsible for monitoring implementation of the mitigation measure, the milestones for implementation and monitoring, and a sign-off that the mitigation measure has been implemented.

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
Air Quality			
Mitigation Measure 1. *Prior to the initiation of ground disturbance, the project applicant shall ensure that all heavy-duty off-road diesel-powered equipment to be used in the construction of the project (including owned, leased, and subcontractor equipment) shall be CARB Tier 4 Interim or cleaner.* *In addition, all off-road equipment working at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.* *The aforementioned requirements shall be noted on improvement plans and submitted for review and approval by the Community Development Director for the City of Clayton.*	City of Clayton Community Development Department	Mitigation requirements shall be shown on improvement plans	
Biological Resources			
Mitigation Measure 2. *Special-status plant surveys shall be conducted in accordance with CNPS and CDFW protocols throughout the project site within two years prior to the commencement of construction. The CNPS and CDFW protocols require that the surveys be conducted at the time of year that the target species are most identifiable; this often requires multiple survey visits to capture the identifiable period of all target species. If special-status plant species are not found, further mitigation would not be required. If special-status plants are found and will be impacted, mitigation for those impacts shall be determined in coordination with CDFW. If the plant found is a perennial, then mitigation could consist of digging up the plant and transplanting it to a suitable nearby avoided area prior to construction. If the plant found is an annual, then mitigation could consist of collecting seed-bearing soil and spreading it in a suitable nearby avoided area prior to construction.* *A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If special-status plant species are not found,*	City of Clayton Community Development Department CDFW (If special-status plants are found and will be impacted)	Prior to the commencement of construction	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
further mitigation is not required.			
Mitigation Measure 3. *Within 14 days prior to construction activities, a qualified biologist shall conduct a take avoidance survey for active bumble bee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The biologist shall walk the entire area proposed for grading and inspect all rodent burrows for bumble bee activity. If any bumble bees are detected during the survey, the species shall be identified. Active colonies of crotch bumble bee or western bumble bee shall be avoided and work shall not occur within 50 feet of the colony. If the colony is in a location proposed for development, consultation for the CDFW shall be necessary and an Incidental Take Permit from the CDFW may be required prior to disturbance.* *A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If crotch bumble bee or western bumble bee nests are not found, further mitigation is not required.*	City of Clayton Community Development Department CDFW (If colony is found and will be impacted)	Within 14 days prior to construction activities	
Mitigation Measure 4. *A targeted take avoidance burrowing owl nest survey shall be conducted within all accessible areas within 250 feet of the proposed construction area within 14 days prior to construction activities utilizing 60-foot transects, as outlined in the 2020 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation. If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within 250 feet of the nest burrow, the applicant shall consult with CDFW to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW.*	City of Clayton Community Development Department CDFW (If active nest burrow is found and applicant desires to work within 250 feet of burrow)	Within 14 days prior to construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If western burrowing owl nests are not found, further mitigation is not required.			
Mitigation Measure 5(a). *A preconstruction nesting bird survey shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. If there is a break in construction activity of more than two weeks, subsequent surveys shall be conducted.* *If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. The no-disturbance buffers may be reduced if a smaller buffer is proposed by the project biologist, and approved by the City, after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (if there are visual or acoustic barriers between the proposed activity and the nest). A qualified biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site, or the nest can be left undisturbed until the end of the nesting season.* *A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If raptor or songbird nests or nests of birds protected by the MBTA are not found, further mitigation is not required.*	City of Clayton Community Development Department	No more than 14 days prior to the initiation of construction	
Mitigation Measure 5(b). *Should construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest as a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared and submitted to the City, indicating that the nest (or nests) are no longer active and that new nests have not been identified.*	City of Clayton Community Development Department	During construction activities, if such activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
Mitigation Measure 6. *A qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features within the proposed development footprint. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If roosting bats are not found, further mitigation is not required.* *If potential roosting habitat is identified within the areas proposed for development, the biologist shall survey the potential roosting habitat. Ideally, this survey should be conducted during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys are recommended to be conducted using methods that are considered acceptable by the CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.* *If roosting bats are identified within any of the trees or buildings planned for removal, or if presence is assumed, then the qualified bat biologist shall specify appropriate exclusion methods according to where the roosting bats are located and what season the exclusion must occur. These exclusion methods may include two-step tree removal or building exclusion as detailed below.* *In general, the trees/buildings shall be removed outside of pup season only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Building exclusion methods may include such techniques as installation of passive one-way doors, or the installation of netting when the bats are not present to prevent their reoccupation. Once the bats have been excluded, tree removal may occur. Removal of trees/buildings where roosting habitat is not identified during the survey is recommended to be conducted from January*	City of Clayton Community Development Department	Within one year prior to the start of construction	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.			
Mitigation Measure 7. *The following tree protection measures shall be implemented pursuant to the recommendations listed in the Arborist Report, to the extent feasible:* • *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the existing trees to be retained, as identified in the Arborist Report; and* • *The project applicant shall include all recommendations provided in the Updated Arborist Report by Trees, Bugs, Dirt Landscape Consulting and Training within the Tree Protection Plan. The Tree Protection Plan shall meet the standards provided in Section 15.70.45 of the Municipal Code, and shall include, but not necessarily be limited to, the establishment of TPZs and protective fencing around trees to be preserved; temporary irrigation systems to be provided for each tree; the installation and maintenance of at least two inches of wood chip mulch within the protected soils within each TPZ; air spade trenching; root pruning and clearance pruning; and the prohibition of oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials within the dripline of trees to be preserved.*	City of Clayton Community Development Department	In conjunction with submittal of improvement plans	
Mitigation Measure 8. *A tree replacement plan for the removal of 58 inches of cumulative trunk diameter of protected tree species shall be prepared in accordance with Municipal Code Section 15.070.040 A1. or A.2., or, subject to determination by the Community Development Director or Planning Commission, the applicant must pay an in-lieu fee to the City for the purchase and installation of trees of equivalent value.*	City of Clayton Community Development Department	Prior to the issuance of a grading permit	
Cultural Resources			
Mitigation Measure 9. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, tribal cultural resources, or human remains, are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall*	City of Clayton Community Development Department	Prior to the issuance of a grading permit	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.			
Mitigation Measure 10. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.*	City of Clayton Community Development Department Contra Costa County Coroner NAHC, if remains are determined to be Native American	During ground disturbing activities	
Geology and Soils			
Mitigation Measure 11. *Prior to approval of the improvement plans for the project, all recommendations from the Geotechnical Investigation prepared by Cornerstone Earth Group (2019) and the Geotechnical Response to Comments prepared by Cornerstone Earth Group (2020) shall be incorporated into the improvement plans to the satisfaction of the City Engineer.* *In addition, the applicant shall retain a California Registered Geotechnical Engineer to review the geotechnical aspects of the project's structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing plans for construction. The geotechnical engineer shall perform field observations during earthwork and foundation construction to confirm project compliance with project plans, project specifications, and the recommendations provided in Cornerstone's Geotechnical Investigation and Geotechnical Peer Review Response Memo. The on-site geotechnical engineer shall have the authority to provide supplemental*	City Engineer	Measures shall be incorporated into improvement plans prior to approval; Measures shall be implemented during earthwork and foundation construction	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
recommendations as necessary based on site conditions. Compliance with the recommendations of the Geotechnical Engineer shall be provided to the City Engineer.			
Mitigation Measure 12. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to:* • *Hydro-seeding;* • *Placement of erosion control measures within drainage ways and ahead of drop inlets;* • *The temporary lining (during construction activities) of drop inlets with "filter fabric";* • *The placement of straw wattles along slope contours;* • *Use of a designated equipment and vehicle "wash-out" location;* • *Use of siltation fences;* • *Use of on-site rock/gravel road at construction access points; and* • *Use of sediment basins and dust palliatives.*	City Engineer	Prior to the issuance of a grading permit	
Hazards and Hazardous Materials			
Mitigation Measure 13. *Prior to initiation of any ground disturbance activities, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from Contra Costa Health Services and properly abandon the on-site well to the satisfaction of the Contra Costa Health Services Department. Proof of abandonment shall be provided to the City of Clayton Community Development Department and City Engineer.*	City of Clayton Community Development Department City Engineer Contra Costa Health Services Department	Prior to initiation of any ground disturbance activities	
Mitigation Measure 14. *Prior to issuance of a demolition permit for any on-site structures, the Developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the City of Clayton Community*	City of Clayton Community Development	Prior to issuance of a demolition permit	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
Development Director an asbestos and lead survey. If ACMs or lead-containing materials are not discovered during the survey, further mitigation related to ACMs or lead containing materials will not be required. If ACMs and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The applicant shall submit the work plan to the City for review and approval.	Department		
Noise			
Mitigation Measure 15. *To the maximum extent practical, the following measures should be incorporated into the project construction plans:* • *Pursuant to Section 15.01.101 of the Clayton Municipal Code, all grading and excavation, construction, demolition, renovation, and other works of improvement shall occur only between the hours of 7:00 A.M. and 5:00 P.M., Monday through Friday.* • *The project shall utilize temporary construction noise control measures, including the use of temporary noise barriers, or other appropriate measures as mitigation for noise generated during construction of projects.* • *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.* • *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.* • *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.* • *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.* • *Project area and site access road speed limits shall be established and*	City Engineer	Prior to the issuance of a grading permit	

MITIGATION MONITORING AND REPORTING PROGRAM CLAYTON COMMUNITY CHURCH PROJECT			
Mitigation Measure	**Monitoring Agency**	**Implementation Schedule**	**Compliance Verification (Date / Initials)**
enforced during the construction period. • *Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.* *The requirements above shall be included, via notation, on the final grading plan submitted for review and approval by the Community Development Director prior to grading permit issuance.*			
Tribal Cultural Resources			
Mitigation Measure 16. *Implement Mitigation Measure 9 and Mitigation Measure 10 within Section 5, Cultural Resources, of this IS/MND.*	City of Clayton Community Development Department Contra Costa County Coroner NAHC, if remains are determined to be Native American	Prior to the issuance of a grading permit and during any ground disturbing activities	

Attachment B

Planning Commission
Resolution No. 03-2021

CITY OF CLAYTON
PLANNING COMMISSION
PROPOSED
RESOLUTION NO. 03-2021

A RESOLUTION OF THE CLAYTON PLANNING COMMISSION APPROVING A USE PERMIT (UP-05-16), SITE PLAN REVIEW PERMIT (SPR-06-16), AND TREE REMOVAL PERMIT (TRP-38-16) FOR THE CLAYTON COMMUNITY CHURCH PROJECT

WHEREAS, the City received an application from Clayton Community Church requesting review and approval of a Use Permit (UP-05-16), Site Plan Review Permit (SPR-06-16), Tree Removal Permit (TRP-38-16), and related Environmental Review (ENV-03-16) for development of a new 13,998 square foot church building ("Project") located on a 4.4-acre parcel at 1027 Pine Hollow Court, (Assessor's Parcel No.: 119-050-036-1); and

WHEREAS, the City prepared an Initial Study/Mitigated Negative Declaration ("IS/MND") and Mitigation Monitoring and Reporting Program ("MMRP") to evaluate the potential environmental impacts of the Project, in accordance with Section 15063 of Title 14 of the California Code of Regulations, the California Environmental Quality Act ("CEQA") Guidelines; and

WHEREAS, the Clayton Planning Commission adopted Resolution No. 02-2021 approving and adopting the Clayton Community Church Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program at the Planning Commission meeting of April 27, 2021; and

WHEREAS, proper notice of this public hearing was given in all respects as required by law; and

WHEREAS, on April 27, 2021 the Clayton Planning Commission held a duly-noticed public hearing on the Use Permit (UP-05-16), Site Plan Review Permit (SPR-06-16), and Tree Removal Permit (TRP-38-16), and received and considered testimony and evidence, both oral and documentary.

NOW, THEREFORE, BE IT RESOLVED, the Planning Commission does determine the foregoing recitals are true and correct and makes the following findings for approval of the Use Permit application:

A. That the use shall be in conformity with the General Plan and any applicable specific plan;

The proposed church conforms to the Clayton General Plan because the Land Use Element specifies that churches and places of worship are allowed in areas residential land use designation (the subject property's General Plan land use designation is Estate Residential) provided they meet the requirements of the underlying zoning district and applicable General Plan Policies. The City's zoning code allows a church in a residential zoning district through the approval of a Use Permit. In addition, the proposed building and landscape design conform to the policies of the Community Design Element that emphasize maintaining Clayton's rural neighborhood character in several important

respects. Specifically, the project incorporates generous building setbacks to maintain ample open space. The building is set back 117 feet from the front property line. The low profile of the building and its small scale relative to the size of the property (13,998 square feet of floor area on a 4.4-acre parcel, or a floor area ratio [FAR] of 0.07) represent a very low-density form of development that is compatible with the rural character of the area. In addition, abundant landscaping including 52 new trees to be planted, would help the development to blend into the rural environment and provide screening between the new building and surrounding properties. The anticipated traffic levels associated with the project, as analyzed and documented in the traffic study by TJKM, are within the acceptable thresholds defined in the Circulation Element.

The proposed project is not located within a specific plan area.

B. That the use shall be in conformity with City-adopted standards.

The proposed project conforms to all applicable City standards, including development regulations and standards in the zoning code. The required building setbacks, building height, number and dimensions of auto parking spaces, number of bicycle parking spaces, landscaping requirements, planting of new trees, and height of parking lot lighting fixtures are all in compliance with the City's zoning code. For elements of the project where the zoning code allows flexibility in the requirements, such as the parking lot landscaping standards and maximum illumination level for parking lot lighting, some relaxation of standards is appropriate due to innovative landscape designs, operational characteristics, considerations for the safety of attendees at evening events, and physical site constraints including steep slope on over one-third of the project site.

C. That the use shall not negatively affect the general safety (e.g., seismic, landslide, flooding, fire, traffic) of the City or surrounding area.

The applicant has incorporated design measures into the project that respond to the site conditions and potential hazards related to seismic, landslide and flooding. The project would adhere to the seismic design provisions of the California Building Code. The deck on the eastern side of the building, where the property begins to slope down toward Mitchell Creek, would be supported by drilled, cast-in-place friction piers to maximize building safety and reduce the risk of property damage in the event of a landslide. The on-site stormwater management system is designed to detain and treat stormwater on the subject property and then slowly release it to the existing vegetated slope on the eastern portion of the site, which would reduce the risk of erosion or flooding due to construction of the building and surrounding impervious surface areas such as parking lot and paved walkways. California Building Code requirements related to fire safety for new development in the wildland-urban interface, such as automatic fire sprinklers and a fire alarm system, would be incorporated into the project to reduce fire hazard. Traffic associated with the proposed church would mainly occur during the evenings and weekends, i.e., during off-peak vehicle travel times, and thus, traffic generated by the project would remain within acceptable levels of service as defined in the Clayton General Plan Circulation Element.

D. That the use shall not have significant negative impacts on the health or general welfare of residents, businesses, property owners, or employees in the City.

The proposed church would not create negative impacts related to public health and

welfare. A church is not a land use type that is typically associated with detrimental impacts such as noise, pollution, crime, litter, or other public nuisances. Rather, the church would provide positive activities and programming for adults, children, and youth, and would serve as a gathering place for members of the community.

E. That the permit will be in accord with the purpose of Use Permits as stated herein.

Section 17.60.020(C) of the Clayton Zoning Code states that the purpose of a Use Permit is to "identify those types or aspects of development which may not be…compatible with development permitted as a matter of right….and to impose such conditions and restrictions, as necessary, to promote compatibility." Factors considered in the review of plans and supporting application materials for the proposed church include the project's compatibility with the surrounding area, including residential uses to the south and west, the elementary school to the north, and commercial uses to the east, as well as traffic, parking, exterior lighting, and building scale and design.

The proposed church, while larger in scale than residences in the surrounding area, is comparable in size and scale with the adjacent elementary school and the commercial uses to the east on the other side of Mitchell Creek. The building height of less than 30 feet, large lot size, generous building setbacks, fencing, and ample landscaping would serve to help the proposed church blend into the existing rural neighborhood setting and would maintain privacy for nearby residences. Traffic associated with the proposed church would mainly occur on Sundays during the day and on weekday evenings, such that it would not coincide or overlap with traffic associated with the adjacent elementary school. The proposed church would have 157 parking spaces plus three tandem stalls, which is sufficient to accommodate the number of vehicles for attendees at weekly Sunday services and other ongoing church activities. The Mount Diablo Unified School District has indicated its willingness to enter into a shared parking agreement that would allow church visitors to use parking lot of the adjacent elementary school for overflow parking during non-school hours, which would accommodate additional vehicles during special church events, including Easter Sunday and Christmas Eve worship services. Exterior lighting in the parking lot has light sources limited to 10 feet in height and bulbs pointed downward to avoid light spillage onto other nearby properties and to maintain a dark night sky to the maximum extent possible. The design of the building is unpretentious and incorporates natural materials such as wood and stone, enhancing compatibility with the rustic character of the surrounding area. The landscape design features native Valley Oak trees along the street frontage of the property, helping the new development to blend into the existing semi-rural community.

Based on these factors, the Planning Commission affirms that approval of a Use Permit for the proposed church is consistent with the purpose of such permits as intended in the Zoning Code.

NOW THEREFORE BE IT FURTHER RESOLVED, the Planning Commission hereby makes the following required findings for approval of a Site Plan Review Permit:

A. That the project conforms with the General Plan and any applicable Specific Plan.

The project conforms with the Clayton General Plan, as noted above in Finding A for the Use Permit application. The project site is not located within a specific plan area.

B. Conforms with any applicable City adopted architectural and/or design standards.

There are no specific adopted architectural or design standards for the project area. The proposed church meets the general intent and requirements of design review that apply to a project subject to a Site Plan Review Permit, i.e., the project is complementary with the adjacent existing structures in terms of materials, colors, size, and bulk, as described above in Findings A and E for the Use Permit application.

C. Preserves the general safety of the community regarding seismic, landslide, flooding, fire, and traffic hazards.

The project preserves community safety related to seismic, landslide, flooding, fire and traffic as discussed above in Finding C for the Use Permit application.

D. Maintains solar rights of adjacent properties.

The proposed building is less than 30 feet in height and is set back from all property lines by distances ranging from 87 feet 2 inches (north property line) to 255 feet 4 inches (south property line); thus, it would not create shadows nor impact solar access on adjacent properties.

E. Reasonably maintains the privacy of adjacent property owners and/or occupants.

The project design includes new trees to be planted along the western and northern property lines, which would help maintain privacy for residential properties to the west across Pine Hollow Court and for the elementary school to the north. Existing trees along the southern property line would remain. The proposed building is more than 200 feet from the nearest buildings to the south and east, and thus would not create privacy concerns for these properties.

F. Reasonably maintains the existing views of adjacent property owners and/or occupants.

The proposed maximum building height is 29 feet 8 inches, and the building is located over 200 feet from the nearest residence (to the west across Pine Hollow Court). The second-story element of the building is relatively small (2,857 square feet, or about 20 percent of the total floor area of the building). Although the building's upper story would create a partial obstruction of the views of the ridgeline and hills to the east, as seen from Pine Hollow Court and the properties directly to the west, these view impacts would be minor. Overall, the project would maintain existing views from surrounding properties to a reasonable extent.

G. Is complementary, although not identical, with adjacent existing structures in terms of materials, colors, size, and bulk.

The project design is complementary with existing structures in the surrounding area, as described above in Findings A and E for the Use Permit application.

H. Is in accordance with the design standards for manufactured homes per Section 17.36.078.

Not applicable – the project does not include manufactured homes.

NOW THEREFORE BE IT FURTHER RESOLVED, the Planning Commission hereby makes the following required findings for approval of a Tree Removal Permit:

Clayton Municipal Code (CMC) Section 15.70.035 states a tree removal permit shall not cause or increase erosion in the vicinity of the tree and shall meet at least one of the following standards:

A. The tree is weakened by incurable disease or infestation; age; storm; improper pruning; vandalism; or other injury. At the discretion of the Director or Planning Commission, this condition may require verification by a certified arborist at a cost paid for by the applicant. In situations involving a protected tree, the arborist may be required to be independent of the tree removal company.

This standard applies to 31 of the 48 trees proposed for removal. The poor condition and health of these trees was verified by a certified arborist and documented in the arborist report submitted by the applicant. In addition, a brush fire on project site in July 2020 caused damage to many of the trees that were already in poor health.

B. The tree is causing damage or posing a danger to an existing structure, improvement, or other tree.

Not applicable to this project. Trees proposed to be removed for the project are not proposed to be removed to eliminate or remove the threat of a hazard.

C. The tree needs to be removed to allow construction of an improvement that is related to a development application.

This standard applies to 35 of the trees proposed for removal (note: some trees are both in poor/weakened condition and need to be removed to allow construction of the building and improvements). The 35 trees that would be removed to accommodate the project are located within the development footprint, i.e., the footprint of the building, parking lot, walkways, stormwater management facilities, and/or other required infrastructure and improvements.

D. The tree is obstructing or damaging utility service.

Not applicable to this project. Trees proposed to be removed for the project are not proposed to be removed to eliminate obstruction of a utility service.

E. The tree will be replaced by replacement tree(s) planted pursuant to a tree replacement plan prepared in accordance with the standards of Section 15.70.040 which fully mitigates the impacts created by the removal of the tree. The Director or Planning Commission may waive the requirement for a tree replacement plan if the Director or Planning Commission determines that removal of the tree is minor in nature and will not cause a significant impact.

There are seven trees on the project site that must be replaced pursuant to the City's Tree Protection Ordinance because they are protected trees in good health that are proposed for removal to accommodate development. Section 15.70.040 of the Clayton

Municipal Code requires that the applicant plant new replacement trees having a cumulative trunk diameter of at least 50 percent of that of the trees to be removed. The cumulative trunk diameter of the seven healthy trees to be removed is 116 inches. The applicant has submitted a planting plan that includes 52 new trees, with a cumulative trunk diameter of 1,338 inches.

NOW THEREFORE BE IT FURTHER RESOLVED, The Clayton Planning Commission does hereby approve the Use Permit (UP-05-16), Site Plan Review Permit (SPR-06-16), and Tree Removal Permit (TRP-38-16) for Clayton Community Church, a new 13,998 square foot church building located on a 4.4-acre parcel at 1027 Pine Hollow Court (APN: 119-050-036-1), subject to the following conditions:

GENERAL CONDITIONS

1. The project shall comply with the Clayton Municipal Code. All construction shall conform to City of Clayton regulations and standards.

2. The developer shall comply with all applicable State and County codes, regulations, and standards as well as pay all associated fees and charges.

3. The developer shall obtain the necessary building permits from the Contra Costa County Building Inspection Department. All construction shall conform to the California Building Code.

4. The developer shall comply with all mitigation measures listed in the CEQA environmental documents, including all Mitigation Measures prepared for this project. The Community Development Director shall interpret the mitigation measures and furnish the developer with specific improvements to be installed or procedures to follow.

5. The project shall be implemented as indicated on the application form and accompanying materials provided to the City and in compliance with the Clayton Municipal Code, or as amended by the Planning Commission.

6. No building permit will be issued unless the plan conforms to the project description and materials as approved by the Planning Commission and the standards of the City.

7. This approval expires two years from the date of approval (expires April 27, 2023), unless a building permit has been issued on or prior to that date and construction has commenced and been diligently pursued, or unless an extension of this approval has been approved by the Planning Commission. Requests for extensions must be received in writing with the appropriate fees prior to the expiration of this approval. No more than one, one-year extension shall be granted.

8. No permits or approvals, whether discretionary or mandatory, shall be considered if the developer is not current on fees, reimbursement payments, and any other payments that are due.

9. This approval supersedes previous approvals, if any, that have been granted for this site.

10. The general contractor shall install and maintain the erosion and sedimentation control devices around the work premises per the most current NPDES Municipal Regional Permit (MRP). Current MRP is 2.0 and upcoming permit will be MRP-3.0.

11. All required easements or rights-of-way shall be obtained by the developer at no cost to the City of Clayton. Advance permission shall be obtained from any property owners or easement holders for any work done within such property or easements.

12. Prior to issuance of the certificate of occupancy for building associated with this approval, the public improvement for the property including streets, sewers, storm drains, street lights, and traffic signs required for access to the site shall be completed to the sole satisfaction of the City Engineer or City Traffic Engineer.

13. City staff shall inspect the site for compliance with conditions of approval and approved plans prior to issuance of a certificate of occupancy.

14. The developer shall obtain an encroachment permit for all work to be done within the public right-of-way or easement, and peak commute-hour traffic shall not be impeded by construction-related activity. All on-site improvements not covered by the building permit including walkways, driveways, paving, sewers, drainage, curbs, and gutters must be constructed in accordance with approved plans and/or standards and a Site Development Permit approved by the City Engineer.

15. All existing easements shall be identified on the site plan and all plans that encroach into existing easements shall be submitted to the easement holder for review and approval, and advance written permission shall be obtained from any property owner or easement holder for any work done within such property or easement.

16. Building permits for retaining walls shall be obtained as follows:
    a. For major walls over 3 feet in height to be constructed during the mass-grading phase, obtain a building permit prior to issuance of the grading permit.
    b. For all other walls, obtain a building permit prior to issuance of permits for structures on the respective lot in accordance with the applicable California Building Code Standards.

PLANNING CONDITIONS

17. The project is subject to development impact fees. The developer shall be responsible for all fees and environmental review costs, including those charged by the California Department of Fish and Wildlife.

18. Any major changes to the project shall require Planning Commission review and approval. Any minor changes to the project shall be subject to City staff review and approval.

19. No permits or approvals, whether discretionary or mandatory, shall be considered if the developer is not current on fees, reimbursement payments, and other fees that are due.

20. Prior to the commencement of grading, demolition, or construction activities, the developer shall submit a recycling plan for construction materials to the City for review and approval. The plan shall include that all materials that would not be acceptable for disposal in the sanitary landfill be recycled/reused. Documentation of the material type, amount, where

taken, and receipts for verification and certification statements shall be included in the plan. The developer shall submit deposits to the City to ensure good faith efforts of construction and demolition recycling. A deposit of $14,000 shall be submitted prior to issuance of the building permit demolition permit. Appropriate documentation regarding recycling shall be provided to the City. All staff costs related to the review, monitoring, and enforcement of this condition shall be charged to the deposit account.

21. Prior to issuance of demolition permits for on-site structures, the developer shall show compliance with the NPDES Municipal Regional Permit (MRP 2.0) issued by the San Francisco Regional Water Quality Control Board regarding Mercury control and disposal. Building and site assessment shall be conducted to determine if any Mercury-containing devices (e.g., thermostats, etc.) or sources exist. If the assessment identifies any Mercury-containing devices or equipment, the devices or equipment shall be properly removed and disposed of at an acceptable recycling facility or landfill, so that demolition activities do not result in Mercury being scattered on site or entering storm drains. Where applicable, documentation of site assessment and proper disposal shall be provided to the Community Development Department prior to the issuance of any new construction permit.

22. Prior to the issuance of demolition permits, the developer shall show compliance with the NPDES Municipal Regional Permit (MRP 2.0) issued by the San Francisco Regional Water Quality Control Board regarding polychlorinated biphenyl (PCB) control and disposal. The developer shall ensure proper management of potential PCB-containing materials and wastes during building demolition and disposing of PCB properly, so that demolition activities do not result in PCB entering storm drains. Prior to issuance of demolition permits, the developer shall submit to the Community Development Department an analysis of the existing structures having PCB concentrations below 50 parts per million (ppm), or provide written documentation and evidence as to the type and style of all structures to be demolished that are single-family residential and/or wood frame structures. If the developer is unable to obtain compliance by either of these measures, the developer shall abate any PCB at or above 50 parts per billion (ppb) in accordance with an approved disposal plan to be submitted to the Community Development Department prior to issuance of demolition permits.

23. At least thirty (30) days prior to any demolition or groundbreaking activities, the developer shall retain an exterminator who shall evaluate the site and make recommendations for the control and/or eradication of any on-site rodents. The exterminator's recommendations shall be subject to the review and approval of the Community Development Director. The developer shall comply with the approved exterminator's recommendations prior to initiation of any demolition or groundbreaking activities.

24. The developer agrees developer agrees to indemnify, protect, defend, and hold harmless the City and its elected and appointed officials, officers, employees, and agents from and against any and all liabilities, claims, actions, causes, proceedings, suits, damages, judgments, liens, levies, costs, and expenses of whatever nature, including attorney's fees and disbursements arising out of or in any way relating to the issuance of this entitlement, any actions taken by the City relating to this entitlement, or the environmental review conducted under the California Environmental Quality Act for this entitlement and related actions. In addition, if there is any referendum or other election action to contest or overturn these approvals, the developer shall either withdraw the application or pay all City costs for such an election.

NOISE CONTROL, DUST AND CONDITIONS FOR CONSTRUCTION ACTIVITY

25. All construction and other work shall occur between 7:00 a.m. and 5:00 p.m. Monday through Friday. Any such work beyond these hours and days is strictly prohibited unless specifically authorized in writing by the City Engineer (Clayton Municipal Code Section 15.01.101).

26. An encroachment permit is required for all work in the public right-of-way. Restoration of existing improvements (curb, gutter, sidewalk, street section, etc.) shall be to the City of Clayton standards and as approved by the City Engineer.

27. The project shall be in compliance with and supply all the necessary documentation to comply with the City of Clayton Construction and Demolition Debris Recycling Program.

28. Driveway access to neighboring properties shall be maintained at all times during construction.

29. Standard dust control methods shall be used to stabilize the dust generated by construction activities in accordance with the Bay Area Air Quality Management District standards.

30. The site shall be fenced with locked gates by 7:00 p.m. The gates shall remain locked until 7:00 a.m. Contractors shall not arrive at the site prior to the opening of the gates. The name and contact information shall be placed at locations on the site for neighbors to contact in the circumstance there is a concern that needs to be addressed to the satisfaction of the City Engineer.

31. All construction equipment utilizing combustion engines shall be equipped with “critical” grade (rather than “stock” grade) noise mufflers or silencers that are in good condition. Back up “beepers” shall be tuned to insure lowest possible noise levels while also serving the safety purpose of the backup sound indicator.

32. Stationary noise sources shall be located at least 300 feet away from any occupied residential or business dwellings unless noise-reducing engine housing enclosures or other appropriate noise screens are provided.

33. Speeds of construction equipment shall be limited to 10 miles per hour (mph). This includes equipment traveling on local streets to and from the site.

34. Access shall be maintained to all driveways at all times.

35. There shall be no parking of construction equipment or construction worker’s cars on residential or business streets at any time. A staging area shall be secured prior to issuance of a grading or building permit as determined necessary by the City Engineer.

36. Truck routes for the import or export of cut/fill material shall be identified and approved by the City Engineer prior to the issuance of any permits. Developer shall be responsible for the repair of any damage to City streets (private and public) caused by the contractor’s or subcontractor’s vehicles.

37. Prior to construction, developer shall ensure that the contractor shall contact City inspector for a pre-construction meeting. Haul route shall be submitted for review and approval by the City Engineer.

38. All construction activities must be designed to minimize potential spills from equipment and to provide a planned response in the event an accidental spill occurs. The developer shall maintain spill equipment on site; there shall be a designated area if refueling takes place on site. Developer shall insure all construction personnel are trained in proper material handling, cleanup and disposal procedures.

39. Prior to any demolition activities, the developer shall obtain a demolition permit . All demolition activities be performed in accordance with the Bay Area Air Quality Management District Regulation 11 Hazardous Pollutants, Rule 2 Asbestos Demolition, Renovation, and Manufacturing. The purpose of this Rule is to control emissions of asbestos to the atmosphere during demolition, renovation, milling and manufacturing and establish appropriate waste disposal procedures. These requirements specify the appropriate methods for survey, demolition/removal, and disposal of asbestos materials to control emissions and prevent hazardous conditions. Specifications developed for the demolition activities shall include the proper packaging, manifesting and transport of demolition wastes by trained workers to a permitted facility for disposal in accordance with local, State, and Federal requirements.

40. Prior to demolition or renovation activities that may disturb suspected lead-based paint (LBP), actual material samples shall be collected or an XRF survey performed in order to determine if LBP is present. It should be noted that construction activities that disturb materials or paints containing any amount of lead are subject to certain requirements of the Occupational Safety and Health Administration (OSHA) lead standard contained in 29 CFR 1910.1025 and 1926.62. If lead-based paint is identified, the paint shall be removed by a qualified lead abatement contractor. Specifications developed for the demolition activities shall include the proper packaging, manifesting, and transport of demolition wastes by trained workers to a permitted facility for disposal in accordance with local, State, and Federal requirements.

PROPERTY MAINTENANCE

41. A parking lot sweeping program shall be implemented that, at a minimum, provides for sweeping immediately prior to the storm season and prior to each storm event.

42. The site shall be kept clean of all debris (litter, boxes, junk, garbage, etc.) at all times.

43. Any undeveloped areas on-site shall be maintained in an attractive manner that ensures fire safety and prevents any runoff onto the adjacent sidewalks.

44. All landscaping and vegetation on the site shall be properly maintained and managed to minimize the risk of wildfire due to overgrowth of vegetation. The developer shall comply with the weed abatement requirements of the Contra Costa County Fire Protection District.

AGENCY REQUIREMENTS

45. Applicable requirements of other agencies including, but not limited to the Contra Costa County Fire District, the Contra Costa Water District, City of Concord (Sanitation), and the East Contra Costa County Habitat Conservancy shall be met.

CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT (CCCFPD) CONDITIONS

46. Access roadways of less than 28-feet unobstructed width shall have signs posted or curbs painted red with the words NO PARKING- FIRE LANE clearly marked.

47. Access roadways of 28 feet or greater, but less than 36-feet unobstructed width shall have NO PARKING- FIRE LANE signs posted, allowing for parking on one side only or curbs painted red with the words NO PARKING - FIRE LANE clearly marked.

48. New buildings shall have approved radio coverage for emergency responders. An emergency responder radio coverage system shall be installed when the conditions of CFC 510.4.1 are not met. Testing shall be conducted and the results submitted to the Fire District prior to the building final.

49. The developer shall provide an adequate and reliable water supply for fire protection as set forth in the California Fire Code.

50. The developer shall provide 2 hydrants of the East Bay type in compliance with Chapter 5 and Appendix D of the California Fire Code.

51. Emergency apparatus access roadways and hydrants shall be installed, in service, and inspected by the Fire District prior to construction or combustible storage on site.
Note: A temporary aggregate base or asphalt grindings roadway is not considered an all-weather surface for emergency apparatus access. The first lift of asphalt concrete paving shall be installed as the minimum roadway material and must be engineered to support the designated gross vehicle weight of 22 / 37 tons.

52. The building as proposed shall be protected with an approved automatic fire sprinkler system complying with the 2019 edition of NFPA 13.

53. The owner shall cut down and remove all weeds, grass, vines, or other growth that is capable of being ignited and endangering property.

54. The developer shall submit a minimum of two (2) complete sets of plans and specifications of the subject project, including plans for any of the following required deferred submittals, to the Fire District for review and approval prior to construction to ensure compliance with minimum requirements related to fire and life safety. Plan review and inspection fees shall be submitted at the time of plan review submittal.
    - Building construction plans
    - Private underground fire service water mains
    - Fire sprinklers
    - Fire alarm
    - Commercial kitchen hood extinguishing systems
    - Emergency Responder Radio Coverage System (ERRCS)

FEES

55. The developer shall pay all fees required by the City Council and other applicable agencies.

56. The developer shall pay all required fees at the time of building permit issuance.

GRADING

57. All grading shall be required grading and drainage plan prepared by a registered Civil Engineer, a soils report prepared by a registered Geotechnical Engineer and a Grading Permit approved by the City Engineer. The grading plans and soils report shall require review by the City's geotechnical consultant with all costs to be borne by the developer.

58. All recommendations made in the Soil Engineer's report (unless amended through the City's review) and all recommendations made by the City's geotechnical consultant shall be incorporated into the design and construction of the project.

59. Contour grading techniques with spot elevations shall be employed throughout the project to achieve a more natural appearance, even where this will increase the amount of grading.

60. Tops of cuts or toes of fills adjacent to existing public rights-of-way or easements shall be set back 2 feet minimum from said rights-of-way and easements.

61. Erosion control measures shall be implemented by the developer in accordance with plans approved by the City Engineer for all grading work not completed before October 1. At the time of approval of the improvement and/or grading plans, the developer shall file with the City Engineer an approved Erosion Control Plan prepared by a registered Civil Engineer.

62. All graded slopes in excess of 5 feet in height shall be hydroseeded no later than September 15 and irrigated (if necessary) to ensure establishment of vegetation prior to the onset of the rainy season.

63. The developer's engineer shall certify the actual pad elevation for the lot in accordance with City standards prior to issuance of Building Permit.

64. Any grading on adjacent properties will require written approval of those property owners affected.

65. If cultural resources are discovered during subsurface excavations, the Contractor shall cease construction and a qualified archeologist shall be contacted to make recommendations for mitigation.

66. All elevations shown on the grading and improvement plans shall be on the USGS 1929 sea level datum or NAVD 88 with conversion information, or as approved by the City Engineer.

UTILITIES

67. The developer agrees to underground existing and proposed utilities (e.g., transformers and PMH boxes) except existing PG&E towers, if any, or as approved by the City Engineer.

68. Trash enclosures shall drain to sanitary sewer and shall incorporate methods to contain runoff at the front-gate and pedestrian access point to prevent storm water from entering the enclosure.

69. The sewer collection system shall be constructed to function as a gravity system. Sanitary sewer collection system shall be constructed to the standards of the City of Concord and Central Contra Costa Sanitary District. Inspections of sanitary sewer collection system shall be performed by City of Concord under contract to City of Clayton.

70. Water system facilities shall be designed to meet the requirements of Contra Costa Water District and the fire flow requirements of the Contra Costa County Fire Protection District. All requirements of the responsible agency shall be guaranteed prior to approval of the improvement plans. Any required offsite easements shall be obtained by the developer at his/her own expense.

71. A reduced pressure backflow preventer assembly shall be installed on all water meter services.

72. Double detector check fire line backflow assemblies shall be enclosed within an easement granted to Contra Costa Water District, as needed, and at no cost to the City or the District.

73. The developer shall provide adequate water pressure and volume to serve this development, as approved by the City Engineer. This will include a minimum residual pressure of 20 psi with all losses included at the highest point of water service and a minimum static pressure of 50 psi.

74. The developer shall provide an adequate and reliable water supply for fire protection as set forth in the Uniform Fire Code.

75. All onsite utilities shall be privately maintained and connected to public facilities in accordance with City and applicable agency standards, as approved by the City Engineer.

76. All sanitary sewer system connections and improvements shall be submitted for reviewed and approved by the City Engineer and review and comment by the City of Concord (Sanitation).

77. The developer shall be responsible for installation of all utilities and modifications thereto that are necessary to serve the project, including but not limited to water lines and laterals, backflow prevention devices, sanitary sewer system connections, appropriately-sized water line(s) to provide potable water and fire protection, as determined by the City Engineer. Installation of all utilities and modifications thereto shall be completed prior to issuance of a certificate of occupancy for the building.

78. Relocation of public facilities must be performed by CCWD forces.

DRAINAGE AND WATER QUALITY

79. For projects disturbing one (1) acre or more, the developer shall comply with the State Construction General Permit requirements. The developer shall be responsible for preparing the SWPPP, submit all required documents, and obtaining coverage by filing a Notice of Intent (NOI) with State Water Resource Control Board (SWRQB).

80. A copy of the SWPPP and the Notice of Intent (WDID) shall be submitted to the City prior to issuing permits for construction. The SWPPP and the WDID shall be kept at the job site during construction. The WDID number shall be included onto the cover sheet of the Grading Plans for the project.

81. Prior to approval of the grading plans, the developer shall submit a drainage study to the City for review and approval, and to the Contra Costa County Flood Control and Water Conservation District (FC District) for review and comment. The developer shall be responsible to pay directly for the agency's review.

82. Developer shall comply with the requirements of Provision C.3 of the Municipal Regional Permit (MRP) of the State Regional Water Resources Control Board NPDES Permit as applicable to this project.

83. The developer shall submit to the City Engineer a comprehensive Stormwater Control Plan, construction plans, details, and calculations in accordance with the current Contra Costa Clean Water Program (CCCWP) C.3 Guidebook (7th Edition), prior to issuance of a certificate of occupancy for the project. Required offsite improvements and street(s) frontage improvement work shall be considered and included as a part of this project for compliance with C.3 requirements The Stormwater Control Plan watershed drainage map shall include all impervious surface locations (i.e. streets, buildings, parking lots, walkways, etc.) to be used in the calculations for sizing C.3 facilities.

84. CCWP C.3 online calculator shall be used in determining the size of the required C.3 facilities. Submit a printout and attach a copy in the Stormwater Control Plan.

85. Bio-retention basin side slopes shall not be steeper than 3H:1V.

86. Using C.3 bio-retention basin(s) as a detention basin(s) for the mitigation of increased peak flows shall be subject to the City Engineer's approval. If approved by the City Engineer, developer shall submit hydrology and hydraulic study, calculations, and details to demonstrate compliance with the C.3 requirements as well as flood control requirements. Detention basin(s) design parameters and the calculations shall also be in accordance with Contra Costa County Flood Control guidelines.

87. Prior to City Approval of the plans and issuance of permits, the developer shall submit a signed operation and maintenance agreement. The agreement shall be the City's standard form and subject to the review and approval by the City.

88. Stormwater control facilities (C.3 facilities) shall be maintained and operated by the developer/property owner, in perpetuity, in accordance with the Operation and Maintenance Plan. The developer/property owner shall provide periodic and annual inspection reports. The developer is advised this project is subject in perpetuity to the

required (annual) Operations and Maintenance inspections by the City for the C.3 facilities at the costs established and updated annually in the City Fees and Charges Schedule.

89. All storm water flows shall be collected onsite and discharged into an approved public storm drain system. No onsite drainage is allowed to flow over the sidewalk.

90. A structure shall be installed at all pipe intersections, change of direction, or change in slope as approved by the City Engineer.

STREET IMPROVEMENTS

91. Sidewalks, curb, gutter, sidewalk and street pavement shall be constructed and/or replaced (if cracked, broken or damaged) in the public right-of-way along the entire project frontage as required by the City Engineer and at no cost to the City. Driveway aprons shall be removed and/or replaced with new curb, gutter and sidewalk to match the proposed development. Existing street pavement section shall be removed and replaced along the frontage of the property to the centerline of the street if the section is cracked or damaged in any way (regardless if it is damaged by project construction or not), or other roadway preservation methods as approved by the City Engineer. All required public easements or rights-of-way shall be offered to the City. All improvements shall be designed and constructed to the satisfaction of the City Engineer.

92. All streets shall be paved and improved after utilities are installed in accordance with the City of Clayton Standard Drawings and Design Guidelines and the approved plans.

LANDSCAPING

93. Sight distance triangles shall be maintained per Chapter 12.08 of the CMC, Site Obstructions at Intersections, or as approved by the City Engineer. Landscaping and signage shall not create a sight distance problem.

94. Three sets of final landscaping and irrigation plans for the entire site shall be submitted to with the grading and improvement plans for review and approval by the staffs of the Community Development Department, Engineering Department, and the Maintenance Department. All landscaping and irrigation shall be installed in accordance with approved plans prior to the issuance of certificates of occupancy for this building.

95. Landscaping for the project shall be designed to comply with the applicable requirements of City of Clayton Municipal Code and the State Model Water Efficient Landscape Ordinance (MWELO). Prior to issuance of a building permit, the developer shall demonstrate compliance with the applicable requirements of the MWELO in the landscape and irrigation plans submitted to the City.

96. Installation of all irrigation and landscaping shall be performed by a licensed contractor. Open trench inspection of the irrigation installation in areas to be maintained by the City is subject to approval of the Maintenance Department. Prior to the final inspection by the Maintenance Department, the installation shall be approved by the landscape architect.

97. All trees shall be planted at least 10 feet away from any public water, sewer, or storm drain lines, unless a closer location is approved by the City. All trees shall be installed

with support staking. All nursery stakes must be removed from trees. All trees planted within 8 feet of a sidewalk or driveway shall be installed with root guards.

98. Landscape shall show immediate results. Landscaped areas shall be watered, weeded, pruned, fertilized, sprayed, and/or otherwise maintained as necessary. Plant materials shall be replaced as needed to maintain the landscaping in accordance with the approved plans. Plant material selection shall avoid plant species that are known to be susceptible to disease (e.g., Platanus Blood Good) or drop fruit on hard surfaces and walkways causing a maintenance or safety concern.

PROJECT-SPECIFIC CONDITIONS

99. The parking lot light fixtures shall be dimmed to half the full illumination level, or half of the fixtures shall be turned off, by 10:00 p.m. each night or within 30 minutes after the end of scheduled evening activities at the church, whichever is later, to maintain a dark night sky.

100. Prior to scheduling or holding any outdoor events or activities, such as weddings or memorial services, at the project site, Clayton Community Church shall obtain approval of a Temporary Use Permit from the City Manager pursuant to Clayton Municipal Code Chapter 17.70.

101. The developer shall remove and eradicate any ground squirrel colonies found to exist on the project site prior to undertaking grading or construction activities.

102. The developer shall comply with all environmental mitigation measures identified in the *Clayton Community Church Project Initial Study/Mitigated Negative Declaration, ENV-03-16* (April 2021), and listed in Exhibit A to this resolution.

TREE PROTECTION CONDITIONS

103. The developer shall comply with all recommendations related to tree protection during grading and construction as outlined in the arborist report by Trees, Bugs, Dirt Landscape Consulting dated December 15, 2020.

104. The following construction policies and guidelines for tree preservation and protection put forth by the City of Clayton shall be followed during project implementation:
    a. The developer shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the tree trunk and dripline of all on- and off-site trees subject to City of Clayton Municipal Code Section 15.70.020.
    b. A protective fence shall be installed around all trees subject to the tree protection plan. The protective fence shall be installed prior to commencement of any construction activity and shall remain in place for the duration of construction.
    c. Grading, excavation, deposition of fill, erosion, compaction, and other construction-related activities shall not be permitted within the dripline or at locations which may damage the root system of trees subject to the tree protection plan, unless such activities are specifically allowed by the tree protection plan. Tree wells may be used if specifically allowed by the tree protection plan.
    d. Oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials shall not be allowed within the dripline of trees subject to the tree protection plan.

105. Trees which are identified for preservation, and are subsequently removed during construction, shall be replaced by new trees or shall be required to pay an in-lieu fee equal to 200% of the value (as established by the International Society of Arboriculture) of the original tree(s) to be preserved.

106. The Community Development Department shall review and approve grading and improvement plans to ensure adequate measures are taken to protect trees.

EXPIRATION CONDITIONS

107. The Tree Removal Permit (TRP-38-16) shall expire simultaneously with the expiration of the Site Plan Review Permit (SRP-06-16), pursuant to the permit expiration provisions listed in Chapter 17.64 of the Clayton Municipal Code.

PASSED AND ADOPTED by the Planning Commission of the City of Clayton at a regular meeting on the ____ day of _____, 2021.

APPROVED:

_____
A.J. Chippero
Chair

ATTEST:

_____
Dana Ayers
Interim Community Development Director

Resolution No. 03-2021
Exhibit A
Environmental Mitigation Measures

Clayton Community Church, UP-05-16, SPR-06-16 and TRP-38-16

Mitigation Measure 1.
Prior to the initiation of ground disturbance, the project developer shall ensure that all heavy-duty off-road diesel-powered equipment to be used in the construction of the project (including owned, leased, and subcontractor equipment) shall be California Air Resources Board (CARB) Tier 4 Interim or cleaner.

In addition, all off-road equipment working at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.

The aforementioned requirements shall be noted on improvement plans and submitted for review and approval by the Community Development Director for the City of Clayton, prior to issuance of a building permit for the project.

Mitigation Measure 2
Special-status plant surveys shall be conducted by a qualified biologist hired by the developer. Surveys shall be conducted in accordance with California Native Plant Society (CNPS) and California Department of Fish and Wildlife (CDFW) protocols throughout the project site within two years prior to the commencement of construction. The CNPS and CDFW protocols require that the surveys be conducted at the time of year that the target species are most identifiable; this often requires multiple survey visits to capture the identifiable period of all target species. If special-status plant species are not found, further mitigation would not be required. If special-status plants are found and will be impacted, mitigation for those impacts shall be determined in coordination with CDFW. If the plant found is a perennial, then mitigation could consist of digging up the plant and transplanting it to a suitable nearby avoided area prior to construction. If the plant found is an annual, then mitigation could consist of collecting seed-bearing soil and spreading it in a suitable nearby avoided area prior to construction.

The developer shall provide the biologist's report summarizing the survey to the City of Clayton within 14 days of the completed survey. If special-status plant species are not found, further mitigation is not required.

Mitigation Measure 3
Within 14 days prior to construction activities, a qualified biologist hired by the developer shall conduct a take avoidance survey for active bumble bee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The biologist shall walk the entire area proposed for grading and inspect all rodent burrows for bumble bee activity. If any bumble bees are detected during the survey, the species shall be identified. Active colonies of crotch bumble bee or western bumble bee shall be avoided and work shall not occur within 50 feet of the colony. If the colony is in a location proposed for development, consultation for the CDFW shall be necessary and an Incidental Take Permit from the CDFW may be required prior to disturbance.

The developer shall provide the biologist's summarizing the survey to the City of Clayton within 14 days of the completed survey. If crotch bumble bee or western bumble bee nests are not found, further mitigation is not required.

Mitigation Measure 4.
A targeted take avoidance burrowing owl nest survey shall be conducted by a qualified biologist hired by the developer, within all accessible areas within 250 feet of the proposed construction area, within 14 days prior to construction activities utilizing 60-foot transects, as outlined in the 2020 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation. If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist determines that the young have fledged or it is determined that the nesting attempt has failed. If the developer desires to work within 250 feet of the nest burrow, the developer shall consult with CDFW to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the developer may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW.

The developer shall provide the biologist's report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If western burrowing owl nests are not found, further mitigation is not required.

Mitigation Measure 5(a).
A preconstruction nesting bird survey shall be conducted by a qualified biologist hired by the developer, on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. If there is a break in construction activity of more than two weeks, subsequent surveys shall be conducted.

If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. The no-disturbance buffers may be reduced if a smaller buffer is proposed by the project biologist, and approved by the City, after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (if there are visual or acoustic barriers between the proposed activity and the nest). A qualified biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site, or the nest can be left undisturbed until the end of the nesting season.

The developer shall provide the biologist's report summarizing the survey to the City of Clayton within 14 days of the completed survey. If raptor or songbird nests or nests of birds protected by the MBTA are not found, further mitigation is not required.

Mitigation Measure 5(b).
Should construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest as a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report

has been prepared and submitted to the City, indicating that the nest (or nests) are no longer active and that new nests have not been identified.

Mitigation Measure 6.
A qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features within the proposed development footprint. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The developer shall provide the biologist's report summarizing the survey to the City of Clayton within 14 days of the completed survey. If roosting bats are not found, further mitigation is not required.

If potential roosting habitat is identified within the areas proposed for development, the biologist shall survey the potential roosting habitat. Ideally, this survey should be conducted during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys are recommended to be conducted using methods that are considered acceptable by the CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.

If roosting bats are identified within any of the trees or buildings planned for removal, or if presence is assumed, then the qualified bat biologist shall specify appropriate exclusion methods according to where the roosting bats are located and what season the exclusion must occur. These exclusion methods may include two-step tree removal or building exclusion as detailed below.

In general, the trees/buildings shall be removed outside of pup season only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Building exclusion methods may include such techniques as installation of passive one-way doors, or the installation of netting when the bats are not present to prevent their reoccupation. Once the bats have been excluded, tree removal may occur. Removal of trees/buildings where roosting habitat is not identified during the survey is recommended to be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.

Mitigation Measure 7.
The developer shall implement the following tree protection measures pursuant to the recommendations listed in the Arborist Report, to the extent feasible:

- The developer shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the existing trees to be retained, as identified in the Arborist Report; and
- The project developer shall include all recommendations provided in the Updated Arborist Report by Trees, Bugs, Dirt Landscape Consulting and Training within the Tree Protection Plan. The Tree Protection Plan shall meet the standards provided in Section 15.70.45 of the Municipal Code, and shall include, but not necessarily be limited to, the establishment of TPZs and protective fencing around trees to be preserved; temporary irrigation systems to be provided for each tree; the installation and maintenance of at least two inches of wood chip mulch within the protected soils within each TPZ; air spade trenching; root pruning and clearance pruning; and the prohibition of oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials within the dripline of trees to be preserved.

Mitigation Measure 8.
A tree replacement plan for the removal of 58 inches of cumulative trunk diameter of protected tree species shall be prepared by the developer or the developer's designee, in accordance with Municipal Code Section 15.70.040 A1. or A.2., or, subject to determination by the Community Development Director or Planning Commission, the developer must pay an in-lieu fee to the City for the purchase and installation of trees of equivalent value.

Mitigation Measure 9.
Prior to the issuance of a grading permit, the developer shall ensure that the grading plan includes a requirement (via notation) indicating that if cultural resources, tribal cultural resources, or human remains, are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project developer, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.

Mitigation Measure 10.
Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the developer's expense, until the preceding actions have been implemented.

Mitigation Measure 11.
Prior to approval of the improvement plans for the project, all recommendations from the Geotechnical Investigation prepared by Cornerstone Earth Group (2019) and the Geotechnical Response to Comments prepared by Cornerstone Earth Group (2020) shall be incorporated into the improvement plans to the satisfaction of the City Engineer.

In addition, the developer shall retain a California Registered Geotechnical Engineer to review the geotechnical aspects of the project's structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing plans for construction. The geotechnical engineer shall perform field observations during earthwork and foundation construction to confirm project compliance with project plans, project specifications, and the recommendations provided in Cornerstone's Geotechnical Investigation and Geotechnical Peer Review Response Memo. The on-site geotechnical engineer shall have the authority to provide supplemental recommendations as necessary based on site conditions. Compliance with the recommendations of the Geotechnical Engineer shall be provided to the City Engineer.

Mitigation Measure 12.
Prior to the issuance of a grading permit, the project developer shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to:

- Hydro-seeding;
- Placement of erosion control measures within drainage ways and ahead of drop inlets;
- The temporary lining (during construction activities) of drop inlets with “filter fabric”;
- The placement of straw wattles along slope contours;
- Use of a designated equipment and vehicle “wash-out” location;
- Use of siltation fences;
- Use of on-site rock/gravel road at construction access points; and
- Use of sediment basins and dust palliatives.

Mitigation Measure 13.
Prior to initiation of any ground disturbance activities, the developer shall hire a licensed well contractor to obtain a well abandonment permit from Contra Costa Health Services and properly abandon the on-site well to the satisfaction of the Contra Costa Health Services Department. Proof of abandonment shall be provided to the City of Clayton Community Development Department and City Engineer.

Mitigation Measure 14.
Prior to issuance of a demolition permit for any on-site structures, the developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the City of Clayton Community Development Director an asbestos and lead survey. If asbestos-containing materials (ACMs) or lead-containing materials are not discovered during the survey, further mitigation related to ACMs or lead containing materials will not be required. If ACMs and/or lead-containing materials are discovered by the survey, the project developer shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The developer shall submit the work plan to the City for review and approval.

Mitigation Measure 15.
To the maximum extent practical, the following measures shall be incorporated into the project construction plans:

- Pursuant to Section 15.01.101 of the Clayton Municipal Code, all grading and excavation, construction, demolition, renovation, and other works of improvement shall occur only between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday.
- The project shall utilize temporary construction noise control measures, including the use of temporary noise barriers, or other appropriate measures as mitigation for noise generated during construction of projects.
- All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
- Project area and site access road speed limits shall be established and enforced during the construction period.

- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

The requirements above shall be included, via notation, on the final grading plan submitted for review and approval by the Community Development Director prior to grading permit issuance.

Attachment C

Project Plans

Clayton Community Church
Planning Commission Meeting, April 27, 2021

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A003	ACCESSIBLE REQUIREMENTS
A004	MOUNTING HEIGHT

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C-2	EXISTING SITE CONDITIONS
C-3	GRADING & DRAINAGE PLAN
C-4	STORMWATER CONTROL PLAN
C-5	UTILITY PLAN
C-6	CONSTRUTION DETAILS
C-7	CONSTRUTION DETAILS
C-8	CONSTRUTION DETAILS
C-9	FIRE ACESS PLAN

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L 02	LANDSCAPE PLAN

ARCHITECTURAL

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A 103	DEMOLITION PLAN
A 105	TREE PLAN
A 106	FENCING PLAN
A 107	OPEN SPACE PLAN
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A 250	PHOTO SIMULATIONS
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ELECTRICAL

E 01	PHOTOMETRIC PLAN
E 02	LIGHTING 1
E 03	LIGHTING 2

ARCHITECT

AMY VANDER HEYDEN ARCHITECTS

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BKF ENGINEERS

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WALNUT CREEK, CA 94596

p. 925.988.9500

ARBORIST

TREES, BUGS, DIRT

MICHAEL BAEFSKY
TREESBUGSDIRT.COM

p. 925.254.7950

IRRIGATION CONSULTANT

JDE ASSOCIATES

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p. 925.867.3339

REVISIONS

#	DATE	DESCRIPTION

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EPYC

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COVER SHEET

SCALE	PROJECT #	DATE ISSUED
1/16" = 1'-0"	1027PHC	04.13.2021

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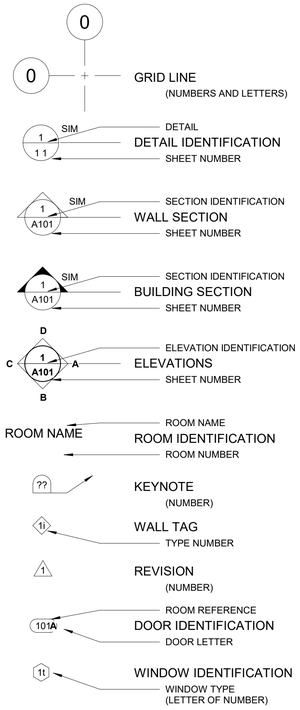
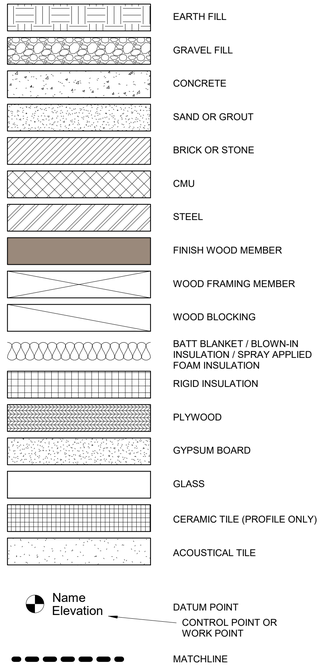
4/16/2021 4:00:56 PM

GRAPHIC AND MATERIAL SYMBOLS





A	
&	AND
@	AT
AB	ANCHOR BOLT
AC	AIR CONDITIONING
ACC	ACCESSIBLE
ACOUST	ACOUSTICAL
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ATTN	ATTENTION
AUTO	AUTOMATIC
AV	AUDIOVISUAL
B	
BD	BOARD
BIT	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BSMNT	BASEMENT
C	
C	CHANNEL
CAB	CABINET
CAT	CATEGORY
CB	CATCH BASIN
CB	CEMENT BOARD
CBU	CEMENTITIOUS BACKER UNIT
CC	CENTER TO CENTER
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CG	CORNER GUARD
CH	CHILLER
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CNTR	COUNTER
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET
CT	CERAMIC TILE
CTR	CENTER
CTSK	COUNTERSUNK
CW	COLD WATER
D	
D	DEEP, DEPTH
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLISH OR DEMOLITION
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DIMS	DIMENSIONS
DISP	DISPENSER
DIV	DIVISION
DMPF	DAMP PROOFING
DN	DOWN
DO	DOOR OPENING
DR	DOOR
DRN	DRAIN
DS	DOWNSPOUT
DS	DOWN SPOUT
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
DWR	DRAWER
E	
CMU	CONCRETE MASONRY UNIT
E	EAST
EA	EACH
EB	EXPANSION BOLT
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENG	ENGINEER
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE M-CLASS
EQ	EQUAL
EQUIP	EQUIPMENT
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	
FA	FIRE ALARM
FB	FACE BRICK
FD	FLOOR DRAIN
FD	FLOOR DRAIN OR FIRE DEPARTMENT
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF&E	FURNITURE, FIXTURES AND EQUIPMENT
FFB	FLUSH FLOOR BOX
FFEL	FINISH FLOOR ELEVATION
FH	FLAT HEAD
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FND	FOUNDATION
FO	FACE OF
FP	FIRE PROTECTION
FPG	FIREPROOFING
FR	FIRE RESISTANT
FRC	FIBER REINFORCED CONCRETE
FRT	FIRE RETARDANT TREATED
FT	FEET/FOOT
FTG	FOOTING
FURN	FURNITURE
FURR	FURRING
FWC	FABRIC WALL COVERING
FWP	FABRIC WRAPPED PANEL
G	
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACT(OR)
GEN	GENERAL
GFRC	GLASS FIBER REINFORCED CONCRETE
GL	GLASS
GLAZ	GLAZING
GRAN	GRANULAR
GRD	GROUND
GRFG	GLASS FIBER REINFORCED GYPSUM
GSM	GALVANIZED SHEET METAL
GV	GAS VALVE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	
H	HIGH/HEIGHT
HB	HOSE BIB
HB	HOSE BIBB
HC	HANDICAPPED
HDWD	HARDWOOD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HR	HOUR
HRC	HOSE REEL CABINET
HTG	HEATING
HVAC	HEATING VENTILATION AND AIR CONDITIONING
HW	HOT WATER
I	
ID	INSIDE DIAMETER
IN	INCH/INCHES
INCAND	INCANDESCENT
INCL	INCLUDED/INCLUDING
INFO	INFORMATION
INSUL	INSULATION
INSUL	INSULATED OR INSULATION
INT	INTERIOR
INTERM	INTERMEDIATE
INV	INVERT
J	
JAN	JANITOR
JC	JANITOR'S CLOSET
JST	JOIST
JT	JOINT
K	
KIT	KITCHEN
KO	KNOCK OUT
L	
LAM	LAMINATE
LAV	LAVATORY
LB	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LIGHT
M	
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MEMBR	MEMBRANE
MFR	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
N	
N	NORTH
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NON COMB	NON COMBUSTIBLE
NTS	NOT TO SCALE
O	
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OVERFLOW DRAIN
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED, OWNER INSTALLED
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
P	
P	PAINT
PAV	PAVING
PBD	PARTICLE BOARD
PC	PRECAST
PDF	POWER DRIVEN FASTENER
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PI.	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT OR PAINTED
POL	POLISHED
PR	PAIR
PREFAB	PREFABRICATED
PROJ	PROJECT
PSF	POUNDS PER SQUARE FOOT
PT	POINT
PT	PRESSURE TREATED
PTD	PAINTED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
Q	
QT	QUARRY TILE
QTY	QUANTITY
R	
R	RADIUS/RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
RECPT	RECEPTACLE
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCED REINFORCING
REINF	REINFORCED
REL	RELOCATE
REM	REMOVABLE
REOOM	RECOMMENDED
REQ	REQUIRE/REQUIRED
REQD	REQUIRED
RESIL	RESILIENT
REV	REVISION/REVISED
RM	ROOM
RO	ROUGH OPENING
RTD	RATED
RTG	RATING
RWL	RAIN WATER LEADER
S	
S	SOUTH
SA	SUPPLY AIR
SAF	SELF ADHERED FLASHING
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FEET/FOOT
SH	SPRINKLER HEAD
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SM	SHEET METAL
SM	SURFACE MOUNTED
SP	STANDPIPE
SPEC	SPECIFICATION
SPEC	SPECIFIED OR SPECIFICATION
SPK	SPRINKLER OR SPEAKER
SPKR	SPEAKER
SQ	SQUARE
SS	STAINLESS STEEL
SSK	SERVICE SINK
STA	STATION
STC	SOUND TRANSMISSION COEFFICIENT
STL	STEEL
STOR	STORAGE
STRG	STRINGER
STRUCT	STRUCTURAL
STRUCT	STRUCTURE OR STRUCTURAL
SUBCAT	SUBCATEGORY
SUSP	SUSPENDED
SYM	SYMMETRICAL
SYS	SYSTEM
T	
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TOWEL BAR
TEL	TELEPHONE/TELECOM
TELE	TELEPHONE
TEMP	TEMPERATURE
TEMP	TEMPORARY
THK	THICKNESS
THRU	THROUGH
TKBD	TACK BOARD
TLT	TOILET
TMPD	TEMPERED
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TS	TUBE STEEL
TV	TELEVISION
TYP	TYPICAL
U	
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
URNL	URINAL
V	
VAC	VENTILATION AND AIR CONDITIONING
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VP	VISION PANEL
VR	VAPOR RETARDER
VT	VINYL TILE
VWC	VINYL WALL COVERING
W	
W	WIDE/WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WIN	WINDOW
WM	WIRE MESH
WP	WATERPROOF/WATERPROOFING
WPM	WATERPROOF MEMBRANE
WS	WEATHER-STRIPPING
WSCT	WAINSCOT
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

4/6/2021 1:41:44 AM

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

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GRAPHICS AND INFO

SCALE	PROJECT #	DATE ISSUED
12" = 1'-0"	1027PHC	04.13.2021

A 001

PROJECT DATA

PROJECT NAME
CLAYTON COMMUNITY CHURCH

PROJECT LOCATION
1027 Pine Hollow Court Clayton CA 94517
BASIS OF DESIGN
2019 CALIFORNIA BUILDING CODE

PROJECT SUMMARY

The Church has been designed with the community in mind by creating a place of peaceful wellness. The two story mixed-used building has a Sanctuary Space, adult and children classrooms on the main floor and on the second floor has administration offices and a classroom. The building will serve as a place of community where people share the common desire to improve the quality of life in the Clayton Community through charitable donations, social networking and respect to all neighbors. The design is compact with a residential look to keep the small town feel as well as to borrow elements from the historic downtown, using materials such as stone and natural wood. Additionally, the building has small windows and planters throughout the site along with park benches and bicycle parking to encourage walking and cycling to the church.

ANALYSIS IS BASED UPON THE 2019 CBC.
1. OCCUPANCY GROUPS:
PRIMARY OCCUPANCY GROUP: A
ADDITIONAL OCCUPANCY GROUPS: E, B
CONSTRUCTION TYPE: V-B

2. SPRINKLER SYSTEM:
FULLY SPRINKLED PER NFPA 13 REQUIREMENTS
3. BUILDING HEIGHT:
ALLOWED= 2 STORIES, 55' - 0"
ACTUAL = 2 STORIES, 29' - 8" HIGHEST POINT AT SANCTUARY PARAPET

4. ALLOWABLE AREA/FIRE SEPARATIONS:
SUMMARY:
BUILDINGS WITH 1-HOUR FIRE SEPARATION AS REQUIRED BY CODE BUILDING IS TYPE V-B CONSTRUCTION, FULLY SPRINKLERED.

ZONING INFORMATION

1. Net parcel size: 183,469
   Gross parcel size: 201,964
2. Floor Area Ration (FAR):
   13,998 SF / 201,964 SF = 0.069 = 6.9%
3. Allowable building area:
   35% of 183,469 = 64,214 sf
   Proposed Building Area: 13,998 sf
   Design Height 29'- 8"
   Number of Stories: 2
4. Bicycle parking spaces: 17
   Bicycle parking spaces provided: 18
   Clayton Municipal Code (17.37.040)
5. Parking Stalls Required: 157
   Parking Stalls Provided: 160
   -6 Accessible Stalls
   1 Van Stall per CA Bldg Code, Part 2, Vo. 1 Table 11B-208.2
   -13 Compact Stalls
   Clayton MC 17.37.080
   -16 Marked with "Clear Air/EV/Vanpool >10 of the 16 to have conduit run for future EV
   -121 Car Stalls
   - 3 tandem parking spaces
   Total: 160 Stalls
6. Refer to Civil for biorentention, vegetation and optimization of site layout
7. Refer to LA Dwgs for landscaping
8. Refer to Demo plan & Tree plan for tree information

Area Schedule of OFFICE

Name	Area	Parking Ratio
BR	38 SF	0.15
BR	39 SF	0.16
STORAGE	44 SF	0.17
BR	45 SF	0.18
W	59 SF	0.24
M	60 SF	0.24
FDC	96 SF	0.38
SOUND RM	108 SF	0.43
SINK	120 SF	0.48
ELECT/MECH	129 SF	0.52
STORAGE	156 SF	0.62
SINKS	157 SF	0.63
WARM. KITCH.	186 SF	0.74
MEN	207 SF	0.83
WOMEN	215 SF	0.86
BACKSTAGE 1	251 SF	1.01
CONFERENCE	259 SF	1.04
PRAYER RM	261 SF	1.05
HALL	476 SF	1.9
BACKSTAGE 2	520 SF	2.08
CIRCULATION	623 SF	2.49
OFFICE	792 SF	3.17
Grand total: 22	4841 SF	19.36

OCCUPANCY TYPE B
PARKING RATIO 1:250

TOTAL AREA: 4812 SF
PARKING SPACES REQUIRED: 19

Area Schedule of EDUCATION

Name	Area	Area Type	Parking Ratio
2 YR	281 SF	Gross Building Area	2.81
3-5	334 SF	Gross Building Area	3.34
NURSERY	362 SF	Gross Building Area	3.62
K-2	474 SF	Gross Building Area	4.74
PRE-SCHOOL	548 SF	Gross Building Area	5.48
JUNIOR HIGH/HIGH SCHOOL	1146 SF	Gross Building Area	11.46
ADULT EDUCATION	1301 SF	Gross Building Area	13.01
Grand total: 7	4448 SF		44.48

OCCUPANCY TYPE: GROUP E
PARKING RATIO 1:100

TOTAL AREA: 4485 SF
PARKING SPACES REQUIRED: 44

Area Schedule of ASSEMBLY

Name	Area	Parking Ratio
SOUND BOX	30 SF	0.6
STAGE	679 SF	13.59
LOBBY	882 SF	17.64
SANCTUARY	3118 SF	62.36
Grand total: 4	4709 SF	94.18

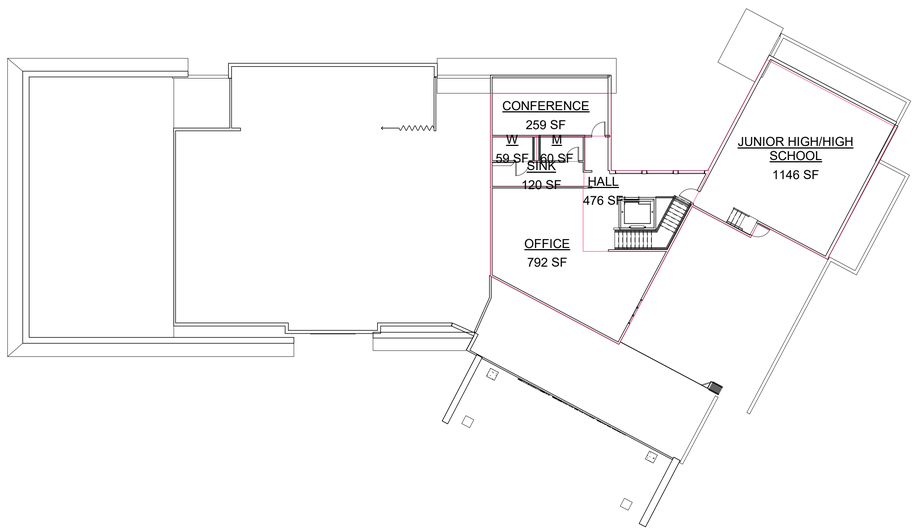
OCCUPANCY TYPE: GROUP A-3
PARKING RATIO 1:50

TOTAL AREA: 4709 SF
PARKING SPACES REQUIRED: 94

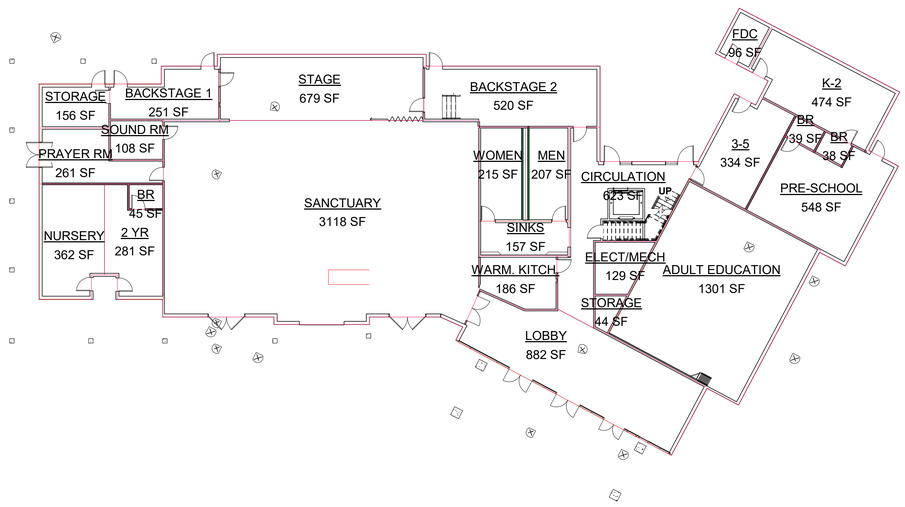
TOTAL PARKING REQUIRED BY AREA: 157
TOTAL PARKING AVAILABLE: 160

Area Schedule (Gross Building)

Area	Name	Occupancy
3118 SF	SANCTUARY	ASSEMBLY
362 SF	NURSERY	EDUCATION
520 SF	BACKSTAGE 2	OFFICE
207 SF	MEN	OFFICE
186 SF	WARM. KITCH.	OFFICE
623 SF	CIRCULATION	OFFICE
251 SF	BACKSTAGE 1	OFFICE
474 SF	K-2	EDUCATION
30 SF	SOUND BOX	ASSEMBLY
45 SF	BR	OFFICE
Not Placed	DECK	
108 SF	SOUND RM	OFFICE
156 SF	STORAGE	OFFICE
261 SF	PRAYER RM	OFFICE
281 SF	2 YR	EDUCATION
679 SF	STAGE	ASSEMBLY
215 SF	WOMEN	OFFICE
157 SF	SINKS	OFFICE
96 SF	FDC	OFFICE
334 SF	3-5	EDUCATION
548 SF	PRE-SCHOOL	EDUCATION
39 SF	BR	OFFICE
38 SF	BR	OFFICE
1301 SF	ADULT EDUCATION	EDUCATION
129 SF	ELECT/MECH	OFFICE
44 SF	STORAGE	OFFICE
882 SF	LOBBY	ASSEMBLY
792 SF	OFFICE	OFFICE
259 SF	CONFERENCE	OFFICE
Not Placed	Area	
59 SF	W	OFFICE
60 SF	M	OFFICE
120 SF	SINK	OFFICE
476 SF	HALL	OFFICE
1146 SF	JUNIOR HIGH/HIGH SCHOOL	EDUCATION
13998 SF		



2 Level 2
1/16" = 1'-0"



1 Level 1
1/16" = 1'-0"

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

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CODE ANALYSIS

SCALE 1/16" = 1'-0"
PROJECT # 1027PHC
DATE ISSUED DEC 11, 2020

A 002

KEYNOTES

1. NEW CHURCH
2. EXISTING HOUSE TO REMAIN
3. ASPHALT CONCRETE PAVED PARKING LOT. OVERFLOW PARKING & EASY TURN AROUND FOR SCHOOL TRAFFIC.
4. HILL WITH 3:1 SLOPE TO REMAIN
5. NOT USED
6. SCHOOL PICKUP & DROP OFF AREA
7. CURRENTLY SINGLE LANE, DEAD END ROAD PAST THE SCHOOL
8. SINGLE FAMILY HOMES. ADJACENT TO THE SITE
9. CHILDRENS PLAYGROUND
10. SCHOOL PARKING LOT
11. EXISTING WALKING PATH FROM DOWNTOWN UP TO THE SCHOOL
12. END OF PUBLIC RIGHT OF WAY
13. EXISTING EASEMENT
14. EXPANDED ROAD AND SIDEWALK FULL LENGTH OF COURT
15. BRIDGE
16. DRIVE AISLES ON SITE ARE 25' WIDE FOR FIRE TRUCK & TWO LANE TRAFFIC ACCESS
17. SPORTS FIELD
18. DOWNTOWN CLAYTON, COMMERCIAL AREA
19. EXISTING PRIVATE STREET UP THE HILL BEHIND THE PROPERTY TO PRIVATE RESIDENCES

GENERAL NOTES

1. INTENT OF THIS DRAWING IS TO PROVIDE IFORMATION OF THE EXISTING FENCING AND NEW FENCING

2. REFER TO ARCHITECTURAL SITE PLAN FOR MORE DETAILS ON THE PROJECT.

Graphic Scale: 1 inch = 50 feet

0 50' 100' 150' 200'

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

EPIC

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COMMUNITY PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 102

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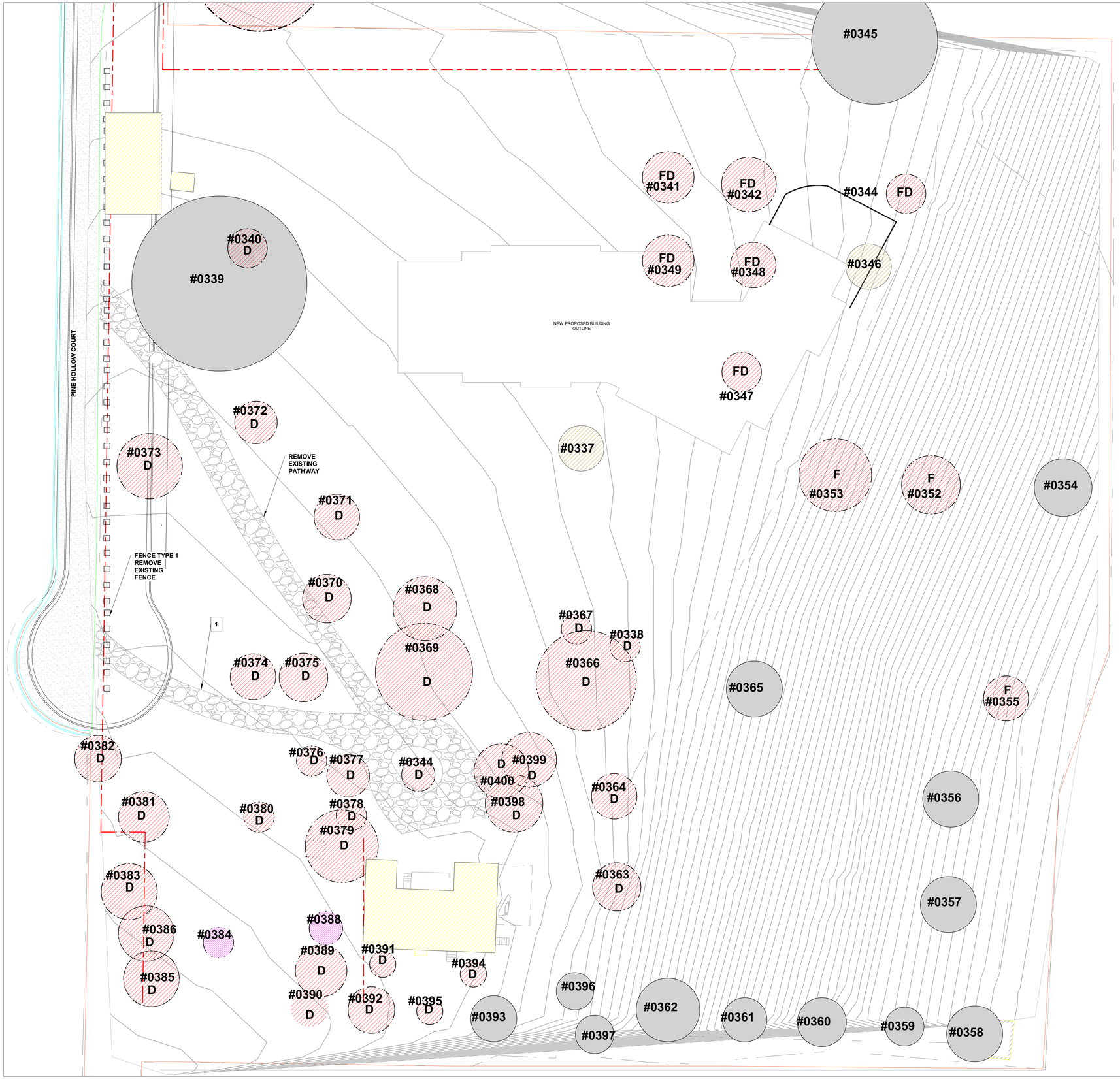

LEGEND

- F — DEMO TREE -FIRE DAMAGE
- D — DEMO TREE -DEVELOPMENT
- DEMO TREE -DEAD
- EXISTING TREE TO REMAIN
- REMOVE WEEDS
- #XXXX — TREE IDENTIFICATION
- DEMOLISHED STRUCTURE
- EXISTING STRUCTURE TO REMAIN

KEYNOTES

1. EXISTING ROAD TO THE PROPERTY

For detailed information on the trees see the Tree Plan

GENERAL NOTES

Graphic Scale: 1 inch = 20 feet

0 20' 40' 60' 80'

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

EPYC

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DEMOLITION PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 103

4/16/2021 4:02:21 PM

PINE HOLLOW COURT

HIGH STREET

#0345
#0339
#0340 D
FD #0341
FD #0342
FD #0344
FD #0349
FD #0348
#0346
FD #0347
#0372 D
#0373 D
#0337
F #0353
F #0352
#0354
#0371 D
#0370 D
#0368 D
#0367 D
#0338 D
#0369 D
#0366 D
#0374 D
#0375 D
#0365
F #0355
#0382 D
#0376 D
#0377 D
#0344 D
#0399 D
#0400
#0364 D
#0381 D
#0380 D
#0378 D
#0398 D
#0356
#0379 D
#0383 D
#0363 D
#0357
#0388
#0386 D
#0384
#0389 D
#0391 D
#0394 D
#0385 D
#0390 D
#0392 D
#0395 D
#0396
#0393
#0362
#0397
#0361
#0360
#0359
#0358

LEGEND

F	DEMO TREE -FIRE DAMAGE
D	DEMO TREE -DEVELOPMENT
	DEMO TREE -DEAD
	NEW ADDED TREE
	EXISTING TREE TO REMAIN
	REMOVE WEEDS
#XXXX	TREE IDENTIFICATION

SHEET NOTES

- Trees existing to remain (14) : 339, 345, 354, 365, 356, 357, 358, 359, 360, 361, 362, 396, 397, 393
- Remove weeds (2) : 346, 337
- Remove trees due to fire damage (9) : 341, 342, 344, 349, 348, 347, 353, 352, 355
- Trees that burned from fire (3) : 343, 350, 351
- Trees that are missing (6): 56, 54, 52, 51, 62, 63 because they were on an old report but our arborist couldn't account for those trees on the site
- Removing because of Development (34): 340, 372, 373, 371, 370, 368, 369, 375, 374, 376, 377, 378, 379, 380, 381, 382, 383, 385, 386, 387, 389, 391, 390, 392, 394, 395, 363, 364, 398, 399, 400, 366, 367, 338
- Trees that are dead (2): 388, 384
- New trees that we will add because of the development and meet the parking requirements: 53
- Refer to Landscape Plan L-01 for further planting information

GENERAL NOTES

Graphic Scale: 1 inch = 20 feet

0 20' 40' 60' 80'

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

EPYC

ARCHITECT
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TREE PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 105

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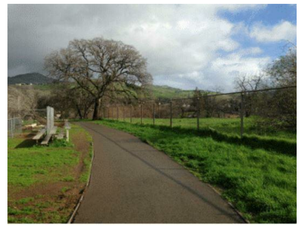
EXISTING FENCE TYPES

Fence Type 1 - Wood frame and metal Screen
Location: Along Pine Hollow Court
Height: 5 feet
Proposed: Demo for new road construction

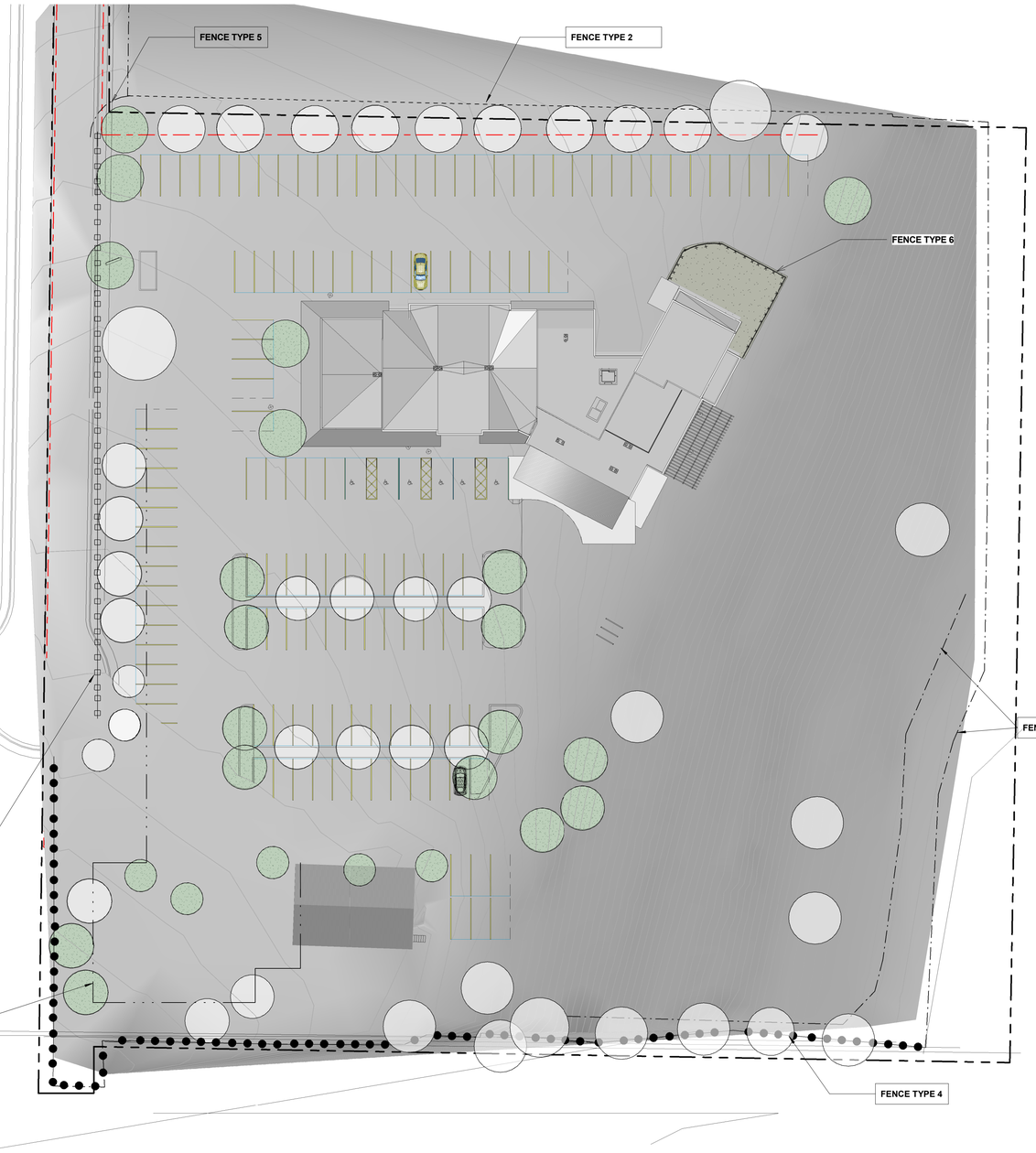


Fence Type 2 - Metal chain link
Location: Along North edge of property by school
Height: 6 feet
Proposed: Remain as is

Fence Type 3 - Metal post and screen
Location: Hillside
Height: 4 feet
Proposed: Remain as is

Fence Type 4
Location: Along private driveway
Height: 5 feet
Proposed: Remain as is

Fence Type 5 - Metal chain link
Location: Northwest corner alonhg Pine Hollow Court
Height: 6 feet
Proposed: Demo for expanded road construction



NEW FENCE TYPES

Fence Type 6 - Vertical wood with curved top profile
Location: Around playground
Height: 5 feet
Picket Spacing: 3 1/2"
Proposed: New construction

Fence Type 7 - Horizontal wood screen
Location: Along Pin Hollow Court
Height: 5 feet
Proposed: New construction

GENERAL NOTES

1. INTENT OF THIS DRAWING IS TO PROVIDE IFORMATION OF THE EXISTING FENCING AND NEW FENCING

2. REFER TO ARCHITECTURAL SITE PLAN FOR MORE DETAILS ON THE PROJECT.

Graphic Scale: 1 inch = 30 feet

0 30' 60' 90' 120'

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

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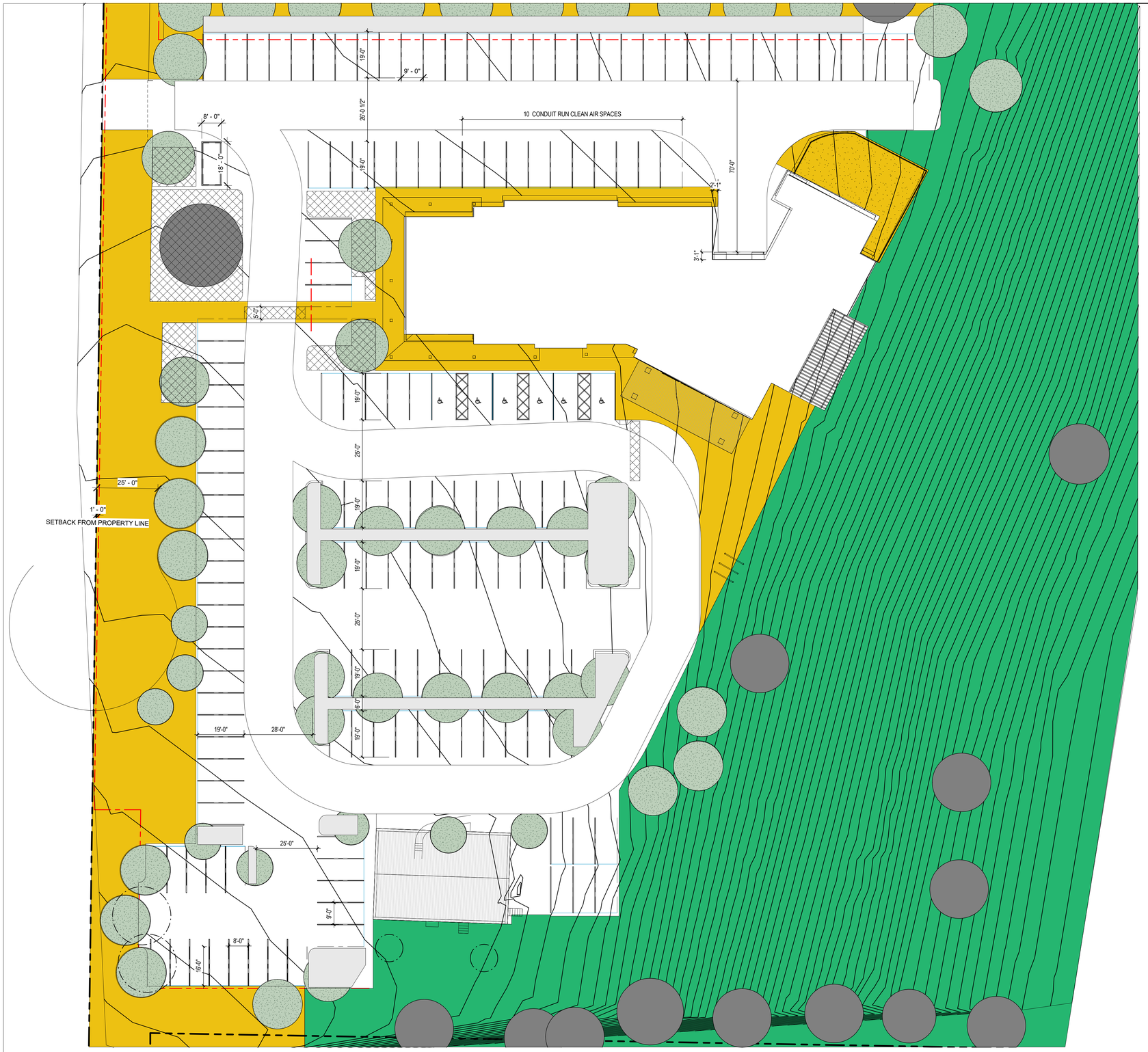
FENCING PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 106

4/6/2021 3:43:10 AM



LEGEND

PASSIVE OPEN SPACE

ACTIVE OPEN SPACE

KEYNOTES

As listed in 17.28.100 Open Space section B Part 1 - The topography of the site is a limiting factor for this property which prohibits the opportunity to make at least half of the open space active.

This design has made a significant effort to create active open space while still meeting the parking requirements which consumes the majority of the unsloped area on the parcel.

It is estimated that 39% of the lot will not be disturbed. Approximately 71,972 sf./183,469 sf net area = 0.392.

GENERAL NOTES

Graphic Scale: 1 inch = 20 feet

0 20' 40' 60' 80'

REVISIONS

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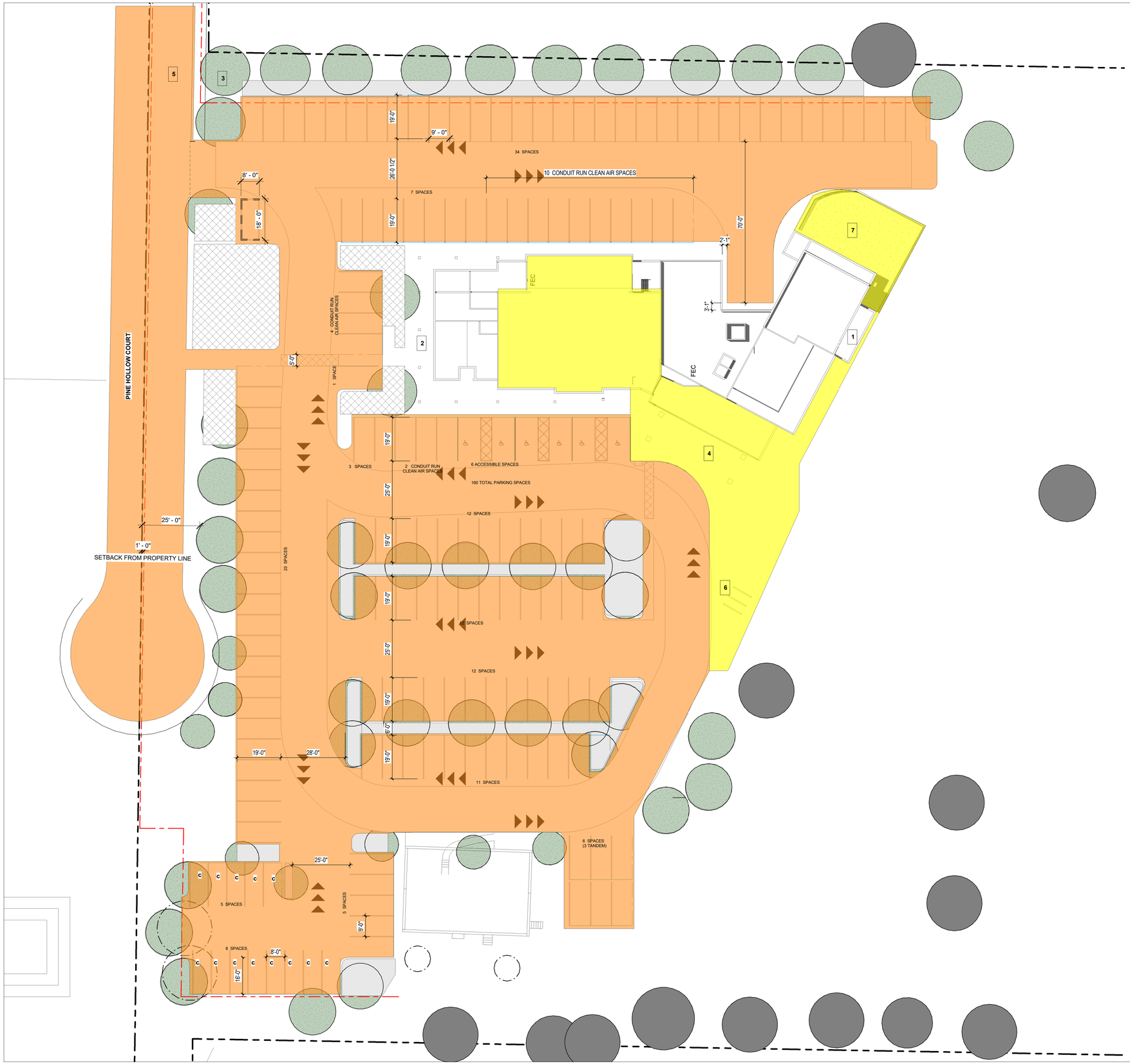
OPEN SPACE PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 107

4/6/2021 3:43:14 AM



LEGEND

Street Improvements, overflow parking, & turn around for Mt. Diablo Elementary School traffic & Community benefit

Facilities & amenities for Public use & benefit

KEYNOTES

1. Wood deck with portico
2. Covered porch with seating
3. Plaza with benches
4. Outdoor tables & chairs
5. Expanded road and side walkfull length of court
6. Bicycle parking
7. Childrens playground

GENERAL NOTES

Graphic Scale: 1 inch = 20 feet

0 20' 40' 60' 80'

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

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EPYC

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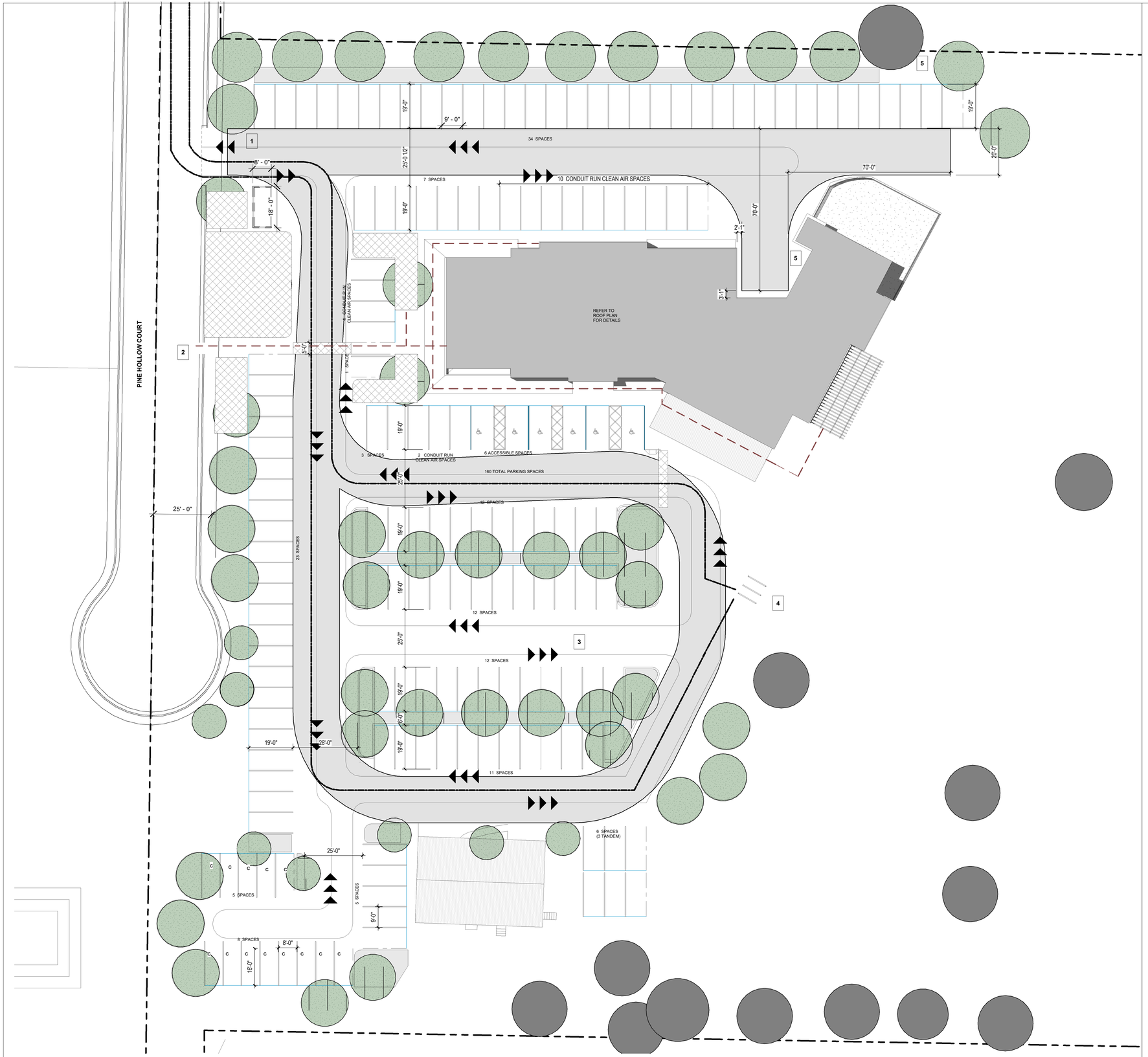
COMMUNITY FACILITY PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 108

4/6/2021 3:43:27 AM



LEGEND

LEGEND

Vehicular Circulation

Bike Route

Pedestrian Path

Fire Apparatus Circulation

KEYNOTES

1. Main vehicular and bicycle entrance
2. Road widened to standard 2-lane width with complete turn around at the end
3. Lots of overflow parking for school traffic to offer relief to neighborhood congestion
4. Bicycle parking
5. Stamped concrete walkway 5ft wide

GENERAL NOTES

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0 20' 40' 60' 80'

REVISIONS

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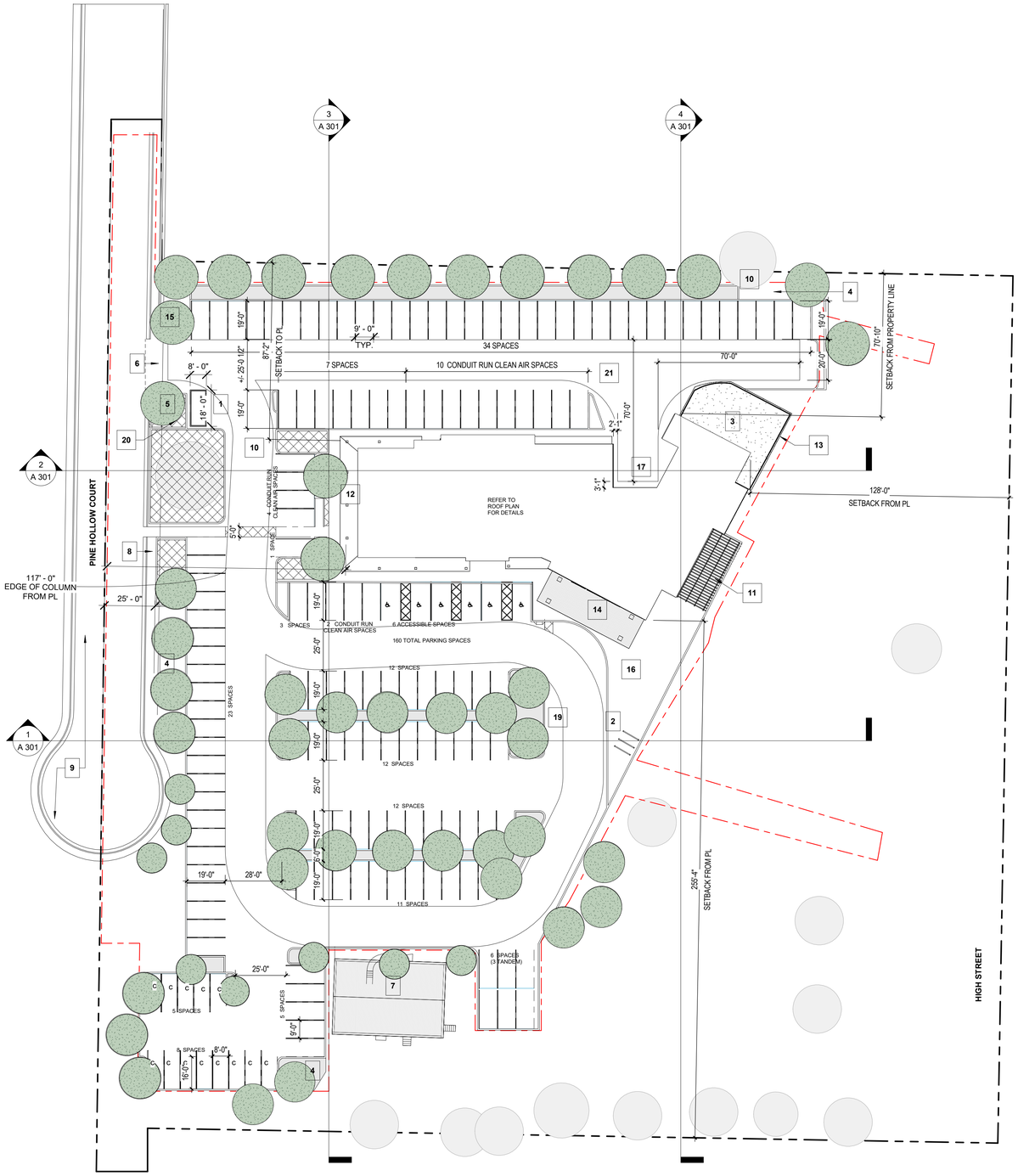
CIRCULATION PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 109

4/16/2021 4:04:13 PM



Graphic Scale: 1 inch = 30 feet

0 30' 60' 90' 120'

LEGEND

- PROPERTY LINE
- SCOPE OF WORK
- PAVING
- GRAVEL
- NEW TREE
- EXISTING TREE TO REMAIN
- PLANTING AREA

KEYNOTES

1. TRASH ENCLOSURE
2. BICYCLE RACKS
3. PLAYGROUND, REFER TO LA
4. WOODEN FENCE. SEE FENCING PLAN FOR MORE DETAIL
5. SIGN
6. CURB CUT FOR DRIVEWAY
7. EXISTING HOUSE TO REMAIN
8. SIDEWALK
9. EXPANDED ROAD, SEE CIVIL
10. PROTECTED TREE, SEE TREE PLAN FOR MORE DETAIL
11. WOODEN DECK
12. PORCH
13. PLAYGROUND FENCE
14. MAIN ENTRANCE CANOPY
15. PUBLIC PLAZA WITH BENCHES & STAMPED CONCRETE
16. PATIO. REFER TO LA DWGS.
17. COURTYARD
18. NOT USED
19. LOADING SPACE PER CODE
20. RETENTION BASIN, REFER TO CIVIL
21. PROPOSED FIRE APPARATUS ROUTE

SHEET NOTES

1. Net parcel size: 183,469
   Gross parcel size: 201,964
2. Floor Area Ration (FAR):
   13,998 SF / 201,964 SF = 0.069 = 6.9%
3. Allowable building area:
   35% of 183,469 = 64,214 sf
   Proposed Building Area: 13,998 sf
   Design Height 29'- 8"
   Number of Stories: 2
4. Bicycle parking spaces: 17
   Bicycle parking spaces provided: 18
   Clayton Municipal Code (17.37.040)
5. Parking Stalls Required: 157
   Parking Stalls Provided: 160
   -6 Accessible Stalls
   1 Van Stall per CA Bldg Code, Part 2, Vo. 1 Table 11B-208.2
   -13 Compact Stalls
   Clayton MC 17.37.080
   -16 Marked with "Clear Air/EV/Vanpool
   >10 of the 16 to have conduit run for future EV
   -121 Car Stalls
   - 3 tandem parking spaces
   Total: 160 Stalls
6. Refer to Civil for biorentention, vegetation and optimization of site layout
7. Refer to LA Dwgs for landscaping
8. Refer to Demo plan & Tree plan for tree information

REVISIONS

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ARCHITECTURAL SITE PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 110

4/16/2021 4:04:36 PM

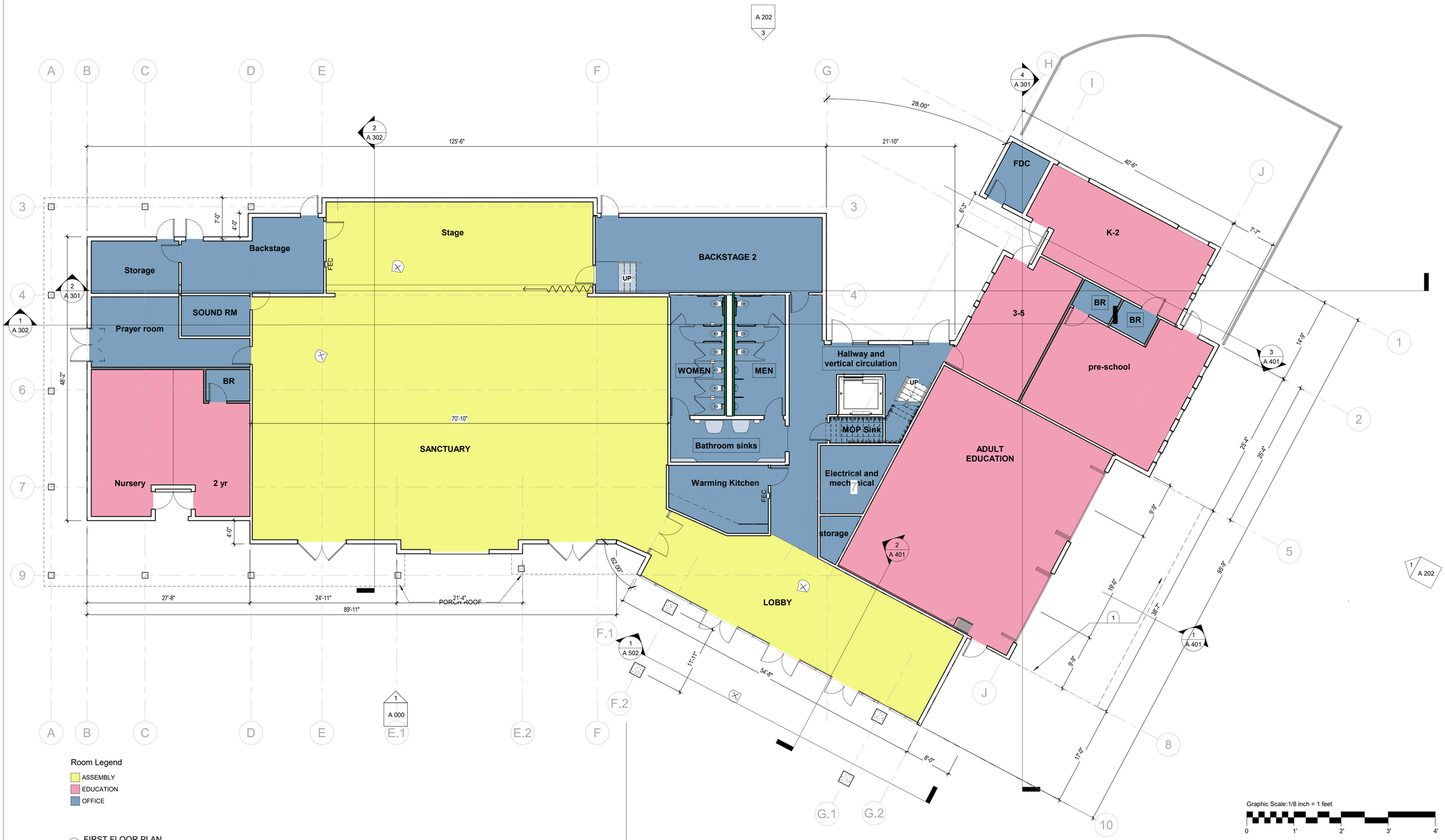
NOTES

1. GRIDS: ALL GRIDS ARE TO CENTERLINE OF COLUMN, FACE OF FOUNDATION UNLESS NOTED OTHERWISE.
2. DIMENSIONS:
EXTERIOR WALLS: DIMENSIONS ARE TO FACE OF VENEER, FOOTING, AND STOREFRONT, U.O.N.
INTERIOR WALLS: DIMENSIONS ARE TO CENTERLINE OF WALL, FACE OF STOREFRONT FRAMING, AND FACE OF CMU WALL, U.O.N.
3. SEE INTERIOR ELEVATIONS SHEETS A 700 SERIES FOR WORK INCLUDING BUT NOT LIMITED TO CASEWORK, WALL ELEVATIONS, DISPLAY BOARDS, FIRE EXTINGUISHER CABINETS, LOCKERS, AND MISCELLANEOUS EQUIPMENT.
4. SEE SHEETS FRONT END SHEETS FOR LOCATIONS OF RATED WALLS AND OTHER 'CODE' REQUIREMENTS, INCLUDING DETAILED REQUIREMENTS OF APPLICABLE RATED ASSEMBLIES.
NOTES
5. WATER RESISTANT GYPSUM BOARD SHALL BE INSTALLED IN ALL RESTROOM AND JANITOR AREAS UNLESS OTHERWISE INDICATED.
6. SEE ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATION AND QUANTITY OF TOILET ROOM ACCESSORIES.
7. REFER TO WALL SECTIONS FOR EXTERIOR WALL REQUIREMENTS.
8. REFER TO DETAILS ON SHEET A 003 FOR TYPICAL PLUMBING FIXTURE HEIGHTS.

KEY NOTES

1 WOOD DECK

KEY PLAN



Room Legend

- ASSEMBLY
- EDUCATION
- OFFICE

1 FIRST FLOOR PLAN
1/8" = 1'-0"

Graphic Scale:1/8 inch = 1 feet

0 1' 2' 3' 4'

4/16/2021 4:04:55 PM

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

EPYC

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FIRST FLOOR PLAN

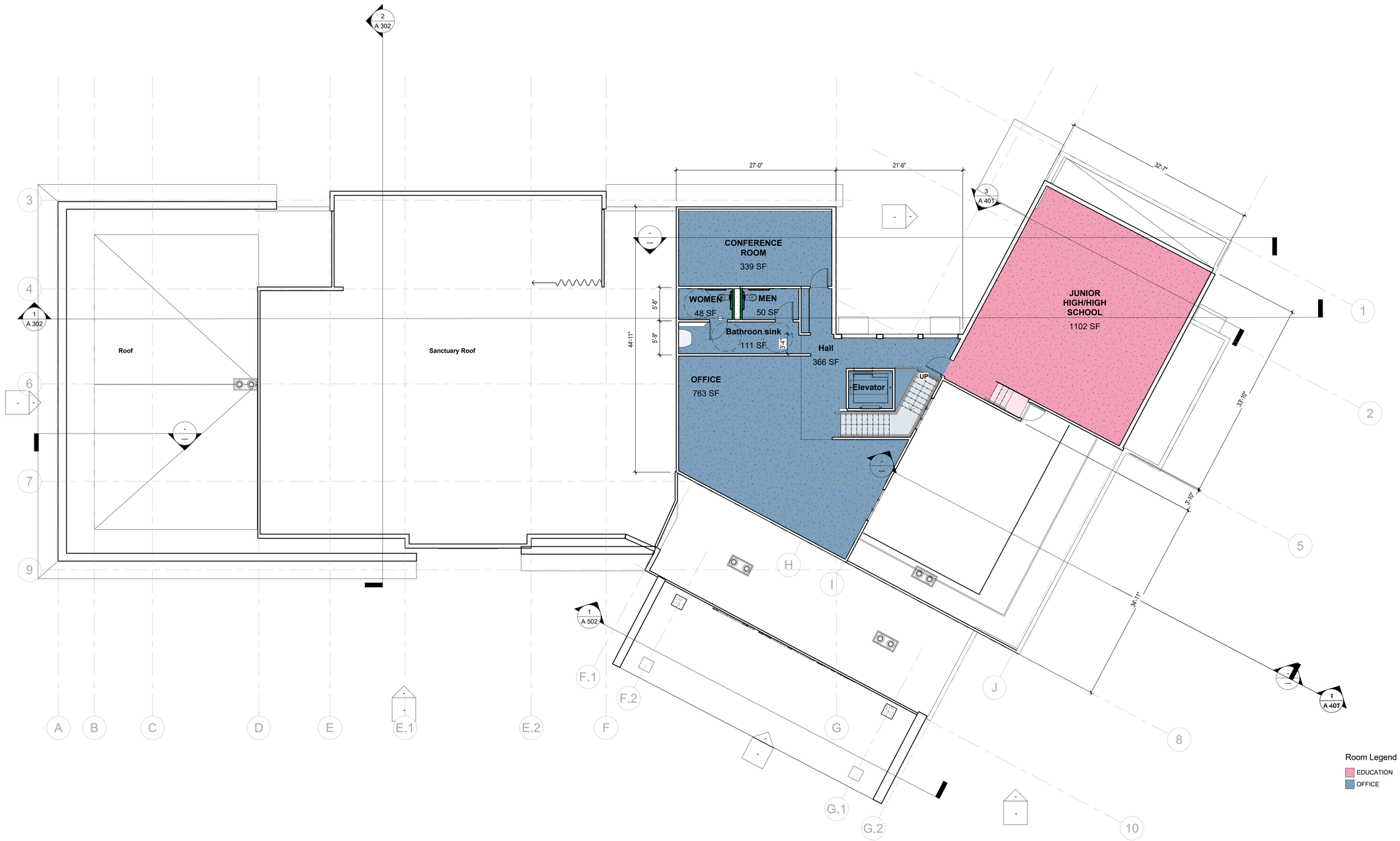
SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 111

NOTES

1. GRIDS: ALL GRIDS ARE TO CENTERLINE OF COLUMN, FACE OF FOUNDATION UNLESS NOTED OTHERWISE.
2. DIMENSIONS:
EXTERIOR WALLS: DIMENSIONS ARE TO FACE OF VENEER, FOOTING, AND STOREFRONT, U.O.N.
INTERIOR WALLS: DIMENSIONS ARE TO CENTERLINE OF WALL, FACE OF STOREFRONT FRAMING, AND FACE OF CMU WALL, U.O.N.
3. SEE INTERIOR ELEVATIONS SHEETS A 700 SERIES FOR WORK INCLUDING BUT NOT LIMITED TO CASEWORK, WALL ELEVATIONS, DISPLAY BOARDS, FIRE EXTINGUISHER CABINETS, LOCKERS, AND MISCELLANEOUS EQUIPMENT.
4. SEE SHEETS FRONT END SHEETS FOR LOCATIONS OF RATED WALLS AND OTHER 'CODE' REQUIREMENTS, INCLUDING DETAILED REQUIREMENTS OF APPLICABLE RATED ASSEMBLIES.
NOTES
5. WATER RESISTANT GYPSUM BOARD SHALL BE INSTALLED IN ALL RESTROOM AND JANITOR AREAS UNLESS OTHERWISE INDICATED.
6. SEE ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATION AND QUANTITY OF TOILET ROOM ACCESSORIES.
7. REFER TO WALL SECTIONS FOR EXTERIOR WALL REQUIREMENTS.
8. REFER TO DETAILS ON SHEET A 003 FOR TYPICAL PLUMBING FIXTURE HEIGHTS.

KEY NOTES



1 SECOND FLOOR PLAN
1/8" = 1'-0"

4/6/2021 1:44:42 AM

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

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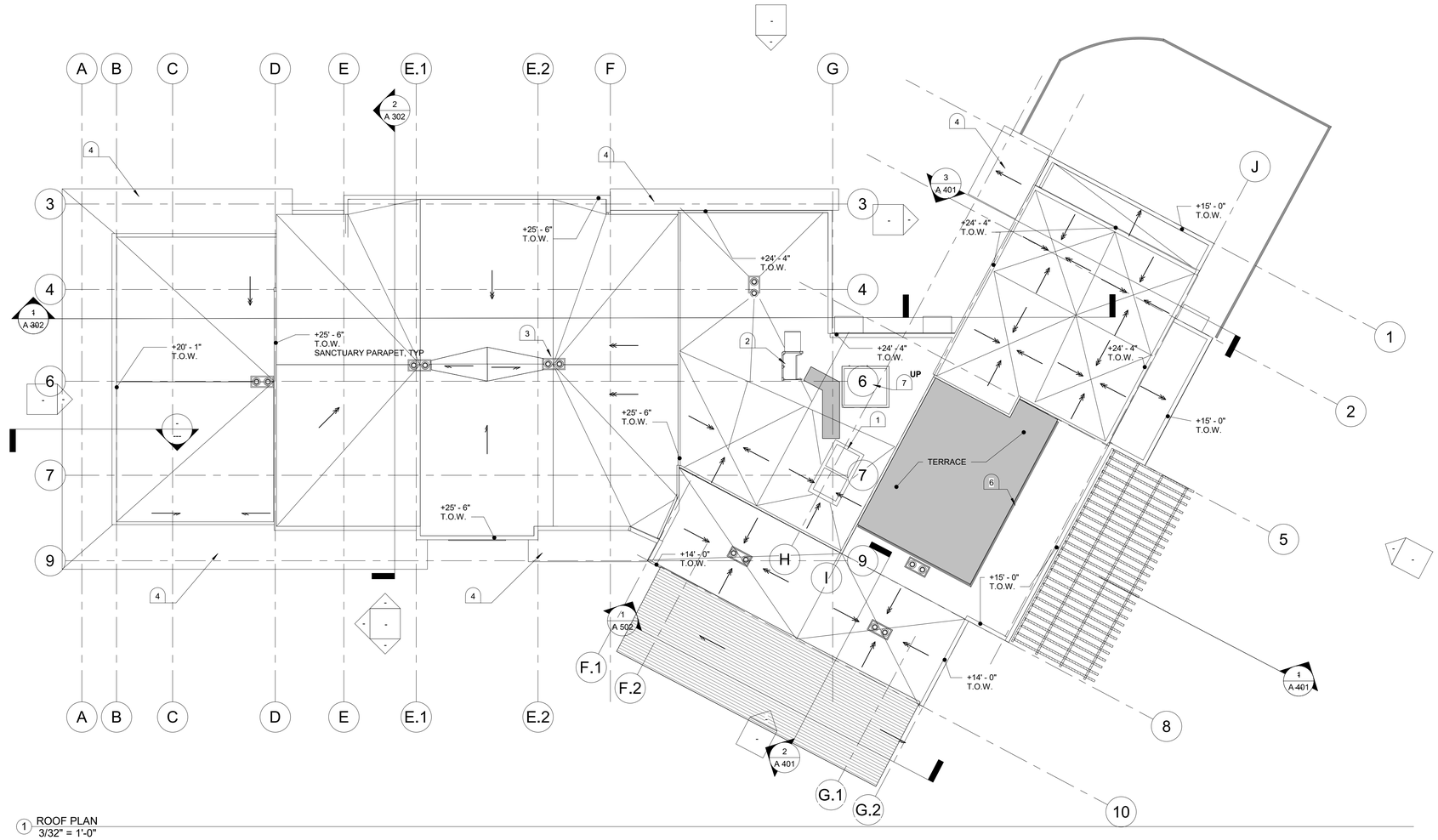
SECOND FLOOR PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 112



1 ROOF PLAN
3/32" = 1'-0"

LEGEND

ROOF DRAIN AND OVERFLOW DRAIN.

ROOF SLOPE (STRUCTURE) AT 1/2" = 1'-0", U.N.O.

ROOF SLOPE (CRICKET) AT 1/4" = 1'-0", U.N.O.

WALKWAY PROTECTION.
INSTALL PER MANUFACTURER RECOMMENDATIONS.

CRICKET AT HATCHED AREAS, TYPICAL.

AREA OF FLAT ROOF STRUCTURE - SLOPE ACHIEVED WITH INSULATION/CRICKETS

KEYNOTES

1. ROOF MOUNTED MECHANICAL EQUIPMENT. SEE MECHANICAL DRAWINGS FOR SIZING AND LOCATION.
2. LOCATION OF DOOR FOR ROOF ACCESS FROM MEZZANINE.
3. ROOF DRAIN. SEE MECHANICAL DRAWINGS
4. SLOPED METAL ROOF, TYPICAL.
5. ROOF HATCH LADDER SIZE AND DETAIL. PROVIDE SAFETY RAILING AT ALL ROOF HATCHES. SEE DOOR SCHEDULE SHEET **A3.00** FOR HARDWARE REQUIREMENTS AT HATCH.
6. FALL PROTECTION ANCHOR MOUNTED THROUGH ROOFING PER MANUFACTURER'S INSTRUCTIONS. SEE STRUCTURAL FOR ADDITIONAL FRAMING. GUARD MUST BE 42" MIN. 10' AWAY FROM PARAPET WALL. FLASH OR BOOT AS TO NOT VOID ROOF MANUFACTURER'S WARRANTY.
7. ELEVATOR SHAFT

GENERAL NOTES

1. INTENT OF THIS DRAWING IS TO PROVIDE IFORMATION OF THE EXISTING FENCING AND NEW FENCING

2. REFER TO ARCHITECTURAL SITE PLAN FOR MORE DETAILS ON THE PROJECT.

REVISIONS

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ROOF PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 150

4/6/2021 3:44:06 AM

3 WEST ELEVATION
1/8" = 1'-0"

1 SOUTH ELEVATION
1/8" = 1'-0"

4/16/2021 4:55:21 PM

REVISIONS

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SOUTH AND WEST ELEVATIONS

SCALE	PROJECT #	DATE ISSUED
1/8" = 1'-0"	1027PHC	04.13.2021

A 201

1 EAST ELEVATION
1/8" = 1'-0"

3 NORTH ELEVATION
1/8" = 1'-0"

4/16/2021 4:05:32 PM

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

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Clayton CA 94517

EPIC

ARCHITECT
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p. 925.353.0363

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BKF ENGINEERS
255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
p. 650.482.6427

GEOTECHNICAL ENGINEER
CORNERSTONE EARTH GROUP, INC.
1220 OAKLAND BLVD, SUITE 200
WALNUT CREEK, CA 94596
p. 925.988.9500

ARBORIST
TREES, BUGS, DIRT
MICHAEL BAEFSKY
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p. 925.254.7950

IRRIGATION CONSULTANT
JDE ASSOCIATES
P.O. BOX 2291
DANVILLE, CA 94526
p. 925.867.3339

NORTH AND EAST ELEVATIONS

SCALE	PROJECT #	DATE ISSUED
1/8" = 1'-0"	1027PHC	04.13.2021

A 202

View from bottom of hill

4 Photosimulations 4 24X36
1/2" = 1'-0"

View from across the street

2 Photosimulations 2 24X36
1/2" = 1'-0"

View from Pine Hollow Court

3 Photosimulations 3 24X36
1/2" = 1'-0"

View from end of court

1 Photosimulations 1 24X36
1/2" = 1'-0"

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

EPYC

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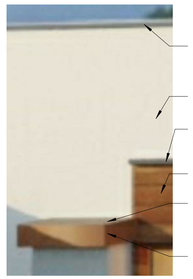
PHOTO SIMULATIONS

SCALE	PROJECT #	DATE ISSUED
1/2" = 1'-0"	1027PHC	04.13.2021

A 250

4/6/2021 1:34:13 AM

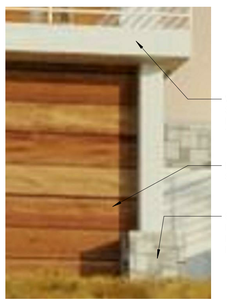


6 NORTH DETAIL
1/4" = 1'-0"

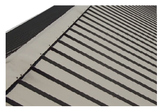
5 WINDOW DETAIL
1/4" = 1'-0"

4 WALL DETAIL
1/4" = 1'-0"

3 SIDING DETAIL
1/4" = 1'-0"



2 SIDING DETAIL
1/4" = 1'-0"

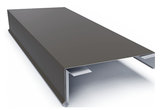


STANDING SEAM METAL ROOF
B.O.D. SHEFFIELD METALS
INTERNATIONAL, SLATE GRAY

WHITE CEMENT BOARD
B.O.D. ALLURA TRADITIONAL LAP
SIDING, SNOW

WOOD CEMENT BOARD
B.O.D. ALLURA TRADITIONAL LAP
SIDING, MAPLE

DECKING
B.O.D. TREXSELECT
WOODLAND, BROWN



METAL COPING
B.O.D. CRL- US ALUMINUM CW20122
FACE CAP, BRONZE BLACK ANODIZED

WOOD FASCIA, TYP.
B.O.D. Allura Trim, Maple

STONE VENEER
B.O.D. PROVIA FERNWOOD NATURAL
CUT STONE VENEER; GRAY

STUCCO
B.O.D. Sherwin Williams Smooth
Stucco, Greek Villa #7551

4/6/2021 3:44:19 AM

REVISIONS

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Clayton CA 94517

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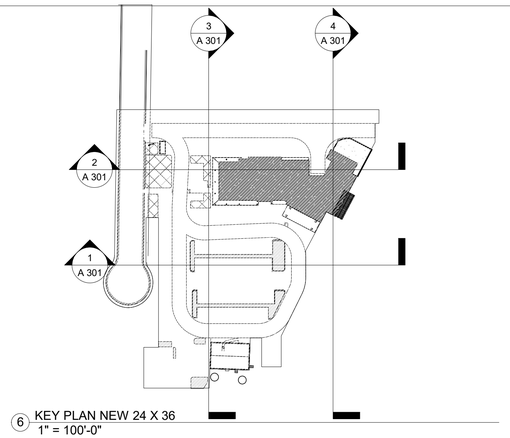
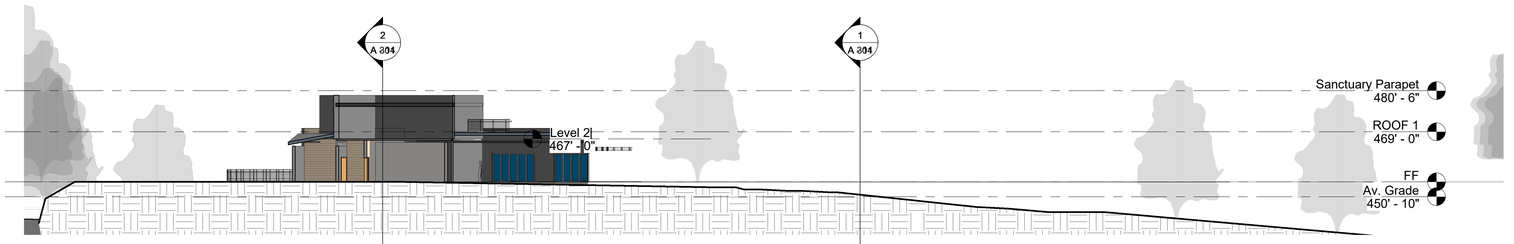
EXTERIOR FINISHES

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

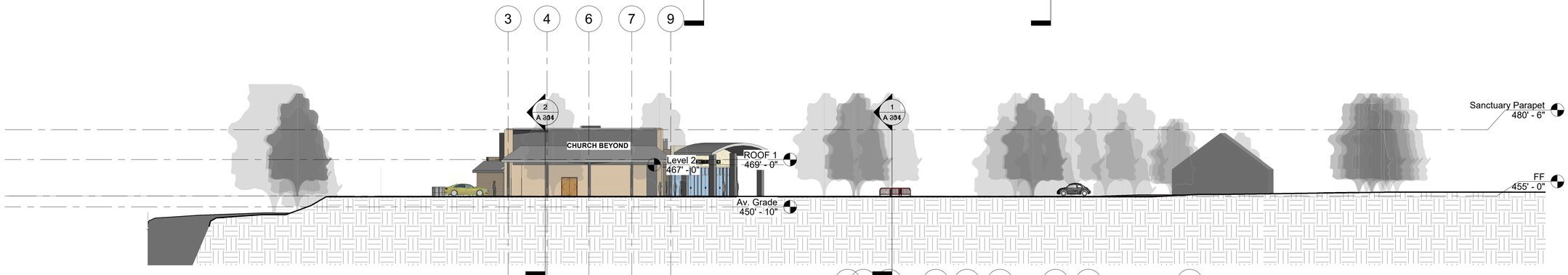
A 251



6 KEY PLAN NEW 24 X 36
1" = 100'-0"

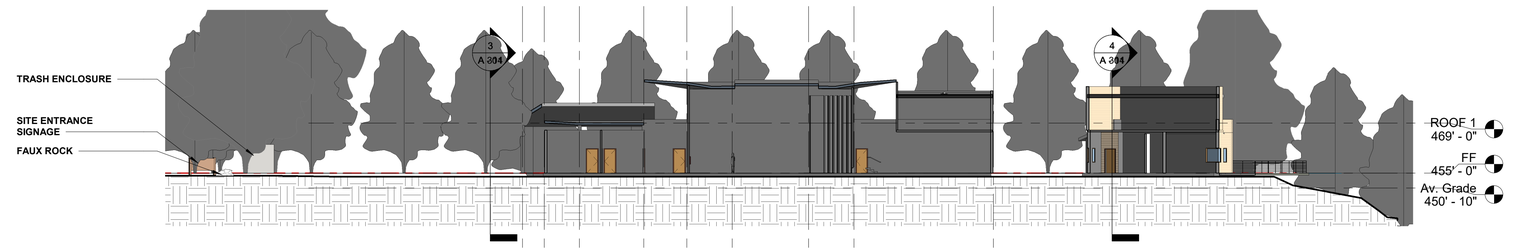


4 North - South Section A 24x36
1" = 20'-0"

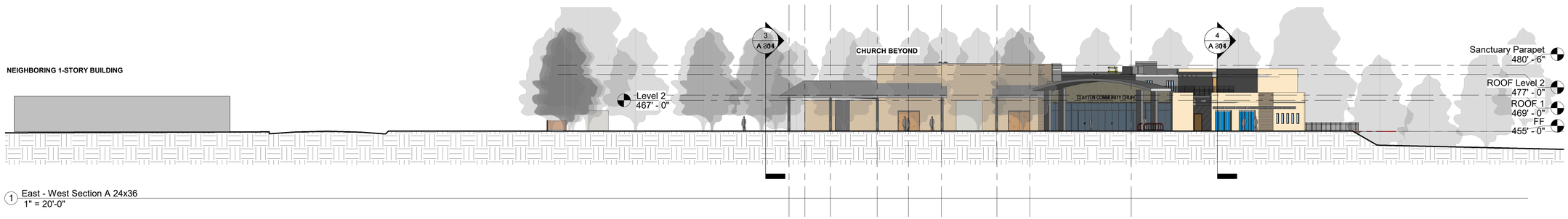


3 North - South Section B 24x36
1" = 20'-0"

2.1 FAUX ROCK DETAIL
1/4" = 1'-0"



2 East - West Section B 24x36
1" = 20'-0"



1 East - West Section A 24x36
1" = 20'-0"

4/16/2021 4:06:05 PM

REVISIONS

#	DATE	DESCRIPTION

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Clayton CA 94517

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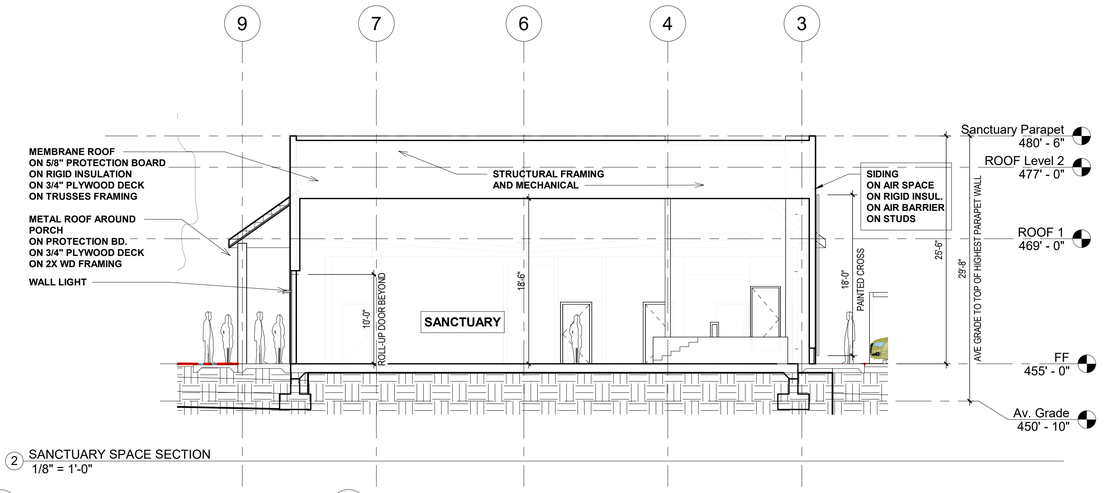
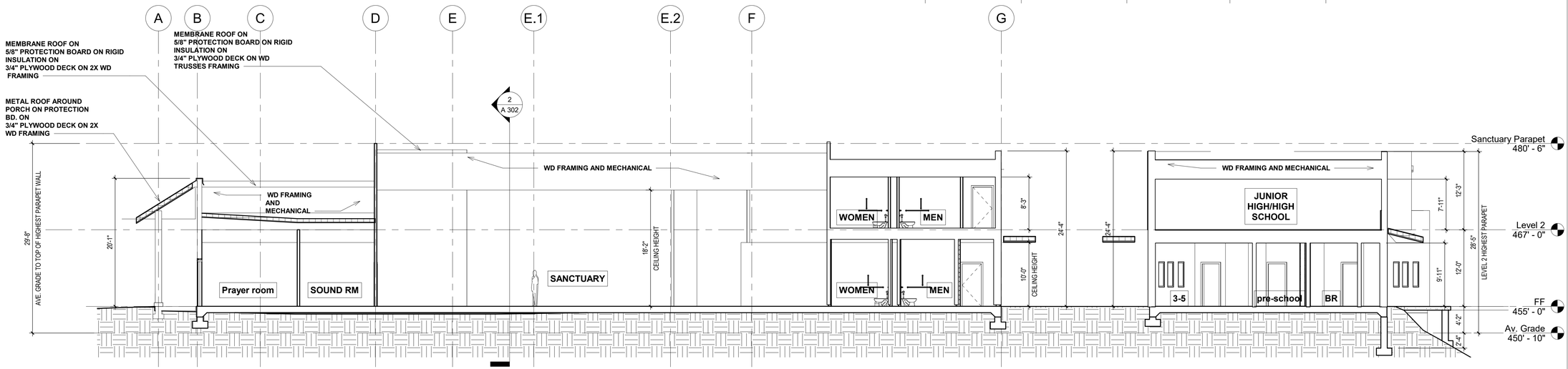
SITE SECTIONS

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 301



2 SANCTUARY SPACE SECTION
1/8" = 1'-0"



1 WEST-EAST BUILDING SECTION
1/8" = 1'-0"

4/6/2021 3:44:45 AM

REVISIONS

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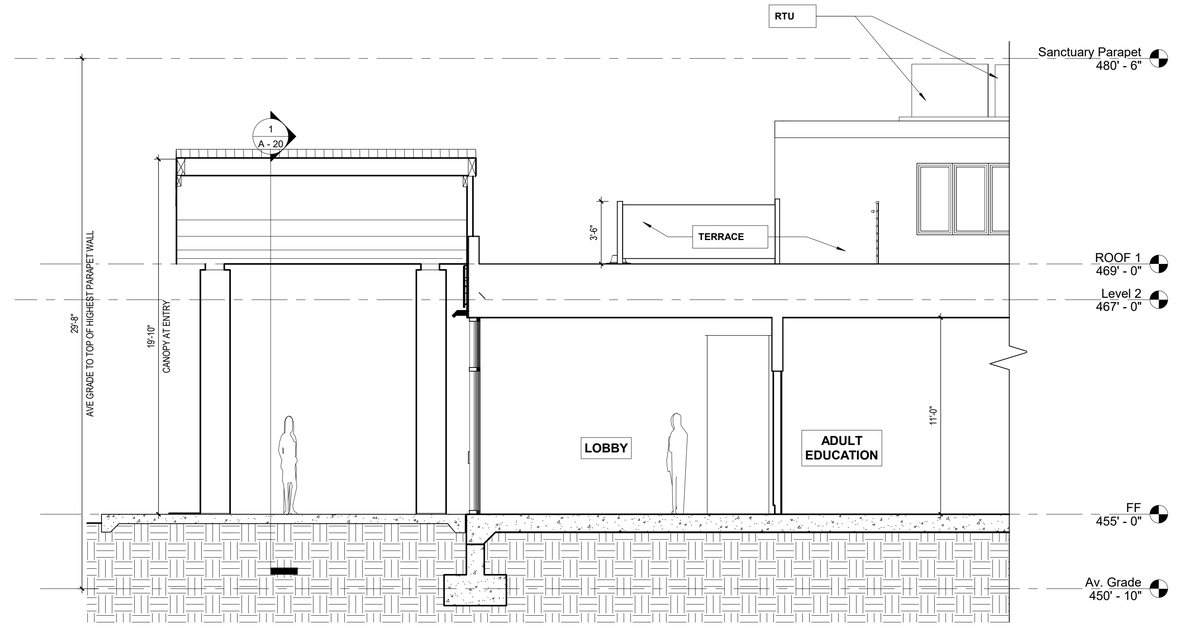
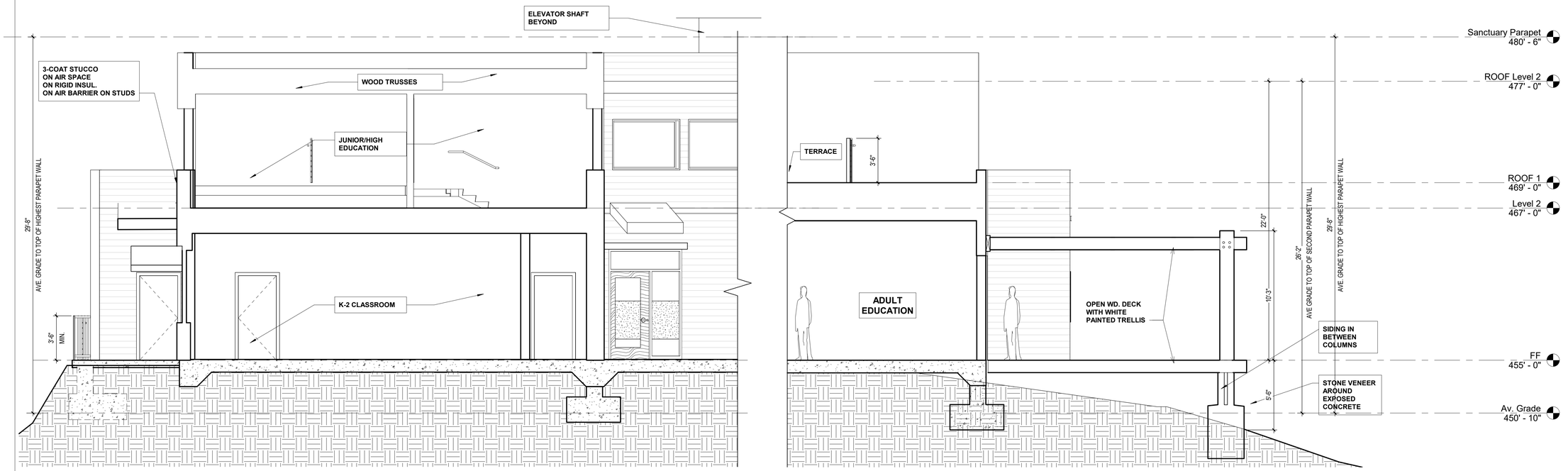
BUILDING SECTIONS

SCALE	PROJECT #	DATE ISSUED
1/8" = 1'-0"	1027PHC	04.13.2021

A 302



2 ENTRY AT LOBBY
1/4" = 1'-0"



3 PRESCHOOL DECK AND PRESCHOOL
1/4" = 1'-0"

1 ADULT EDUCATION AND PERGOLA
1/4" = 1'-0"

4/6/2021 1:44:45 AM

REVISIONS

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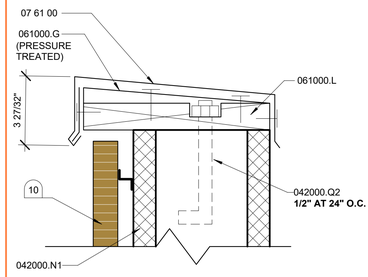
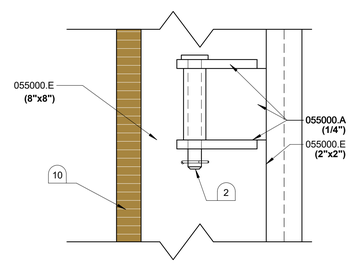
WALL SECTIONS

SCALE	PROJECT #	DATE ISSUED
1/4" = 1'-0"	1027PHC	04.13.2021

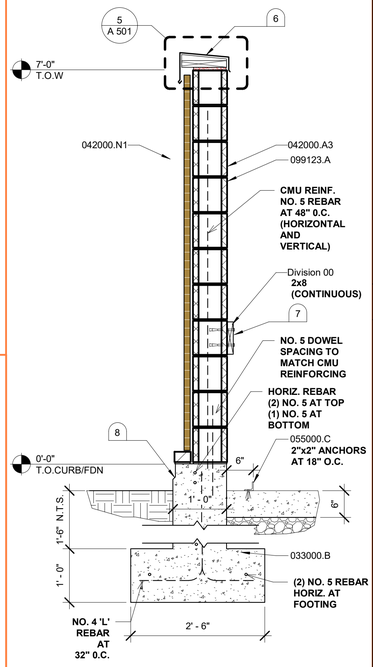
A 401



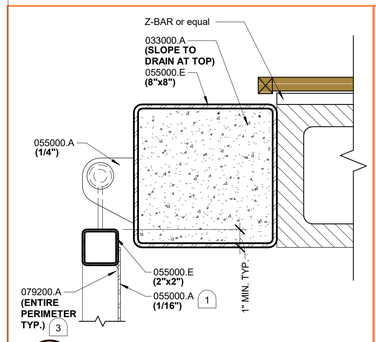
5 TRASH ENCL CAP B
3" = 1'-0"



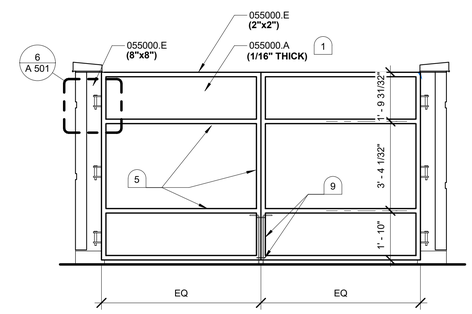
6 HINGE DETAIL B
3" = 1'-0"



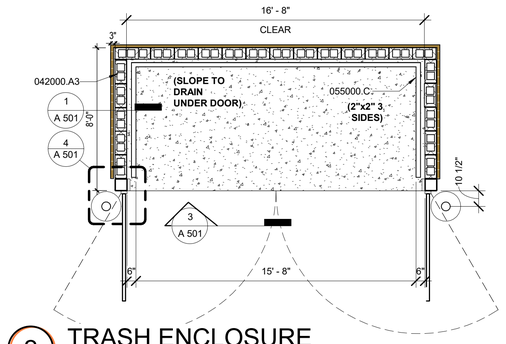
1 TRASH ENC SECTION
3/4" = 1'-0"



4 TRASH GATE HINGE B
3" = 1'-0"



3 TRASH ENCLOSURE GATE
3/8" = 1'-0"



2 TRASH ENCLOSURE
1/4" = 1'-0"

CONDOC

07 61 00	**Sheet Metal Roofing**
033000.A	
033000.B	
042000.A3	
042000.N1	
042000.Q2	
055000.A	
055000.C	
055000.E	
061000.G	
061000.L	
079200.A	
099123.A	
Division 00	**Procurement and Contracting Requirements**

KEYNOTES

1. PROVIDE 1/16" SHEET STEEL. WELD TO BACK OF THE TUBE STEEL GATE FRAME.
2. 3/4" O.D. HINGE PIN. SECURE WITH LYNCH OR COTTER PIN.
3. PROVIDE CONTINUOUS SEALANT AT ENTIRE PERIMETER WHERE TUBE STEEL MEETS BACK PLATE PRIOR TO PAINTING.
4. WRAP TOP OF NAILER WITH BUILDING PAPER AND EXTEND OVER EDGES.
5. PROVIDE CONTINUOUS SEALANT AT ENTIRE PERIMETER WHERE TUBE STEEL MEETS BACK PLATE PRIOR TO PAINTING.
6. PREFINISHED CAP STOPS AT END OF CMU WALL AND DOES NOT EXTEND OVER TOP OF TUBE STEEL . TOP OF TUBE STEEL STOPS AT TOP OF CMU WALL.
7. PRESSURE TREATED WOOD PLATE ANCHORED TO WALL. COORDINATE HEIGHT TO PROTECT WALL FROM WIDEST EDGES / PROJECTIONS OF DUMPSTER. ANCHOR AT 2'-0" O.C. MAX.
8. 1/2" x 3 1/2" REVEAL
9. 1/2" DIA. GATE KEEPER. TYPICAL OF (2) PROVIDE 3/4" x 2" METAL SLEEVE IN ASPHALT AT OPEN AND CLOSED POSITIONS IN CONCRETE. PROVIDE METAL TAB TO HOLD KEEPERS UP WHEN IN UNLOCKED POSITION.
10. RECLAIMED WOOD FROM BARN. WILL RECOVER AS MANY PIECES AS POSSIBLE

GENERAL NOTES

REVISIONS

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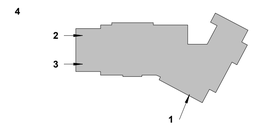
TRASH ENCLOSURE

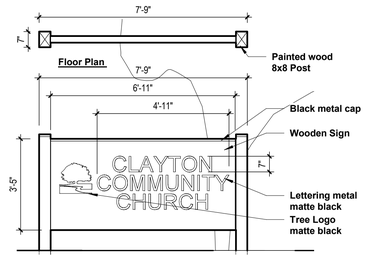
SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 501

4/6/2021 3:44:49 AM

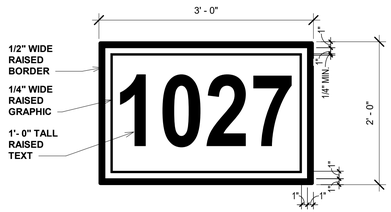


5 KEY PLAN
1" = 80'-0"



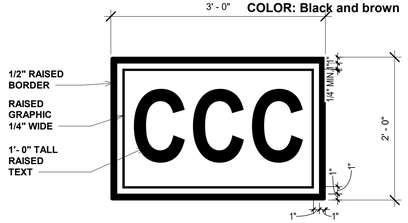
4 Entry Signage Elevation
3/8" = 1'-0"

LOCATION: At main driveway entrance
MATERIAL: Wood and metal
COLOR: Tan background with Black and brown logo and lettering



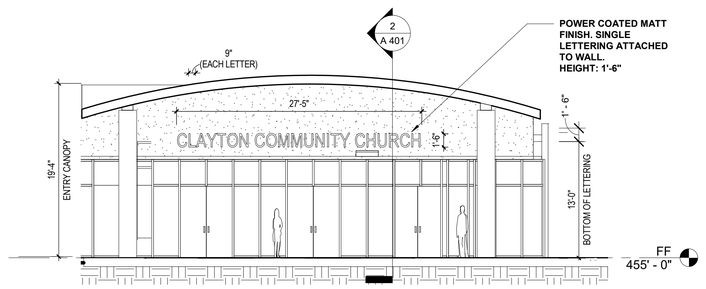
3 WEST ENTRANCE
1" = 1'-0"

LOCATION: West elevation
Over office / classroom entrance
MATERIAL: Wood and metal
COLOR: Black and brown



2 WEST ENTRANCE
1" = 1'-0"

LOCATION: West elevation
Over office / classroom entrance
MATERIAL: Wood and metal
COLOR: Black and brown



1 MAIN ENTRY
1/8" = 1'-0"

LOCATION: Main Entry
Over Lobby entrance (south side)
MATERIAL: Metal
COLOR: Black

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SIGN SCHEDULE

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

A 502

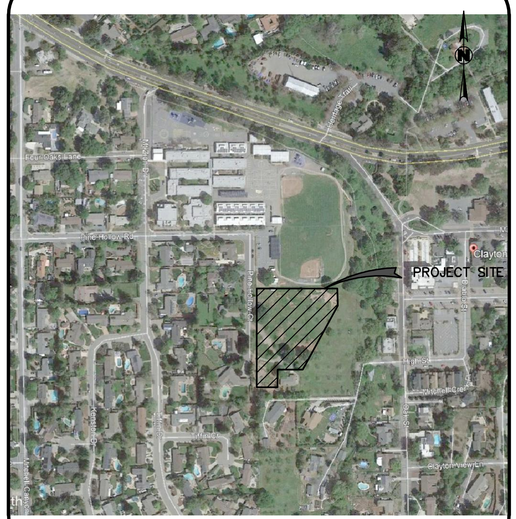
CLAYTON COMMUNITY CHURCH
1207 PINE HOLLOW COURT
CLAYTON, CONTRA COSTA COUNTY, CA

ABBREVIATIONS

SYMBOL	DESCRIPTION
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
AGG	AGGREGATE
APPROX	APPROXIMATE
BC	BEGINNING OF CURVE
BLDG	BUILDING
BM	BENCH MARK
BO	BLOWOFF
BOV	BLOWOFF VALVE
BW	BACK OF WALK/ BOTTOM OF WALL
C&G	CURB & GUTTER
CI	CURB INLET
℄ , CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DW	DOMESTIC WATER
D/W	DRIVEWAY
DWG	DRAWING
E	ELECTRIC
(E)	EAST / EXISTING
EC	END OF CURVE
EL	ELEVATION
EP	EDGE OF PAVEMENT
E.V.A.E.	EMERGENCY VEHICLE ACCESS EASEMENT
EW	EACHWAY
EX	EXISTING
(F)	FUTURE
F/C	FACE OF CURB
FF	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
FOB	FACE OF BUILDING
FP	FINISHED PAVEMENT
FT	FEET
G	GAS
GB	GRADE BREAK
GE	GARAGE ELEVATION
GM	GAS METER
HP	HIGH POINT
HV	HIGH VOLTAGE
I.E.E.	INGRESS/EGRESS EASEMENT
INV	INVERT
IRR	IRRIGATION
JT	JOINT TRENCH
LAT	LATERAL
L	LENGTH
LF	LINEAR FEET

SYMBOL	DESCRIPTION
LG	LIP OF GUTTER
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
(N)	NORTH / NEW
NO., #	NUMBER
NTS	NOT TO SCALE
P.A.E.	PUBLIC ACCESS EASEMENT
PCC	POINT OF COMPOUND CURVE or PORTLAND CEMENT CONCRETE
PE	PAD ELEVATION
PG&E	PACIFIC GAS AND ELECTRIC
PL	PROPERTY LINE
P.O.C.	POINT OF CONNECTION
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
P.S.D.E.	PRIVATE STORM DRAIN EASEMENT
P.S.E.	PUBLIC SERVICE EASEMENT
PT	POINT
P.U.E.	PUBLIC UTILITY EASEMENT
PV	PAVEMENT
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RCW	RECYCLED WATER
RIM	RIM ELEVATION
RT	RIGHT
R/W	RIGHT OF WAY
	SLOPE
(S)	SOUTH
SD	STORM DRAIN
S.D.E.	STORM DRAIN EASEMENT
SDMH	STORM DRAIN MANHOLE
SHT.	SHEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
ST.	STREET
STA	STATION
STD	STANDARD
S/W	SIDEWALK
T OR TELE	TELEPHONE
T&B	TOP AND BOTTOM
TC	TOP OF CURB
TEMP	TEMPORARY
TG	TOP OF GRATE
TP	TOP OF PAVEMENT
TYP.	TYPICAL
VERT.	VERTICAL
W	WATER
(W)	WEST
W/	WITH
	WATERLINE
WM	WATER METER
WV	WATER VALVE

LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

PROJECT INFORMATION

PROPERTY DESCRIPTION:	APN 119-050-036 EXISTING LAND USE: RESIDENTIAL PROPOSED LAND USE: COMMERCIAL AND RESIDENTIAL
OWNER/SUBDIVIDER:	CLAYTON COMMUNITY CHURCH 6055 MAIN STREET CLAYTON, CA 94517
ENGINEER:	BKF ENGINEERS 255 SHORELINE DRIVE, SUITE 200 REDWOOD CITY, CA 94065 (650)482-6300
ACREAGE: EXISTING	4.24 AC
PROPOSED	4.24 AC
STORM DRAIN:	NONE
SEWAGE DISPOSAL:	CITY OF CLAYTON
WATER SUPPLY:	CONTRA COSTA WATER DISTRICT
GAS AND ELECTRIC:	PG&E
TELEPHONE:	AT&T
FLOOD ZONE:	SITE CURRENTLY FALLS WITHIN AREAS IF MINIMAL FLOOD ZONE HAZARD IN ZONE X BASED ON FIRM MAP NUMBER 06013C0304G, EFFECTIVE MARCH 21, 2017.

SHEET INDEX

C-1	TITLE SHEET
C-2	EXISTING SITE CONDITIONS
C-3	GRADING & DRAINAGE PLAN
C-4	STORMWATER CONTROL PLAN
C-5	UTILITY PLAN
C-6	CONSTRUCTION DETAILS
C-7	CONSTRUCTION DETAILS
C-8	CONSTRUCTION DETAILS

GENERAL NOTES

1. EROSION CONTROL PLAN WILL CONFORM TO APPLICABLE CITY, STATE AND FEDERAL STANDARDS.

BENCHMARK

ALL ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88 VERTICAL DATUM EXPRESSED IN US FEET. NGS BENCHMARK PID: DE8492 ELEVATION 412.9.

BASIS OF BEARING

BOUNDARY AND EASEMENTS SHOWN HEREON BASED UPON A PRELIMINARY TITLE REPORT, DATED MAY 24, 2012, FURNISHED BY THE OWNER AND REPRESENTS RECORD LOCATION, SUBJECT TO FINAL BOUNDARY RESOLUTION ADJUSTMENT.

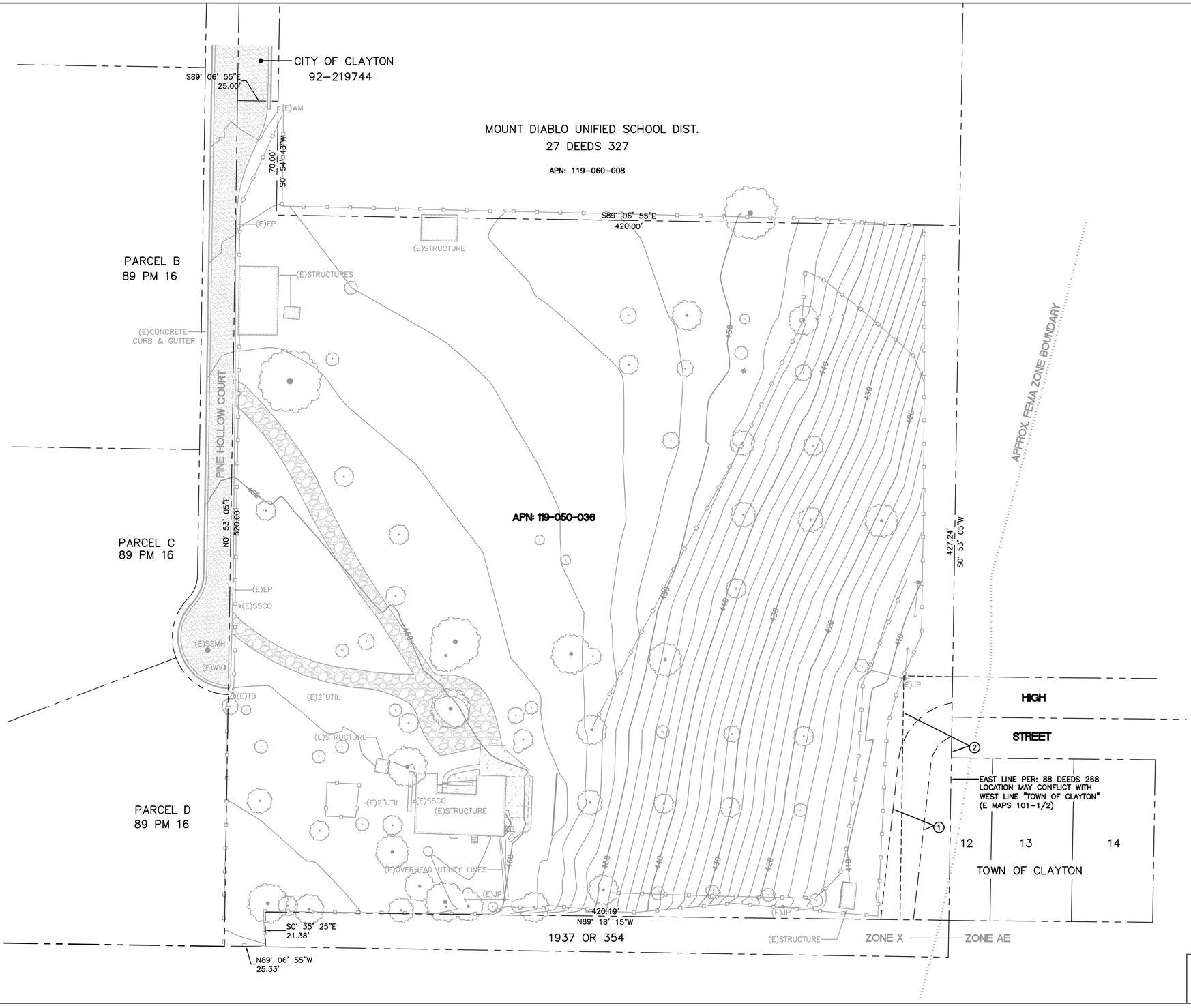
Drawing is only to scale when printed at 24"x36"

PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

TITLE SHEET
C-1
SCALE N/A

DRAWING NAME: K:\2019\19026A_Clayton_Community_Church\ENG\SHEETS\PLANNING\CCC_C1.dwg (layout)
PLOT TIME: 04-05-21 11:34am PLOTTED BY: poon



Drawing is only to scale when printed at 24"x36"

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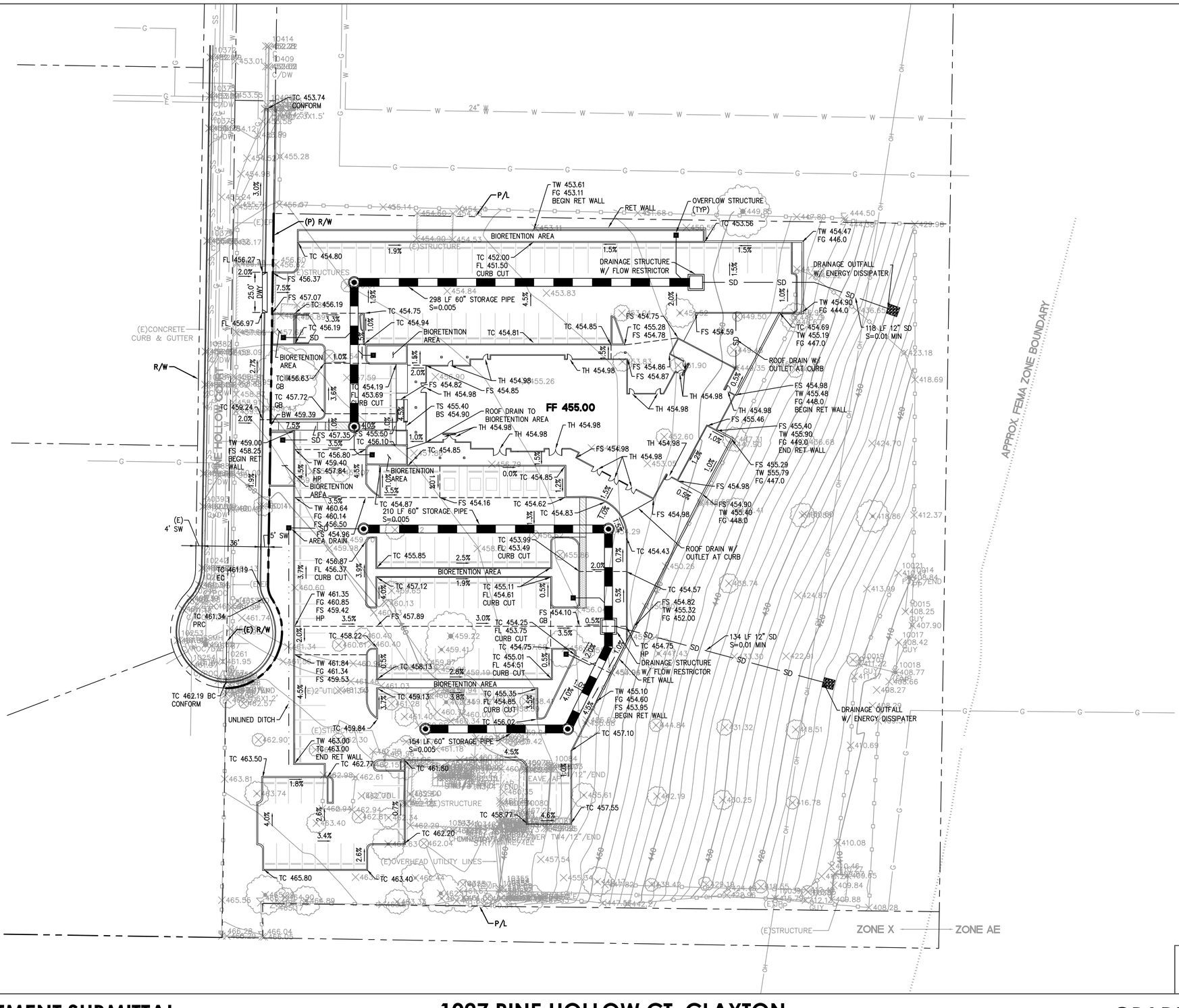
PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

EXISTING SITE CONDITIONS
C-2
SCALE 1"=30'



Drawing is only to scale when printed at 24"x36"

PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

GRADING AND DRAINAGE PLAN
C-3
SCALE 1"=30'

DRAWING NAME: K:\2019\190264_Clayton_Community_Church\ENG\SHEETS\PLANNING\CCC_C3.dwg (layout)
PLOT TIME: 04-07-21 9:39am
PLOTTED BY: poon

Project Name: Clayton Community Church
Project Type: Treatment and Flow Control
APN: 119-050-036
Drainage Area: 110,256
Mean Annual Precipitation: 17.5

Self-Treating DMAs

DMA Name	Area (sq ft)
ST1	9,087.0
ST2	1,505.0
ST3	4,033.0
ST4	32.0
ST5	90.0
ST6	40.0

II. Self-Retaining Areas

Self-Retaining DMA	
DMA Name	Area (sq ft)
SR1	90

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaing DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA8	43	Concrete or Asphalt	1.0	43.0	SR1	90	0.48

IV. Areas Draining to IMPs

IMP Name: IMP1
IMP Type: Bioretention + Vault
Soil Group: IMP1

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA1	3,965	Concrete or Asphalt	1.00	3,965
			Total	3,965

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	159	458
Volume	0.152	1.099	662	663
Maximum Underdrain Flow (cfs)				0.00
Orifice Diameter (in)				0.31

IMP Name: IMP2
IMP Type: Bioretention + Vault
Soil Group: IMP2

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA2	1,873	Concrete or Asphalt	1.00	1,873
			Total	1,873

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	75	204
Volume	0.152	1.099	313	314
Maximum Underdrain Flow (cfs)				0.00
Orifice Diameter (in)				0.22

IMP Name: IMP3
IMP Type: Bioretention + Vault
Soil Group: IMP3

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA3A	4,725	Concrete or Asphalt	1.00	4,725
DMA3B	222	Landscape	0.50	111
			Total	4,836

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	193	262
Volume	0.152	1.099	808	809
Maximum Underdrain Flow (cfs)				0.01
Orifice Diameter (in)				0.35

IMP Name: IMP4
IMP Type: Bioretention + Vault
Soil Group: IMP4

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA4A	2,537	Conventional Roof	1.00	2,537
			Total	2,537

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	101	279
Volume	0.152	1.099	424	425
Maximum Underdrain Flow (cfs)				0.00
Orifice Diameter (in)				0.25

IMP Name: IMP5
IMP Type: Bioretention + Vault
Soil Group: IMP5

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA5A	22,659	Concrete or Asphalt	1.00	22,659
DMA5B	5,023	Conventional Roof	1.00	5,023
			Total	27,682

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	1,107	1,672
Volume	0.152	1.099	4,624	4,625
Maximum Underdrain Flow (cfs)				0.03
Orifice Diameter (in)				0.83

IMP Name: IMP6
IMP Type: Bioretention + Vault
Soil Group: IMP6

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA6A	23,667	Concrete or Asphalt	1.00	23,667
DMA6B	3,588	Conventional Roof	1.00	3,588
DMA6C	127	Landscape	0.50	64
			Total	27,319

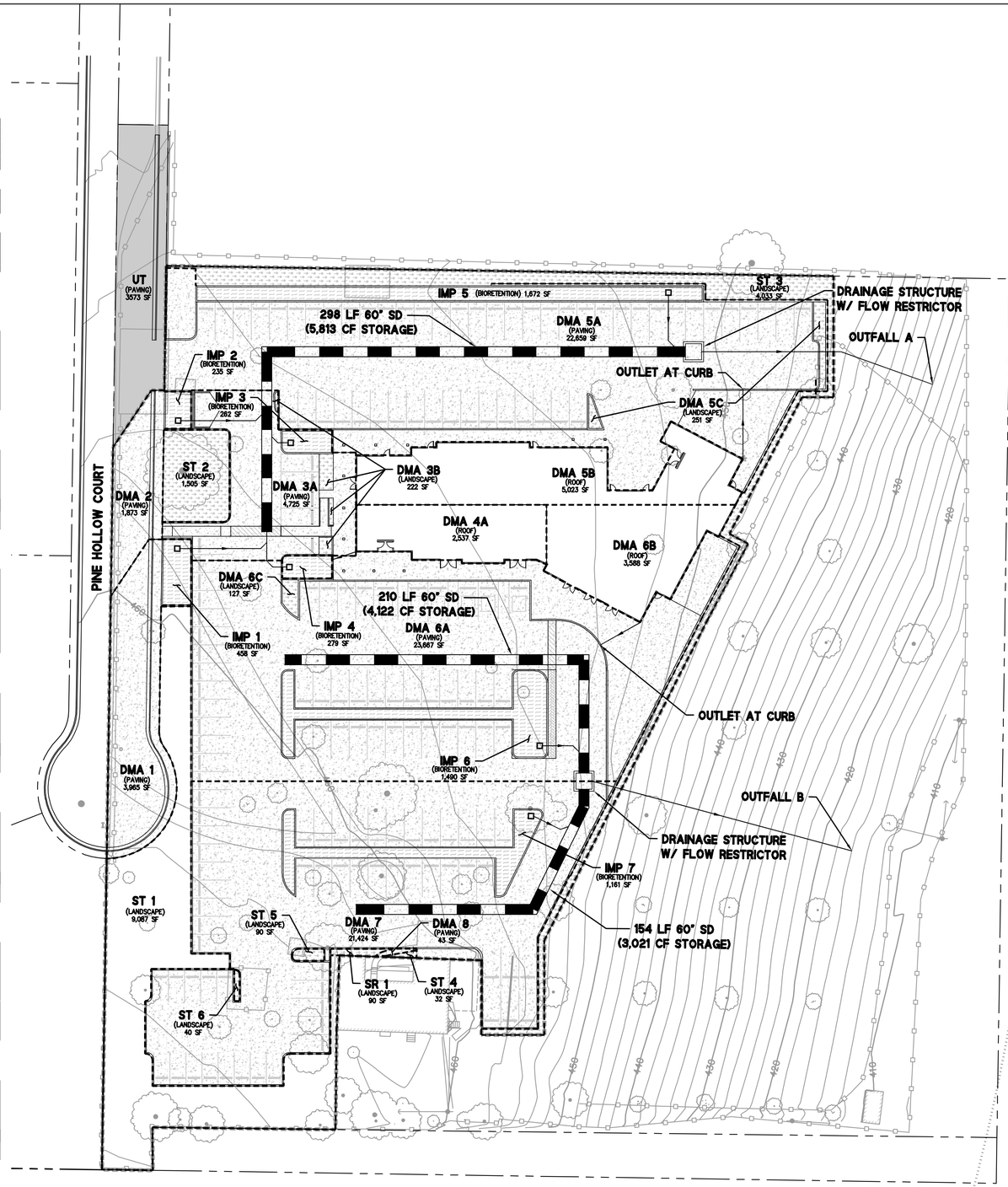
IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	1,093	1,490
Volume	0.152	1.099	4,564	4,565
Maximum Underdrain Flow (cfs)				0.03
Orifice Diameter (in)				0.83

IMP Name: IMP7
IMP Type: Bioretention + Vault
Soil Group: IMP7

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA7	21,424	Concrete or Asphalt	1.00	21,424
			Total	21,424

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.040	1.000	857	1,161
Volume	0.152	1.099	3,579	3,580
Maximum Underdrain Flow (cfs)				0.03
Orifice Diameter (in)				0.73

Report generated on 4/5/2021 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).



LEGEND

- AT-GRADE LINED FLOW-THROUGH PLANTER (FP)
- ROOF
- CONCRETE/ASPHALT
- PLANTERS ON GRADE
- UNCAPTURED
- WATERHSED BOUNDARY
- DMA SUB BOUNDARY
- PIPE W/ FLOW DIRECTION
- SLOTTED UNDERDRAIN
- SURFACE FLOW ARROW
- ROOF DRAIN
- OVERFLOW DRAIN (UNLESS OTHERWISE NOTED)
- CLEANOUT
- STORM STORAGE PIPE

GRAPHIC SCALE
30 0 30 60

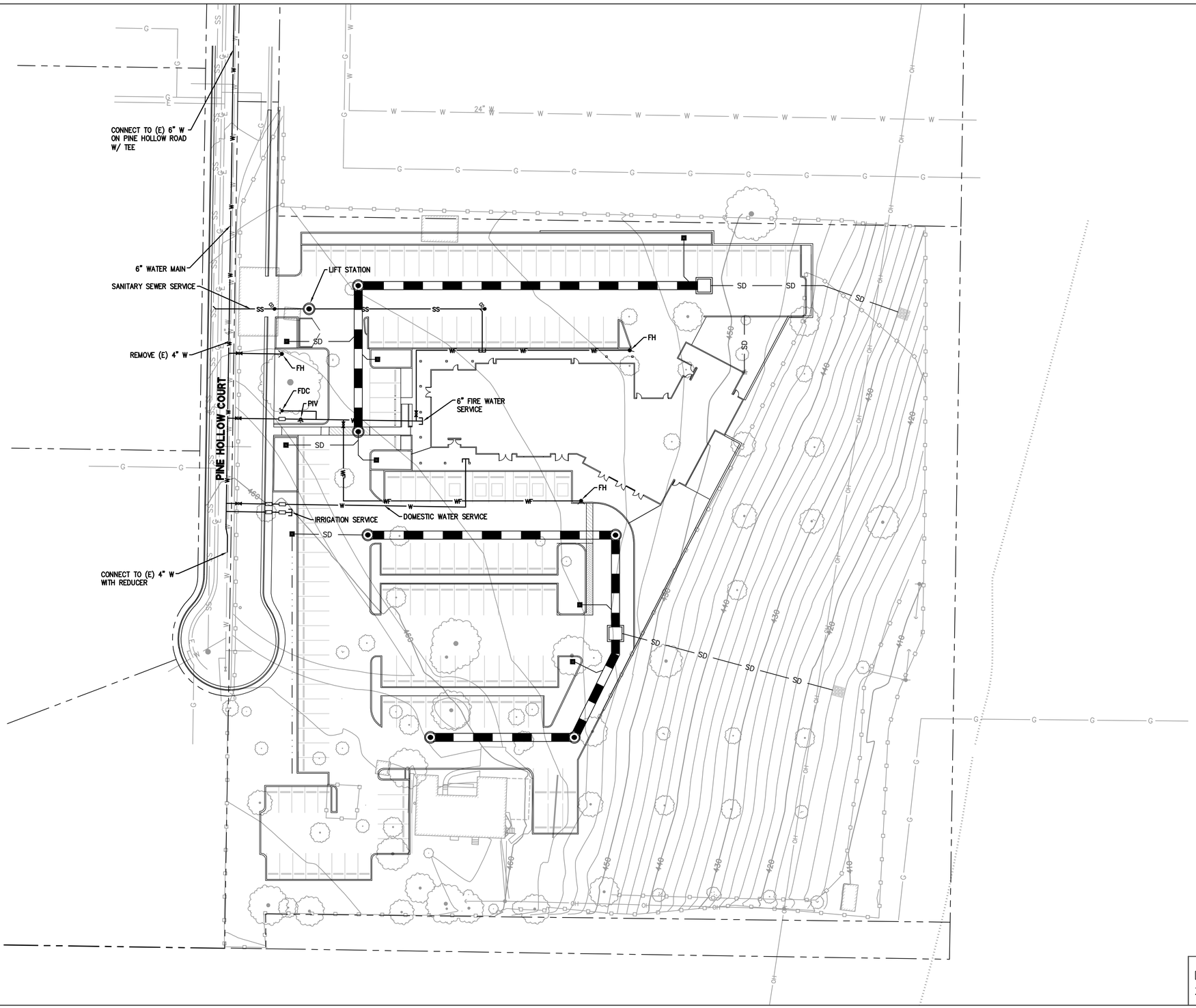
Drawing is only to scale when printed at 24"x36"

DRAWING NAME: K:\2019\19064_Clayton_Community_Church\ENG\SHEETS\PLANNING\CCC_C4.dwg (layout)
PLOT TIME: 04-07-21 9:39am
PLOTTED BY: pson

PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

STORMWATER CONTROL PLAN
C-4
SCALE 1"=30'



Drawing is only to scale when printed at 24"x36"

PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

UTILITY PLAN
C-5
SCALE 1"=30'

DRAWING NAME: K:\2019\19026A_Clayton_Community_Church\ENG\SHEETS\PLANNING\CCC_C5.dwg (layout)
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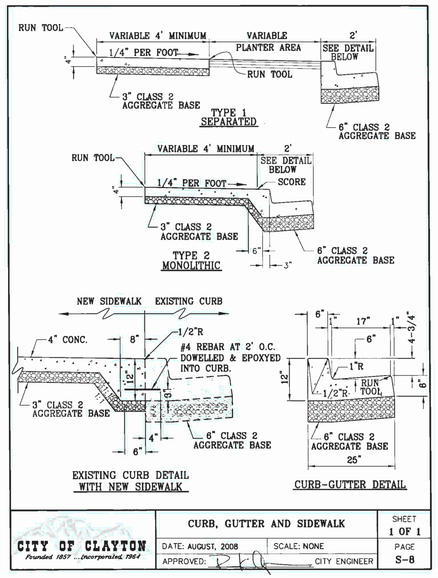

CITY OF CLAYTON *Founded 1857 ...Incorporated, 1964*	CURB, GUTTER AND SIDEWALK	SHEET 1 OF 1
	DATE: AUGUST, 2008 SCALE: NONE	PAGE S-8
	APPROVED: CITY ENGINEER	

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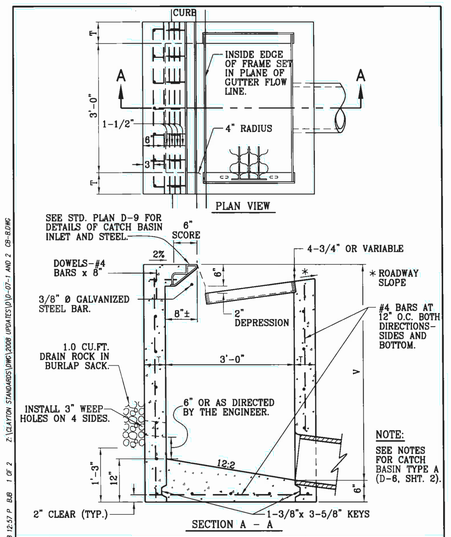

CITY OF CLAYTON *Founded 1857 ...Incorporated, 1964*	CATCH BASIN TYPE "B"	SHEET 1 OF 2
	DATE: AUGUST, 2008 SCALE: NONE	PAGE D-7
	APPROVED: CITY ENGINEER	

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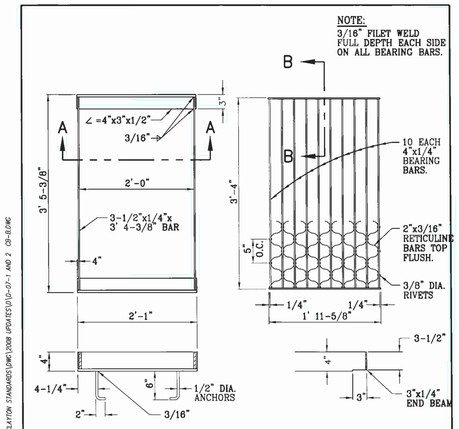

FRAME AND GRATE DETAIL

CITY OF CLAYTON *Founded 1857 ...Incorporated, 1964*	CATCH BASIN TYPE "B"	SHEET 2 OF 2
	DATE: AUGUST, 2008 SCALE: NONE	PAGE D-7
	APPROVED: CITY ENGINEER	

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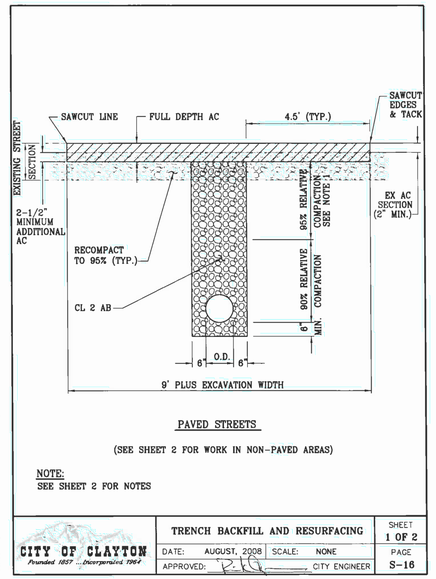

PAVED STREETS

(SEE SHEET 2 FOR WORK IN NON-PAVED AREAS)

NOTE:
SEE SHEET 2 FOR NOTES

CITY OF CLAYTON *Founded 1857 ...Incorporated, 1964*	TRENCH BACKFILL AND RESURFACING	SHEET 1 OF 2
	DATE: AUGUST, 2008 SCALE: NONE	PAGE S-16
	APPROVED: CITY ENGINEER	

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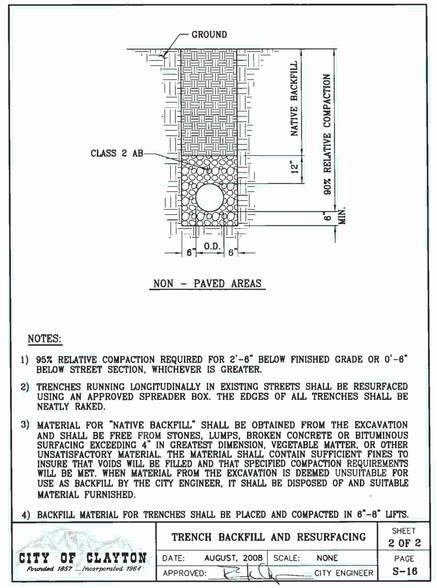

NON - PAVED AREAS

NOTES:

1) 95% RELATIVE COMPACTION REQUIRED FOR 2'-6" BELOW FINISHED GRADE OR 0'-6" BELOW STREET SECTION, WHICHEVER IS GREATER.

2) TRENCHES RUNNING LONGITUDINALLY IN EXISTING STREETS SHALL BE RESURFACED USING AN APPROVED SPREADER BOX. THE EDGES OF ALL TRENCHES SHALL BE NEATLY RAKED.

3) MATERIAL FOR "NATIVE BACKFILL" SHALL BE OBTAINED FROM THE EXCAVATION AND SHALL BE FREE FROM STONES, LUMPS, BROKEN CONCRETE OR BITUMINOUS SURFACING EXCEEDING 4" IN GREATEST DIMENSION, VEGETABLE MATTER, OR OTHER UNSATISFACTORY MATERIAL. THE MATERIAL SHALL CONTAIN SUFFICIENT FINES TO INSURE THAT VOIDS WILL BE FILLED AND THAT SPECIFIED COMPACTION REQUIREMENTS WILL BE MET. WHEN MATERIAL FROM THE EXCAVATION IS DEEMED UNSUITABLE FOR USE AS BACKFILL BY THE CITY ENGINEER, IT SHALL BE DISPOSED OF AND SUITABLE MATERIAL FURNISHED.

4) BACKFILL MATERIAL FOR TRENCHES SHALL BE PLACED AND COMPACTED IN 6"-8" LIFTS.

CITY OF CLAYTON *Founded 1857 ...Incorporated, 1964*	TRENCH BACKFILL AND RESURFACING	SHEET 2 OF 2
	DATE: AUGUST, 2008 SCALE: NONE	PAGE S-16
	APPROVED: CITY ENGINEER	

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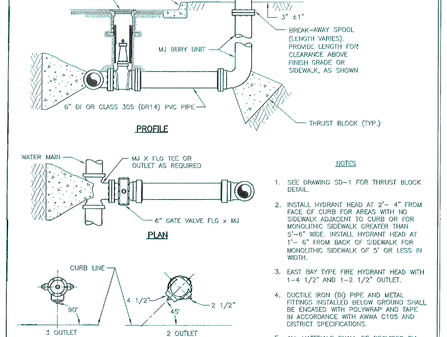


NOTES

1. SEE DRAWING SD-1 FOR THRUST BLOCK DETAIL.
2. INSTALL HYDRANT HEAD AT 2"– 4" FROM FACE OF CURB FOR AREAS WITH NO SIDEWALK ADJACENT TO CURB OR FOR MONOLITHIC SIDEWALK GREATER THAN 5'–6" WIDE. INSTALL HYDRANT HEAD AT 1'– 6" FROM BACK OF SIDEWALK FOR MONOLITHIC SIDEWALK OF 5' OR LESS IN WIDTH.
3. EAST BAY TYPE FIRE HYDRANT HEAD WITH 1–4 1/2" AND 1–2 1/2" OUTLET.
4. DUCTILE IRON (DI) PIPE AND METAL FITTINGS INSTALLED BELOW GROUND SHALL BE ENCASED WITH POLYWRAP AND TAPE IN ACCORDANCE WITH AWWA C105 AND DISTRICT SPECIFICATIONS.
5. ALL MATERIALS SHALL BE PROVIDED BY THE DISTRICT, UNLESS NOTED OTHERWISE.

REV.	DESCRIPTION	BY	APP.	DATE
5	UPDATED DETAIL	RP	JL	8/10
4	REVISED NOTES	HN	JL	3/04
3	DELETED REDWOOD BLOCK CALLOUT	AK		
2	CHANGE PVC PIPE TO CLASS 200	DS		
1	ISSUED FOR IMPLEMENTATION			
0	ISSUED FOR DISTRIBUTION	RP		

ENGINEERING REVIEW:
CONSTRUCTION REVIEW:
O & M REVIEW:
APPROVED FOR USE:

CONTRA COSTA WATER DISTRICT
CONCORD, CALIFORNIA

STANDARD DETAIL

TITLE: TYPICAL FIRE HYDRANT INSTALLATION

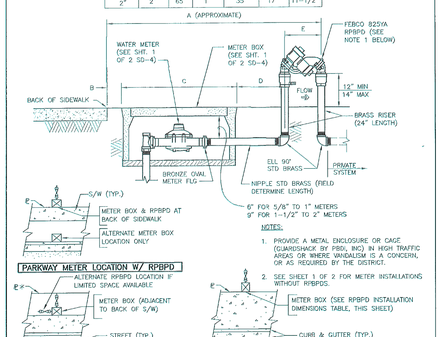
CAD FILE: SD05S1R5.DWG SCALE: NONE
DATE: 8/30/10 SHEET 1 OF 1

APPROVED DATE:

STD. DETAIL NO. SD-5 REV. 5

RPBPD INSTALLATION DIMENSIONS						
METER	RPBPD	A	B	C	D	E
5/8"	3/4"	40"	1"	19-3/4"	10"	8-1/2"
3/4"	3/4"	45"	1"	19-3/4"	15"	8-1/2"
1"	1"	52"	1"	25-1/8"	17"	8-1/2"
1-1/2"	1-1/2"	58"	1"	27-1/2"	17"	11-1/2"
2"	2"	65"	1"	35"	17"	11-1/2"

A (APPROXIMATE)



NOTES:

1. PROVIDE A METAL ENCLOSURE OR CAGE (GUARDSHACK BY PBDL, INC) IN HIGH TRAFFIC AREAS OR WHERE VANDALISM IS A CONCERN, OR AS REQUIRED BY THE DISTRICT.
2. SEE SHEET 1 OF 2 FOR METER INSTALLATIONS WITHOUT RPBPDS.

METER BOX (SEE RPBPD INSTALLATION DIMENSIONS TABLE, THIS SHEET)

* FOR STRUCTURE (I.E. WALL))

REV.	DESCRIPTION	BY	APP.	DATE
0	ISSUED FOR DISTRIBUTION	HN	JL	8/10

ENGINEERING REVIEW:
CONSTRUCTION REVIEW:
O & M REVIEW:
APPROVED FOR USE:

CONTRA COSTA WATER DISTRICT
CONCORD, CALIFORNIA

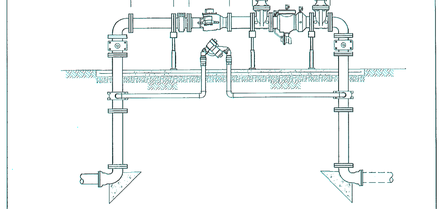
STANDARD DETAIL

TITLE: 5/8" TO 2" METER INSTALLATIONS W/ RPBPD

CAD FILE: SD04S2R0.DWG SCALE: NONE
DATE: 8/30/10 SHEET 2 OF 2

APPROVED DATE:

STD. DETAIL NO. SD-4 REV. 0



WILKINS 300 SERIES LAY LENGTHS (INCHES)							
PIPE DIAMETER	A	B	C	D	E	F	G
3	73	32	6	17	18	12	6
4	90	38	12	20	20	12	8
6	118	45	18	24	33	24	9

A = OVERALL LENGTH
B = BACKFLOW PREVENTION DEVICE (WILKINS MODEL)
C = SPOOL LENGTH MUST BE GREATER THAN OR EQUAL TO 2 X PIPE DIAMETER
D = METER
E = SPOOL (F) AND STRAINER (G) LENGTH MUST BE GREATER THAN OR EQUAL TO 5 X PIPE DIAMETER (MIN. OR WITHIN 1" IN LENGTH)
F = SPOOL
G = STRAINER FLANGE

REV.	DESCRIPTION	BY	APP.	DATE
0	ISSUED FOR DISTRIBUTION	HN	JL	8/10

ENGINEERING REVIEW:
CONSTRUCTION REVIEW:
O & M REVIEW:
APPROVED FOR USE:

CONTRA COSTA WATER DISTRICT
CONCORD, CALIFORNIA

STANDARD DETAIL

TITLE: 3" TO 6" SERVICE W/ COMPOUND METER AND RPBPD

CAD FILE: SD18S2R0.DWG SCALE: NTS
DATE: 8/30/10 SHEET 2 OF 2

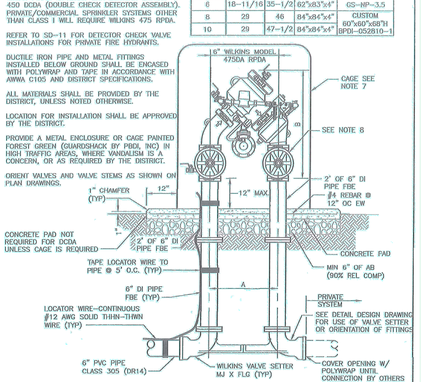
APPROVED DATE:

STD. DETAIL NO. SD-18 REV. 0

NOTES:

1. 6" DIAMETER MATERIALS AND INSTALLATION SHOWN. SIMILAR INSTALLATION AND MATERIALS FOR 4", 8" AND 10" DIAMETER FIRE SERVICES W/ RPDA OR DCDA. SEE TABLE AT RIGHT FOR LAY LENGTHS OF DIFFERENT DIAMETERS.
2. CLASS 1 FIRE SERVICES WILL REQUIRE WILKINS 450 DCDA (DOUBLE CHECK DETECTOR ASSEMBLY). PRIVATE/COMMERCIAL SPRINKLER SYSTEMS OTHER THAN CLASS 1 WILL REQUIRE WILKINS 475 RPDA.
3. REFER TO SD-11 FOR DETECTOR CHECK VALVE INSTALLATIONS FOR PRIVATE FIRE HYDRANTS.
4. DUCTILE IRON PIPE AND METAL FITTINGS INSTALLED BELOW GROUND SHALL BE ENCASED WITH POLYWRAP AND TAPE IN ACCORDANCE WITH AWWA C105 AND DISTRICT SPECIFICATIONS.
5. ALL MATERIALS SHALL BE PROVIDED BY THE DISTRICT, UNLESS NOTED OTHERWISE.
6. LOCATION FOR INSTALLATION SHALL BE APPROVED BY THE DISTRICT.
7. PROVIDE A METAL ENCLOSURE OR CAGE PAINTED FOREST GREEN (GUARDSHACK BY PBDL, INC) IN HIGH TRAFFIC AREAS, WHERE VANDALISM IS A CONCERN, OR AS REQUIRED BY THE DISTRICT.
8. ORIENT VALVES AND VALVE STEMS AS SHOWN ON PLAN DRAWINGS.

WILKINS 475DA (RPDA) & 450 (DCDA) LAY LENGTHS (INCHES)				
PIPE DIAMETER	A	B	CONCRETE PAD	CAGE MODEL
4	18-5/16	30	62"X71"X4"	GS-N-3
6	18-11/16	35-1/2	62"X83"X4"	GS-HP-3.5
8	29	46	84"X84"X4"	CUSTOM
10	29	47-1/2	84"X84"X4"	60"X60"X58"H BPDI-052810-1



REV.	DESCRIPTION	BY	APP.	DATE
2	COMBINE RPDA & DCDA	HN		
1	REVISED PAD & CAGE	HN	JPM	3/12
0	ISSUED FOR DISTRIBUTION	HN	JL	8/10

ENGINEERING REVIEW:
CONSTRUCTION REVIEW:
O & M REVIEW:
APPROVED FOR USE:

CONTRA COSTA WATER DISTRICT
CONCORD, CALIFORNIA

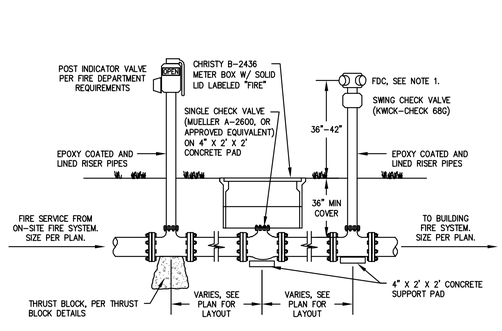
STANDARD DETAIL

TITLE: 4" TO 10" FIRE SERVICE W/ RPDA OR DCDA

CAD FILE: SD19S1R2.DWG SCALE: NTS
DATE: 2/12/14 SHEET 1 OF 1

APPROVED DATE:

STD. DETAIL NO. SD-19 REV. 2



NOTES:
1. 2-WAY FDC PER FIRE DEPARTMENT AND FIRE PREVENTION PLAN REQUIREMENTS (UNITED #91, 90° ANGLE PATTERN).
2. MAINTAIN 36" MIN CLEARANCE AROUND FDC PER CFC SECTION 912. LANDSCAPE PLANTINGS, WHEN FULLY GROWN, SHALL NOT OBSCURE OR ENCROACH INTO THE VALVE OR FIRE DEPARTMENT CONNECTION CLEARANCES.
3. ALL UNDERGROUND BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL.

1 **SCHEMATIC BUILDING FIRE SERVICE DETAIL**
N.T.S.

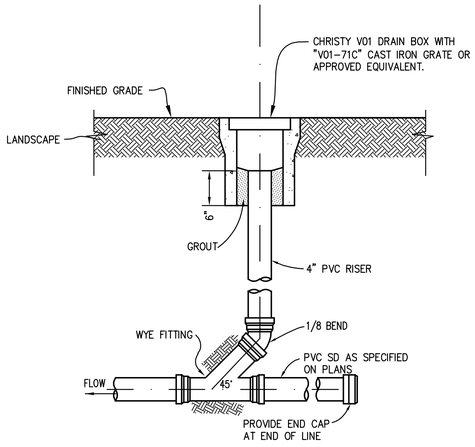
Drawing is only to scale when printed at 24"x36"

PLANNING DEPARTMENT SUBMITTAL

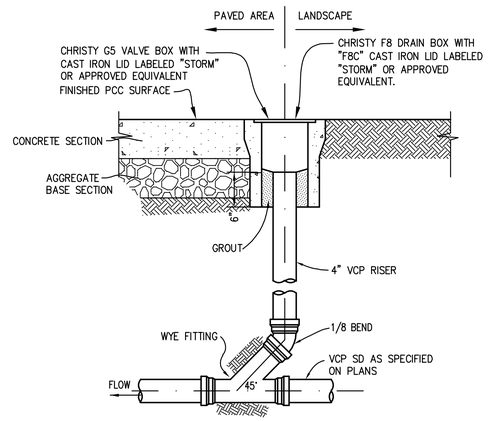
1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

CONSTRUCTION DETAILS
C-6
SCALE NTS

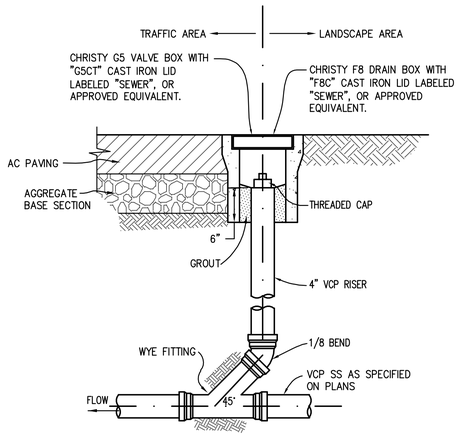
DRAWING NAME: K:\2019\190264_Clayton_Community_Church\ENG\SHEETS\PLANNING\CCC_C6.dwg (C-6)
PLOT TIME: 04-05-21 11:35am PLOTTED BY: poon



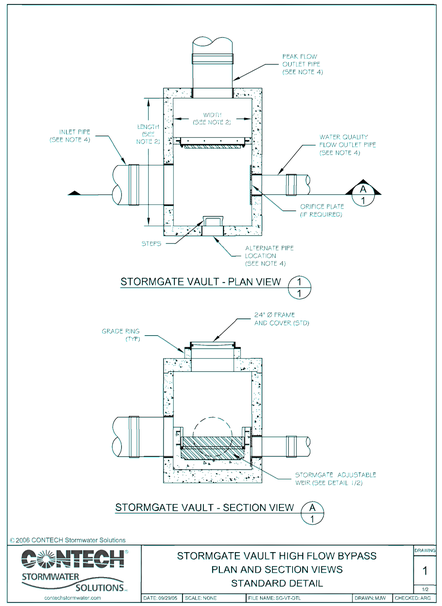
1 — **AREA DRAIN**
N.T.S.

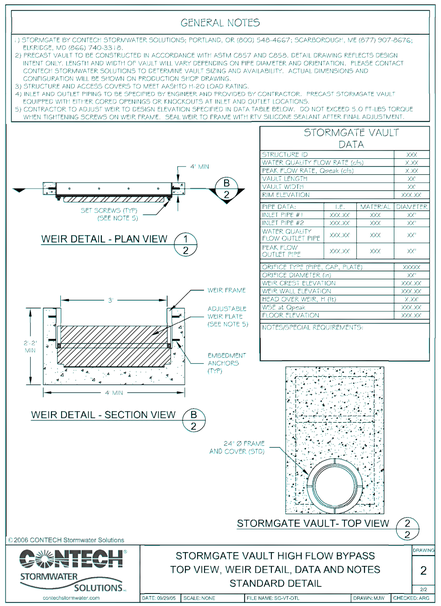


2 — **STORM DRAIN CLEANOUT**
N.T.S.

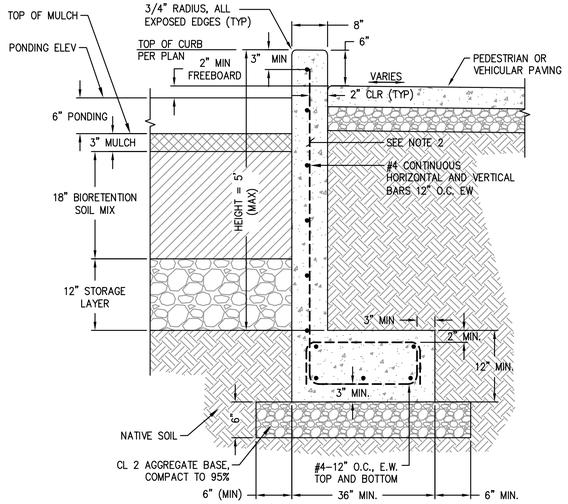


3 — **SANITARY SEWER CLEANOUT**
N.T.S.



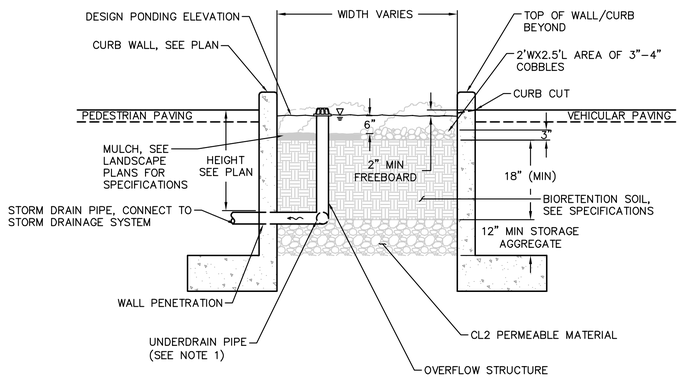


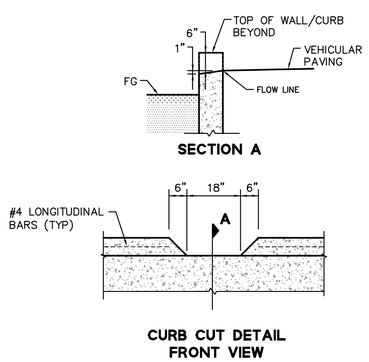
4 — **DRAINAGE STRUCTURE W/ FLOW RESTRICTOR**
N.T.S.



NOTES:
1. PROVIDE EXPANSION JOINTS EVERY 20' O.C.
2. PCC CURB WALL. SSD FOR ADDITIONAL INFORMATION.

5 — **CURB WALL**
NTS





CONSTRUCTION NOTE:

1. BOTTOM OF UNDERDRAIN PIPE SHALL BE LESS THAN 2" ABOVE BOTTOM OF STORAGE AGGREGATE LAYER.

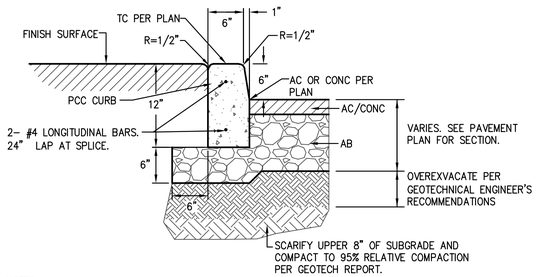
6 — **AT-GRADE FLOW THROUGH PLANTER**
N.T.S.

Drawing is only to scale when printed at 24"x36"

PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

CONSTRUCTION DETAILS
C-7
SCALE NTS

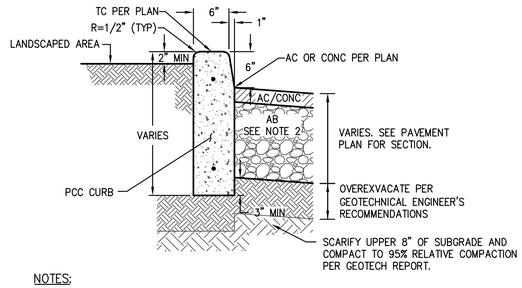


NOTES:

1. CONC SHALL BE TYPE B, CLASS 2 PER CALTRANS STANDARD SPECIFICATION SECTION 90.
2. CLASS 2 AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION.
3. FILL MATERIAL SHALL MEET STANDARDS PER GEOTECHNICAL REPORT.
4. EXPANSION JOINTS TO BE PLACED 20' OC MAX SPACING AND AT CURB RETURNS. CONTROL JOINTS SHALL BE PROVIDED BETWEEN EXPANSION JOINTS AT 10' MAX SPACING.
5. REBAR LAP LENGTH AT 24" MIN (TYP).

1 **VERTICAL CURB (TYPE 1)**

N.T.S.

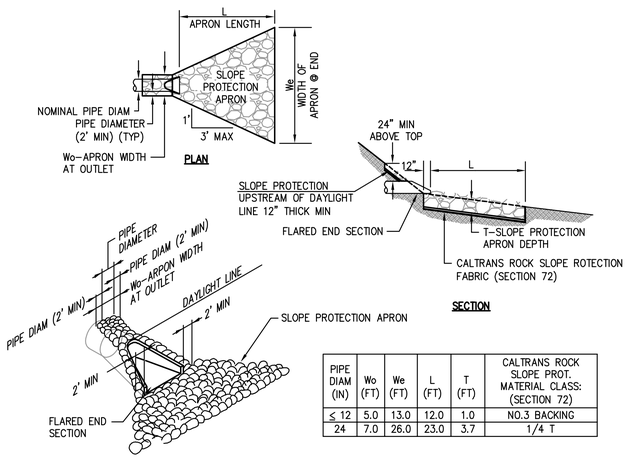


NOTES:

1. CONC SHALL BE TYPE B, CLASS 2 PER CALTRANS STANDARD SPECIFICATION SECTION 90.
2. CLASS 2 AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION.
3. PROVIDE EXPANSION JOINTS 20' OC MAX SPACING. CONTROL JOINTS SHALL BE PROVIDED BETWEEN EXPANSION JOINTS AT 10' MAX SPACING.
4. FILL MATERIAL SHALL MEET STANDARDS PER GEOTECHNICAL REPORT.
5. CURBS SHOULD EXTEND A MIN OF 3" BEYOND THE BOTTOM OF THE PAVEMENT AND BASEROCK LAYER.
6. REBAR LAP LENGTH AT 24" MIN (TYP).

2 **VERTICAL CURB (TYPE 2)**

N.T.S.



PIPE DIAM (IN)	Wo (FT)	We (FT)	L (FT)	T (FT)	CALTRANS ROCK SLOPE PROT. MATERIAL CLASS: (SECTION 72)
≤ 12	5.0	13.0	12.0	1.0	NO.3 BACKING
24	7.0	26.0	23.0	3.7	1/4 T

3 **STORM DRAIN OUTFALL W/ FLARED END SECTION**

NTS

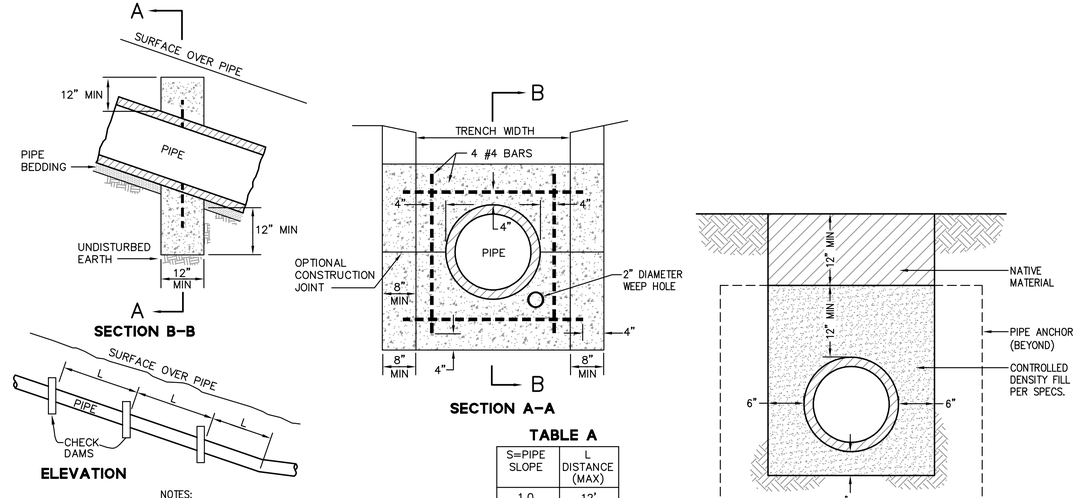


TABLE A

S=PIPE SLOPE	L DISTANCE (MAX)
1.0	12'
0.67	14'
0.50	16'
0.40	18'
0.17-0.33	20'

NOTES:

1. INSTALL CHECK DAMS ON ALL STORM DRAIN PIPES WITH A SLOPE GREATER THAN OR EQUAL TO 0.17.
2. SPACING OF DAMS FOR PIPE SLOPES BETWEEN VALUES SHOWN IN TABLE "A" MAY BE PROPORTIONED.

4 **CONCRETE PIPE ANCHORS/CHECK DAMS**

N.T.S.

Drawing is only to scale when printed at 24"x36"

PLANNING DEPARTMENT SUBMITTAL

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
04.02.2021

CONSTRUCTION DETAILS
C-8
SCALE NTS

DRAWING NAME: K:\2019\190264_Clayton_Community_Church\ENG\SHEETS\PLANNING\CCC_C8.dwg (C-8)
PLOT TIME: 04-05-21 11:37am PLOTTED BY: poon

Notes

1. All landscape and irrigation shall conform to the standards of the City wide landscape regulations and guidelines and all other Landscape related City and Regional standards.

2. TOTAL LANDSCAPE AREA: 19,920 S.F.

3. All plant materials have been selected from the following:
   - + City of Clayton "Master Street Tree List"
   - + WULCOS Project "Water-Use Classification of Landscape Species" California Department of Water Resources
   - + Bio-swale Trees and Shrubs have been selected from the Contra Costa County Stormwater C-3 Guidebook

Planting Legend

TREES:	24" Box		WATER-USE
Lagerstroemia xf 'Tuscarora'	CRAPE MYRTLE	20'w	Low
Quercus lobata	VALLEY OAK	60'w	Low
BIO-SWALE TREE:	24" Box		WATER-USE
Acer negundo 'Varigata'	VARIGATED BOX ELDER	60'w	Low
Cercis occidentalis	WESTERN REDBUD	18'w	Moderate
Fraxinus o. 'Raywood'	RAYWOOD ASH	40'w	Low
SHRUBS:	5-Gal		WATER-USE
Correa 'Dusky Bells	AUSTRALIAN FUCSHIA		Low
Dietes irridioides	FORTNIGHT LILY		Low
Lavandula spp.	LAVENDER		Low
Rhaphiolepis u. 'Minor'	YEDDA HAWTHORN		Low
Rosea californica	CALIFORNIA ROSE		Low
Salvia leucantha	MEXICAN SAGE		Low
Teucrium fruticans	BUSH GERMANDER		Low
BIO-SWALE SHRUBS:	5-Gal & 1-Gal:		WATER-USE
Achillea millefolium	YARROW		Low
Arctostaphulos uva-ursi	KINNIKINNICK BARBERRY		Low
Juncus patens	CALIFORNIA GREY RUSH		Low
Muhlenbergia rigens	DEER GRASS		Low
Salvia clevelandii	CLEVELAND SAGE		Low
GROUND COVER:	1-Gal		WATER-USE
Phyla nodiflora	KURAPIA		Low

EXISTING TREES TO REMAIN

WATER EFFICIENT LANDSCAPE STATEMENT

The irrigation system shall be designed to meet current water efficient standards and State Water Efficient Ordinance AB 1881 as required by local jurisdictions while achieving the goal of effectively providing the landscape with water by the means of high efficiency spray irrigation to the turf and ground cover areas and drip irrigation bubblers to restrict shrub planting and shrub mass planting area as applicable.

Irrigation systems shall be designed to accommodate recycled water where available either currently or in the future as directed by the Local Water Purveyor. Recycled water systems shall be designed in accordance with Local and State codes.

Irrigation systems for landscapes greater than 5,000 SF shall have a dedicated water meter for irrigation.

A water efficient landscape work sheet shall be included with hydrozone information table, water budget calculations and irrigation operating schedules.

A state of the art ET based self-adjusting irrigation controller shall be specified for this project to automatically control the water allocated to each valve grouped per individual hydrozone (based on plant type and exposure). This shall include rain and flow sensors as applicable for a higher level of water conservation.

Tree bubblers shall be included on separate circuits to isolate the irrigation to trees and provide deep watering to promote a deeper root zone.

Spray irrigation systems for ground cover areas greater than 8' wide in any direction shall be designed with commercial series spray heads with high efficiency nozzles that include internal check valves and pressure compensating devices. The heads shall be designed in a head to head layout to achieve an even level of precipitation throughout the irrigation system. The nozzles will deliver water at a minimum of 70% efficiency with a low precipitation rate that matches the infiltration rate of the soil.

The drip irrigation system will incorporate pressure compensating drip bubblers with ¼" drip tubes to each plant which delivers water at 90% efficiency at an application rate that matches the soil type.

HWA
Landscape Architecture
Site Planning
762 Pitassa Drive
Brentwood, California 95413
Phone 925.513.3091
Fax 925.513.3099
Project # 21.001

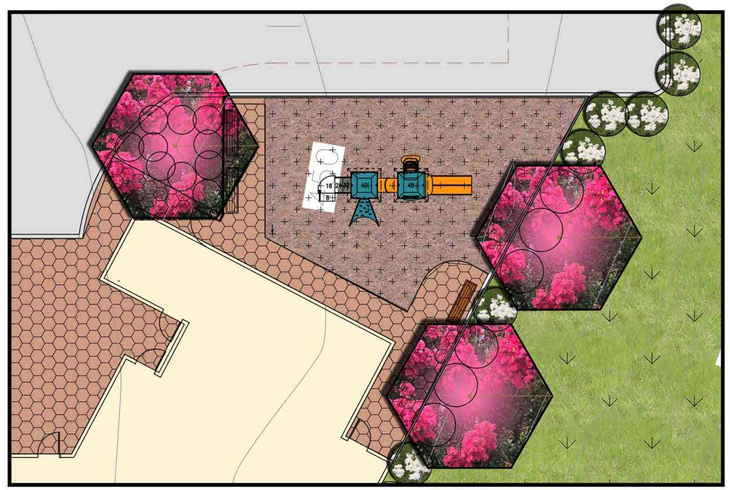
L-01

Clayton Community Church

Clayton, California

April 13, 2021

0' 5' 10' 20' 40'



Play Area Ages 2-5 Years n.t.s.

Play Structure n.t.s.

Bicycle Racks n.t.s.

Bench n.t.s.

Fraxinus a. 'Raywood'

Acer N. 'Varigata'

Quercus lobata

Cercis occidentalis

Lagerstroemia xf 'Tuscarora'

Salvia clevelandii

Correa 'Dusky Bells'

Dietes irridioides

Arctostaphylos uva-ursi

Rosa californica

Lavandula angustifolia

Teucrium fruticans

Achillea millifolium

Muhlenbergia rigens

Juncus patens

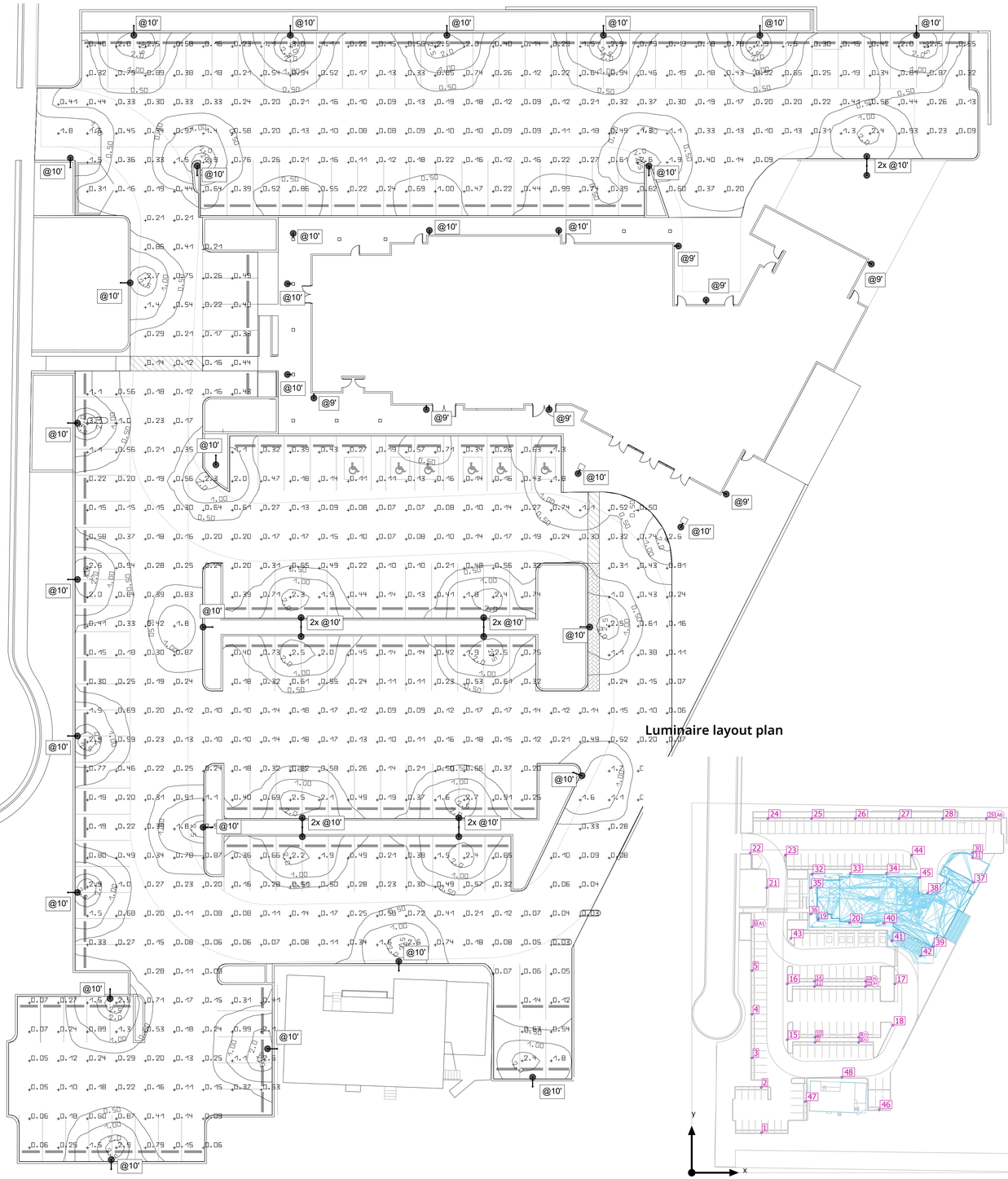
Slatestone Pavers

Salvia leucantha

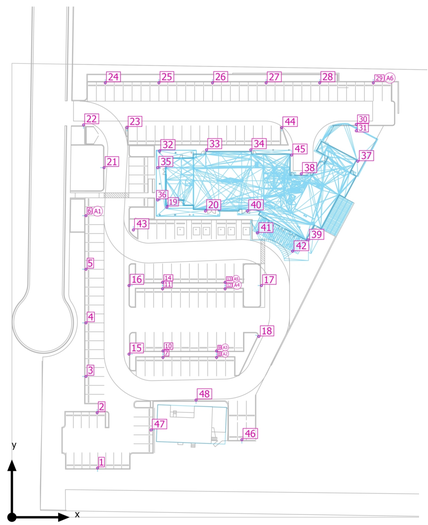
Rhaphiolepis u. 'Minor'

Phyla nodiflora

EPIC
HWA
Landscape Architecture
Site Planning
702 Ritesso Drive
Brentwood, California 95413
Phone 925.513.3091
Fax 925.513.3099
Project # 21.001



Luminaire layout plan



Luminaire list								
Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Light loss factor	Connected load	Quantity
1	Cyclone Lighting	Domia Pendant	CY55P1B-FGF-4HS-20W-3K	1x 20 LEDs - 350 mA	1489 lm	0.80	22 W	48

#	Name	Parameter	Min	Max	Average	Mean/Min	Max/Min
1	Calculation surface 1	Horizontal illuminance	0.028 fc	3.07 fc	0.55 fc	19.63	109.7

X	Y	Mounting height	Housing rotation	MF	Luminaire
152.195 ft	161.087 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	7
206.195 ft	161.087 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	8
206.195 ft	167.600 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	9
152.195 ft	167.600 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	10

X	Y	Mounting height	Housing rotation	MF	Luminaire
151.779 ft	230.207 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	11
214.778 ft	230.207 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	12

2 x Cyclone Lighting Domia Pendant

Type	Line arrangement
1st luminaire (X/Y/Z)	214.778 ft, 236.719 ft, 10.000 ft
X-direction	2 pcs., Center - center, 62.999 ft
Arrangement	A5

X	Y	Mounting height	Housing rotation	MF	Luminaire
214.778 ft	236.719 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	13
151.779 ft	236.719 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	14

6 x Cyclone Lighting Domia Pendant

Type	Line arrangement
1st luminaire (X/Y/Z)	94.073 ft, 437.683 ft, 10.000 ft
X-direction	6 pcs., Center - center, 53.999 ft
Arrangement	A6

X	Y	Mounting height	Housing rotation	MF	Luminaire
94.073 ft	437.683 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	24
148.072 ft	437.683 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	25
202.072 ft	437.683 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	26
256.071 ft	437.683 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	27
310.070 ft	437.683 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	28
364.070 ft	437.683 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	29

Individual luminaires

X	Y	Mounting height	Housing rotation	MF	Luminaire
86.270 ft	49.637 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	1
85.886 ft	105.243 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	2
117.964 ft	164.388 ft	10.000 ft	0.0°/0.0°/90.0°	0.80	15
117.963 ft	233.451 ft	10.000 ft	0.0°/0.0°/90.0°	0.80	16
251.373 ft	233.476 ft	10.000 ft	0.0°/0.0°/-90.0°	0.80	17
248.692 ft	182.162 ft	10.000 ft	0.0°/0.0°/-116.0°	0.80	18
156.179 ft	312.470 ft	9.000 ft	0.0°/0.0°/-180.0°	0.80	19
194.983 ft	308.547 ft	9.000 ft	0.0°/0.0°/-180.0°	0.80	20
92.819 ft	352.256 ft	10.000 ft	0.0°/0.0°/-90.0°	0.80	21
72.178 ft	395.325 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	22
115.930 ft	392.573 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	23
346.929 ft	395.883 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	30
346.929 ft	389.365 ft	10.000 ft	0.0°/0.0°/-180.0°	0.80	31
148.810 ft	369.169 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	32
196.028 ft	370.197 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	33
240.660 ft	370.205 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	34
146.830 ft	352.217 ft	10.000 ft	0.0°/0.0°/90.0°	0.80	35
146.819 ft	319.723 ft	10.000 ft	0.0°/0.0°/90.0°	0.80	36
348.426 ft	358.766 ft	9.000 ft	0.0°/0.0°/-117.8°	0.80	37
291.477 ft	346.045 ft	9.000 ft	0.0°/0.0°/0.0°	0.80	38
298.262 ft	279.436 ft	9.000 ft	0.0°/0.0°/-117.0°	0.80	39
237.370 ft	308.526 ft	9.000 ft	0.0°/0.0°/-180.0°	0.80	40
247.223 ft	286.522 ft	10.000 ft	0.0°/0.0°/153.0°	0.80	41
282.684 ft	268.097 ft	10.000 ft	0.0°/0.0°/153.0°	0.80	42
122.374 ft	289.465 ft	10.000 ft	0.0°/0.0°/180.0°	0.80	43
271.767 ft	392.570 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	44
281.824 ft	364.939 ft	9.000 ft	0.0°/0.0°/-90.0°	0.80	45
231.651 ft	78.132 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	46
140.206 ft	87.928 ft	10.000 ft	0.0°/0.0°/90.0°	0.80	47
185.498 ft	118.119 ft	10.000 ft	0.0°/0.0°/0.0°	0.80	48

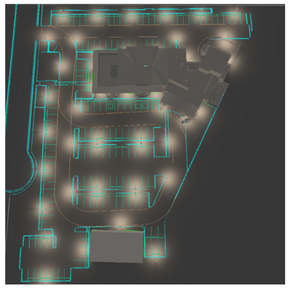
NOTES

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking Area	+	0.8 fc	2.9 fc	0.0 fc	N/A	N/A

@ 9' - Distance of light fixture at door entry or exit, or at wall

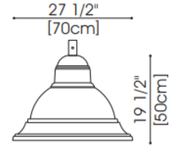
@ 10' - Distance of light fixture at Main Entry

@ 10' - Distance of light fixture at parking lot



KEYNOTES

1. THIS PHOTOMETRICS LAYOUT WAS CALCULATED USING SPECIFIC CRITERIA, ANY DEVIATION FROM STATED PARAMETERS WILL AFFECT ACTUAL PERFORMANCE.
2. THESE CALCULATIONS ARE BASED ON LISTED FIXTURES ONLY. SUBSTITUTION OF THESE FIXTURES VOIDS ALL CALCULATIONS.
3. ALL SUBSTITUTIONS REQUIRE NEW CALCULATIONS BASDED ON THE FIXTURES SUPPLIED.
4.ACUITY BRANDS LIGHTING RESERVES THE RIGHT TO WITHDRAW THESE CALCLATIONS FROM THE PUBLIC RECORD IF THE PRODUCT SPECIFIED ON THESE PLANS IS SUBSTITUTED.
5. CUSTOM LUMEN OUTPUTS BASED ON LAMP LUMEN MULTIPLIER AND AVAILABLE FIXTURE OPTIONS.



CY55P1B

48 specified

GENERAL NOTES

Graphic Scale: 1 inch = 20 feet

0 20' 40' 60' 80'

REVISIONS

#	DATE	DESCRIPTION

Clayton Community Church

1027 Pine Hollow Court
Clayton CA 94517

EPYC

ARCHITECT

AMY VANDER HEYDEN ARCHITECTS
5506 SEAN CIRCLE, #112
SAN JOSE, CA 95123
p. 925.353.0363

CIVIL ENGINEER

BKF ENGINEERS
255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
p. 650.482.6427

GEOTECHNICAL ENGINEER

CORNERSTONE EARTH GROUP, INC.
1220 OAKLAND BLVD, SUITE 200
WALNUT CREEK, CA 94596
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PHOTOMETIC PLAN

SCALE	PROJECT #	DATE ISSUED
As indicated	1027PHC	04.13.2021

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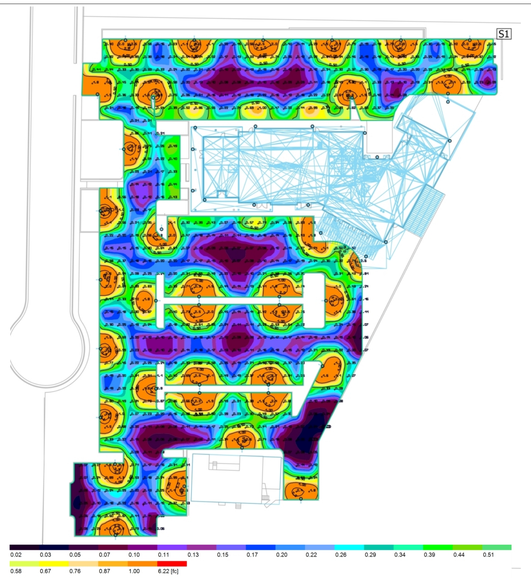
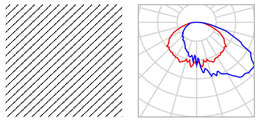


Properties	Ē	E_{min}	E_{max}	$Ē/E_{min}$	E_{max}/E_{min}	Index
Calculation surface 1 Horizontal illuminance	0.55 fc	0.028 fc	3.07 fc	19.6	110	S1

Luminaire layout plan



Manufacturer	Cyclone Lighting
Article No.	CY55P1B-FGF-4HS-20W-3K
Article name	Domia Pendant

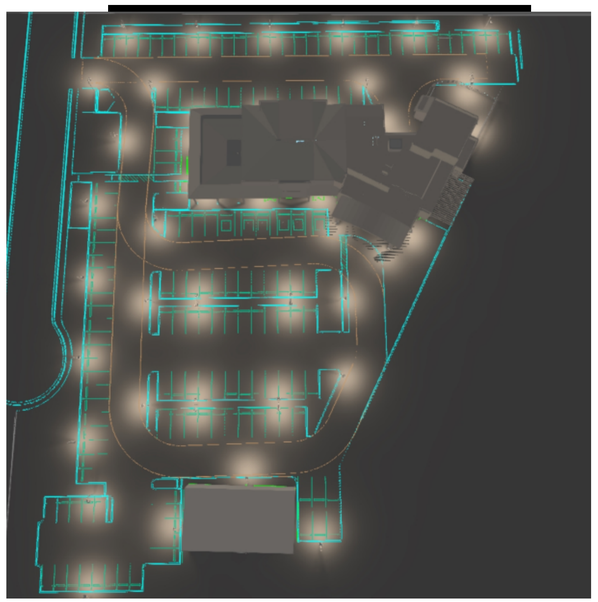
4 x Cyclone Lighting Domia Pendant

Type	Line arrangement
1st luminaire (X/Y/Z)	74.623 ft, 141.873 ft, 10.000 ft
X-direction	4 pcs., Center - center, 53.999 ft
Arrangement	A1

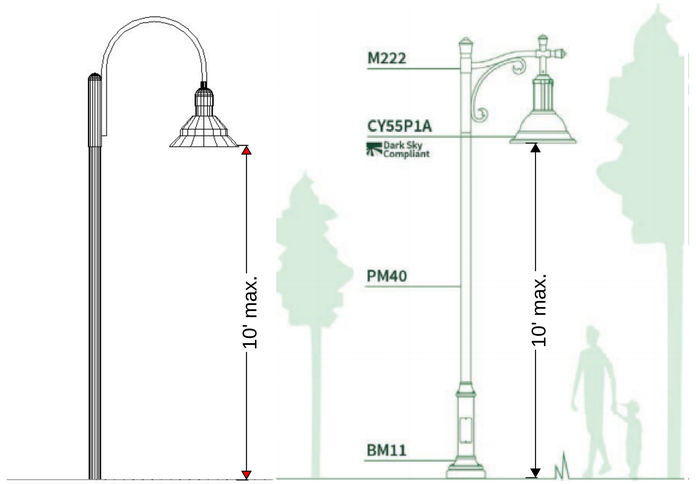
X	Y	Mounting height	Housing rotation	MF	Luminaire
74.623 ft	141.873 ft	10.000 ft	0.0°/0.0°/-90.0°	0.80	3
74.623 ft	195.873 ft	10.000 ft	0.0°/0.0°/-90.0°	0.80	4
74.623 ft	249.872 ft	10.000 ft	0.0°/0.0°/-90.0°	0.80	5
74.623 ft	303.871 ft	10.000 ft	0.0°/0.0°/-90.0°	0.80	6

2 x Cyclone Lighting Domia Pendant

Type	Line arrangement
1st luminaire (X/Y/Z)	152.195 ft, 161.087 ft, 10.000 ft



NOTE: LIGHTING AT NIGHT. PARKING LOT FICTURES WILL BE ON AN MOTION SENSOR AT NIGHT



LIGHTING TYPE

Project: _____
Fixture Type: _____ Quantity: _____
Customer: _____

Weight: 3.0 lbs
EPA: 1.00

Specifications

General: Due to size or weight, arms mounts may not accommodate all ANP luminaires.

Material: All parts are durable 356 cast aluminum and high strength extruded aluminum. All hardware provided shall be stainless steel or zinc plated steel.

Wall Mount: Mounting hardware by others.

Fixture Mounting: Pin mount to tenon.

Electrical: Pull wire provided.

Finish: A polyester powder coat high quality finish is electro-statically applied and baked at 430° for exceptional durability and color retention. Products undergo an intensive five-step cleansing and pretreatment process for maximum paint adhesion.

Marine grade finish provides superior salt, humidity and UV protection. This coating withstands up to 3000 hours of continuous salt spray, comes with a 5-year warranty and is available in either a textured or gloss surface.

Modifications: Consult factory for custom or modified designs.

WM300 - WALL MOUNT
Wall mount for pendant fixture.

Catalog Logic: **WM300 - 3 - 72**
(Wall Mount Style / Pendant Post / Finish)

Catalog Number: **WM300 – (1) – (2)**

1 MOUNTING TYPE
1 - Post
3 - Pendant

2 FINISHES

Standard Grade	Marine Grade		Standard Grade	Marine Grade	
40	NA	Raw Unfinished	53	100	Copper Clay
41	101	Black	56	109	Silver
42	102	Forest Green	61	106	Black Verde
43	114	Bright Red	70	118	Painted Chrome
44	107	White	71	105	Painted Copper
45	112	Bright Blue	72	108	Textured Black
46	123	Sunny Yellow	73	125	Matte Black
47	120	Aqua Green	76	121	Textured Architectural Bronze
49	NA	Galvanized	77	127	Textured White
50	111	Navy	78	124	Textured Silver
51	103	Architectural Bronze	10	130	Aspen Green
52	104	Patina Verde	11	131	Cantaloupe
12	133	Lilac	13	132	Putty

Consult factory for additional paint charges and availability

1-800-548-3227
ANPlighting.com

06202018

cyclone

Domia CY55P1B
Approval – Specification

Project: 1027 Pine Hollow Ct. **Order:**
Qty: **Luminaire:** **Type:**

Tenon Details: Round shape, made of one-piece cast A356 aluminum. An interior border makes it possible to fix the frame module. The certification, maintenance and coding labels of the luminaire are located inside de housing module.

Frame Module: Cast A356 aluminum ring mechanically fixed to the housing, with hinge and quarter-turn latch that accepts the lens module and provides access to the driver module.

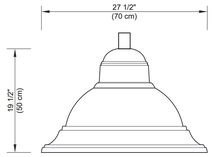
Optical Module: The cast A384 aluminum heat sink is optimized to minimize the temperature of the LEDs, increasing their longevity and efficiency. The lens module is assembled mechanically for easy replacement. A flat lens in is fixed on the cast aluminum frame. The lens is fully IP67 thanks to the silicone gasket. The high efficiency LED circuit is mechanically assembled on the heat sink. The lifetime of the LEDs is 100,000 hours. It is based on the LM-80 test and extrapolated with TM-21. This data is calculated when 50% of the LEDs produce 70% of their initial luminous flux (L70). The minimum color rendering index (CRI) is 70. The lenses are made of acrylic and designed to illuminate only where needed while achieving excellent uniformity with maximum spacing. The type according to IES .

Driver Module: The self-adjusting Class 1 (50W and over) or Class 2 (20 to 40W) driver is removable without tools.

Primary Voltage of **Volts**, 50 / 60Hz, THD max 20%. The high power factor is of 90%. The operating temperature is from -40° F (-40° C) to 130° F (55° C). Complies with ROHS. Assembled with quick-disconnect connectors. Complete with 10kA tripolar overvoltage protection for live, neutral and ground lines according to IEEE / ANSI C62.41 2002 C. The driver offers 0-10 Volts output.

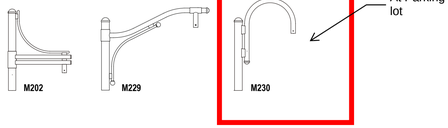
Wiring / Hardware: Type TEW 14-7, 12" (30cm) minimum exceeding luminaire. All electrical connections between the modules are provided with quick-disconnect connectors for easy maintenance. All outside accessible hardware accessible is stainless steel. Silicone gaskets are used for sealing the luminaire.

Color: . Textured or Smooth (SM) finish. The application of durable polyester powder coating meets AAMA 2604 requirements (5 years at all weather conditions). The finish meets ASTM G7, B117, D1654 and D2247 standards for salt spray and moisture. Cyclone recommends a textured finish for this product.



EPA: 1.61 ft² **Weight:** 52 lbs / 24 kg

Suggested Mountings
See Mounting Specification Sheets for details



Stamp/Approval:
Name: **Date:**

Name: CCC
Date: 04/14/2021
Page 1 of 2

Cyclone Lighting: 2175 Des Entreprises Blvd, Terrebonne (QC) Canada J6Y 1W9
Phone: 450.434.5000 - info@cyclonelighting.com
www.cyclonelighting.com
© Cyclone Lighting 2020-12

REVISIONS

#	DATE	DESCRIPTION

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LIGHTING 1

SCALE	PROJECT #	DATE ISSUED
1/4" = 1'-0"	1027PHC	04.13.2021

E 02

3 LIGHTING
1/4" = 1'-0"

2 LIGTHING MOUNT AT WALL
1/4" = 1'-0"

1 LIGHTING TYPE
1/4" = 1'-0"

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Attachment D

Traffic Study by TJKM

Clayton Community Church
Planning Commission Meeting, April 27, 2021

Traffic Impact Study Report

Clayton Community Church

City of Clayton, California

February 11, 2021

TJKM

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EXECUTIVE SUMMARY

This report summarizes the results of the Traffic Impact Analysis (TIA) conducted for the proposed Clayton Community Church (project) to be located at 1027 Pine Hollow Court in the City of Clayton, as shown in **Figure 1**. The proposed project would construct a 13,823 square foot (sq. ft.) church building, including a sanctuary, offices, and classrooms. There is currently one single family home on the site, which would be retained, and other secondary structures that would be removed. The project includes widening Pine Hollow Court to two lanes and constructing a sidewalk along the project frontage. The church offices are currently located at 6055 Main Street and would remain occupied after project completion. At present, church services are held at Diablo View Middle School. The project site plan dated November 13, 2019, is shown in **Figure 2**.

Vehicle Miles Traveled

The CCTA guidelines include a screening process that describes five scenarios in which a project would be with exempted from a VMT analysis requirement: 1) projects exempt from CEQA analysis, 2) small projects, 3) local serving projects, 4) projects in transit priority areas, and 5) projects in low VMT areas. Based on the average number of daily trips generated by the project and expected trip lengths, it is TJKM's opinion that the proposed Clayton Community Church's location and travel characteristics allow it to be classified as both a Small Project and a Locally-Serving Project under the adopted CCTA screening criteria. The project can therefore be presumed to have a **less than significant** VMT impact.

Project Trip Generation

Trip generation for the proposed project was estimated based on published trip generation rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation (10th Edition)*. The project is expected to generate 401 total Sunday trips, including 145 peak hour trips (70 in, 75 out). The project is also expected to generate 101 daily trips on weekdays and 87 daily trips on Saturdays.

Roadway Operations – Existing Conditions

Existing Conditions traffic volumes are based on intersection turning movement counts conducted in October 2020, with observed traffic volumes increased by 20 percent to account for reduced traffic volumes under Covid-19 pandemic conditions. Roadway operations were studied for Sunday a.m. peak hour conditions. Under this scenario, all of the study intersections would operate at acceptable LOS A or B during the Sunday peak hour.

Roadway Operations – Existing plus Project Conditions

Under this scenario, all of the study intersections would continue to operate at acceptable LOS A or B during the Sunday peak hour. The City of Clayton target LOS for signalized intersections is LOS D or better. The project **would be consistent** with the City of Clayton General Plan.

Interaction with Mt. Diablo Elementary School Traffic

TJKM reviewed the daily bell schedule and drop-off/pickup times for Mt. Diablo Elementary School and compared it to the weekly operation plan for the proposed church in order to identify any overlapping peak times when traffic for both uses might interact. While the majority of school traffic occurs on weekdays before and after school, the majority of church-related traffic would occur on Sunday mornings, with a smaller amount of traffic on weekdays. Based on the existing school bell schedule and planned church operations schedule, it is expected that traffic overlap would generally be minimal. The primary exception would be Wednesdays during the school pickup time, which coincides with parents dropping off students for the church's "Crosswalk" after school program. It is expected that any Mt. Diablo Elementary School students attending the program would walk. While the Crosswalk-related increase in after school traffic on Wednesdays would be noticeable, the added vehicles would use the through lanes on Pine Hollow Road and would not need to enter the school's back parking lot or loading zone on Pine Hollow Road, and they could avoid using Mt. Zion Drive entirely. As such, the added traffic is not expected to substantially exacerbate any existing operational problems during this period.

Site Access and On-Site Circulation

TJKM reviewed the project site plan (dated November 13, 2020) to evaluate site access and circulation within the project site. Site access for vehicles and bicycles will be provided from Pine Hollow Court drive via one driveway near the boundary end of the project site. The two existing driveways on the site would be eliminated. The site plan shows internal marked crosswalks between the public sidewalk and entrances, and across the drive aisle fronting the main entrance parking areas and building entrances. Pedestrian circulation on-site is primarily via walkways surrounding the building, which are all a minimum of three feet wide. TJKM understands that a revision to the November 13, 2020, site plan will widen all walkways at least five feet wide.

The parking areas on the site are distributed to the north, west, and south of the church building. All drive aisles are two-way and 25 feet wide, with right-angle parking on one or both sides. The small parking area on the southern end of the site, next to the existing house, would include space for vehicles to turn around. The drive aisle north of the building also provide additional space for vehicles to turn around or maneuver in and out of the parking spaces at the end.

The trash enclosure would be located immediately south of the project driveway, opening onto the main north-south drive aisle. Trucks and emergency vehicles can enter the site, access both buildings, and turn around in the parking area south of the church building. While fire trucks can access the north side of the building, they could not turn around and would need to back out. Subject to final approval by the Contra Costa Fire Protection District, site access and circulation would be **adequate**.

Parking

Based on the preliminary project site plan dated November 13, 2020, as well as intended site plan revisions that would affect parking supply, the project would provide 156 parking spaces, including six accessible spaces, 13 compact spaces, 10 spaces marked "clean air/vanpool/EV", 10 spaces with conduit run for future EV, and 121 standard spaces. Accessible parking spaces are all located close to the main

church entrance and include one van accessible space. The site plan also shows one marked loading zone near the main entrance.

Based on the City of Clayton Municipal Code's minimum parking ratio for places of assembly of one space per 50 sq. ft. of assembly space, the 3,341 sq. ft. main worship space would require only 66 parking spaces. If the entire building is divided into office, classroom, and total worship space, the proposed church would require 152 parking spaces total. Under either calculation, the proposed parking supply would be **adequate**.

TJKM has conducted past studies measuring parking demand at other churches in the Bay Area as related to church attendance. These studies produce an average parking demand of one parking space per 2.0-2.5 attendees in the main worship service. The total attendance at the 9:00 a.m. service is expected to be 259, and it is expected that the typical Sunday parking demand would be 104-130 parking spaces. This demand can be fully accommodated by the proposed parking supply without producing any off-site parking impacts in the surrounding neighborhood.

The church expects that their highest attendance events would be for Easter Sunday and Christmas Eve, with total attendance of approximately 600 for each. It is expected that the church may hold additional services for Easter and Christmas, in order to accommodate the total attendance. Parking management activities are planned, including volunteers in the parking lot to direct traffic. In addition to the proposed 156 parking spaces, the church is also in discussion with Mt. Diablo Elementary School to establish an agreement to provide reciprocal overflow event parking. The busy holiday services would be held at times when the school is not in session, and the majority of the church parking lot would be vacant on evenings and Saturdays when the school may hold special events. If church attendees are directed to park only in the staff parking lot and designated on-street staff parking spaces, this increases the available parking supply by 60 spaces, for a total available parking supply of 216 spaces for each service. Based on a conservative parking demand of one space per 2.0 attendees, the highest attendance holiday service could accommodate up to 432 attendees if all overflow parking is available. With two services, a total attendance of 600 could be accommodated. With adequate parking management and traffic direction, it expected that the church would produce no off-site parking impacts in the surrounding neighborhood.

Pedestrian, Bicycle, and Transit Facilities

The project does not conflict with existing or planned pedestrian or bicycle facilities. It is expected to add trips to the existing transit services, which can be accommodated by the existing transit capacity. Therefore, the project is estimated to have a **less than significant** impact to pedestrian, bicycle, and transit facilities.

1.0 INTRODUCTION

This report summarizes the results of the Traffic Impact Analysis (TIA) conducted for the proposed Clayton Community Church (project) to be located at 1027 Pine Hollow Court in the City of Clayton, as shown in **Figure 1**. The proposed project would construct a 13,823 square foot (sq. ft.) church building, including a sanctuary, offices, and classrooms. There is currently one single family home on the site, which would be retained, and other secondary structures that would be removed. The project includes widening Pine Hollow Court to two lanes and constructing a sidewalk along the project frontage. The church offices are currently located at 6055 Main Street and would remain occupied after project completion. At present, church services are held at Diablo View Middle School. The project site plan dated November 13, 2019, is shown in **Figure 2**.

The purpose of this report is to provide summaries of changes in vehicle miles traveled (VMT) and traffic impacts on the surrounding transportation system with the proposed project. The VMT analysis is based on the methodology adopted by the Contra Costa Transportation Authority (CCTA). To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the proposed project, the study intersections were evaluated for consistency with the standards set forth by the level of service (LOS) policies of the City of Clayton, with modifications to account for changes in LOS methodology.

This report also evaluates project-related impacts on non-automobile transportation facilities in the immediate project vicinity. The project site plan was reviewed for adequacy of site access, circulation, and parking.

1.1 Study Intersections and Scenarios

TJKM evaluated traffic conditions at five study intersections during the a.m. peak hour for a typical Sunday. The study intersections were selected based on TJKM's working knowledge of the area. The peak period observed was between 8:30 – 11:00 a.m., when church-related traffic is typically highest. Due to the minimal trip generation for churches during the weekday a.m. (7:00 – 9:00) and p.m. (4:00 – 6:00) peak periods, analysis of these periods is unnecessary.

The study intersections and associated traffic controls are as follows:

1. Pine Hollow Court & Pine Hollow Road (uncontrolled)
2. Mt. Zion Drive/Tiffin Drive & Pine Hollow Road (all-way stop)
3. Mt. Zion Drive & Clayton Road (two-way stop)
4. Mitchell Canyon Road & Pine Hollow Road (all-way stop)
5. Mitchell Canyon Road & Clayton Road (signal)

Figure 1 illustrates the study intersections and the vicinity map of the proposed project.

The roadway operations analysis addresses the following two traffic scenarios:

- **Existing Conditions** – This scenario evaluates the study intersections based on adjusted existing traffic volumes and existing lane geometry and traffic controls. Turning movement counts were collected in October 2020. Due to changes in traffic resulting from Covid-19, observed traffic volumes were increased by 20 percent to estimate non-pandemic conditions.
- **Existing plus Project Conditions** – This scenario is identical to Existing Conditions, but with the addition of net new traffic from the proposed project.

Figure 1: Vicinity Map

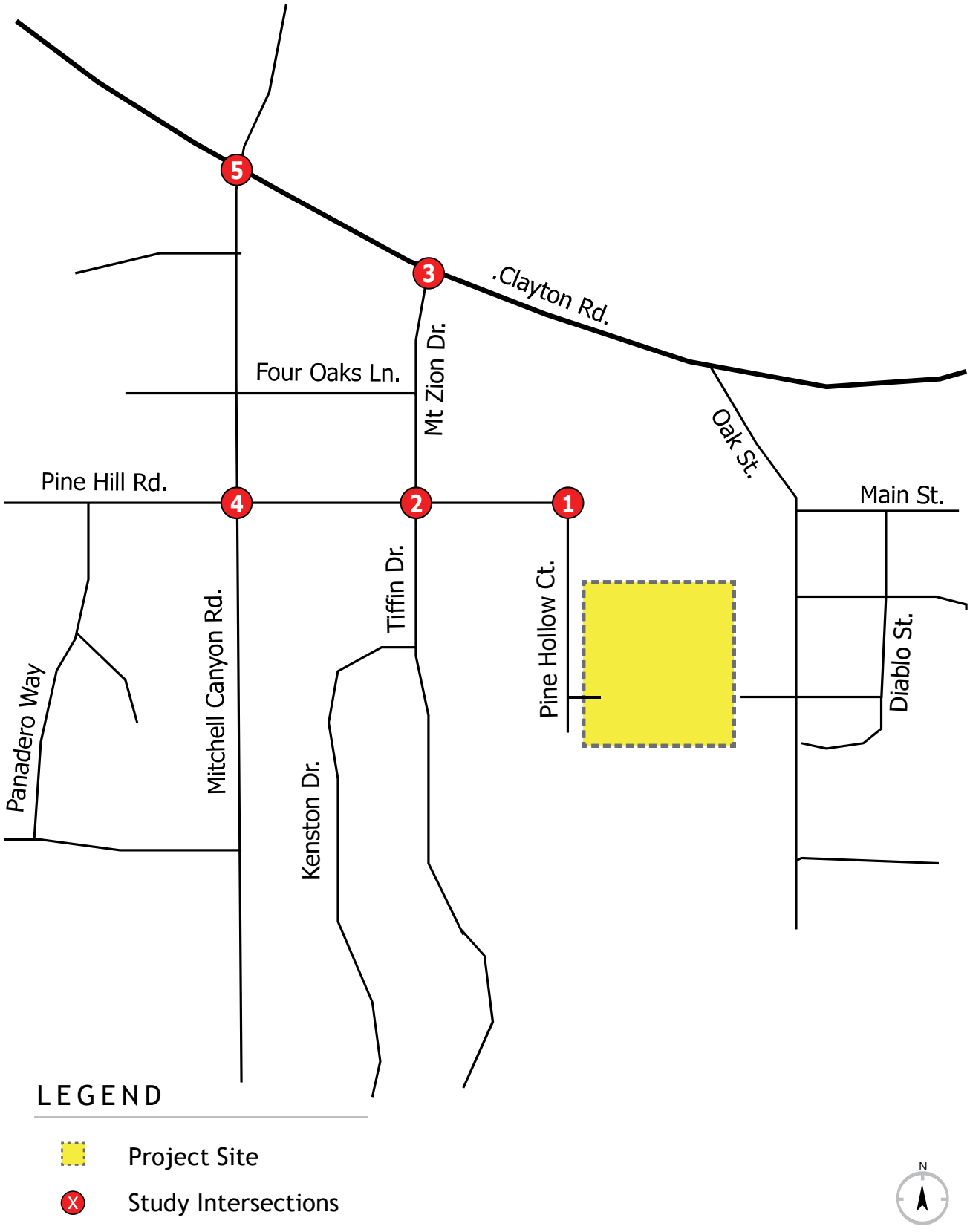
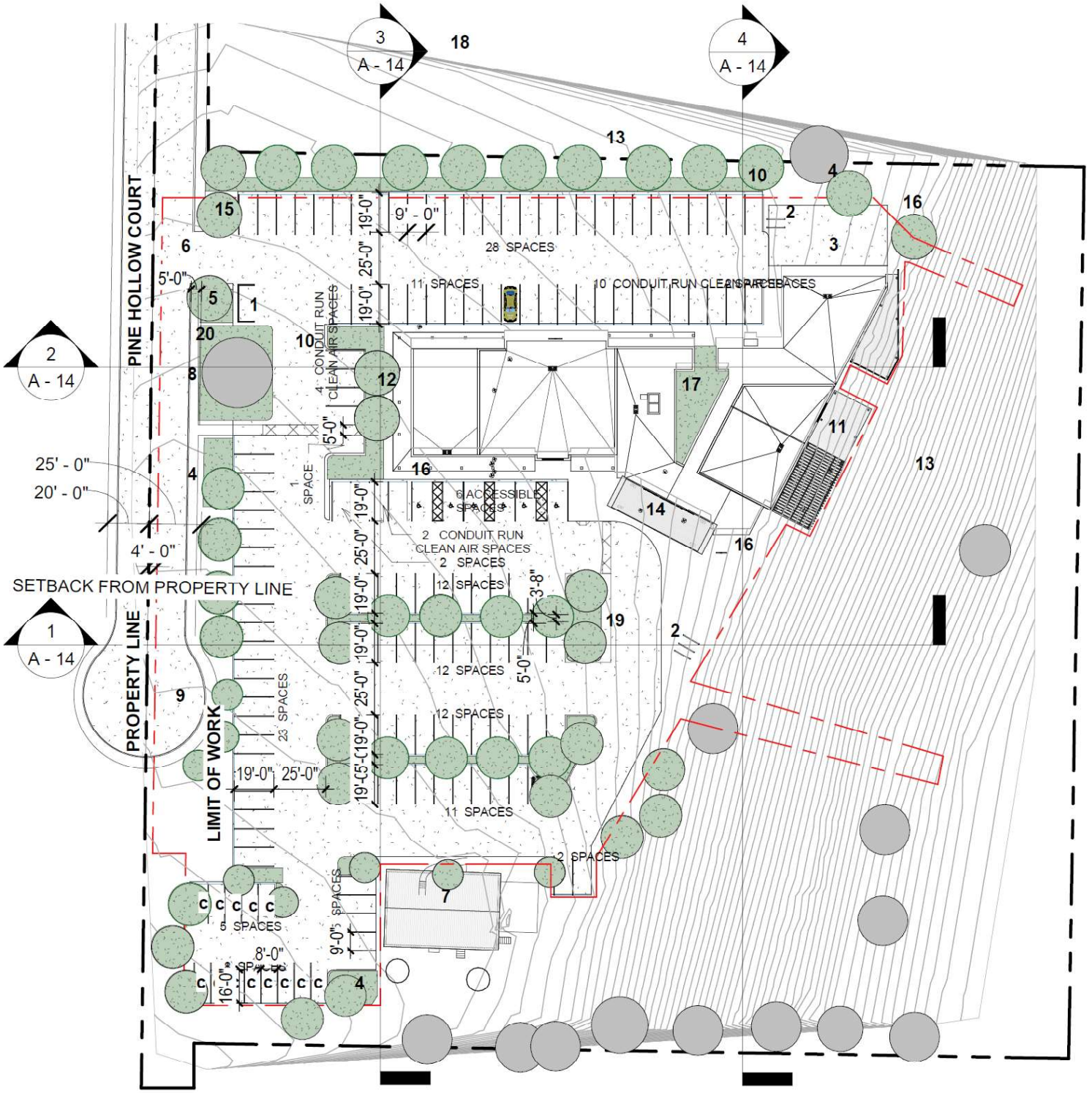


Figure 2: Site Plan



1 ARCHITECTURAL SITE PLAN
1/64" = 1'-0"

2.0 STUDY METHODOLOGY

Traffic impacts related to the proposed project were evaluated for both compliance with applicable regulatory documents and environmental significance as defined in the California Environmental Quality Act (CEQA). In accordance with the technical advisory published by the Governor's Office of Planning and Research (OPR), a qualitative and quantitative VMT analysis forms the basis of the CEQA analysis for the proposed project. As of July 1, 2020, intersection level of service (LOS) can no longer be used to determine significant impacts for the purpose CEQA.

2.1 Vehicle Miles Traveled

This study evaluates project-related VMT as outlined in the adopted CCTA VMT methodology. The methodology and implementation guidelines were adopted by CCTA in July 2020.

The CCTA guidelines include a screening process that describes five scenarios in which a project would be with exempted from a VMT analysis requirement: 1) projects exempt from CEQA analysis, 2) small projects, 3) local serving projects, 4) projects in transit priority areas, and 5) projects in low VMT areas. Using the CCTA methodologies, it appears that the Clayton Community Church will meet the exemption requirements for a small project. The following language is from the Project Screening section of the CCTA VMT methodologies:

> **2.2 Small Projects.** Small projects can be presumed to cause a less-than-significant VMT impact. Small projects are defined as having 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.
>
> **2.3: Local-Serving Uses.** Projects that consist of Local-Serving Uses can generally be presumed to have a less-than-significant impact absent substantial evidence to the contrary, since these types of projects will primarily draw users and customers from a relatively small geographic area that will lead to short-distance trips and trips that are linked to other destinations.

2.2 Level of Service Analysis Methodology

Although Level of Service (LOS) is not relevant to CEQA, LOS can be used to determine conformity with an adopted general plan or congestion management program. LOS is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. The operational LOS are given letter designations from A to F, with A representing the free-flow operating conditions and F representing the severely congested flow with high delays. Typically, LOS C is considered as an ideal condition as it represents stable flow and efficient use of the transportation facility. Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets. The following sections provide detailed study methodology based on the type of intersections.

Signalized Intersections

The study intersections under traffic signal control were analyzed using the HCM 2010 Operations Methodology for signalized intersections described in Chapter 18 (HCM 2010). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 1** summarizes the relationship between the control delay and LOS for signalized intersections. The LOS assessment under all scenarios is based on current traffic controls and optimized signal timing unless otherwise noted.

Table 1: Level of Service Definitions for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: Highway Capacity Manual 2010

Stop-Controlled Intersections

The study intersections under two-way stop control were analyzed using the HCM 2010 Operations Methodology for two-way stop controlled intersections described in Chapter 19 (HCM 2010) and for all-way stop controlled intersections described in Chapter 20 (HCM 2010).. LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At one- or two-way stop controlled intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the

average of all movements in that lane. **Table 2** summarizes the relationship between delay and LOS for stop-controlled intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections, as drivers expect less delay at stop-controlled intersections.

Each of the study intersections was analyzed using Synchro Version 10 software and HCM 2010 methodology. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted.

Table 2: Level of Service Definitions for Stop Controlled Intersections

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: Highway Capacity Manual 2010

2.2 Level of Service Standards

Although level of service is no longer used for identifying impacts under CEQA, level of service analysis is still used for determining consistency with adopted agency plans and standards. Where standards refer to significant environmental impacts, this analysis instead identifies these as significant inconsistencies with adopted plans.

Signalized Intersections

The City of Clayton General Plan does not provide specific acceptable LOS standards or thresholds of significance. LOS is described in terms of volume-to-capacity ratios based on prior editions of the Highway Capacity Manual and related to LOS targets for design improvements of the City's transportation network. This target is LOS D or better for roadway segments and intersections. For the purpose of evaluating project consistency with the General Plan, and consistent with professional standards and thresholds established by other nearby jurisdictions, a project-related inconsistency would be considered significant if:

- The project traffic added to existing conditions would result in the level of service deteriorating below LOS D.
- For intersections that already operate at unacceptable levels of service (E or F), the project trips result in an increase in delay by 5.0 seconds or more.

For unsignalized intersections, LOS results and project-related changes are reported, but no significance standards are applied.

2.4 Contra Costa County Growth Management Program

The Central County is a subregional area composed of the cities of Walnut Creek, Pleasant Hill, Clayton, Concord, Martinez, and nearby portions of unincorporated Contra Costa County. The current *Central County Action Plan* (2017) provides guidance for transportation planning through 2040. It establishes Multimodal Transportation Service Objectives (MTSOs) for Routes of Regional Significance (RORS) within the area and defines how each component agency and committee is involved in the review of proposed projects.

In the project vicinity, Clayton Road is designated as a RORS. The following MTSO applies to Clayton Road within the study area:

- Maintain 15 mph average speed for both directions during the [weekday] a.m. and p.m. peak hours.

Pursuant to the Growth Management Program's Implementation Guide, the adopted MTSOs within sub-regional plans, such as the Central County Action Plan, should were previously able to serve as thresholds of significance in the CEQA review of proposed development projects (pg. 3). However, CCTA's adoption of VMT standards is intended to supersede existing delay-related standards that previously applied under the Growth Management Plan. In addition, this standard applies to roadway segment speeds during weekday peak periods, and project-related traffic during the weekday peak periods is expected to be minimal. As such, it does not directly apply within the scope of this traffic analysis.

3.0 EXISTING CONDITIONS

This section describes existing conditions in the immediate project site vicinity, including roadway facilities, a summary of bicycle and pedestrian facilities, and available transit service. Existing traffic volumes and roadway operations are described in section 3.1.

3.1 Existing Setting and Roadway System

Important roadways in the immediate vicinity of the project site are discussed below.

Clayton Road is a generally east-west, four lane divided arterial road, designated as a Roadway of Regional Significance (RORS) by CCTA. The posted speed limit on Clayton Road is 40 mph. Clayton Road connects the project vicinity to the City of Concord in the west. In the project vicinity, Clayton Road has continuous sidewalks on the north side of the street and continuous sidewalks on the south side west of Mt. Zion Drive. East of Mt. Zion Drive, the sidewalk continues east as a multiuse path connecting to the Town Center.

Mitchell Canyon Road is a north-south, two lane collector. The posted speed on Mitchell Canyon Road is 25 mph. Within the project vicinity, sidewalks are generally intermittent or absent.

Pine Hollow Road is an east-west, two-lane collector. The posted speed on Pine Hollow Road is 25 mph. Pine Hollow Road has continuous sidewalks on the north side of the street, and west of Mt. Zion Drive/Tiffin Drive, it has a buffered, paved path that acts as a sidewalk.

Mt. Zion Drive is a short north-south, two lane collector fronting Mt. Diablo Elementary School. It is northbound-only for most of its length, serving as a school drop-off/pick-up zone. South of Pine Hollow Road, it continues south as Tiffin Drive. The speed limit on Mt. Zion Drive is 25 mph. It features a mix of angled and parallel parking spaces on both sides.

Tiffin Drive is a north-south, two lane local street south of Pine Hollow Road. The speed limit on Tiffin Drive is 25 mph. There are continuous sidewalks on both sides along the majority of its length.

Pine Hollow Court is a short north-south local street fronting the project site. Parking is generally prohibited, and the roadway narrows to a single lane approximately 150 ft. south of Pine Hollow Road. The intersection of Pine Hollow Road and Pine Hollow Court is uncontrolled, with Pine Hollow Court acting as an extension of Pine Hollow Road.

3.2 Existing Pedestrian, Bicycle, and Transit Facilities

The project is located in a residential neighborhood with inconsistent sidewalk access. As noted above, although some streets provide sidewalks on both sides, others do not. There is a continuous sidewalk available to connect the northern boundary of the project site to Clayton Road, and sidewalks are present on Pine Hollow Road to the west. Pedestrians can also access the two County Connection bus stops on Clayton Road. In the project vicinity, bicycle lanes are provided on Clayton Road, and the sidewalk on the

southern side of Clayton Road becomes a shared use path east of Mt. Zion Road that crosses Mitchell Creek and connects to the Town Center via Oak Street.

4.0 TRIP GENERATION AND VEHICLE MILES TRAVELED

This section discusses the characteristics of traffic volumes and vehicle miles traveled (VMT) generated by the proposed project. These characteristics are then compared to the adopted CCTA VMT screening thresholds described in section 2.1.

4.1 PROJECT TRIP GENERATION

TJKM used two methodologies to estimate daily traffic generation.

ITE Method

The Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, describes weekday, Saturday and Sunday daily trip generation based on square footage of the church. This analysis is based on a preliminary building size of 14,510 sq. ft., although the proposed building has since been reduced to 13,823 sq. ft. This will yield total trip generation for both weekdays, Saturdays and Sundays. Details are shown in **Table 3**. This shows that the average trips per day for 7 days is 142; for weekdays only it is 101.

Table 3: Trip Generation using ITE *Trip Generation, 10th Edition*, for Church

Day	Size (ITE 560)	Daily Rate (Trips/KSF)	24-hour trips	Weekday Factor	Weekly Trips
Sunday	14.51 KSF	27.63	401	1	401
Saturday	14.51 KSF	5.99	87	1	87
Weekday	14.51 KSF	6.95	101	5	504
		Total	588	7	992
Average Trips/day for 7 days =992/7 = 142; Average weekday trips/day = 101					

Operational Plan Method

Clayton Community Church has provided a comprehensive listing of all church events by time of day, day of week, and attendance. This enables a full estimation of all travel to and from the church on a daily basis. TJKM has made conservative estimates of automobile occupancy at each event. Small events assume one person per vehicle, full Sunday church events assume 2.0 to 2.5 persons per vehicle, based on TJKM direct measurements in previous church studies. See **Table 4** for trip generation using this methodology.

Table 4: Trip Generation based on Weekly Operational Plan

Time	Event	Attendance	Persons/ Vehicle	Vehicles	Trips
Sundays					
9-10:15	Worship Service	217	2.0	109	218
9-10:15	Nursery/Toddlers	12	--		--
9-10:15	Elementary (K-5)	30	--		--
10:15-12	Worship Service	100	2.0	50	100
10:15-12	Nursery/Toddlers	12	--		--
10:15-12	Elementary (K-5)	30	--		--
10:15-12	Junior/Senior High School (6-12)	20	--		--
7-8 p.m.	AA Meeting	12	1.0	12	24
	Sunday Sub-Total	*433*			*342*
Mondays					
9-10	Staff	10	1.0	10	20
Tuesdays					
9-11	Women's Craft Group	10	1.0	10	20
7-9 p.m.	Worship Team	10	1.0	10	20
Wednesdays					
9-11	WOW (Women's Group)	40	1.5	27	54
12-2:30	"Crosswalk" (Grades 2-5)	40	1.5	27	54
7-8:30 p.m.	Youth Group	25	1.5	17	34
Thursdays					
7-8:30 p.m.	Women's Bible Study	15	1.0	15	30
7-8:30 p.m.	Men's Bible Study	40	1.5	27	54
Weekdays – Tuesdays thru Fridays					
	Work trips by staff	10	1	10	80
One Friday/Month					
7-9 p.m.	Worship Night	50	2.0	7	14
One Saturday/Month					
8-9:30	Men's Breakfast	40	1.5	7	14
	Monday – Saturday Sub-Total				*394*
	Average Weekday				*76*
	Total Weekly Trips				**736**
Average Trips/Day for 7 days = 736/7 = 105; Average weekday trips/ day = 380/5 = 76					

It can be seen that by using the generic church rate using ITE data, the average trips per weekday is 98 trips; when using data specific to Clayton Community Church, the average weekday trips is 101 trips. When considering all trips for seven days using ITE data the average trips per day is 142 trips; when considering Clayton Community Church data, the average trips per day is 105 trips.

4.2 Project-Related Vehicle Miles Traveled

As noted above, this project generates between 105 and 142 trips per day, depending on the methodology used. TJKM assumes the methodology that is based on the proposed operation plan of Clayton Community Church is more accurate than the generic church category contained in the ITE document. ITE is a solid reference based on dozen of studies conducted at actual churches, and where a

new church is being established without a history of actual daily usage of the facilities, that is the appropriate resource.

Using both sets of daily trips and an allowable VMT of 836[1], this allows average one-way trip lengths of 7.96 miles (836/105) or 5.89 miles (836/142). It appears average one-way trip lengths of 6 miles or less is a realistic assumption. For example, the most distant Clayton addresses are about 3.5 miles, with most locations within about 2 to 3 miles of the church. The downtown Concord BART station is located about 6 miles from the church. All areas in Clayton and large portions of Concord and Walnut Creek lie within a six mile driving radius. An even larger number of homes are located within the more realistic 7.96 mile range. It is likely that staff and members of the church are located, on average, within six miles of the new church location. This process, treats all trips and VMT as new, whereas many of the staff and church attendees have attended Clayton Community Church at various locations within the community. Further, the new church would relocate the existing services from Diablo View Middle School to a more central location within the City of Clayton.

Consequently, it is TJKM's opinion that the proposed Clayton Community Church's location and travel characteristics allow it to be classified as both a Small Project and a Locally-Serving Project, based on the adopted CCTA screening criteria. The project can therefore be presumed to have a **less than significant** VMT impact.

[1] "This threshold ties directly to the OPR Technical Advisory which notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Using statewide average data from the California Statewide Household Travel Survey (CHTS), the amount of daily VMT associated with 10,000 square feet of non-residential space is 836 VMT. Also using statewide average CHTS data, this level of VMT is associated with 20 housing units. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 20 housing units or 10,000 square feet of non-residential space could be considered not to lead to a significant impact."

- From "VMT Analysis Methodology for Land Use Projects in Contra Costa", Fehr & Peers (July 1, 2020)

5.0 ROADWAY OPERATIONS ANALYSIS

This section describes traffic operations at the five study intersections. Although intersection level of service cannot be used for identifying impacts under CEQA, it can be used to determine conformity with an adopted general plan or congestion management program.

5.1 Existing Conditions

5.1.1 Existing Peak Hour Traffic Volumes

The existing operations of the five study intersections were evaluated for New turning movement counts at the seven study intersections were collected in October 2020. The peak period observed was between 8:30 – 11:00 a.m., when church-related traffic is typically highest. The peak hour traffic volumes are defined as the highest one-hour volumes during the peak period. Due to changes in traffic resulting from Covid-19, observed traffic volumes were increased by 20 percent to estimate non-pandemic conditions. **Appendix B** includes the available data sheets for all study intersections. **Figure 3** illustrates the existing conditions lane geometry, traffic controls, and peak hour traffic volumes at the study intersections.

5.1.2 Roadway and Intersection Operations – Existing Conditions

The existing operations of the study intersections were evaluated based on existing vehicle volumes during the Sunday a.m. peak period, as described above. Existing peak hour factors (PHF), pedestrian, and bicycle volumes were also included. The results of the LOS analysis using the HCM 2010 methodology and Synchro 10 software program for Existing Conditions are summarized in **Table 5**. It should be noted that although the intersection of Pine Hollow Court & Pine Hollow Road is uncontrolled and therefore experiences no control delay, it is included for informational purposes.

Under this scenario, all of the study intersections would operate at acceptable LOS A or B during the Sunday peak hour. LOS worksheets and are provided in **Appendix D**.

Table 5: Intersection Level of Service Analysis – Existing Conditions

ID	Study Intersections	Control	Delay[1]	LOS[2]
1	Pine Hollow Ct. & Pine Hollow Rd.	Uncontrolled	0.0	A
2	Mt Zion Dr./Tiffin Dr. & Pine Hollow Rd.	All-Way Stop	7.1	A
3	Mt Zion Dr. & Clayton Rd.	Two-Way Stop	9.9	A
4	Mitchell Canyon Rd. & Pine Hollow Rd.	All-Way Stop	8.0	A
5	Mitchell Canyon Rd. & Clayton Rd.	Signal	15.3	B

Notes:

[1] Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

[2] LOS – Level of Service

Bold text indicates intersection operates at a deficient level of service.

Figure 3a: Existing Conditions Lane Geometry and Traffic Controls

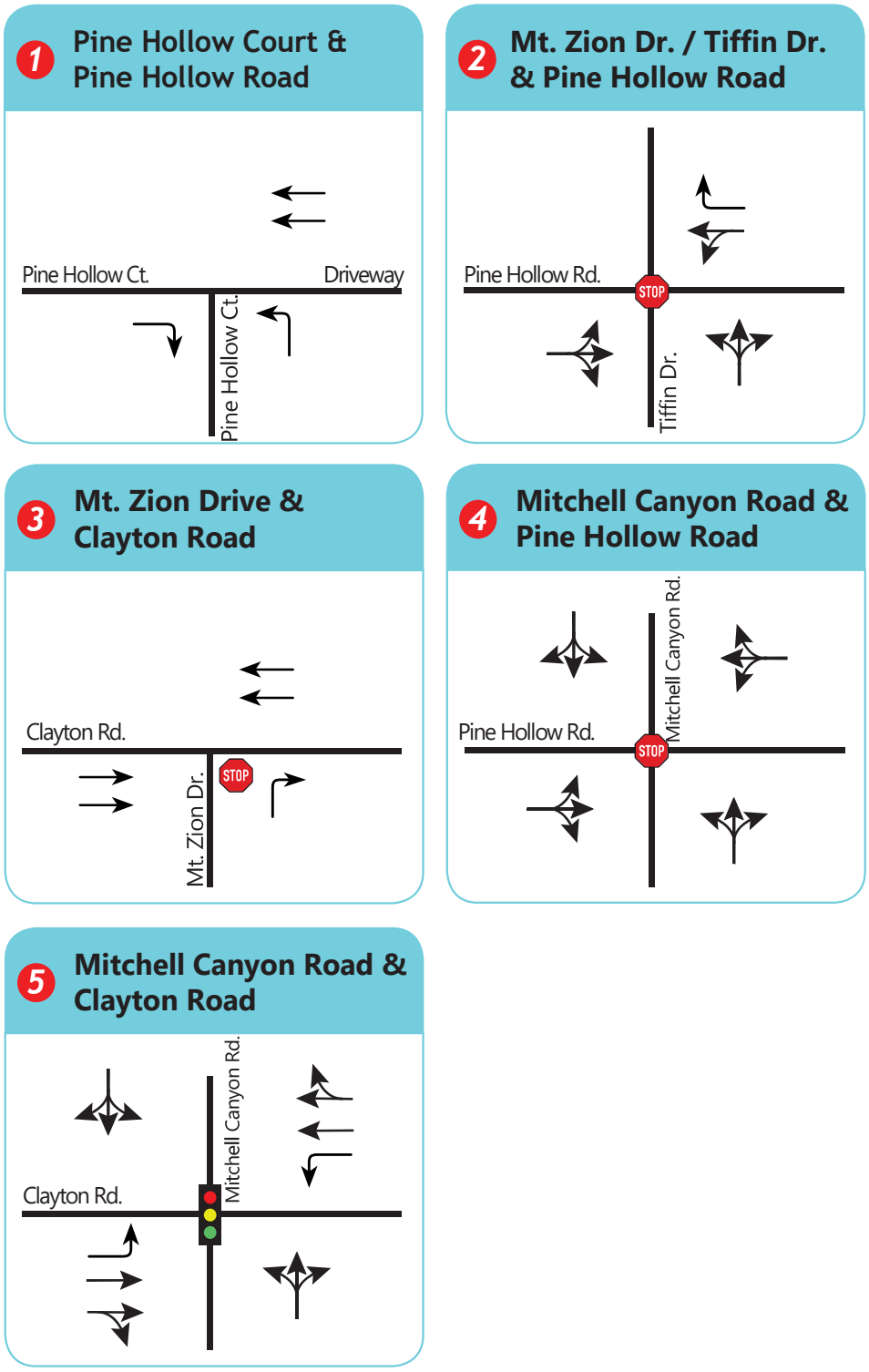
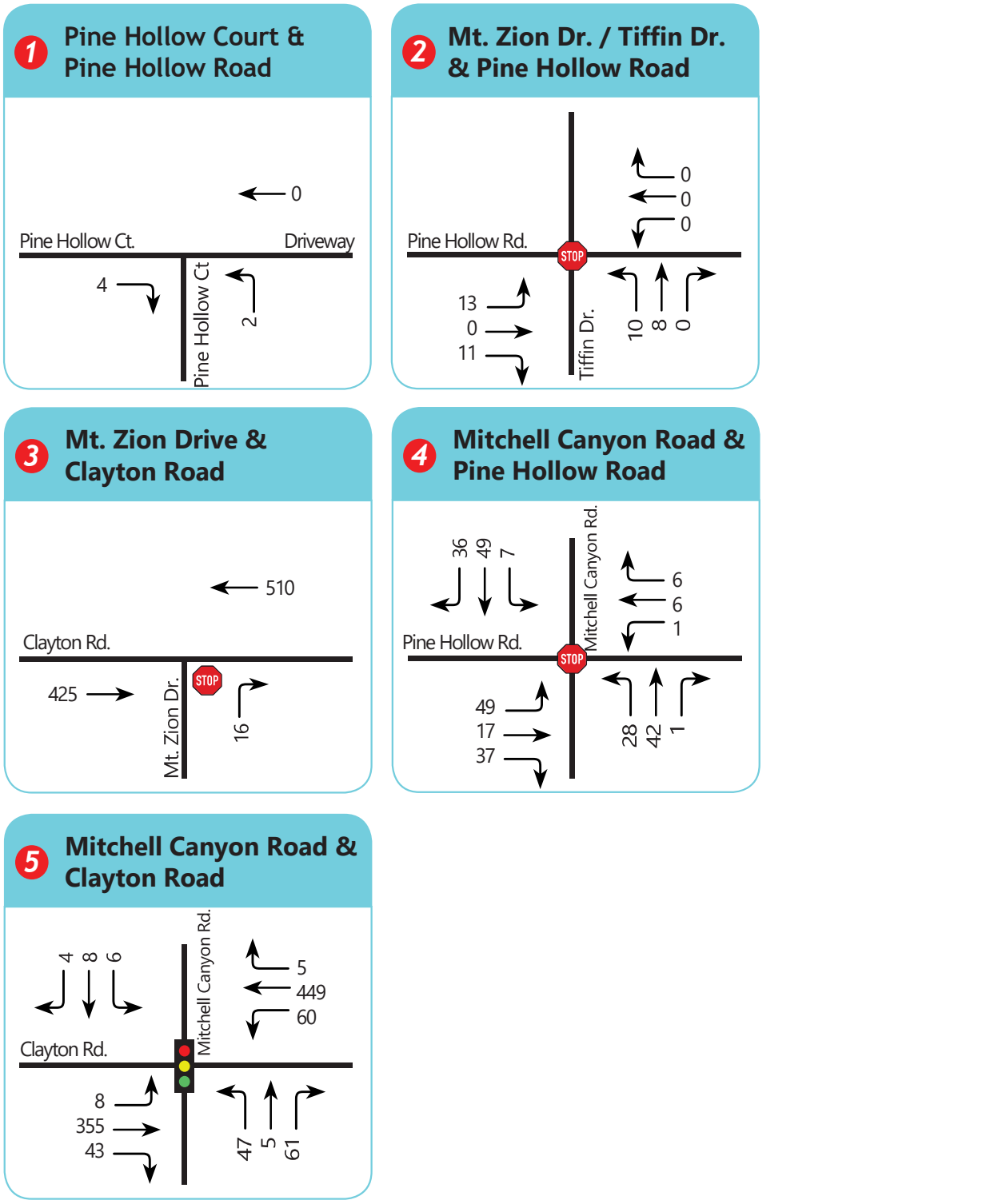


Figure 3b: Existing Conditions Sunday AM Peak Hour Volumes



5.2 Existing plus Project Conditions

This analysis scenario presents the impacts of the proposed church (project) on the study intersections and the surrounding roadway system. This scenario is similar to Existing Conditions, but with the addition of projected traffic from the proposed development.

5.2.1 Project Trip Generation

TJKM developed estimated project trip generation for the proposed project based on published trip generation rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation (10th Edition)*. For the proposed project, TJKM used published trip rates for the ITE land use Church (ITE Code 560). **Table 6** summarizes project trip generation based on average ITE rates. This analysis is based on a preliminary building size of 14,510 sq. ft., although the proposed building has since been reduced to 13,823 sq. ft. The project is expected to generate 401 total Sunday trips, including 145 peak hour trips (70 in, 75 out). The project is also expected to generate 101 daily trips on weekdays and 87 daily trips on Saturdays. ITE average trip generation rates are typically used for planning purposes, as operational plans for a given use may change over time and may not represent typical operations long-term. Compared to the proposed operations schedule shown in **Table 4**, the ITE average rates produce a higher total number of trips for Sundays (401 vs. 342 from operations plan) and a similar number of Sunday peak hour trips (145 vs. 149).

Table 6: Project Trip Generation

Land Use (ITE Code)[1]	Size	Weekday Daily		Saturday Daily		Sunday Daily		Sunday Peak Hour				
		Rate	Trips	Rate	Trips	Rate	Trips	Rate	In:Out	In	Out	Total
Proposed Uses												
Church (560)	14.51 ksf	6.95	101	5.99	87	27.63	401	9.99	48:52	70	75	145
New Trips			**101**		**87**		**401**			**70**	**75**	**145**

Notes:
[1] Source: ITE *Trip Generation 10th Edition*

5.2.2 Project Trip Distribution and Assignment

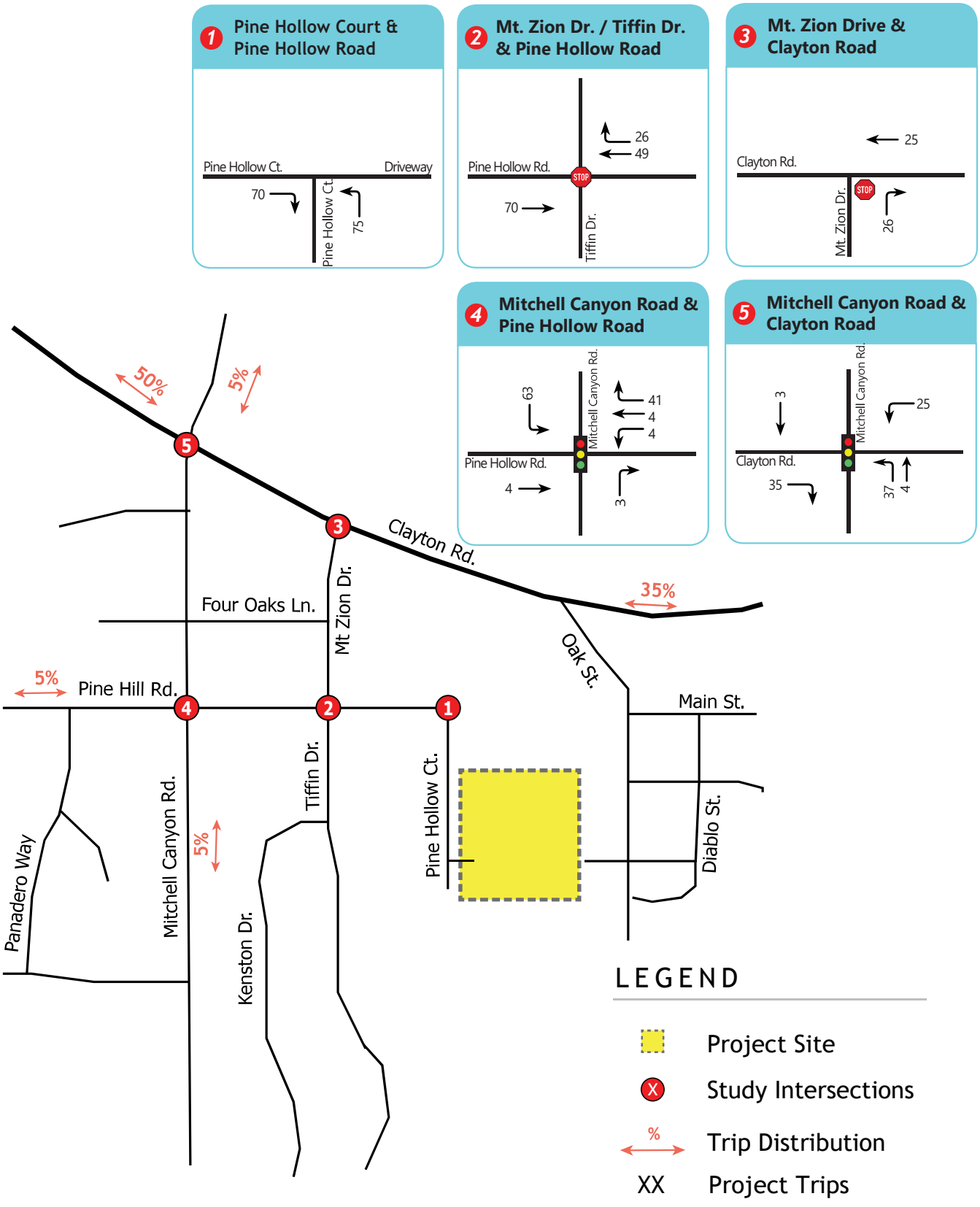
Trip distribution is a process that determines in what proportion vehicles would be expected to travel between the project site and various destinations outside the project study area. Assignment determines the various routes that vehicles would take from the project site to each destination using the estimated trip distribution. For the purposes of trip distribution and assignment, new trips from **Table 6** were used. Trip distribution assumptions were based on TJKM's working knowledge of the area

New trips associated with the proposed project were distributed as follows:

- 50 percent to/from Clayton Road to the west
- 35 percent to/from Clayton Road to the east
- Five percent to/from Mitchell Canyon Road to the north
- Five percent to/from Mitchell Canyon Road to the south
- Five percent to/from Pine Hollow Drive to the west.

Figure 4 illustrates the trip distribution percentages and the trip assignment developed for the proposed project. The assigned project trips were then added to traffic volumes under Existing Conditions to generate Existing plus Project Conditions traffic volumes.

Figure 4: Trip Distribution and Assignment



5.2.3 Roadway and Intersection Operations – Existing plus Project Conditions

Figure 5 shows projected turning movement volumes at all of the study intersections for Existing plus Project Conditions. The intersection LOS analysis results for Existing plus Project Conditions are summarized in **Table 7**. Peak hour factors and intersection signal timing and phasing are identical to Existing Conditions.

Under this scenario, all of the study intersections would continue to operate at acceptable LOS A or B during the Sunday peak hour. The City of Clayton target LOS for signalized intersections is LOS D or better. The project **would be consistent** with the City of Clayton General Plan. LOS worksheets are provided in **Appendix E**.

Table 7: Intersection Level of Service Analysis – Existing plus Project Conditions

ID	Study Intersections	Control[6]	Existing Conditions		Existing Plus Project Conditions		Change in Delay
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	
1	Pine Hollow Ct. & Pine Hollow Rd.	Uncontrolled	0.0	A	0.0	A	0.0
2	Mt Zion Dr./Tiffin Dr. & Pine Hollow Rd.	All-Way Stop	7.1	A	7.8	A	0.7
3	Mt Zion Dr. & Clayton Rd.	Two-Way Stop	9.9	A	10.2	B	0.3
4	Mitchell Canyon Rd. & Pine Hollow Rd.	All-Way Stop	8.0	A	8.9	A	0.9
5	Mitchell Canyon Rd. & Clayton Rd.	Signal	15.3	B	15.6	B	0.3

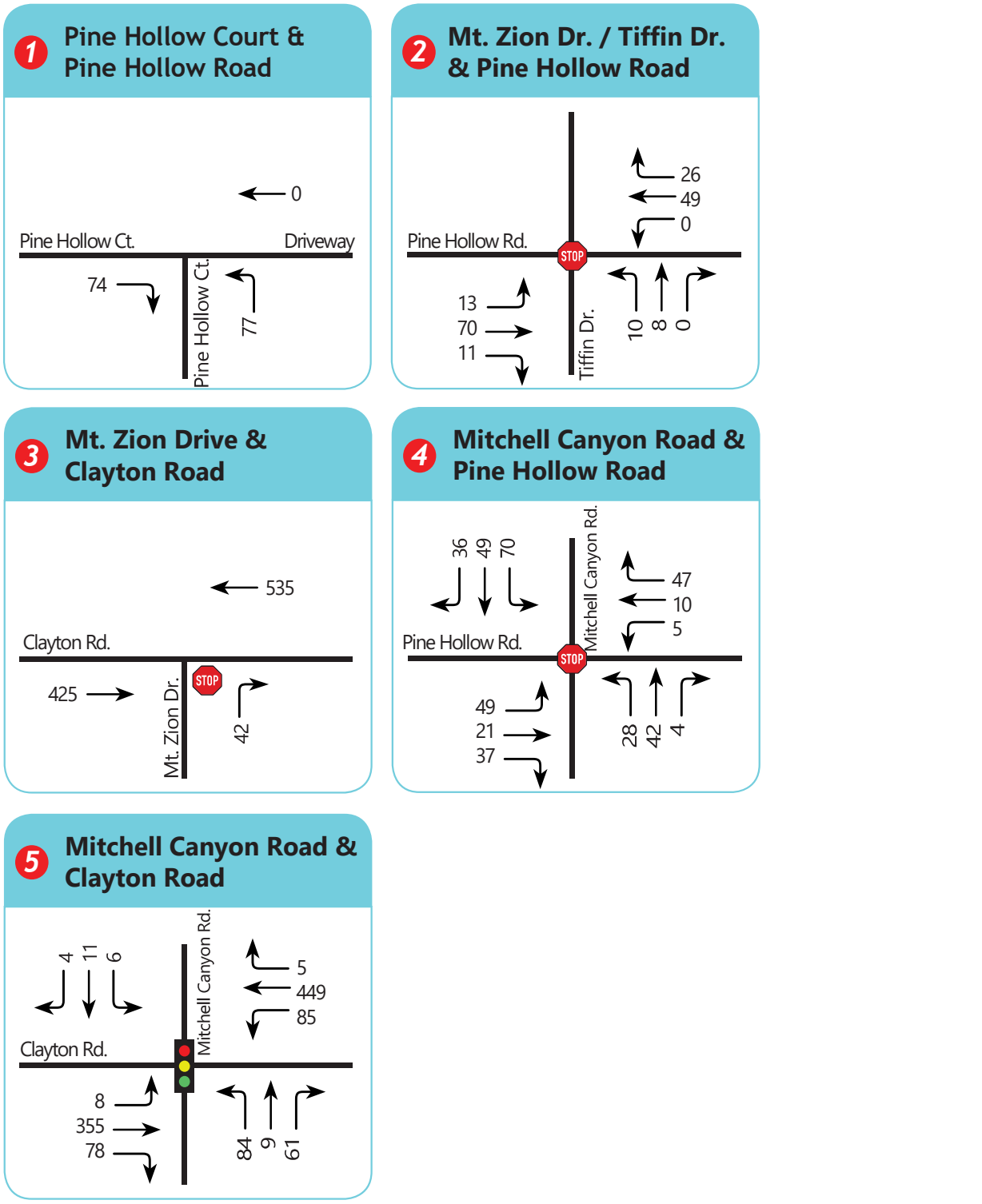
Notes:

[1] Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.

[2] LOS – Level of Service

Bold text indicates intersection operates at a deficient level of service. **Red** indicates a significant deficiency.

Figure 5: Existing Conditions Plus Project Conditions Sunday AM Peak Hour Volumes



5.2.4 Interaction with Mt. Diablo Elementary School Traffic

TJKM reviewed the daily bell schedule and drop-off/pickup times for Mt. Diablo Elementary School and compared it to the weekly operation plan for the proposed church in order to identify any overlapping peak times when traffic for both uses might interact. While the majority of school traffic occurs on weekdays before and after school, the majority of church-related traffic would occur on Sunday mornings, with a smaller amount of traffic on weekdays. As such, the interaction of weekday traffic from each use is of greatest concern.

The Mt. Diablo Elementary School start time is 7:40 a.m., with students permitted to arrive no earlier than 7:30. The end time is 2:15 p.m. on Mondays, Tuesdays, Thursdays, and Fridays. Wednesdays feature a modified bell schedule, with early release at 12:25 p.m. for grades 1-5. TK and Kindergarten, which are divided into early and late sessions, would include late arrivals at 9:45 a.m. (9:30 a.m. on Wednesdays) and early pickups at 11:15 a.m. (12:30 p.m. on Wednesdays). Based on the bell schedule and posted no-parking hours for the Pine Hollow Road loading zone, it is expected that the majority of drop-off traffic would be confined to approximately 7:30 – 8:15 a.m. Monday through Friday, and the majority of pickup traffic would be confined to approximately 2:15-3:00 p.m. most days and 12:05-12:50 p.m. on Wednesdays. Based on the ITE trip generation rate for Elementary School (ITE code 520) in the school p.m. peak hour, which is 0.34 trips per student, and an estimated enrollment of 800 students[2], the school is expected to generate approximately 272 total trips during the afternoon pick-up period. The school bell schedule and traffic circulation plan are included in **Appendix C**. The school also occasionally hosts evening events.

As shown in **Table 4**, the church plans to host weekday morning activities starting at 9:00 a.m. on Mondays, Tuesdays, and Wednesdays. On Wednesdays, the church would also provide an after school program for grades 2-5 from 12-2:30 p.m., coinciding with the 12:25 p.m. early release time for these grades at the school. Currently, the "Crosswalk" after school program on Wednesdays is held at the church offices on Main Street. All other weekday activities would begin in the evening at 7:00 p.m.

Based on the existing school bell schedule and planned church operations schedule, it is expected that traffic overlap would generally be minimal. The primary exception would be Wednesdays during the school pickup time, which coincides with parents dropping off students for the after school program. It is expected that any Mt. Diablo Elementary School students attending the program would walk. As shown in **Table 4**, the 40-student program could add approximately 27 vehicles/54 trips to the Wednesday pick-up period, if all students were driven and none came from the school. If approximately half of students attending the Crosswalk program were driven from other schools, generating 27 vehicle trips, this would constitute an increase of 10 percent compared to the estimated baseline after school pick-up traffic.

Since the school has been closed due to COVID-19 conditions, TJKM has not been able to observe traffic conditions during full school operations. It is likely, however, that congestion does exist near the school during before- and after-school periods. TJKM concludes that because of limited overlap between school

[2] The California Department of Education reports a total enrollment of 786 students during the 2019-2020 school year at Mt. Diablo Elementary School.

and church activities, no degradation of school-time congestion should occur on most weekdays. While the Crosswalk-related increase in after school traffic on Wednesdays would be noticeable, the added vehicles would use the through lanes on Pine Hollow Road and would not need to enter the school's back parking lot or loading zone on Pine Hollow Road, and they could avoid using Mt. Zion Drive entirely. As such, the added traffic is not expected to substantially exacerbate any existing operational problems during this period.

6.0 ADDITIONAL ANALYSIS

The following sections provide additional analyses of other transportation issues associated with the project site, including:

- Site access and onsite circulation;
- Parking analysis;
- Pedestrian, bicycle and transit access and impacts;

The analyses in these sections are based on professional judgment in accordance with the standards and methods employed by traffic engineers. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

6.1 Site Access and On-Site Circulation

This section analyzes site access and internal circulation for vehicles, pedestrians, and bicycles, based on the preliminary site plan presented in **Figure 2** (dated November 13, 2020). TJKM reviewed internal and external access for the project site for vehicles, pedestrians, and bicycles and on-site vehicle circulation. It should be noted that the site plan and civil engineering drawings may undergo future refinements in response to comments from City staff.

Site Access

Site access for vehicles and bicycles will be provided from Pine Hollow Court drive via one driveway near the boundary end of the project site. The two existing driveways on the site would be eliminated. Although a second driveway may reduce congestion during the busiest periods, the proposed site access is adequate. The project includes widening Pine Hollow Court to two lanes and constructing a sidewalk along the project frontage. The site plan shows a continuous pedestrian path from the project frontage to the entrances of the main building.

On-Site Circulation

Pedestrian circulation on-site is primarily via walkways surrounding the building, which are all a minimum of five feet wide. The site plan shows pedestrian crossings on the main drive aisle, connecting to the project frontage to building entrances, and on the drive aisle fronting the main entrance.

The parking areas on the site are distributed to the north, west, and south of the church building. All drive aisles are two-way and 25 feet wide, with right-angle parking on one or both sides. The small parking area on the southern end of the site, next to the existing house, would include space for vehicles to turn around. The drive aisle north of the building also provides additional space for vehicles to turn around or maneuver in and out of the parking spaces at the end.

The trash enclosure would be located immediately south of the project driveway, opening onto the main north-south drive aisle. Trucks and emergency vehicles can enter the site, access both buildings, and turn around in the parking area south of the church building. While fire trucks can access the north side of the

building, they could not turn around and would need to back out. Subject to final approval by the Contra Costa Fire Protection District, site access and circulation would be **adequate**.

6.2 Parking Analysis

This section discusses vehicle parking for the proposed project and includes an assessment of whether the proposed parking supply is adequate based on the proposed project size, zoning regulations, and planned operation. As shown in the site plan presented in **Figure 2** (dated February 9, 2021), the project would provide 156 parking spaces, including six accessible spaces, 13 compact spaces, 16 spaces marked "clean air/vanpool/EV", 10 spaces with conduit run for future EV, and 121 standard spaces. Accessible parking spaces are all located close to the main church entrance and include one van accessible space.

Required Parking Supply

The City of Clayton Municipal Code (chapter 17.37) specifies parking and loading requirements for various land uses and specific plan areas. For religious assembly uses, parking is required at a rate of one space per three fixed seats (with 20 inches of bench equaling one seat) or one space per 50 sq. ft. of assembly area. A detailed floor plan of the proposed church shows that the seating area of the sanctuary would be 3,341 sq. ft. Using the rate based on assembly area alone, the church would require only 67 parking spaces. Based on the proposed parking supply of 156 spaces, the sanctuary could accommodate up to 468 fixed seats.

The project plans also break down parking requirements assuming that the classroom and office space accessory to the assembly use would require separate parking supplies. The church floor plan shows a total of 4,722 sq. ft. of worship space (sanctuary, plus stage, sound box, and lobby), 4,444 sq. ft. of classroom space, and 4,610 sq. ft. of office and other spaces. Using the Municipal Code's required parking ratios of one space per 250 sq. ft. of office, one space per 100 sq. ft. of classrooms, and one space per 50 sq. ft. of assembly (including stage and lobby), the project would require a total of 156 parking spaces. With this more conservative calculation of required parking, the project would still provide **adequate** parking.

The Municipal Code specifies that commercial and quasi-public uses must provide bicycle parking spaces in the amount of one plus 10 percent of the requirement for automobile spaces. Based on an expected parking requirement of 156 spaces, the church would be required to provide 16 spaces. The project plans include bike racks accommodating 17 bicycles, exceeding City requirements. For uses between 10,000-20,000 sq. ft., one truck loading space (10 ft. x 35 ft. x 14 ft.) must be provided. The site plan shows a designated loading zone on the drive aisle fronting the main building entrance. Although the loading zone is within the drive aisle, there is adequate width for other vehicles to pass trucks stopped in this space.

Typical Parking Demand

TJKM has conducted past studies measuring parking demand at other churches in the Bay Area as related to church attendance. These studies produce an average parking demand of one parking space per 2.0-2.5 attendees in the main worship service. As shown in **Table 4**, the total attendance at the 9:00 a.m. service is expected to be 259, including children. This corresponds to a typical parking demand of 104-130

spaces. This demand can be fully accommodated by the proposed parking supply without producing any off-site parking impacts in the surrounding neighborhood.

Special Event Parking

The church expects that their highest attendance events would be for Easter Sunday and Christmas Eve, with total attendance of approximately 600 for each. For comparison, as shown in **Table 4**, the two services on a Sunday would have typical total attendance of 401, including children. It is expected that the church may hold additional services for Easter and Christmas, in order to accommodate the total attendance. Parking management activities are planned, including volunteers in the parking lot to direct traffic.

In addition to the proposed 156 parking spaces, the church is also in discussion with Mt. Diablo Elementary School to establish an agreement to provide reciprocal overflow event parking. The busy holiday services would be held at times when the school is not in session, and the majority of the church parking lot would be vacant on evenings and Saturdays when the school may hold special events. The elementary school has a gated off-street staff parking lot providing 27 standard and two accessible parking spaces. The school also has striped on-street parking spaces on Mt. Zion Drive designated as staff parking, consisting of 29 standard and two accessible spaces. If church attendees are directed to park only in the staff parking lot and designated on-street staff parking spaces, this increases the available parking supply by 60 spaces, for a total available parking supply of 216 spaces. Based on a conservative parking demand of one space per 2.0 attendees, the highest attendance holiday service could accommodate up to 432 attendees per service if all overflow parking is available. A total attendance of 600 in two services could be accommodated. With adequate parking management and traffic direction, it expected that the church would produce no off-site parking impacts in the surrounding neighborhood.

6.3 Pedestrian, Bicycle, and Transit Facilities

For CEQA purposes, potential impacts to pedestrian, bicycle, and transit facilities are evaluated based on disruptions to existing facilities and consistency with applicable adopted programs, plans, ordinance or policy addressing these facilities.

Pedestrian Facilities

The project will connect to existing pedestrian facilities and would extend the existing sidewalk on Pine Hollow Court to cover the entire project frontage. Although existing pedestrian facilities near the project include discontinuous sidewalks, the project is not expected to create any disruptions or inconsistencies with existing pedestrian facilities or plans. Therefore, the project would have a **less-than-significant** impact on pedestrian facilities.

Bicycle Facilities

The proposed project will have adequate bicycle access to the project site from the surrounding area and is not expected to create any inconsistencies with bicycle facilities or plans. Therefore, the project would have a **less-than-significant** impact on bicycle facilities.

Transit Facilities

In addition to disruptions and inconsistencies as noted above, a proposed project is considered to have a significant impact on transit if it is expected to generate additional transit trips and does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops. Pedestrians can access the closest transit stops on Clayton Road via a continuous path of sidewalks and crosswalks, and bicyclists can access these stops via low speed roadways and the existing bike lanes on Clayton Road. The transit service within the immediate project vicinity operates within capacity, and additional trips generated by the proposed project could be accommodated by existing bus services. Therefore, the project would have a **less-than-significant** impact on transit facilities.

Appendix A – Level of Service Methodology

LEVEL OF SERVICE METHODOLOGY

LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, *Highway Capacity Manual 2000*. *Highway Capacity Manual 2000* represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-I.

Table A-I

Level of Service Description

Facility Type	**Uninterrupted Flow**	**Interrupted Flow**
	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
LOS		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

Source: *Highway Capacity Manual 2000*

Urban Streets

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

Table A-II

Functional and Design Categories for Urban Streets

Criterion	Functional Category	
	Principal Arterial	**Minor Arterial**
Mobility function	Very important	Important
Access function	Very minor	Substantial
Points connected	Freeways, important activity centers, major traffic generators	Principal arterials
Predominant trips served	Relatively long trips between major points and through trips entering, leaving, and passing through city	Trips of moderate length within relatively small geographical areas

Criterion	Design Category			
	High-Speed	**Suburban**	**Intermediate**	**Urban**
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

Source: *Highway Capacity Manual 2000*

Table A-III

Urban Street Class based on Function and Design Categories

Design Category	Functional Category	
	Principal Arterial	**Minor Arterial**
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: *Highway Capacity Manual 2000*

Table A-IV

Urban Street Levels of Service by Class

Urban Street Class	I	II	III	IV
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
Level of Service	**Average Travel Speed (mph)**			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: *Highway Capacity Manual 2000*

Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.,* in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A

description of levels of service for signalized intersections can be found in Table A-V.

Table A-V

Description of Level of Service for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase doe not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: *Highway Capacity Manual 2000*

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.,* in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

Table A-VI

Description of Level of Service for Two-Way Stop Controlled Intersections

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: *Highway Capacity Manual 2000*

Appendix B – Traffic Counts Worksheets

National Data Surveying Services

Intersection Turning Movement Count

Location: Pine Hollow Ct & Pine Hollow Rd
City: Clayton
Control: No Control

Project ID: 20-080132-001
Date: 10/11/2020

Total

NS/EW Streets:	Pine Hollow Ct				Pine Hollow Ct				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
10:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	5
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%					
PEAK HR :	10:15 AM - 11:15 AM																TOTAL
PEAK HR VOL :	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	5
PEAK HR FACTOR :	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.625
	0.500																

National Data Surveying Services
Intersection Turning Movement Count

Location: Pine Hollow Ct & Pine Hollow Rd
City: Clayton
Control: No Control

Project ID: 20-080132-001
Date: 10/11/2020

Bikes

NS/EW Streets:	Pine Hollow Ct				Pine Hollow Ct				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	10:15 AM - 11:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data Surveying Services
Intersection Turning Movement Count

Location: Pine Hollow Ct & Pine Hollow Rd
City: Clayton

Project ID: 20-080132-001
Date: 10/11/2020

Pedestrians (Crosswalks)

NS/EW Streets:	Pine Hollow Ct		Pine Hollow Ct		Pine Hollow Rd		Pine Hollow Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	1	2
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	2	0	2	0	0	0	4
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	3	0	2	0	2	1	8
APPROACH %'s :			100.00%	0.00%	100.00%	0.00%	66.67%	33.33%	
PEAK HR :	**10:15 AM - 11:15 AM**								TOTAL
PEAK HR VOL :	0	0	2	0	2	0	0	0	4
PEAK HR FACTOR :			0.250		0.250				0.250
			0.250		0.250				

Prepared by National Data Surveying Services

Pine Hollow Ct & Pine Hollow Rd

Peak Hour Turning Movement Count

ID: 20-080132-001
City: Clayton

Day: Sunday
Date: 10/11/2020

PEAK HOURS

AM	10:15 AM - 11:15 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	08:30 AM - 11:30 AM
NOON	NONE
PM	NONE

Pine Hollow Ct — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

Pine Hollow Rd — EASTBOUND

AM	NOON	PM	
2	0	0	
0	0	0	0
0	0	0	0
0	0	0	1
3	0	0	0
AM	NOON	PM	

Pine Hollow Rd — WESTBOUND

PM	NOON	AM	
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

CONTROL: No Control

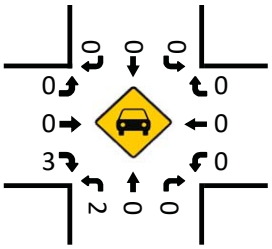
TEV	5	0	0
	AM	NOON	PM
PHF	0.63		

Pine Hollow Ct — NORTHBOUND

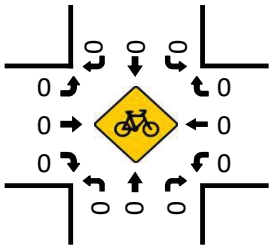
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	3	0	2	0	0	AM

0 0 0 0 | 0 0 1 0

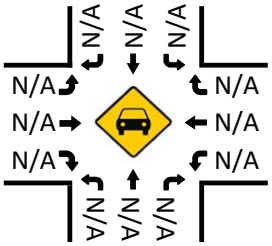
Total Vehicles (AM)



Bikes (AM)



Total Vehicles (Noon)



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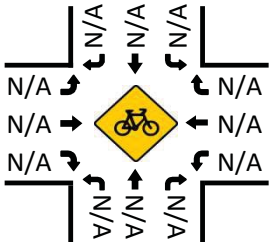
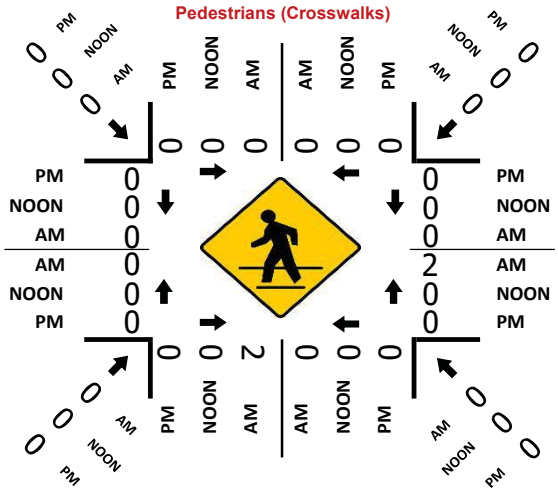
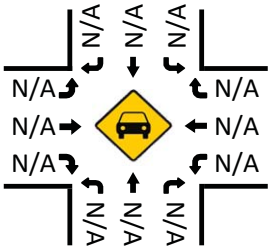


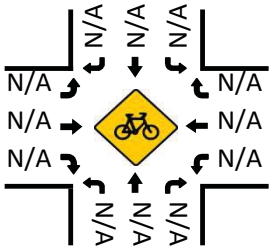
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



File Name: 20-080132-001
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Pine Hollow Ct Southbound				Pine Hollow Rd Westbound				Pine Hollow Ct Northbound				Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	5
10:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: 20-080132-001
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Pine Hollow Ct Southbound				Pine Hollow Rd Westbound				Pine Hollow Ct Northbound				Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-001
Date : 10/11/2020

Unshifted Count = All Vehicles & Uturns

	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2	0
10:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	3	0
Grand Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	3	0	3	5	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		100.0%	0.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	60.0%	0.0%	60.0%	100.0%	

AM PEAK HOUR	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 10:15 to 11:15																					
Peak Hour For Entire Intersection Begins at 10:15																					
10:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2
10:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	3	0	3	5
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		100.0%	0.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.000	.000	.375	.000	.375	.625

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-001
Date : 10/11/2020

Bank 1 Count = Bikes & Peds

	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	4
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	0	5
Grand Total	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0	3	0	0	8
Apprch %	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	

AM PEAK HOUR	Pine Hollow Ct Southbound					Pine Hollow Rd Westbound					Pine Hollow Ct Northbound					Pine Hollow Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:15 to 11:15																					
Peak Hour For Entire Intersection Begins at 10:15																					
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
% App Total	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.000	.000		.000	.000	.000	.000		.000	.000	.000	.000		.000	.000

National Data Surveying Services

Intersection Turning Movement Count

Location: Mt Zion Dr/Tiffin Dr & Pine Hollow Rd
City: Clayton
Control: 3-Way Stop(NB/EB/WB)

Project ID: 20-080132-002
Date: 10/11/2020

Total

NS/EW Streets:	Mt Zion Dr/Tiffin Dr				Mt Zion Dr/Tiffin Dr				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5
8:45 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3
9:00 AM	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
9:15 AM	2	1	0	0	0	0	0	0	2	0	1	0	0	0	0	0	6
9:30 AM	1	3	0	0	0	0	0	0	1	0	3	0	0	0	0	0	8
9:45 AM	1	3	0	0	0	0	0	0	3	0	2	0	0	0	0	0	9
10:00 AM	4	0	0	0	0	0	0	0	5	0	3	0	0	0	0	0	12
10:15 AM	2	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	5
10:30 AM	2	0	0	0	0	0	0	0	4	0	1	0	0	1	0	0	8
10:45 AM	1	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	5
11:00 AM	1	1	0	0	0	0	0	0	0	2	3	0	0	0	0	0	7
11:15 AM	3	1	0	0	0	0	0	0	4	0	2	0	0	0	0	0	10
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	20	10	0	0	0	0	0	0	27	3	18	0	0	1	1	0	80
APPROACH %'s :	66.67%	33.33%	0.00%	0.00%					56.25%	6.25%	37.50%	0.00%	0.00%	50.00%	50.00%	0.00%	
PEAK HR :	09:15 AM - 10:15 AM																TOTAL
PEAK HR VOL :	8	7	0	0	0	0	0	0	11	0	9	0	0	0	0	0	35
PEAK HR FACTOR :	0.500	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.550	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.729
		0.938								0.625							

National Data Surveying Services
Intersection Turning Movement Count

Location: Mt Zion Dr/Tiffin Dr & Pine Hollow Rd
City: Clayton
Control: 3-Way Stop(NB/EB/WB)

Project ID: 20-080132-002
Date: 10/11/2020

Bikes

NS/EW Streets:	Mt Zion Dr/Tiffin Dr				Mt Zion Dr/Tiffin Dr				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
10:30 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
10:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
11:15 AM	0	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	5	0	0	0	5	0	0	10	2	0	0	0	0	0	0	22
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	83.33%	16.67%	0.00%	0.00%					
PEAK HR :	**09:15 AM - 10:15 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
						0.250				0.250							

National Data Surveying Services
Intersection Turning Movement Count

Location: Mt Zion Dr/Tiffin Dr & Pine Hollow Rd
City: Clayton

Project ID: 20-080132-002
Date: 10/11/2020

Pedestrians (Crosswalks)

NS/EW Streets:	Mt Zion Dr/Tiffin Dr		Mt Zion Dr/Tiffin Dr		Pine Hollow Rd		Pine Hollow Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
8:30 AM	0	1	0	2	0	0	0	0	3
8:45 AM	2	0	3	1	0	1	0	0	7
9:00 AM	0	0	1	0	2	2	0	0	5
9:15 AM	0	0	0	0	2	0	0	0	2
9:30 AM	1	0	0	0	0	2	0	0	3
9:45 AM	0	1	0	0	0	1	0	1	3
10:00 AM	1	0	0	0	0	0	0	0	1
10:15 AM	0	1	0	0	0	0	0	0	1
10:30 AM	2	0	1	0	3	0	0	0	6
10:45 AM	0	0	2	4	0	2	0	0	8
11:00 AM	0	1	0	1	0	3	0	0	5
11:15 AM	2	1	1	4	0	0	0	0	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	8	5	8	12	7	11	0	1	52
APPROACH %'s :	61.54%	38.46%	40.00%	60.00%	38.89%	61.11%	0.00%	100.00%	
PEAK HR :	**09:15 AM - 10:15 AM**								TOTAL
PEAK HR VOL :	2	1	0	0	2	3	0	1	9
PEAK HR FACTOR :	0.500	0.250			0.250	0.375		0.250	0.750
	0.750				0.625		0.250		

Prepared by National Data Surveying Services

Mt Zion Dr/Tiffin Dr & Pine Hollow Rd

Peak Hour Turning Movement Count

ID: 20-080132-002
City: Clayton

Day: Sunday
Date: 10/11/2020

PEAK HOURS	COUNT PERIODS
09:15 AM - 10:15 AM	08:30 AM - 11:30 AM
NONE	NONE
NONE	NONE

CONTROL: 3-Way Stop(NB/EB/WB)

	AM	NOON	PM
TEV	35	0	0
PHF	0.73		

Mt Zion Dr/Tiffin Dr — SOUTHBOUND

AM	0	0	0	0	18	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

Pine Hollow Rd — EASTBOUND

AM	NOON	PM		
8	0	0		
0	0	0	0	
11	0	0	0	
0	0	0	1	
9	0	0	0	
AM	NOON	PM		

WESTBOUND — Pine Hollow Rd

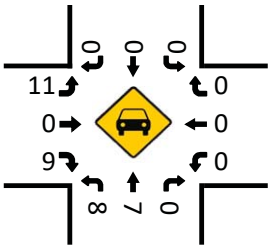
				PM	NOON	AM
			1	0	0	0
			1	0	0	0
			0	0	0	0
			0	0	0	0
				0	0	0
				PM	NOON	AM

Mt Zion Dr/Tiffin Dr — NORTHBOUND

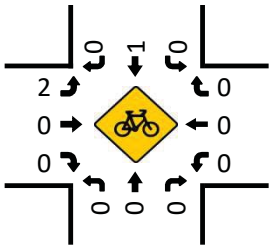
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	9	0	8	7	0	AM

0 0 0 0 — 0 0 1 0

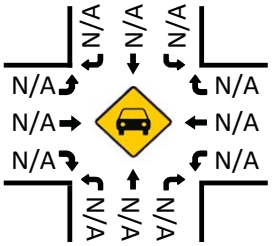
Total Vehicles (AM)



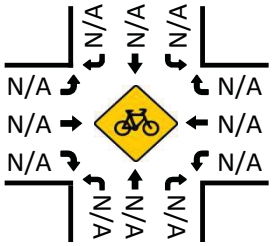
Bikes (AM)



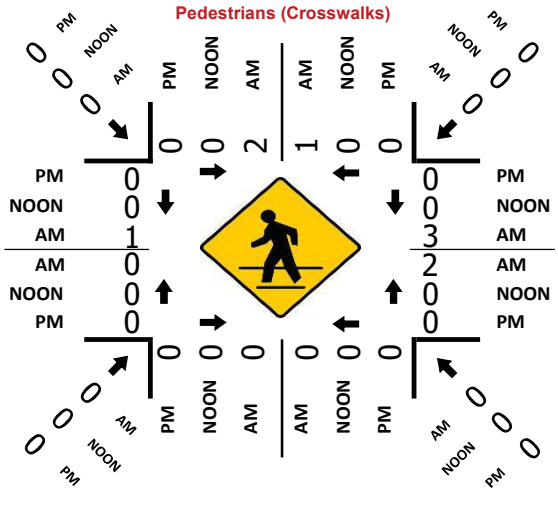
Total Vehicles (Noon)



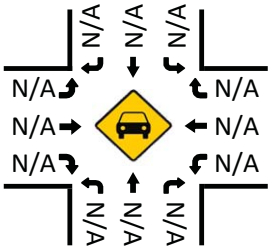
Bikes (NOON)



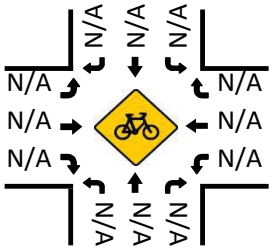
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



File Name: 20-080132-002
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mt Zion Dr/Tiffin Dr Southbound				Pine Hollow Rd Westbound				Mt Zion Dr/Tiffin Dr Northbound				Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
8:30 AM	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	16
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	19
9:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	25
9:15 AM	0	0	0	0	0	0	0	0	2	1	0	0	2	0	1	0	35
9:30 AM	0	0	0	0	0	0	0	0	1	3	0	0	1	0	3	0	34
9:45 AM	0	0	0	0	0	0	0	0	1	3	0	0	3	0	2	0	34
10:00 AM	0	0	0	0	0	0	0	0	4	0	0	0	5	0	3	0	30
10:15 AM	0	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0	25
10:30 AM	0	0	0	0	0	1	0	0	2	0	0	0	4	0	1	0	30
10:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	3	0	1	0	22
11:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	3	0	17
11:15 AM	0	0	0	0	0	0	0	0	3	1	0	0	4	0	2	0	10
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: 20-080132-002
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mt Zion Dr/Tiffin Dr Southbound				Pine Hollow Rd Westbound				Mt Zion Dr/Tiffin Dr Northbound				Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	2	0	0	0	0	4
8:45 AM	0	1	0	2	0	0	0	1	0	0	0	4	1	0	0	0	4
9:00 AM	0	1	0	0	0	0	0	4	0	0	0	1	0	0	0	0	4
9:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
9:30 AM	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	5
9:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	1	7
10:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
10:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	10
10:30 AM	0	0	0	2	0	0	0	3	0	0	0	1	1	2	0	0	13
10:45 AM	0	0	0	0	0	0	0	2	0	2	0	6	0	0	0	0	10
11:00 AM	0	0	0	1	0	0	0	3	0	0	0	1	3	0	0	0	8
11:15 AM	0	1	0	3	0	0	0	0	0	3	0	5	1	0	0	0	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-002
Date : 10/11/2020

Unshifted Count = All Vehicles & Uturns

	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
8:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	5	0
8:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	3	0
9:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	0
9:15	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	2	0	1	0	3	6	0
Total	0	0	0	0	0	0	0	0	0	0	5	2	0	0	7	7	0	2	0	9	16	0
9:30	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	1	0	3	0	4	8	0
9:45	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	3	0	2	0	5	9	0
10:00	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	5	0	3	0	8	12	0
10:15	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	1	1	0	2	5	0
Total	0	0	0	0	0	0	0	1	0	1	8	6	0	0	14	9	1	9	0	19	34	0
10:30	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	4	0	1	0	5	8	0
10:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	0	1	0	4	5	0
11:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	2	3	0	5	7	0
11:15	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	4	0	2	0	6	10	0
Total	0	0	0	0	0	0	1	0	0	1	7	2	0	0	9	11	2	7	0	20	30	0
Grand Total	0	0	0	0	0	0	1	1	0	2	20	10	0	0	30	27	3	18	0	48	80	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	50.0%	50.0%	0.0%		66.7%	33.3%	0.0%	0.0%		56.3%	6.3%	37.5%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	1.3%	0.0%	2.5%	25.0%	12.5%	0.0%	0.0%	37.5%	33.8%	3.8%	22.5%	0.0%	60.0%	100.0%	

AM PEAK HOUR	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 09:15 to 10:15																					
Peak Hour For Entire Intersection Begins at 09:15																					
9:15	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	2	0	1	0	3	6
9:30	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	1	0	3	0	4	8
9:45	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	3	0	2	0	5	9
10:00	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	5	0	3	0	8	12
Total Volume	0	0	0	0	0	0	0	0	0	0	8	7	0	0	15	11	0	9	0	20	35
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		53.3%	46.7%	0.0%	0.0%		55.0%	0.0%	45.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.583	.000	.000	.938	.550	.000	.750	.000	.625	.729

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-002
Date : 10/11/2020

Bank 1 Count = Bikes & Peds

	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	1	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	3
8:45	0	1	0	2	1	0	0	0	1	0	0	0	0	4	0	1	0	0	0	1	2	7
9:00	0	1	0	0	1	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	1	5
9:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	3	3	0	0	0	7	0	0	0	0	7	0	1	0	0	0	1	4	17
9:30	0	1	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
9:45	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	1	2	2	3
10:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	1
Total	0	1	0	4	1	0	0	0	3	0	0	0	0	0	0	4	0	0	1	4	5	8
10:30	0	0	0	2	0	0	0	0	3	0	0	0	0	1	0	1	2	0	0	3	3	6
10:45	0	0	0	0	0	0	0	0	2	0	0	2	0	6	2	0	0	0	0	0	2	8
11:00	0	0	0	1	0	0	0	0	3	0	0	0	0	1	0	3	0	0	0	3	3	5
11:15	0	1	0	3	1	0	0	0	0	0	0	3	0	5	3	1	0	0	0	1	5	8
Total	0	1	0	6	1	0	0	0	8	0	0	5	0	13	5	5	2	0	0	7	13	27
Grand Total	0	5	0	13	5	0	0	0	18	0	0	5	0	20	5	10	2	0	1	12	22	52
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			83.3%	16.7%	0.0%				
Total %	0.0%	22.7%	0.0%		22.7%	0.0%	0.0%	0.0%		0.0%	0.0%	22.7%	0.0%		22.7%	45.5%	9.1%	0.0%		54.5%	100.0%	

AM PEAK HOUR	Mt Zion Dr/Tiffin Dr Southbound					Pine Hollow Rd Westbound					Mt Zion Dr/Tiffin Dr Northbound					Pine Hollow Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 09:15 to 10:15																					
Peak Hour For Entire Intersection Begins at 09:15																					
9:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	1	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
9:45	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	1	2	2
10:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	3	1	0	0	0	5	0	0	0	0	0	0	2	0	0	1	2	3
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			100.0%	0.0%	0.0%			
PHF	.000	.250	.000		.250	.000	.000	.000		.000	.000	.000	.000		.000	.250	.000	.000		.250	.375

National Data Surveying Services

Intersection Turning Movement Count

Location: Mt Zion Dr & Clayton Rd
City: Clayton
Control: 1-Way Stop(NB)

Project ID: 20-080132-003
Date: 10/11/2020

Total

NS/EW Streets:	Mt Zion Dr				Mt Zion Dr				Clayton Rd				Clayton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	0	0	2	0	0	0	0	0	0	43	0	0	0	67	0	0	112
8:45 AM	0	0	2	0	0	0	0	0	0	69	0	0	0	75	0	0	146
9:00 AM	0	0	1	0	0	0	0	0	0	45	0	0	0	95	0	0	141
9:15 AM	0	0	3	0	0	0	0	0	0	56	0	0	0	71	0	0	130
9:30 AM	0	0	5	0	0	0	0	0	0	75	0	0	0	88	0	0	168
9:45 AM	0	0	6	0	0	0	0	0	0	79	0	0	0	93	0	0	178
10:00 AM	0	0	5	0	0	0	0	0	0	79	0	0	0	84	0	0	168
10:15 AM	0	0	1	0	0	0	0	0	0	75	0	0	0	96	0	0	172
10:30 AM	0	0	3	0	0	0	0	0	0	73	0	0	0	100	0	0	176
10:45 AM	0	0	3	0	0	0	0	0	0	98	0	0	0	100	0	0	201
11:00 AM	0	0	1	0	0	0	0	0	0	88	0	0	0	101	0	0	190
11:15 AM	0	0	6	0	0	0	0	0	0	95	0	0	0	124	0	0	225
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	38	0	0	0	0	0	0	875	0	0	0	1094	0	0	2007
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**10:30 AM - 11:30 AM**																TOTAL
PEAK HR VOL :	0	0	13	0	0	0	0	0	0	354	0	0	0	425	0	0	792
PEAK HR FACTOR :	0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.903	0.000	0.000	0.000	0.857	0.000	0.000	0.880
			0.542							0.903				0.857			

National Data Surveying Services
Intersection Turning Movement Count

Location: Mt Zion Dr & Clayton Rd
City: Clayton
Control: 1-Way Stop(NB)

Project ID: 20-080132-003
Date: 10/11/2020

Bikes

NS/EW Streets:	Mt Zion Dr				Mt Zion Dr				Clayton Rd				Clayton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	1	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	8
8:45 AM	0	0	1	0	0	0	0	0	0	2	1	0	0	0	0	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	3
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
9:30 AM	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
9:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
10:15 AM	0	0	2	0	0	0	0	0	0	2	0	0	0	1	0	0	5
10:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
10:45 AM	0	0	2	0	0	0	0	0	0	2	0	0	0	1	0	0	5
11:00 AM	0	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	5
11:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	14	0	0	0	0	0	0	26	3	0	0	7	0	0	51
APPROACH %'s :	6.67%	0.00%	93.33%	0.00%					0.00%	89.66%	10.34%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**10:30 AM - 11:30 AM**																TOTAL
PEAK HR VOL :	0	0	9	0	0	0	0	0	0	4	0	0	0	3	0	0	16
PEAK HR FACTOR :	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.800
			0.750							0.500				0.750			

National Data Surveying Services
Intersection Turning Movement Count

Location: Mt Zion Dr & Clayton Rd
City: Clayton

Project ID: 20-080132-003
Date: 10/11/2020

Pedestrians (Crosswalks)

NS/EW Streets:	Mt Zion Dr		Mt Zion Dr		Clayton Rd		Clayton Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	1
9:00 AM	0	0	1	2	0	0	0	0	3
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	0	1
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	1	0	0	0	0	0	1
11:00 AM	0	0	1	0	0	0	0	0	1
11:15 AM	0	0	0	1	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	5	4	0	0	0	0	9
APPROACH %'s :			55.56%	44.44%					
PEAK HR :	**10:30 AM - 11:30 AM**								TOTAL
PEAK HR VOL :	0	0	2	1	0	0	0	0	3
PEAK HR FACTOR :			0.500	0.250					0.750
			0.750						

Prepared by National Data Surveying Services

Mt Zion Dr & Clayton Rd

Peak Hour Turning Movement Count

ID: 20-080132-003
City: Clayton

Day: Sunday
Date: 10/11/2020

PEAK HOURS

AM	10:30 AM - 11:30 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	08:30 AM - 11:30 AM
NOON	NONE
PM	NONE

Mt Zion Dr — SOUTHBOUND

	Left	Thru	Right	U-Turn	
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Clayton Rd — EASTBOUND

	Left	Thru	Right	U-Turn
AM	425	0	0	0
NOON	0	0	0	0
PM	354	0	0	2
	0	0	0	0

Clayton Rd — WESTBOUND

	Left	Thru	Right	U-Turn
PM	0	0	0	0
NOON	0	0	425	2
AM	0	0	0	0
	0	0	367	0

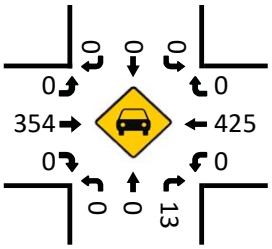
Mt Zion Dr — NORTHBOUND

	Left	Thru	Right	U-Turn	
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	13	AM

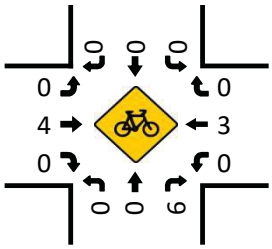
CONTROL: 1-Way Stop(NB)

		AM	NOON	PM
TEV		792	0	0
PHF		0.88		

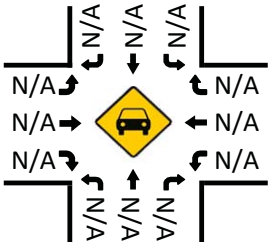
Total Vehicles (AM)



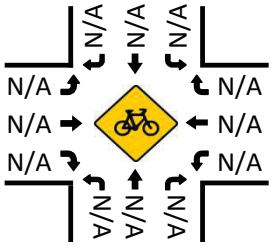
Bikes (AM)



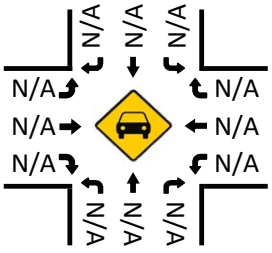
Total Vehicles (Noon)



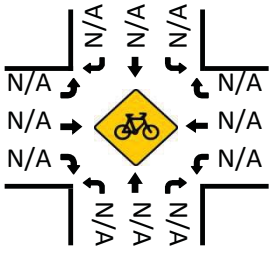
Bikes (NOON)



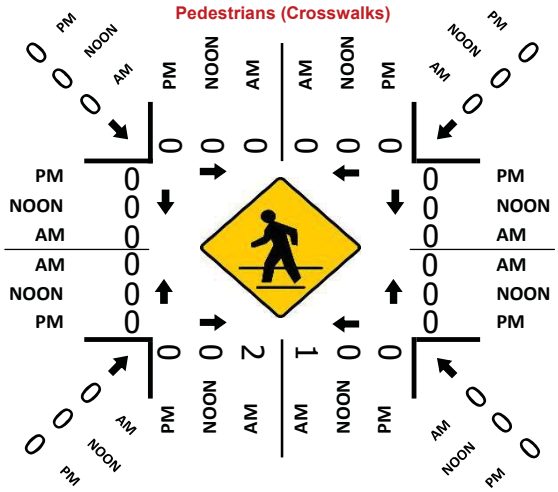
Total Vehicles (PM)



Bikes (PM)



Pedestrians (Crosswalks)



File Name: 20-080132-003
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mt Zion Dr Southbound				Clayton Rd Westbound				Mt Zion Dr Northbound				Clayton Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	399
8:30 AM	0	0	0	0	0	67	0	0	0	0	2	0	0	43	0	0	529
8:45 AM	0	0	0	0	0	75	0	0	0	0	2	0	0	69	0	0	585
9:00 AM	0	0	0	0	0	95	0	0	0	0	1	0	0	45	0	0	617
9:15 AM	0	0	0	0	0	71	0	0	0	0	3	0	0	56	0	0	644
9:30 AM	0	0	0	0	0	88	0	0	0	0	5	0	0	75	0	0	686
9:45 AM	0	0	0	0	0	93	0	0	0	0	6	0	0	79	0	0	694
10:00 AM	0	0	0	0	0	84	0	0	0	0	5	0	0	79	0	0	717
10:15 AM	0	0	0	0	0	96	0	0	0	0	1	0	0	75	0	0	739
10:30 AM	0	0	0	0	0	100	0	0	0	0	3	0	0	73	0	0	792
10:45 AM	0	0	0	0	0	100	0	0	0	0	3	0	0	98	0	0	616
11:00 AM	0	0	0	0	0	101	0	0	0	0	1	0	0	88	0	0	415
11:15 AM	0	0	0	0	0	124	0	0	0	0	6	0	0	95	0	0	225
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: 20-080132-003
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mt Zion Dr Southbound				Clayton Rd Westbound				Mt Zion Dr Northbound				Clayton Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
8:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	6	0	0	17
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	16
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	3	0	1	1	0	14
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	15
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	18
9:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	13
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	3	0	0	16
10:15 AM	0	0	0	0	0	1	0	0	0	0	2	0	0	2	0	0	17
10:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	16
10:45 AM	0	0	0	0	0	1	0	0	0	0	2	1	0	2	0	0	14
11:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	2	0	0	9
11:15 AM	0	0	0	0	0	1	0	0	0	0	3	1	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-003
Date : 10/11/2020

Unshifted Count = All Vehicles & Uturns

	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
8:30	0	0	0	0	0	0	67	0	0	67	0	0	2	0	2	0	43	0	0	43	112	0
8:45	0	0	0	0	0	0	75	0	0	75	0	0	2	0	2	0	69	0	0	69	146	0
9:00	0	0	0	0	0	0	95	0	0	95	0	0	1	0	1	0	45	0	0	45	141	0
9:15	0	0	0	0	0	0	71	0	0	71	0	0	3	0	3	0	56	0	0	56	130	0
Total	0	0	0	0	0	0	308	0	0	308	0	0	8	0	8	0	213	0	0	213	529	0
9:30	0	0	0	0	0	0	88	0	0	88	0	0	5	0	5	0	75	0	0	75	168	0
9:45	0	0	0	0	0	0	93	0	0	93	0	0	6	0	6	0	79	0	0	79	178	0
10:00	0	0	0	0	0	0	84	0	0	84	0	0	5	0	5	0	79	0	0	79	168	0
10:15	0	0	0	0	0	0	96	0	0	96	0	0	1	0	1	0	75	0	0	75	172	0
Total	0	0	0	0	0	0	361	0	0	361	0	0	17	0	17	0	308	0	0	308	686	0
10:30	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	73	0	0	73	176	0
10:45	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	98	0	0	98	201	0
11:00	0	0	0	0	0	0	101	0	0	101	0	0	1	0	1	0	88	0	0	88	190	0
11:15	0	0	0	0	0	0	124	0	0	124	0	0	6	0	6	0	95	0	0	95	225	0
Total	0	0	0	0	0	0	425	0	0	425	0	0	13	0	13	0	354	0	0	354	792	0
Grand Total	0	0	0	0	0	0	1094	0	0	1094	0	0	38	0	38	0	875	0	0	875	2007	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.5%	0.0%	0.0%	54.5%	0.0%	0.0%	1.9%	0.0%	1.9%	0.0%	43.6%	0.0%	0.0%	43.6%	100.0%	

AM PEAK HOUR	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	73	0	0	73	176
10:45	0	0	0	0	0	0	100	0	0	100	0	0	3	0	3	0	98	0	0	98	201
11:00	0	0	0	0	0	0	101	0	0	101	0	0	1	0	1	0	88	0	0	88	190
11:15	0	0	0	0	0	0	124	0	0	124	0	0	6	0	6	0	95	0	0	95	225
Total Volume	0	0	0	0	0	0	425	0	0	425	0	0	13	0	13	0	354	0	0	354	792
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.857	.000	.000	.857	.000	.000	.542	.000	.542	.000	.903	.000	.000	.903	.880

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-003
Date : 10/11/2020

Bank 1 Count = Bikes & Peds

	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	6	0	0	6	8	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	1	0	3	4	1
9:00	0	0	0	0	0	0	1	0	0	1	0	0	0	3	0	0	1	1	0	2	3	3
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0
Total	0	0	0	0	0	0	2	0	0	2	1	0	1	4	2	0	11	2	0	13	17	4
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6	1	0	7	7	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0
10:00	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	3	0	0	3	4	1
10:15	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	5	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	4	2	4	0	11	1	0	12	18	2
10:30	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2	0
10:45	0	0	0	0	0	0	1	0	0	1	0	0	2	1	2	0	2	0	0	2	5	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	0	2	0	0	2	5	1
11:15	0	0	0	0	0	0	1	0	0	1	0	0	3	1	3	0	0	0	0	0	4	1
Total	0	0	0	0	0	0	3	0	0	3	0	0	9	3	9	0	4	0	0	4	16	3
Grand Total	0	0	0	0	0	0	7	0	0	7	1	0	14	9	15	0	26	3	0	29	51	9
Apprch %	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			6.7%	0.0%	93.3%			0.0%	89.7%	10.3%				
Total %	0.0%	0.0%	0.0%		0.0%	0.0%	13.7%	0.0%		13.7%	2.0%	0.0%	27.5%		29.4%	0.0%	51.0%	5.9%		56.9%	100.0%	

AM PEAK HOUR	Mt Zion Dr Southbound					Clayton Rd Westbound					Mt Zion Dr Northbound					Clayton Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
10:45	0	0	0	0	0	0	1	0	0	1	0	0	2	1	2	0	2	0	0	2	5
11:00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	0	2	0	0	2	5
11:15	0	0	0	0	0	0	1	0	0	1	0	0	3	1	3	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	9	3	9	0	4	0	0	4	16
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.750	.000		.750	.000	.000	.750		.750	.000	.500	.000		.500	.800

National Data Surveying Services

Intersection Turning Movement Count

Location: Mitchell Canyon Rd & Pine Hollow Rd
City: Clayton
Control: 4-Way Stop

Project ID: 20-080132-004
Date: 10/11/2020

Total

NS/EW Streets:	Mitchell Canyon Rd				Mitchell Canyon Rd				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
8:30 AM	2	3	0	0	0	6	6	0	2	3	2	0	0	1	1	0	26
8:45 AM	2	6	0	0	1	4	7	0	3	1	4	0	0	0	1	0	29
9:00 AM	5	7	0	0	0	8	10	0	0	1	3	0	0	0	1	0	35
9:15 AM	4	7	0	0	1	5	7	0	7	2	3	0	0	1	1	0	38
9:30 AM	2	5	0	0	3	6	6	0	9	1	7	0	0	1	2	0	42
9:45 AM	8	8	1	0	1	9	14	0	6	3	10	0	0	0	0	0	60
10:00 AM	6	8	0	0	2	12	6	0	9	6	12	0	0	2	3	0	66
10:15 AM	10	8	1	0	1	7	8	0	9	2	13	0	1	0	1	0	61
10:30 AM	5	8	0	0	2	7	4	0	7	3	5	0	0	2	0	0	43
10:45 AM	2	11	0	0	1	15	12	0	16	3	1	0	0	1	1	0	63
11:00 AM	9	14	0	0	4	11	4	0	7	1	11	0	0	0	1	0	62
11:15 AM	4	12	0	0	2	10	14	0	11	4	4	0	0	1	2	0	64
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	97	2	0	18	100	98	0	86	30	75	0	1	9	14	0	589
APPROACH %'s :	37.34%	61.39%	1.27%	0.00%	8.33%	46.30%	45.37%	0.00%	45.03%	15.71%	39.27%	0.00%	4.17%	37.50%	58.33%	0.00%	
PEAK HR :	10:00 AM - 11:00 AM																TOTAL
PEAK HR VOL :	23	35	1	0	6	41	30	0	41	14	31	0	1	5	5	0	233
PEAK HR FACTOR :	0.575	0.795	0.250	0.000	0.750	0.683	0.625	0.000	0.641	0.583	0.596	0.000	0.250	0.625	0.417	0.000	0.883
	0.776				0.688				0.796				0.550				

National Data Surveying Services
Intersection Turning Movement Count

Location: Mitchell Canyon Rd & Pine Hollow Rd
City: Clayton
Control: 4-Way Stop

Project ID: 20-080132-004
Date: 10/11/2020

Bikes

NS/EW Streets:	Mitchell Canyon Rd				Mitchell Canyon Rd				Pine Hollow Rd				Pine Hollow Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
9:00 AM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3
9:15 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
9:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	1	0	2	2	0	0	0	0	0	0	5
10:30 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	4
10:45 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3
11:00 AM	1	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	5
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	4	0	0	0	2	3	0	4	13	6	0	0	0	0	0	34
APPROACH %'s :	33.33%	66.67%	0.00%	0.00%	0.00%	40.00%	60.00%	0.00%	17.39%	56.52%	26.09%	0.00%					
PEAK HR :	**10:00 AM - 11:00 AM**																TOTAL
PEAK HR VOL :	0	2	0	0	0	0	1	0	2	6	1	0	0	0	0	0	12
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.600
	0.500				0.250				0.563								

National Data Surveying Services
Intersection Turning Movement Count

Location: Mitchell Canyon Rd & Pine Hollow Rd
City: Clayton

Project ID: 20-080132-004
Date: 10/11/2020

Pedestrians (Crosswalks)

NS/EW Streets:	Mitchell Canyon Rd		Mitchell Canyon Rd		Pine Hollow Rd		Pine Hollow Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
8:30 AM	0	1	0	2	0	0	0	0	3
8:45 AM	3	1	4	1	0	0	0	1	10
9:00 AM	4	2	1	3	1	4	0	2	17
9:15 AM	0	0	1	3	0	0	0	0	4
9:30 AM	0	0	1	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	1	0	1
10:00 AM	2	0	0	1	0	1	0	0	4
10:15 AM	0	1	0	0	0	0	0	0	1
10:30 AM	1	0	1	0	1	0	0	0	3
10:45 AM	0	0	2	4	0	0	0	0	6
11:00 AM	0	0	0	1	0	0	0	1	2
11:15 AM	2	1	1	5	0	0	0	0	9
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	12	6	11	20	2	5	1	4	61
APPROACH %'s :	66.67%	33.33%	35.48%	64.52%	28.57%	71.43%	20.00%	80.00%	
PEAK HR :	**10:00 AM - 11:00 AM**								TOTAL
PEAK HR VOL :	3	1	3	5	1	1	0	0	14
PEAK HR FACTOR :	0.375	0.250	0.375	0.313	0.250	0.250			0.583
	0.500		0.333		0.500				

Prepared by National Data Surveying Services

Mitchell Canyon Rd & Pine Hollow Rd

Peak Hour Turning Movement Count

ID: 20-080132-004
City: Clayton

Day: Sunday
Date: 10/11/2020

PEAK HOURS

AM	10:00 AM - 11:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	08:30 AM - 11:30 AM
NOON	NONE
PM	NONE

Mitchell Canyon Rd — SOUTHBOUND

	L	T	R	U	Total	
AM	30	41	6	0	81	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

Pine Hollow Rd — EASTBOUND

	L	T	R	U	
AM	58	0	0	0	AM
NOON	0	0	0	1	NOON
PM	0	0	0	0	PM

	L	T	R	U	
AM	41	0	0	0	AM
NOON	14	0	0	1	NOON
PM	31	0	0	0	PM

Pine Hollow Rd — WESTBOUND

	L	T	R	U	
PM	0	0	5	0	PM
NOON	0	0	5	1	NOON
AM	0	0	1	0	AM

	L	T	R	U	
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	21	0	AM

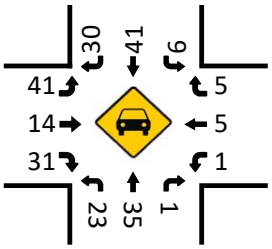
Mitchell Canyon Rd — NORTHBOUND

	L	T	R	U	Total	
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	73	0	23	35	1	AM

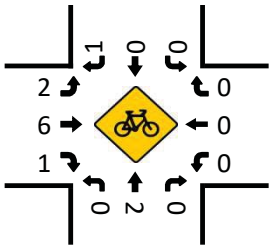
CONTROL: 4-Way Stop

	Total	AM	NOON	PM
TEV	233	0	0	
PHF	0.88			

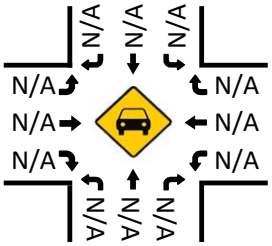
Total Vehicles (AM)



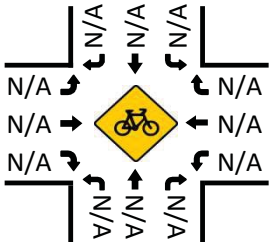
Bikes (AM)



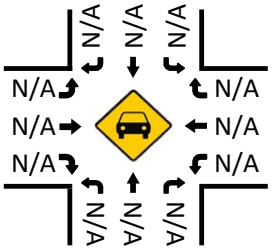
Total Vehicles (Noon)



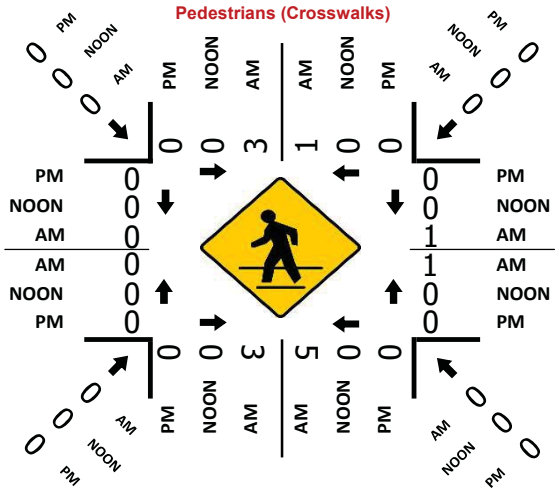
Bikes (NOON)



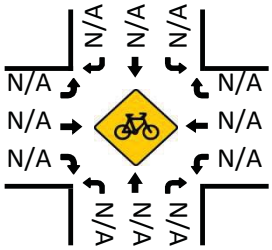
Total Vehicles (PM)



Pedestrians (Crosswalks)



Bikes (PM)



File Name: 20-080132-004
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mitchell Canyon Rd Southbound				Pine Hollow Rd Westbound				Mitchell Canyon Rd Northbound				Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
8:30 AM	0	6	6	0	0	1	1	0	2	3	0	0	2	3	2	0	128
8:45 AM	1	4	7	0	0	0	1	0	2	6	0	0	3	1	4	0	144
9:00 AM	0	8	10	0	0	0	1	0	5	7	0	0	0	1	3	0	175
9:15 AM	1	5	7	0	0	1	1	0	4	7	0	0	7	2	3	0	206
9:30 AM	3	6	6	0	0	1	2	0	2	5	0	0	9	1	7	0	229
9:45 AM	1	9	14	0	0	0	0	0	8	8	1	0	6	3	10	0	230
10:00 AM	2	12	6	0	0	2	3	0	6	8	0	0	9	6	12	0	233
10:15 AM	1	7	8	0	1	0	1	0	10	8	1	0	9	2	13	0	229
10:30 AM	2	7	4	0	0	2	0	0	5	8	0	0	7	3	5	0	232
10:45 AM	1	15	12	0	0	1	1	0	2	11	0	0	16	3	1	0	189
11:00 AM	4	11	4	0	0	0	1	0	9	14	0	0	7	1	11	0	126
11:15 AM	2	10	14	0	0	1	2	0	4	12	0	0	11	4	4	0	64
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: 20-080132-004
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mitchell Canyon Rd Southbound				Pine Hollow Rd Westbound				Mitchell Canyon Rd Northbound				Pine Hollow Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
8:30 AM	0	0	1	1	0	0	0	0	0	0	0	2	0	0	4	0	12
8:45 AM	0	0	0	4	0	0	0	0	0	0	0	5	0	1	0	1	8
9:00 AM	0	1	1	6	0	0	0	5	0	1	0	4	0	0	0	2	10
9:15 AM	0	1	0	0	0	0	0	0	1	1	0	4	0	0	0	0	7
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	9
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	12
10:00 AM	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	12
10:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	2	2	0	0	17
10:30 AM	0	0	0	1	0	0	0	1	0	1	0	1	0	3	0	0	13
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	6	0	1	1	0	9
11:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	3	0	1	6
11:15 AM	0	0	0	3	0	0	0	0	0	0	0	6	0	1	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-004
Date : 10/11/2020

Unshifted Count = All Vehicles & Uturns

	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
8:30	0	6	6	0	12	0	1	1	0	2	2	3	0	0	5	2	3	2	0	7	26	0
8:45	1	4	7	0	12	0	0	1	0	1	2	6	0	0	8	3	1	4	0	8	29	0
9:00	0	8	10	0	18	0	0	1	0	1	5	7	0	0	12	0	1	3	0	4	35	0
9:15	1	5	7	0	13	0	1	1	0	2	4	7	0	0	11	7	2	3	0	12	38	0
Total	2	23	30	0	55	0	2	4	0	6	13	23	0	0	36	12	7	12	0	31	128	0
9:30	3	6	6	0	15	0	1	2	0	3	2	5	0	0	7	9	1	7	0	17	42	0
9:45	1	9	14	0	24	0	0	0	0	0	8	8	1	0	17	6	3	10	0	19	60	0
10:00	2	12	6	0	20	0	2	3	0	5	6	8	0	0	14	9	6	12	0	27	66	0
10:15	1	7	8	0	16	1	0	1	0	2	10	8	1	0	19	9	2	13	0	24	61	0
Total	7	34	34	0	75	1	3	6	0	10	26	29	2	0	57	33	12	42	0	87	229	0
10:30	2	7	4	0	13	0	2	0	0	2	5	8	0	0	13	7	3	5	0	15	43	0
10:45	1	15	12	0	28	0	1	1	0	2	2	11	0	0	13	16	3	1	0	20	63	0
11:00	4	11	4	0	19	0	0	1	0	1	9	14	0	0	23	7	1	11	0	19	62	0
11:15	2	10	14	0	26	0	1	2	0	3	4	12	0	0	16	11	4	4	0	19	64	0
Total	9	43	34	0	86	0	4	4	0	8	20	45	0	0	65	41	11	21	0	73	232	0
Grand Total	18	100	98	0	216	1	9	14	0	24	59	97	2	0	158	86	30	75	0	191	589	0
Apprch %	8.3%	46.3%	45.4%	0.0%		4.2%	37.5%	58.3%	0.0%		37.3%	61.4%	1.3%	0.0%		45.0%	15.7%	39.3%	0.0%			
Total %	3.1%	17.0%	16.6%	0.0%	36.7%	0.2%	1.5%	2.4%	0.0%	4.1%	10.0%	16.5%	0.3%	0.0%	26.8%	14.6%	5.1%	12.7%	0.0%	32.4%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 10:00 to 11:00																					
Peak Hour For Entire Intersection Begins at 10:00																					
10:00	2	12	6	0	20	0	2	3	0	5	6	8	0	0	14	9	6	12	0	27	66
10:15	1	7	8	0	16	1	0	1	0	2	10	8	1	0	19	9	2	13	0	24	61
10:30	2	7	4	0	13	0	2	0	0	2	5	8	0	0	13	7	3	5	0	15	43
10:45	1	15	12	0	28	0	1	1	0	2	2	11	0	0	13	16	3	1	0	20	63
Total Volume	6	41	30	0	77	1	5	5	0	11	23	35	1	0	59	41	14	31	0	86	233
% App Total	7.8%	53.2%	39.0%	0.0%		9.1%	45.5%	45.5%	0.0%		39.0%	59.3%	1.7%	0.0%		47.7%	16.3%	36.0%	0.0%		
PHF	.750	.683	.625	.000	.688	.250	.625	.417	.000	.550	.575	.795	.250	.000	.776	.641	.583	.596	.000	.796	.883

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-004
Date : 10/11/2020

Bank 1 Count = Bikes & Peds

	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	0	1	1	1	0	0	0	0	0	0	0	0	2	0	0	0	4	0	4	5	3
8:45	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0	0	1	0	1	1	1	10
9:00	0	1	1	6	2	0	0	0	5	0	0	1	0	4	1	0	0	0	2	0	3	17
9:15	0	1	0	0	1	0	0	0	0	0	1	1	0	4	2	0	0	0	0	0	3	4
Total	0	2	2	11	4	0	0	0	5	0	1	2	0	15	3	0	1	4	3	5	12	34
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	3	3	1
10:00	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4
10:15	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	5	1
Total	0	0	1	3	1	0	0	0	1	0	0	0	0	2	0	3	4	1	1	8	9	7
10:30	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	3	0	0	3	4	3
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	1	1	0	2	3	6
11:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	1	4	5	2
11:15	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	1	1	9
Total	0	0	0	4	0	0	0	0	1	0	1	2	0	14	3	1	8	1	1	10	13	20
Grand Total	0	2	3	18	5	0	0	0	7	0	2	4	0	31	6	4	13	6	5	23	34	61
Apprch %	0.0%	40.0%	60.0%			0.0%	0.0%	0.0%			33.3%	66.7%	0.0%			17.4%	56.5%	26.1%				
Total %	0.0%	5.9%	8.8%		14.7%	0.0%	0.0%	0.0%		0.0%	5.9%	11.8%	0.0%		17.6%	11.8%	38.2%	17.6%		67.6%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Pine Hollow Rd Westbound					Mitchell Canyon Rd Northbound					Pine Hollow Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:00 to 11:00																					
Peak Hour For Entire Intersection Begins at 10:00																					
10:00	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
10:15	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	5
10:30	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	3	0	0	3	4
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	1	1	0	2	3
Total Volume	0	0	1	4	1	0	0	0	2	0	0	2	0	8	2	2	6	1	0	9	12
% App Total	0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			22.2%	66.7%	11.1%			
PHF	.000	.000	.250		.250	.000	.000	.000		.000	.000	.500	.000		.500	.250	.500	.250		.563	.600

National Data Surveying Services

Intersection Turning Movement Count

Location: Mitchell Canyon Rd & Clayton Rd
City: Clayton
Control: Signalized

Project ID: 20-080132-005
Date: 10/11/2020

Total

NS/EW Streets:	Mitchell Canyon Rd				Mitchell Canyon Rd				Clayton Rd				Clayton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	3	1	3	0	0	2	2	0	1	40	5	0	6	58	1	0	122
8:45 AM	6	0	4	0	1	0	1	0	0	65	4	0	9	64	1	1	156
9:00 AM	9	0	3	0	0	0	0	0	2	43	6	0	12	82	0	0	157
9:15 AM	5	1	10	0	0	0	4	0	3	44	5	0	8	64	0	0	144
9:30 AM	7	0	9	0	0	1	1	0	0	65	7	0	9	72	1	0	172
9:45 AM	10	0	9	0	2	1	2	0	1	68	4	0	17	82	0	0	196
10:00 AM	9	0	12	0	2	0	4	0	1	66	12	0	12	71	2	0	191
10:15 AM	6	1	11	0	5	1	3	0	2	59	5	0	10	81	2	0	186
10:30 AM	4	1	9	0	0	3	0	0	2	66	6	0	6	96	0	0	193
10:45 AM	13	0	16	0	1	2	0	0	2	79	14	0	14	86	1	0	228
11:00 AM	11	1	10	0	1	1	1	0	1	74	8	0	13	87	1	1	210
11:15 AM	11	2	16	0	3	1	2	0	2	77	8	0	16	105	2	0	245
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	94	7	112	0	15	12	20	0	17	746	84	0	132	948	11	2	2200
APPROACH %'s :	44.13%	3.29%	52.58%	0.00%	31.91%	25.53%	42.55%	0.00%	2.01%	88.08%	9.92%	0.00%	12.08%	86.73%	1.01%	0.18%	
PEAK HR :	**10:30 AM - 11:30 AM**																TOTAL
PEAK HR VOL :	39	4	51	0	5	7	3	0	7	296	36	0	49	374	4	1	876
PEAK HR FACTOR :	0.750	0.500	0.797	0.000	0.417	0.583	0.375	0.000	0.875	0.937	0.643	0.000	0.766	0.890	0.500	0.250	0.894
			0.810				0.625				0.892				0.870		

National Data Surveying Services
Intersection Turning Movement Count

Location: Mitchell Canyon Rd & Clayton Rd
City: Clayton
Control: Signalized

Project ID: 20-080132-005
Date: 10/11/2020

Bikes

NS/EW Streets:	Mitchell Canyon Rd				Mitchell Canyon Rd				Clayton Rd				Clayton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:30 AM	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	0	7
8:45 AM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
9:00 AM	0	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	4
9:15 AM	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	4
9:30 AM	1	0	1	0	0	0	0	0	0	6	0	0	0	0	0	0	8
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
10:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
10:45 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	4
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	1	5	0	2	1	0	0	0	22	1	0	3	4	0	0	42
APPROACH %'s :	33.33%	11.11%	55.56%	0.00%	66.67%	33.33%	0.00%	0.00%	0.00%	95.65%	4.35%	0.00%	42.86%	57.14%	0.00%	0.00%	
PEAK HR :	**10:30 AM - 11:30 AM**																TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	0	0	4	0	0	0	3	0	0	9
PEAK HR FACTOR :	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.563
			0.500							0.500				0.750			

National Data Surveying Services
Intersection Turning Movement Count

Location: Mitchell Canyon Rd & Clayton Rd
City: Clayton

Project ID: 20-080132-005
Date: 10/11/2020

Pedestrians (Crosswalks)

NS/EW Streets:	Mitchell Canyon Rd		Mitchell Canyon Rd		Clayton Rd		Clayton Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	1	0	0	0	0	0	3
9:00 AM	0	1	1	1	0	0	0	0	3
9:15 AM	0	3	0	0	0	2	0	0	5
9:30 AM	2	1	0	0	0	2	0	0	5
9:45 AM	2	1	0	0	0	0	0	0	3
10:00 AM	0	1	0	1	1	1	0	0	4
10:15 AM	0	2	0	0	0	0	0	0	2
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	1	0	0	2
11:00 AM	0	2	1	1	0	1	0	0	5
11:15 AM	2	1	0	1	0	0	0	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	7	14	3	4	1	7	0	0	36
APPROACH %'s :	33.33%	66.67%	42.86%	57.14%	12.50%	87.50%			
PEAK HR :	**10:30 AM - 11:30 AM**								TOTAL
PEAK HR VOL :	3	3	1	2	0	2	0	0	11
PEAK HR FACTOR :	0.375	0.375	0.250	0.500		0.500			0.550
	0.500		0.375		0.500				

Prepared by National Data Surveying Services

Mitchell Canyon Rd & Clayton Rd

Peak Hour Turning Movement Count

ID: 20-080132-005
City: Clayton

Day: Sunday
Date: 10/11/2020

	PEAK HOURS	COUNT PERIODS
AM	10:30 AM - 11:30 AM	08:30 AM - 11:30 AM
NOON	NONE	NONE
PM	NONE	NONE

Mitchell Canyon Rd — SOUTHBOUND

	U-turn	Right	Through	Left	Approach (exit)
AM	3	7	5	0	15
NOON	0	0	0	0	0
PM	0	0	0	0	0
(red)	0	1	0	0	

Clayton Rd — WESTBOUND

	PM	NOON	AM	(red)
Right	0	0	4	0
Through	0	0	374	2
Left	0	0	49	1
U-turn	0	0	1	0
Exit	0	0	353	

Clayton Rd — EASTBOUND

	AM	NOON	PM	(red)
Exit	416	0	0	
U-turn	0	0	0	0
Left	7	0	0	1
Through	296	0	0	2
Right	36	0	0	0

Mitchell Canyon Rd — NORTHBOUND

	Exit	U-turn	Left	Through	Right
(red)		0	0	1	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	92	0	39	4	51

CONTROL

Signalized

	AM	NOON	PM
TEV	876	0	0
PHF	0.89		

Total Vehicles (AM)

Approach	U-turn	Left	Through	Right
Southbound	3	5	7	
Eastbound		7	296	36
Westbound	4	49	374	
Northbound		39	4	51

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

All movements: N/A

Bikes (AM)

Approach	Movements
Southbound	0, 0, 0
Eastbound	0, 4, 0
Westbound	0, 3, 0
Northbound	1, 1, 0

Bikes (NOON)

All movements: N/A

Bikes (PM)

All movements: N/A

Pedestrians (Crosswalks)

Crosswalk		AM	NOON	PM
North	west half	3	0	0
North	east half	3	0	0
West	southbound	0	0	0
West	northbound	0	0	0
East	southbound	2	0	0
East	northbound	0	0	0
South	west half	1	0	0
South	east half	2	0	0

File Name: 20-080132-005
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mitchell Canyon Rd Southbound				Clayton Rd Westbound				Mitchell Canyon Rd Northbound				Clayton Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	LEFT	THRU	RIGHT	UTURNS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	122
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	277
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	434
8:30 AM	0	2	2	0	6	58	1	0	3	1	3	0	1	40	5	0	578
8:45 AM	1	0	1	0	9	64	1	1	6	0	4	0	0	65	4	0	628
9:00 AM	0	0	0	0	12	82	0	0	9	0	3	0	2	43	6	0	669
9:15 AM	0	0	4	0	8	64	0	0	5	1	10	0	3	44	5	0	703
9:30 AM	0	1	1	0	9	72	1	0	7	0	9	0	0	65	7	0	745
9:45 AM	2	1	2	0	17	82	0	0	10	0	9	0	1	68	4	0	766
10:00 AM	2	0	4	0	12	71	2	0	9	0	12	0	1	66	12	0	798
10:15 AM	5	1	3	0	10	81	2	0	6	1	11	0	2	59	5	0	816
10:30 AM	0	3	0	0	6	96	0	0	4	1	9	0	2	66	6	0	875
10:45 AM	1	2	0	0	14	86	1	0	13	0	16	0	2	79	14	0	682
11:00 AM	1	1	1	0	13	87	1	1	11	1	10	0	1	74	8	0	454
11:15 AM	3	1	2	0	16	105	2	0	11	2	16	0	2	77	8	0	245
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: 20-080132-005
Start Date: 10/11/2020
Start Time: 8:30 AM
Site Code:
Comment 1: City of Clayton
Comment 2:
Comment 3:
Comment 4:

	Mitchell Canyon Rd Southbound				Clayton Rd Westbound				Mitchell Canyon Rd Northbound				Clayton Rd Eastbound				
Start Time	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	LEFT	THRU	RIGHT	PEDS	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	6	0	0	18
8:45 AM	0	0	0	2	0	0	0	0	0	0	1	1	0	2	0	0	19
9:00 AM	0	0	0	1	1	0	0	0	0	0	1	2	0	1	1	0	16
9:15 AM	2	1	0	3	0	0	0	2	1	0	0	0	0	0	0	0	16
9:30 AM	0	0	0	3	0	0	0	2	1	0	1	0	0	6	0	0	15
9:45 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	9
10:00 AM	0	0	0	1	0	1	0	2	0	0	0	1	0	3	0	0	13
10:15 AM	0	0	0	2	1	0	0	0	0	0	2	0	0	0	0	0	11
10:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	9
10:45 AM	0	0	0	1	0	1	0	1	1	0	0	0	0	2	0	0	7
11:00 AM	0	0	0	2	0	0	0	1	0	0	0	2	0	2	0	0	3
11:15 AM	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-005
Date : 10/11/2020

Unshifted Count = All Vehicles & Uturns

	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
8:30	0	2	2	0	4	6	58	1	0	65	3	1	3	0	7	1	40	5	0	46	122	0
8:45	1	0	1	0	2	9	64	1	1	75	6	0	4	0	10	0	65	4	0	69	156	1
9:00	0	0	0	0	0	12	82	0	0	94	9	0	3	0	12	2	43	6	0	51	157	0
9:15	0	0	4	0	4	8	64	0	0	72	5	1	10	0	16	3	44	5	0	52	144	0
Total	1	2	7	0	10	35	268	2	1	306	23	2	20	0	45	6	192	20	0	218	579	1
9:30	0	1	1	0	2	9	72	1	0	82	7	0	9	0	16	0	65	7	0	72	172	0
9:45	2	1	2	0	5	17	82	0	0	99	10	0	9	0	19	1	68	4	0	73	196	0
10:00	2	0	4	0	6	12	71	2	0	85	9	0	12	0	21	1	66	12	0	79	191	0
10:15	5	1	3	0	9	10	81	2	0	93	6	1	11	0	18	2	59	5	0	66	186	0
Total	9	3	10	0	22	48	306	5	0	359	32	1	41	0	74	4	258	28	0	290	745	0
10:30	0	3	0	0	3	6	96	0	0	102	4	1	9	0	14	2	66	6	0	74	193	0
10:45	1	2	0	0	3	14	86	1	0	101	13	0	16	0	29	2	79	14	0	95	228	0
11:00	1	1	1	0	3	13	87	1	1	102	11	1	10	0	22	1	74	8	0	83	210	1
11:15	3	1	2	0	6	16	105	2	0	123	11	2	16	0	29	2	77	8	0	87	245	0
Total	5	7	3	0	15	49	374	4	1	428	39	4	51	0	94	7	296	36	0	339	876	1
Grand Total	15	12	20	0	47	132	948	11	2	1093	94	7	112	0	213	17	746	84	0	847	2200	2
Apprch %	31.9%	25.5%	42.6%	0.0%		12.1%	86.7%	1.0%	0.2%		44.1%	3.3%	52.6%	0.0%		2.0%	88.1%	9.9%	0.0%			
Total %	0.7%	0.5%	0.9%	0.0%	2.1%	6.0%	43.1%	0.5%	0.1%	49.7%	4.3%	0.3%	5.1%	0.0%	9.7%	0.8%	33.9%	3.8%	0.0%	38.5%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	3	0	0	3	6	96	0	0	102	4	1	9	0	14	2	66	6	0	74	193
10:45	1	2	0	0	3	14	86	1	0	101	13	0	16	0	29	2	79	14	0	95	228
11:00	1	1	1	0	3	13	87	1	1	102	11	1	10	0	22	1	74	8	0	83	210
11:15	3	1	2	0	6	16	105	2	0	123	11	2	16	0	29	2	77	8	0	87	245
Total Volume	5	7	3	0	15	49	374	4	1	428	39	4	51	0	94	7	296	36	0	339	876
% App Total	33.3%	46.7%	20.0%	0.0%		11.4%	87.4%	0.9%	0.2%		41.5%	4.3%	54.3%	0.0%		2.1%	87.3%	10.6%	0.0%		
PHF	.417	.583	.375	.000	.625	.766	.890	.500	.250	.870	.750	.500	.797	.000	.810	.875	.937	.643	.000	.892	.894

ALL TRAFFIC DATA

City of Clayton

(916) 771-8700
orders@atdtraffic.com

File Name : 20-080132-005
Date : 10/11/2020

Bank 1 Count = Bikes & Peds

	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
8:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	6	0	0	6	7	0
8:45	0	0	0	2	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	2	3	3
9:00	0	0	0	1	0	1	0	0	0	1	0	0	1	2	1	0	1	1	0	2	4	3
9:15	2	1	0	3	3	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	4	5
Total	2	1	0	6	3	2	0	0	2	2	1	0	2	3	3	0	9	1	0	10	18	11
9:30	0	0	0	3	0	0	0	0	2	0	1	0	1	0	2	0	6	0	0	6	8	5
9:45	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:00	0	0	0	1	0	0	1	0	2	1	0	0	0	1	0	0	3	0	0	3	4	4
10:15	0	0	0	2	0	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	3	2
Total	0	0	0	9	0	1	1	0	4	2	1	0	3	1	4	0	9	0	0	9	15	14
10:30	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2	0
10:45	0	0	0	1	0	0	1	0	1	1	1	0	0	0	1	0	2	0	0	2	4	2
11:00	0	0	0	2	0	0	0	0	1	0	0	0	0	2	0	0	2	0	0	2	2	5
11:15	0	0	0	3	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	4
Total	0	0	0	6	0	0	3	0	2	3	1	1	0	3	2	0	4	0	0	4	9	11
Grand Total	2	1	0	21	3	3	4	0	8	7	3	1	5	7	9	0	22	1	0	23	42	36
Apprch %	66.7%	33.3%	0.0%			42.9%	57.1%	0.0%			33.3%	11.1%	55.6%			0.0%	95.7%	4.3%				
Total %	4.8%	2.4%	0.0%		7.1%	7.1%	9.5%	0.0%		16.7%	7.1%	2.4%	11.9%		21.4%	0.0%	52.4%	2.4%		54.8%	100.0%	

AM PEAK HOUR	Mitchell Canyon Rd Southbound					Clayton Rd Westbound					Mitchell Canyon Rd Northbound					Clayton Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 10:30 to 11:30																					
Peak Hour For Entire Intersection Begins at 10:30																					
10:30	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
10:45	0	0	0	1	0	0	1	0	1	1	1	0	0	0	1	0	2	0	0	2	4
11:00	0	0	0	2	0	0	0	0	1	0	0	0	0	2	0	0	2	0	0	2	2
11:15	0	0	0	3	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	6	0	0	3	0	2	3	1	1	0	3	2	0	4	0	0	4	9
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			50.0%	50.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.750	.000		.750	.250	.250	.000		.500	.000	.500	.000		.500	.563

Appendix C – Mt. Diablo Elementary School Bell Schedule and Circulation Plan

POLICIES

Attendance
Arrival and Departure
Bell Schedule
Medications
Office Procedures
Volunteering

Arrival and Departure

ARRIVAL

Students should arrive at school no earlier than 7:30 a.m., 15 minutes before school starts. Whether students come to school by car, bicycle, or foot, they are expected to follow the 15-minute rule. **Supervision begins at 7:30 a.m.**

Drop off and pick-up procedures and a map can be found here.

- The new system is designed to alleviate congestion and increase our children's safety; please be patient and make it work!
- If you have children in multiple grade levels, please choose one drop-off/pick-up point for your whole family.
- If you need to park at drop-off or pick-up time, remember that the bus lane is now on Mt. Zion Drive in front of the school and you will not be able to park there.

DEPARTURE/PICKUP

We respectfully request that parents wait quietly for students away from all classroom doors and hallways until the dismissal bell rings, as teaching and learning are in progress. Parents may wait in front of the school, in the MUR, or under the covered table area starting at 2:10, M,T,TH,F and at 12:15 on Wednesday.

Students must leave the campus when they are dismissed unless there is an activity they need to attend that starts immediately after school. They may return to school for activities which take place later in the day. Students who are not picked up 15 minutes after dismissal are unsupervised.

Parents should instruct their children to report to the school office in the event that they may be uncertain of anything at the dismissal time.

POLICIES

Attendance
Arrival and Departure
Bell Schedule
Medications
Office Procedures
Volunteering

Bell Schedule

School at Mt. Diablo Elementary begins at 7:40 AM!

Wednesday is early release day for TK/Kinder Late Friends (12:30 PM)

and students in grades 1-5 (12:25 PM).

MT. DIABLO ELEMENTARY

School Bell Schedule

2019 - 2020

TK & Kindergarten

Monday through Friday	Early Session	7:40am-11:15am
	Late Session	9:45am-1:15pm
Wednesday	Early Session	7:40am-10:45am
	Late Session	9:30am-12:30pm

Grades 1st – 5th

Monday, Tuesday, Thursday, Friday	7:40am-2:15pm
Wednesday	7:40am-12:25pm

Morning Recess

Grades 1st, 2nd, 3rd	9:15am-9:35am
Grades 4th, 5th	9:40am-10:00am

Lunch Schedule

Grade 1	10:50am-11:25am
Grade 2/3	11:25am-12:00pm
Grades 4/5	12:00pm-12:35pm

Afternoon Recess

Grades 1st, 2nd, 3rd	1:15pm-1:30pm

Wednesday Recess

Grade1st, 2nd	9:00am-9:10am
Grade 3rd	9:20am-9:30am
Grade 4th, 5th	9:40am-9:50am

Wednesday Brunch

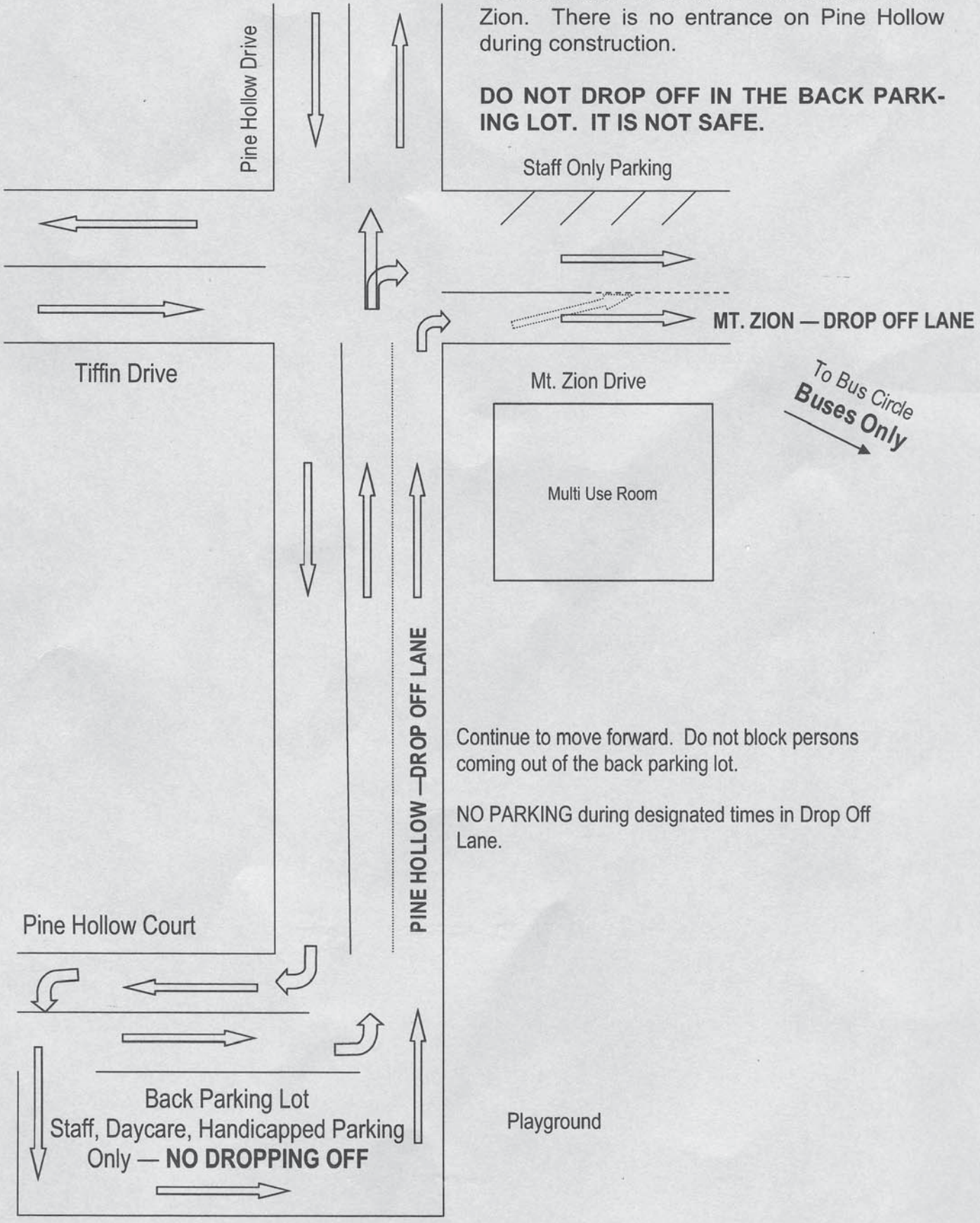
Grade 1/2	11:00am-11:20am
Grade 3rd	11:20am-11:40am
Grades 4th, 5th	11:40am-12:00pm

Mt. Diablo Elementary

FLOW OF TRAFFIC

CONSTRUCTION NOTE: Children may be dropped off on Pine Hollow or Mt. Zion. These children must enter the school from Mt. Zion. There is no entrance on Pine Hollow during construction.

DO NOT DROP OFF IN THE BACK PARKING LOT. IT IS NOT SAFE.



Continue to move forward. Do not block persons coming out of the back parking lot.

NO PARKING during designated times in Drop Off Lane.

Appendix D – Existing Conditions
Intersection Level of Service
Worksheets

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	11	0	0	0	10	8	0	0	0	0
Future Vol, veh/h	13	0	11	0	0	0	10	8	0	0	0	0
Peak Hour Factor	0.63	0.63	0.63	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	17	0	0	0	11	9	0	0	0	0
Number of Lanes	0	1	0	0	1	1	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	7.1	0	7.2
HCM LOS	A	-	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2
Vol Left, %	56%	54%	0%	0%
Vol Thru, %	44%	0%	100%	100%
Vol Right, %	0%	46%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	24	0	0
LT Vol	10	13	0	0
Through Vol	8	0	0	0
RT Vol	0	11	0	0
Lane Flow Rate	19	38	0	0
Geometry Grp	2	5	7	7
Degree of Util (X)	0.022	0.041	0	0
Departure Headway (Hd)	4.112	3.901	4.586	4.586
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	921	0	0
Service Time	2.126	1.911	2.3	2.3
HCM Lane V/C Ratio	0.022	0.041	0	0
HCM Control Delay	7.2	7.1	7.3	7.3
HCM Lane LOS	A	A	N	N
HCM 95th-tile Q	0.1	0.1	0	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	425	0	0	510	0	16
Future Vol, veh/h	425	0	0	510	0	16
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	-	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	86	86	54	54
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	472	0	0	593	0	30

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	-		-	236
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.94
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.32
Pot Cap-1 Maneuver	-	0		0	766
Stage 1	-	0		0	-
Stage 2	-	0		0	-
Platoon blocked, %	-				
Mov Cap-1 Maneuver	-	-		-	766
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s	0	9.9
HCM LOS		A

Minor Lane/Major Mvmt	NBLn1	EBT
Capacity (veh/h)	766	-
HCM Lane V/C Ratio	0.039	-
HCM Control Delay (s)	9.9	-
HCM Lane LOS	A	-
HCM 95th %tile Q(veh)	0.1	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	17	37	1	6	6	28	42	1	7	49	36
Future Vol, veh/h	49	17	37	1	6	6	28	42	1	7	49	36
Peak Hour Factor	0.80	0.80	0.80	0.55	0.55	0.55	0.78	0.78	0.78	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	21	46	2	11	11	36	54	1	10	71	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	7.5	8.1	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	39%	48%	8%	8%
Vol Thru, %	59%	17%	46%	53%
Vol Right, %	1%	36%	46%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	103	13	92
LT Vol	28	49	1	7
Through Vol	42	17	6	49
RT Vol	1	37	6	36
Lane Flow Rate	91	129	24	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.113	0.155	0.028	0.154
Departure Headway (Hd)	4.488	4.339	4.316	4.161
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	829	831	865
Service Time	2.502	2.352	2.332	2.173
HCM Lane V/C Ratio	0.114	0.156	0.029	0.154
HCM Control Delay	8.1	8.1	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.1	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	355	43	60	449	5	47	5	61	6	8	4
Future Volume (veh/h)	8	355	43	60	449	5	47	5	61	6	8	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	399	48	69	516	6	58	6	75	10	13	6
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.81	0.81	0.81	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	686	82	115	965	11	333	72	337	288	351	138
Arrive On Green	0.01	0.22	0.22	0.06	0.27	0.27	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1774	3169	378	1774	3582	42	527	174	822	431	855	335
Grp Volume(v), veh/h	9	222	225	69	255	267	139	0	0	29	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1777	1774	1770	1854	1523	0	0	1621	0	0
Q Serve(g_s), s	0.2	4.9	5.0	1.7	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	4.9	5.0	1.7	5.4	5.4	2.3	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.02	0.42		0.54	0.34		0.21
Lane Grp Cap(c), veh/h	21	383	385	115	477	499	742	0	0	776	0	0
V/C Ratio(X)	0.43	0.58	0.59	0.60	0.53	0.54	0.19	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	202	727	730	223	747	782	742	0	0	776	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.5	15.4	15.4	19.9	13.7	13.7	8.3	0.0	0.0	7.7	0.0	0.0
Incr Delay (d2), s/veh	13.2	1.4	1.4	4.9	0.9	0.9	0.6	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.5	2.6	1.0	2.7	2.9	1.2	0.0	0.0	0.2	0.0	0.0
LnGrp Delay(d),s/veh	34.7	16.8	16.8	24.9	14.6	14.6	8.9	0.0	0.0	7.8	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h		456			591			139			29	
Approach Delay, s/veh		17.2			15.8			8.9			7.8	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.5	7.3	14.0		22.5	5.0	16.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5
Max Q Clear Time (g_c+I1), s		4.3	3.7	7.0		2.4	2.2	7.4
Green Ext Time (p_c), s		0.6	0.0	1.8		0.1	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B

Appendix E – Existing plus Project Conditions Intersection Level of Service Worksheets

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	70	11	0	49	26	10	8	0	0	0	0
Future Vol, veh/h	13	70	11	0	49	26	10	8	0	0	0	0
Peak Hour Factor	0.63	0.63	0.63	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	111	17	0	53	28	11	9	0	0	0	0
Number of Lanes	0	1	0	0	1	1	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8	7.4	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2
Vol Left, %	56%	14%	0%	0%
Vol Thru, %	44%	74%	100%	0%
Vol Right, %	0%	12%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	94	49	26
LT Vol	10	13	0	0
Through Vol	8	70	49	0
RT Vol	0	11	0	26
Lane Flow Rate	19	149	53	28
Geometry Grp	2	5	7	7
Degree of Util (X)	0.024	0.169	0.069	0.031
Departure Headway (Hd)	4.55	4.084	4.641	3.94
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	791	876	771	906
Service Time	2.55	2.12	2.376	1.674
HCM Lane V/C Ratio	0.024	0.17	0.069	0.031
HCM Control Delay	7.7	8	7.7	6.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.2	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	425	0	0	535	0	42
Future Vol, veh/h	425	0	0	535	0	42
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	-	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	86	86	54	54
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	472	0	0	622	0	78

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	-		-	236
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.94
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.32
Pot Cap-1 Maneuver	-	0		0	766
Stage 1	-	0		0	-
Stage 2	-	0		0	-
Platoon blocked, %	-				
Mov Cap-1 Maneuver	-	-		-	766
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s	0	10.2
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	EBT
Capacity (veh/h)	766	-
HCM Lane V/C Ratio	0.102	-
HCM Control Delay (s)	10.2	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.3	-

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	21	37	5	10	47	28	42	4	70	49	36
Future Vol, veh/h	49	21	37	5	10	47	28	42	4	70	49	36
Peak Hour Factor	0.80	0.80	0.80	0.55	0.55	0.55	0.78	0.78	0.78	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	26	46	9	18	85	36	54	5	101	71	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.2	8.6	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	46%	8%	45%
Vol Thru, %	57%	20%	16%	32%
Vol Right, %	5%	35%	76%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	107	62	155
LT Vol	28	49	5	70
Through Vol	42	21	10	49
RT Vol	4	37	47	36
Lane Flow Rate	95	134	113	225
Geometry Grp	1	1	1	1
Degree of Util (X)	0.127	0.175	0.138	0.285
Departure Headway (Hd)	4.812	4.704	4.415	4.569
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	743	761	809	784
Service Time	2.858	2.744	2.457	2.608
HCM Lane V/C Ratio	0.128	0.176	0.14	0.287
HCM Control Delay	8.6	8.7	8.2	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.5	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	355	78	85	449	5	84	9	61	6	11	4
Future Volume (veh/h)	8	355	78	85	449	5	84	9	61	6	11	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	399	88	98	516	6	104	11	75	10	17	6
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.81	0.81	0.81	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	653	142	139	1053	12	413	69	234	249	391	119
Arrive On Green	0.01	0.23	0.23	0.08	0.29	0.29	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1774	2867	625	1774	3582	42	731	173	590	366	986	300
Grp Volume(v), veh/h	9	244	243	98	255	267	190	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1722	1774	1770	1854	1494	0	0	1652	0	0
Q Serve(g_s), s	0.2	5.6	5.7	2.4	5.4	5.4	2.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	5.6	5.7	2.4	5.4	5.4	3.7	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.02	0.55		0.39	0.30		0.18
Lane Grp Cap(c), veh/h	21	403	392	139	520	545	715	0	0	759	0	0
V/C Ratio(X)	0.43	0.61	0.62	0.71	0.49	0.49	0.27	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	195	702	683	215	721	756	715	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	15.7	15.8	20.4	13.2	13.2	9.3	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	13.3	1.5	1.6	6.4	0.7	0.7	0.9	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	2.9	1.4	2.7	2.8	1.8	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	35.5	17.2	17.3	26.9	13.9	13.9	10.2	0.0	0.0	8.5	0.0	0.0
LnGrp LOS	D	B	B	C	B	B	B			A		
Approach Vol, veh/h		496			620			190			33	
Approach Delay, s/veh		17.6			16.0			10.2			8.5	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.5	8.0	14.8		22.5	5.0	17.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5
Max Q Clear Time (g_c+I1), s		5.7	4.4	7.7		2.5	2.2	7.4
Green Ext Time (p_c), s		0.8	0.0	2.0		0.1	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

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Attachment E

Letter from Mt. Diablo Unified School District re. Shared Parking

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MT. DIABLO UNIFIED SCHOOL DISTRICT

1936 Carlotta Drive | Concord, California 94519-1358
(p): (925) 682-8000, ext. 4000 (f): (925) 689-1649
www.mdusd.org

Via Electronic Mail

City of Clayton
Planning Commission
Clayton City Hall
6000 Heritage Trail
Clayton, CA 94517

Re: Long-Term Shared Parking Agreement

To whom it may concern:

This to certify that Mt. Diablo Unified School District ("District") and the Clayton Community Church ("Church") are currently negotiating a long-term parking sharing agreement whereby the District shall license to the Church the use of its parking spaces at Mt. Diablo Elementary School for the Church's use during Sundays and non-school hours, and the Church shall license to the District its parking spaces for the District's use during school hours.

While the District takes no position on the construction project itself, should the project be approved by the City, the District will endeavor to enter into a long-term shared parking agreement upon the mutual approval by the Church and the District's Governing Board.

Very truly yours,

Cesar A. Alvarado

Cesar Alvarado
Associate General Counsel

CA/ko

Attachment F

Arborist Report by Trees, Bugs, Dirt

Clayton Community Church
Planning Commission Meeting, April 27, 2021

TREES, BUGS, DIRT

LANDSCAPE CONSULTING & TRAINING

UPDATED ARBORIST REPORT

Clayton Community Church

1027 Pine Hollow Court, Clayton CA

December 15, 2020

Prepared For: Vander Heyden Architects, Inc.
5506 Sean Circle #112
San Jose CA 95123

PO Box 311, Orinda CA 94563 treesbugsdirt@gmail.com - email 925.254.7950 – Phone

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EXECUTIVE SUMMARY

Fifty nine (59) live trees within and next to the proposed development are evaluated in this report. One tree (#0345) has its trunk offsite. Twelve genera and species of trees were identified. Construction tolerance based on genus & species of trees on site is either poor or moderate. Health, structure, form and condition ranges from dead to good, averaging poor. Thirty two trees (including six that disappeared) were damaged by a fire that occurred on site. Construction related items that will impact the trees include paving, drain lines, retaining walls, a fire hydrant, parking, structures, demolition, and grading. Trunk distances from these items ranges from 0 to 130 feet, averaging 14.4 feet. Negative impacts include whole tree destruction, reduced health, increased failure, destabilization, root damages, and resprouting. Consequences of construction on these 59 trees would include loss (35 trees), survival (13 trees), possible survival (5 trees), survival with increased risk(4 trees), and survival with a shorter life (two trees). **I recommend preserving eleven (11) trees on & adjacent to the site, removing forty eight (48) trees due to their health, structure, form, condition, and species. For each tree preserved establish a fenced tree preservation zone (TPZ) as far away from its trunk as possible. Prune as needed prior to construction to raise tree crowns and prevent branch damage. In between construction & TPZ excavate with an air spade & prune roots. Set up a temporary irrigation system for each tree. Install and maintain wood chip mulch within each TPZ.**

INTRODUCTION

PURPOSE AND USE

This report is intended to provide information for the Client and the City of Clayton as part of a development and tree removal permit process.

ASSIGNMENT

I was hired by Vander Heyden Architects, Inc. (Client), to measure, map, tag, digitally image, inventory & re-evaluate trees at the proposed site of Clayton Community Church, and to provide an Arborist Report that includes a summary of my observations, a tree location map, and other relevant information. Only trees within the area to be developed, and directly next to proposed development are evaluated. Data from the previous arborist report (Forestree, 2016) was used as a baseline for this report.

LIMITS OF ASSIGNMENT

- Most trunk & dripline measurements used are from the previous report on the trees
- Trees were not evaluated below ground or aerially, nor were invasive methods used to assess tree health
- Design modifications are not provided
- Landscape & other plans not listed are not analyzed in terms of impacts on trees

BACKGROUND

Clayton Community Church is proposing to build a new church on a lot with trees that are protected in the City of Clayton. A previous arborist report required updating due to a fire that damaged some of the trees, missing data, missing trees, and other issues.

OBSERVATIONS

LOCATION
1027 Pine Hollow Court, above High Street, in Clayton CA.

SETTING
The site includes an occupied dwelling, a storage shed, and another outbuilding. Topography is relatively flat from Pine Hollow Court past the dwelling, then slopes sharply downhill towards High Street. Mowed grasses and weeds dominate the level area, with part of that area burned recently, and one large shrub left in place, with trees, grasses and herbaceous plants covering the ground. Trees line the southern property line, and are scattered around the main dwelling structure. Remnants of a walnut (*Juglans spp*.) orchard exists in the level area to the north of the dwelling, and below the dwelling & the level area on a slope. Soils on site are mapped as Perkins series, a very deep, well drained soil. Perkins soils typically are loam textured on top of clay loam. Most roots are found in the top two feet of this type of soil.

METHODS
On November 23 & December 12, 2020 I identified tree species, remeasured several **trunk circumferences** at 4.5 feet above grade, tagged trunks, with numbered tags, located trees visually on a site plan, digitally imaged trees and assessed their **health, structural quality** and **form**. One tree with its trunk not located on the site (#345) was also evaluated. In the office I analyzed tree condition, identified protected trees, and assessed potential impacts from proposed development using the grading & drainage, stormwater control, and utility plans that were submitted to the city.

References
- City of Clayton Municipal Code, Chapter 15.70 Tree Protection Ordinance
- Arborist Report & Tree Survey, Date Not Provided, The Forestree Company
- US Soil Survey, Standard Soil Series Descriptions, Oregon State University
- Grading and Drainage Plan, C-3, Planning Dept. Submittal, 11/30, 2020
- Stormwater Control Plan, C-4, Planning Dept. Submittal, 11/30, 2020
- Utility Plan, C-5, Planning Dept. Submittal, 11/30, 2020
- Guide for Plant Appraisal, 10th Edition, second printing, 2019. International Society of Arboriculture
- Arborist Report and Tree Survey (2016), *field work completed in 2016*. The Forestree Company

Condition
A weighted average of condition, structure, and form was calculated, with health and structure representing 40% of the value (for each factor), and form equal to 20%. I then translated the percentages into qualitative terms using the condition rating system recommended in the latest Guide for Plant Appraisal as follows; very poor (6-20%), poor (21-40%), fair (41-60%), good (61-80%), and excellent (81-100%).

Health Structure & Form Evaluation Standards
+numerical rating system; zero (dead), one (very poor), two (poor), three (fair), four (good) and five (excellent)
+ form assessed by rating specimens on their deviance from the norm for the species in this region, visual qualities such as attractiveness, and engineering functions such as screening, shading and creating views
+qualitative descriptions and items assessed for health & structure include
- rooting zone - bare, mulched, limited space, weeds, competing vegetation, moisture, debris
- root crown region (trunk & root junction) - buried, clear, pests, diseases, wet, wounds, cavities
- trunk - taper, lack of taper, wounds, lean, growth cracks, stress cracks, pests, diseases, wounds
- scaffold (large, major) branches - taper, distribution of branches, strength of branch connections, wounds, pests
- smaller branches - distribution, size, amount, strength of connections, pests, diseases
- twigs - annual growth, color, size, distribution, dead/live
- foliage - color, size, distribution, pests, diseases, leaf fall

DATA SUMMARY - See Appendix A for data set
- 59 live trees
- 64 trees were evaluated, five are dead, *six evaluated in the previous arborist report are missing due to recent fire*
- 11 species identified, one identified to genus (plum - *Prunus*)

ANALYSIS - See Appendix B for data set
- health, structure, form, and condition ranged from dead to good, averaging fair
- 56 of the 59 live trees on site are protected in Clayton, excepting #337, #346 (tree of heaven, *Ailanthus altissima*), and #385 (Monterey pine, *Pinus radiata*).

CONSTRUCTION IMPACTS & CONSEQUENCES - See Appendix C for complete data set
- items that will negatively impact trees on this site include paving, drain lines, retaining walls, a fire hydrant, parking, structures, demolition, and grading
- distances of items from tree trunks ranges from 0 to 130 feet, averaging 14.4 feet
- impacts from construction include whole trees destroyed, reduced health, increased failures, destabilization of trees, root damage, and resprouting
- consequences of negative construction impacts on 59 live trees includes
    - loss - 35 trees (34 protected, 1 not protected)
    - survive with no direct negative impacts - 13 (11 protected, 2 not protected)
    - might not survive - 5 trees
    - survive with increased risk - 4 trees
    - survive with a shorter life - 2 trees

RECOMMENDATIONS - See Appendix D for data set

- preserve eleven trees, ten are protected trees, one is an unprotected Monterey pine tree
- remove fifty one trees, forty nine are protected, two are unprotected tree of heaven
    - because of health, structure, form, and condition
    - two because they are weeds, and not protected in Clayton = tree of heaven

TREE PRESERVATION PROGRAM

TREE PROTECTION ZONES

I have assigned each tree to be preserved an individual radius based on its size, health, and species. This is the radial distance from each trunk that should be protected from all activity prior to and during construction. Work within a TPZ should be supervised by a consulting arborist. No foot or vehicle traffic should be allowed within a TPZ without mitigation to minimize damages to the tree.

FENCING

I recommend that protective fencing be installed outside the edge of each TPZ, in between proposed construction & the tree trunk.

IRRIGATION

Because of the drought I recommend that a temporary irrigation system be set up for each tree. Concentric rings of inline drip irrigation lines are recommended at least five feet from each preserved tree's trunk, out as close to the dripline is possible. Monthly irrigation to the depth of 6-7" is recommended to supplement rainfall as needed.

MULCH

Protected soils within each TPZ should be enhanced by installing & maintaining at least two inches of wood chip mulch throughout the life of the project. Mulch will conserve soil moisture, protect tree roots and help maintain tree health.

AIR SPADE EXCAVATION

Where construction or demolition occurs within tree protection zones including demolition, trenching, grading, drainage, and any other activity that may damage tree roots, air spade trenching is used to expose roots prior to pruning without damaging them. Soil must be sufficiently moist to allow excavation to the full depth of the roots, which may range up to several feet on this site.

ROOT PRUNING

All roots exposed by air spade excavation should be sharply cut, covered temporarily with wet burlap until soil can be backfilled on top of them, after removing the burlap. Work within five feet of the trunk may cause destabilization of the tree, and/or severe health damage, and should only be done under the supervision of the consulting arborist.

CLEARANCE PRUNING

Where branches interfere with construction, they should be professionally pruned or tied back prior to construction. Crown damage to be minimized either by pruning or tying branches back temporarily.

APPENDIX A - DATA; ***MEASUREMENTS IN BLUE ARE FROM THE 2016 REPORT***

tag #+ O	*Old #*	Name	*Genus species*	Trunk Diameter (inches)	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	*Notes*
337	*0*	tree of heaven	*Ailanthus altissima*	8.0	*8.0*	6,7,12,12	*soil disturbed*
338	*0*	Ca black walnut	*Juglans hindsii*	12.1	*12.1*	6,5,10,7	*trunk burnt, most foliage dead*
339	*1*	blue oak	*Quercia douglasii*	36.8	*36.8*	30-40-35-35	*Disturbed rooting zone, many large broken branches, cavities on major scaffolds, thin top, minimal lower & interior small branches*
340	*2*	Ca black walnut	*Juglans hindsii*	13.4	*13.4*	8-12-3-7	*Stump sprout*
341	*3*	Ca black walnut	*Juglans hindsii*	7.0	*7.0*	15-8-8-6	*Burned stump sprout, fresh burrowing ground squirrel at base, 40% branches & foliage burned*
342	*4*	Ca black walnut	*Juglans hindsii*	7, 7.5	*14.5*	12-16-12-9	*Burned foliage & branches, dead lower branches, fresh burrowing ground squirrel, mistletoe*
~~**343**~~	~~*0*~~	~~Ca black walnut~~	~~*Juglans hindsii*~~	~~11.75 (**5, 2.75,4**)~~	~~*11.8*~~	~~6,12,10,6~~	~~*Killed by fire*~~
344	*5*	Ca black walnut	*Juglans hindsii*	9.0	*9.0*	6-8-6-4	*Fire damaged trunk, branches & foliage, codominant resprouts with included bark*
345	*6*	blue oak	*Quercus douglasii*	30.0	*30.0*	25-25-25-30	*Limited & disturbed rooting zone, leaning trunk heaviest on south, thin top, few lower or interior small branches*
346	*7*	tree of heaven	*Ailanthus altissima*	7.6 (**2.5, 2.75, 3,5,3,2.5, 2,3**)	*7.6*	9-9-9-10	*Trunk wound & cavity, singed*
347	*11*	Ca black walnut	*Juglans hindsii*	10, 8	*18.0*	12-13-10-14	*Fire damaged, burrowing near trunk*

tag #+ O	*Old #*	Name	*Genus species*	Trunk Diameter (inches)	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	*Notes*
348	*8*	Ca black walnut	*Juglans hindsii*	8, 8	*16.0*	6-10-12-9	*Fire damaged stump sprouts, trunk scorched, branches damaged*
349	*9*	Ca black walnut	*Juglans hindsii*	10, 8	*18.0*	10-12-12-12	*Heavy mistletoe infestation, trunk burned, recent burrowing at trunk, lower branches & foliage damaged*
~~**350**~~	~~*10*~~	~~Ca black walnut~~	~~*Juglans hindsii*~~	~~8, 7~~	~~*15.0*~~	~~6-15-10-10~~	~~*Fire burn kill*~~
~~**351**~~	~~*57*~~	~~Ca black walnut~~	~~*Juglans hindsii*~~	~~7, 6~~	~~*13.0*~~	~~7-6-8-9~~	~~*Fire burn kill*~~
352	*58*	Ca black walnut	*Juglans hindsii*	9, 7, 6, 5, 5	*32.0*	10-11-10-10	*Fire damaged, minimal sprouting, recent burrowing near trunk*
353	*55*	valley oak	*Quercus lobata*	11, 11	*22.0*	15-12-10-12	*Some rooting zone & small branches burned, generally stunted growth for species, not for location , trunk wound*
354	*59*	Ca black walnut	*Juglans hindsii*	13, 10, 10, 9, 8	*50.0*	10-12-10-10	*Trunk & branches burnt, mistletoe, some undamaged branches & foliage*
355	*60*	Ca black walnut	*Juglans hindsii*	7, 6, 5	*18.0*	8-10-7-9	*Fire damaged, mistletoe*
356	*61*	Ca black walnut	*Juglans hindsii*	10, 8	*18.0*	10-12-10-12	*Fire damaged*
357	*64*	Ca black walnut	*Juglans hindsii*	9, 7	*16.0*	10-12-10-12	*Fire damaged*
358	*65*	Ca black walnut	*Juglans hindsii*	7, 7, 6	*20.0*	10-10-9-10	*Fire damaged, rooting zone severely damaged, trunk damaged , some live crown*
359	*66*	Ca black walnut	*Juglans hindsii*	5, 5, 5	*15.0*	6-8-8-6	*Fire damaged*
360	*67*	Ca black walnut	*Juglans hindsii*	7, 6, 5, 5, 4	*27.0*	8-9-10-7	*Fire damaged*
361	*68*	Ca black walnut	*Juglans hindsii*	8, 6, 5, 5	*24.0*	8-8-10-6	*Fire damaged*

tag #+ O	*Old #*	Name	*Genus species*	Trunk Diameter (inches)	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	*Notes*
362	*49*	Ca black walnut	*Juglans hindsii*	8, 7, 7, 5	*27.0*	12-15-12-8	*Trunk cavity, branch dieback, mistletoe*
363	*50*	Ca black walnut	*Juglans hindsii*	4, 3, 3	*10.0*	9-10-8-8	*Stunted , trunk & scaffold cavities , mistletoe*
364	*22*	Ca black walnut	*Juglans hindsii*	4, 3	*7.0*	8-8-8-10	*Trunk embedded in fence, trunk cavity, vigorous sprouts, burrowing around trunk*
365	*53*	Ca black walnut	*Juglans hindsii*	15, 15, 13	*43.0*	12-12-13-12	*Fire damaged, large broken branches May recover*
366	*21*	Ca black walnut	*Juglans hindsii*	6.0	*6.0*	3-5-4-6	*Top broken off, suppressed*
367	*20*	Italian stone pine	*Pinus pinea*	28.0	*28.0*	18-25-20-18	*Large trunk wounds, stubbed lower branches, broken branches , rooting zone disturbed*
368	*18*	Italian stone pine	*Pinus pinea*	39.0	*39.0*	37-24-18-27	*Codominant trunks with included bark, large torn scaffold, rooting zone parking & turning area*
369	*19*	Italian stone pine	*Pinus pinea*	22.0	*22.0*	0-0-0-14	*Topped, one scaffold, leaning trunk, broken stub*
370	*15*	Ca black walnut	*Juglans hindsii*	9.0	*9.0*	10-8-12-12	*Stunted, mistletoe, trunk leaning, root crown buried*
371	*14*	Ca black walnut	*Juglans hindsii*	10.0	*10.0*	3-7-6-12	*Very stunted, leaning trunk, mistletoe, trunk cavity*
372	*12*	Ca black walnut	*Juglans hindsii*	10.0	*10.0*	6-8-9-8	*Trunk cavities, minimal trunk taper, stunted*
373	*13*	Ca black walnut	*Juglans hindsii*	8, 8, 8, 8	*32.0*	15-7-10-15	*Mistletoe, large cavity on one trunk*
374	*17*	Ca black walnut	*Juglans hindsii*	8, 7	*15.0*	8-8-6-8	*Stunted, minimal structure , stubbed trunks*
375	*16*	valley oak	*Quercus lobata*	10.0	*10.0*	3-10-8-15	*Disturbed rooting zone, minimal trunk taper, trunk leaning*

tag #+ O	*Old #*	Name	*Genus species*	Trunk Diameter (inches)	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	*Notes*
376	*23*	Ca black walnut	*Juglans hindsii*	8.0	*8.0*	6-4-8-6	*Disturbed rooting zone, trunk leaning, minimal structure, stunted , missed species id*
377	*28*	blue oak	*Quercus douglasii*	9, 8	*17.0*	12-10-10-8	*Limited rooting zone, codominant trunks with included bark, stunted*
378	*29*	valley oak	*Quercus lobata*	7.0	*7.0*	6-12-4-4	*Stunted, trunk wounds, leaning trunk*
379	*30*	valley oak	*Quercus lobata*	24.0	*24.0*	15-22-15-15	*Limited rooting zone, live crown ratio less than 59%, lower & interior branches removed*
380	*31*	plum	*Prunus spp.*	5, 4	*9.0*	5-8-0-6	*Stunted, broken branches, poorly pruned, sooty mold, scale, twig dieback*
381	*32*	Ca black walnut	*Juglans hindsii*	7.0	*7.0*	6-10-8-10	*Imbalanced, oddly shaped vigorous sprout*
382	*33*	almond	*Prunus dulcis*	4, 4, 3	*11.0*	4-10-6-8	*Suppressed*
383	*34*	Ca black walnut	*Juglans hindsii*	16.0	*16.0*	12-4-16-15	*Unbalanced leaning trunk, large wound on trunk, mistletoe*
~~**384**~~	~~*35*~~	~~plum~~	~~*Prunus spp.*~~	~~11.0~~	~~*11.0*~~	~~0-3-7-8~~	~~*Dead*~~
385	*38*	Monterey pine	*Pinus radiata*	28.0	*28.0*	18-15-17-18	*Suppressed by Italian stone pine on south*
386	*39*	valley oak	*Quercus lobata*	12.0	*12.0*	15-0-12-8	*Suppressed by valley oak & Monterey pine, trunk leaning , codominant scaffolds with included bark*
387	*40*	valley oak	*Quercus lobata*	18.0	*18.0*	15-4-18-18	*Unbalanced in row, codominant trunks with included bark, yellow jacket n at in ground active next to metal stake; branch flagged*
~~**388**~~	~~*36*~~	~~lime~~	~~*Citrus x latifolia*~~	~~9.0~~	~~*9.0*~~	~~7-5-9-4~~	~~*Dead*~~

tag #+ O	*Old #*	Name	*Genus species*	Trunk Diameter (inches)	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	*Notes*
389	*37*	lemon	*Citrus x limon*	9, 9, 7	*25.0*	9-6-9-10	*Dying , codominant trunks with included bark, top dieback, bark damaged*
390	*41*	valley oak	*Quercus lobata*	14.0	*14.0*	14-15-9-15	*Twisted scaffolds*
391	*42*	Ca black walnut	*Juglans hindsii*	6, 5	*11.0*	9-9-3-3	*Minimal tree*
392	*43*	giant sequoia	*Sequiadendron giganteum*	25.0	*25.0*	6-10-10-10	*Codominant tree, large trunk wound*
393	*44*	valley oak	*Quercus lobata*	14.0	*14.0*	0-15-15-18	*Codominant tree, one sided*
394	*45*	plum	*Prunus spp.*	3, 3, 3	*9.0*	8-0-10-4	*Suppressed*
395	*46*	valley oak	*Quercus lobata*	16.0	*16.0*	17-20-5-18	*Grove tree, balanced in grove, limited rooting zone, driveway*
396	*47*	olive	*Olea europeae*	5, 4, 3	*10.0*	9-8-8-2	*Multiple trunks, intertwined with oaks, power line, power pole*
397	*48*	valley oak	*Quercus lobata*	14.0	*14.0*	8-6-10-20	*One sided pruned away from wires, unbalanced*
398	*25*	olive	*Olea europeae*	3, 2, 2	*7.0*	7-6-7-8	*Unbalanced, sprouting, limited rooting zone, shaded dieback*
399	*26*	olive	*Olea europeae*	12.0	*12.0*	6-10-8-10	*Crown raised to top30%, stunted, poorly pruned*
400	*27*	almond	*Prunus dulcis*	14, 12	*26.0*	8-15-0-15	*Stunted suppressed, disturbed rooting zone*

APPENDIX B - ANALYSIS

tag #+ O	Name	*health rating*	Health	*structure rating*	Structure	*Form rating*	Form	Weighted Average Condition	Condition %	Condition Rating
337	tree of heaven	*3*	fair	*3*	fair	*3*	fair	3	60%	**Fair**
338	Ca black walnut	*1*	very poor	*2*	poor	*1*	very poor	1.4	28%	**Poor**
339	blue oak	*3*	fair	*3*	fair	*4*	good	3.2	64%	**Good**
340	Ca black walnut	*2*	poor	*1*	very poor	*1*	very poor	1.4	28%	**Poor**
341	Ca black walnut	*2*	poor	*1*	very poor	*1*	very poor	1.4	28%	**Poor**
342	Ca black walnut	*1*	very poor	*1*	very poor	*1*	very poor	1	20%	**Very poor**
343	Ca black walnut	*0*	dead	*0*	dead	*0*	dead	0	0%	**dead**
344	Ca black walnut	*1*	very poor	*2*	poor	*1*	very poor	1.4	28%	**Poor**
345	blue oak	*3*	fair	*3*	fair	*4*	good	3.2	64%	**Good**
346	tree of heaven	*3*	fair	*4*	good	*4*	good	3.6	72%	**Good**
347	Ca black walnut	*1.5*	very poor-poor	*1*	very poor	*1*	very poor	1.2	24%	**Poor**
348	Ca black walnut	*1.5*	very poor-poor	*2*	poor	*2*	poor	1.8	36%	**Poor**

tag #+ O	Name	*health rating*	Health	*structure rating*	Structure	*Form rating*	Form	Weighted Average Condition	Condition %	Condition Rating
349	Ca black walnut	*2.5*	poor-fair	*2*	poor	*2*	poor	2.2	44%	**Fair**
350	Ca black walnut	*0*	dead	*0*	dead	*0*	dead	0	0%	**dead**
351	Ca black walnut	*0*	dead	*0*	dead	*0*	dead	0	0%	**dead**
352	Ca black walnut	*1*	very poor	*2*	poor	*1*	very poor	1.4	28%	**Poor**
353	valley oak	*3*	fair	*4*	good	*3.5*	fair-good	3.5	70%	**Good**
354	Ca black walnut	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
355	Ca black walnut	*1*	very poor	*1*	very poor	*1*	very poor	1	20%	**Very poor**
356	Ca black walnut	*1.5*	very poor-poor	*1*	very poor	*1*	very poor	1.2	24%	**Poor**
357	Ca black walnut	*1*	very poor	*1*	very poor	*1*	very poor	1	20%	**Very poor**
358	Ca black walnut	*1.5*	very poor-poor	*1*	very poor	*1*	very poor	1.2	24%	**Poor**
359	Ca black walnut	*1*	very poor	*1*	very poor	*1*	very poor	1	20%	**Very poor**

tag #+ O	Name	*health rating*	Health	*structure rating*	Structure	*Form rating*	Form	Weighted Average Condition	Condition %	Condition Rating
360	Ca black walnut	*1.5*	very poor-poor	*1.5*	very poor-poor	*1*	very poor	1.4	28%	**Poor**
361	Ca black walnut	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
362	Ca black walnut	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
363	Ca black walnut	*2.5*	poor-fair	*2*	poor	*2*	poor	2.2	44%	**Fair**
364	Ca black walnut	*3*	fair	*1*	very poor	*2*	poor	2	40%	**Poor**
365	Ca black walnut	*2*	poor	*3*	fair	*2.5*	poor-fair	2.5	50%	**Fair**
366	Ca black walnut	*2*	poor	*2*	poor	*1*	very poor	1.8	36%	**Poor**
367	Italian stone pine	*4*	good	*3*	fair	*3*	fair	3.4	68%	**Good**
368	Italian stone pine	*4*	good	*3*	fair	*4*	good	3.6	72%	**Good**
369	Italian stone pine	*3*	fair	*1*	very poor	*1*	very poor	1.8	36%	**Poor**
370	Ca black walnut	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**

tag #+ O	Name	*health rating*	Health	*structure rating*	Structure	*Form rating*	Form	Weighted Average Condition	Condition %	Condition Rating
371	Ca black walnut	*1*	very poor	*1*	very poor	*1*	very poor	1	20%	**Very poor**
372	Ca black walnut	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
373	Ca black walnut	*3*	fair	*2*	poor	*3*	fair	2.6	52%	**Fair**
374	Ca black walnut	*2.5*	poor-fair	*2*	poor	*2*	poor	2.2	44%	**Fair**
375	valley oak	*3*	fair	*2*	poor	*2.5*	poor-fair	2.5	50%	**Fair**
376	Ca black walnut	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
377	blue oak	*2.5*	poor-fair	*2.5*	poor-fair	*3*	fair	2.6	52%	**Fair**
378	valley oak	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
379	valley oak	*3*	fair	*4*	good	*4*	good	3.6	72%	**Good**
380	plum	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
381	Ca black walnut	*2.5*	poor-fair	*2*	poor	*2*	poor	2.2	44%	**Fair**
382	almond	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
383	Ca black walnut	*2.5*	poor-fair	*2*	poor	*2.5*	poor-fair	2.3	46%	**Fair**
384	plum	*0*	dead	*0*	dead	*0*	dead	0	0%	**dead**

tag #+ O	Name	*health rating*	Health	*structure rating*	Structure	*Form rating*	Form	Weighted Average Condition	Condition %	Condition Rating
385	Monterey pine	*3*	fair	*4*	good	*3*	fair	3.4	68%	**Good**
386	valley oak	*3*	fair	*2*	poor	*2.5*	poor-fair	2.5	50%	**Fair**
387	valley oak	*4*	good	*3*	fair	*4*	good	3.6	72%	**Good**
388	lime	*0*	dead	*0*	dead	*0*	dead	0	0%	**dead**
389	lemon	*1*	very poor	*3*	fair	*2*	poor	2	40%	**Poor**
390	valley oak	*3*	fair	*3*	fair	*3*	fair	3	60%	**Fair**
391	Ca black walnut	*2*	poor	*1*	very poor	*1*	very poor	1.4	28%	**Poor**
392	giant sequoia	*3*	fair	*3*	fair	*3*	fair	3	60%	**Fair**
393	valley oak	*3*	fair	*3*	fair	*3*	fair	3	60%	**Fair**
394	plum	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**
395	valley oak	*3*	fair	*3*	fair	*3*	fair	3	60%	**Fair**
396	olive	*4*	good	*2*	poor	*3*	fair	3	60%	**Fair**
397	valley oak	*3*	fair	*2*	poor	*3*	fair	2.6	52%	**Fair**
398	olive	*3*	fair	*3*	fair	*3*	fair	3	60%	**Fair**
399	olive	*3*	fair	*2*	poor	*2*	poor	2.4	48%	**Fair**
400	almond	*2*	poor	*2*	poor	*2*	poor	2	40%	**Poor**

APPENDIX C - CONSTRUCTION IMPACTS & CONSEQUENCES

# + O	Name	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	Health	*construction tolerance*	CLOSEST ITEMS	TRUNK DISTANCE (FEET)	IMPACTS	CONSEQUENCES
337	tree of heaven	*8.0*	6,7,12,12	fair	*GOOD*	building	0	whole tree destroyed	**LOSS**
338	Ca black walnut	*12.1*	6,5,10,7	very poor	*POOR*	building	0	whole tree destroyed	**LOSS**
339	blue oak	*36.8*	30-40-35-35	fair	*POOR*	paving, drainline, retaining wall, fire hydrant	6.7	reduced health, more failures	**SURVIVE WITH INCREASED RISK**
340	Ca black walnut	*13.4*	8-12-3-7	poor	*POOR*	storm drain	8	reduced health, more failures	**SURVIVE WITH INCREASED RISK**
341	Ca black walnut	*7.0*	15-8-8-6	poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
342	Ca black walnut	*14.5*	12-16-12-9	very poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
344	Ca black walnut	*9.0*	6-8-6-4	very poor	*POOR*	retaining wall	0	whole tree destroyed	**LOSS**
345	blue oak	*30.0*	25-25-25-30	fair	*POOR*	drainline, retaining wall	3	destabilize tree, severe root damage	**MIGHT NOT SURVIVE**
346	tree of heaven	*7.6*	9-9-9-10	fair	*GOOD*	drainline	5	stimulate resprouts	**SURVIVE**
347	Ca black walnut	*18.0*	12-13-10-14	very poor-poor	*POOR*	structure	5	whole tree destroyed	**LOSS**

# + O	Name	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	Health	*construction tolerance*	CLOSEST ITEMS	TRUNK DISTANCE (FEET)	IMPACTS	CONSE-QUENCES
348	Ca black walnut	*16.0*	6-10-12-9	very poor-poor	*POOR*	structure	5	whole tree destroyed	**LOSS**
349	Ca black walnut	*18.0*	10-12-12-12	poor-fair	*POOR*	structure	5	whole tree destroyed	**LOSS**
352	Ca black walnut	*32.0*	10-11-10-10	very poor	*POOR*	retaining wall	4	whole tree destroyed	**LOSS**
353	valley oak	*22.0*	15-12-10-12	fair	*POOR*	retaining wall	2	whole tree destroyed	**LOSS**
354	Ca black walnut	*50.0*	10-12-10-10	poor	*POOR*	retaining wall	8	no visible impact	**SURVIVE**
355	Ca black walnut	*18.0*	8-10-7-9	very poor	*POOR*	storm drain dissipator	8	whole tree destroyed	**LOSS**
356	Ca black walnut	*18.0*	10-12-10-12	very poor-poor	*POOR*	storm drain	25	no visible impacts	**SURVIVE**
357	Ca black walnut	*16.0*	10-12-10-12	very poor	*POOR*	storm drain	75	no visible impacts	**SURVIVE**
358	Ca black walnut	*20.0*	10-10-9-10	very poor-poor	*POOR*	storm drain	130	no visible impacts	**SURVIVE**
359	Ca black walnut	*15.0*	6-8-8-6	very poor	*POOR*	storm drain	125	no visible impacts	**SURVIVE**
360	Ca black walnut	*27.0*	8-9-10-7	very poor-poor	*POOR*	storm drain	125	no visible impacts	**SURVIVE**

# + O	Name	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	Health	*construction tolerance*	CLOSEST ITEMS	TRUNK DISTANCE (FEET)	IMPACTS	CONSE-QUENCES
361	Ca black walnut	*24.0*	8-8-10-6	poor	*POOR*	storm drain	130	no visible impacts	**SURVIVE**
362	Ca black walnut	*27.0*	12-15-12-8	poor	*POOR*	retaining wall	58	no visible impacts	**SURVIVE**
363	Ca black walnut	*10.0*	9-10-8-8	poor-fair	*POOR*	retaining wall	7	reduced health, more failures	**SURVIVE WITH INCREASED RISK**
364	Ca black walnut	*7.0*	8-8-8-10	fair	*POOR*	retaining wall	0	whole tree destroyed	**LOSS**
365	Ca black walnut	*43.0*	12-12-13-12	poor	*POOR*	retaining wall	16	no visible impact	**SURVIVE**
366	Ca black walnut	*6.0*	3-5-4-6	poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
367	Italian stone pine	*28.0*	18-25-20-18	good	*MODER-ATE*	parking	0	whole tree destroyed	**LOSS**
368	Italian stone pine	*39.0*	37-24-18-27	good	*MODER-ATE*	parking	0	whole tree destroyed	**LOSS**
369	Italian stone pine	*22.0*	0-0-0-14	fair	*MODER-ATE*	parking	0	whole tree destroyed	**LOSS**
370	Ca black walnut	*9.0*	10-8-12-12	poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
371	Ca black walnut	*10.0*	3-7-6-12	very poor	*POOR*	storm drain	0	whole tree destroyed	**LOSS**

# + O	Name	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	Health	*construction tolerance*	CLOSEST ITEMS	TRUNK DISTANCE (FEET)	IMPACTS	CONSEQUENCES
372	Ca black walnut	*10.0*	6-8-9-8	poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
373	Ca black walnut	*32.0*	15-7-10-15	fair	*POOR*	storm drain	0	whole tree destroyed	**LOSS**
374	Ca black walnut	*15.0*	8-8-6-8	poor-fair	*POOR*	parking	0	whole tree destroyed	**LOSS**
375	valley oak	*10.0*	3-10-8-15	fair	*MODERATE*	storm drain	0	whole tree destroyed	**LOSS**
376	Ca black walnut	*8.0*	6-4-8-6	poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
377	blue oak	*17.0*	12-10-10-8	poor-fair	*POOR*	storm drain	0	whole tree destroyed	**LOSS**
378	valley oak	*7.0*	6-12-4-4	poor	*MODERATE*	parking	0	whole tree destroyed	**LOSS**
379	valley oak	*24.0*	15-22-15-15	fair	*MODERATE*	storm drain	0	whole tree destroyed	**LOSS**
380	plum	*9.0*	5-8-0-6	poor	*GOOD*	parking	0	whole tree destroyed	**LOSS**
381	Ca black walnut	*7.0*	6-10-8-10	poor-fair	*POOR*	storm drain	0	whole tree destroyed	**LOSS**
382	almond	*11.0*	4-10-6-8	poor	*MODERATE*	sidewalk	5	reduced health, more failures	**SURVIVE WITH INCREASED RISK**
383	Ca black walnut	*16.0*	12-4-16-15	poor-fair	*POOR*	parking	2	whole tree destroyed	**LOSS**

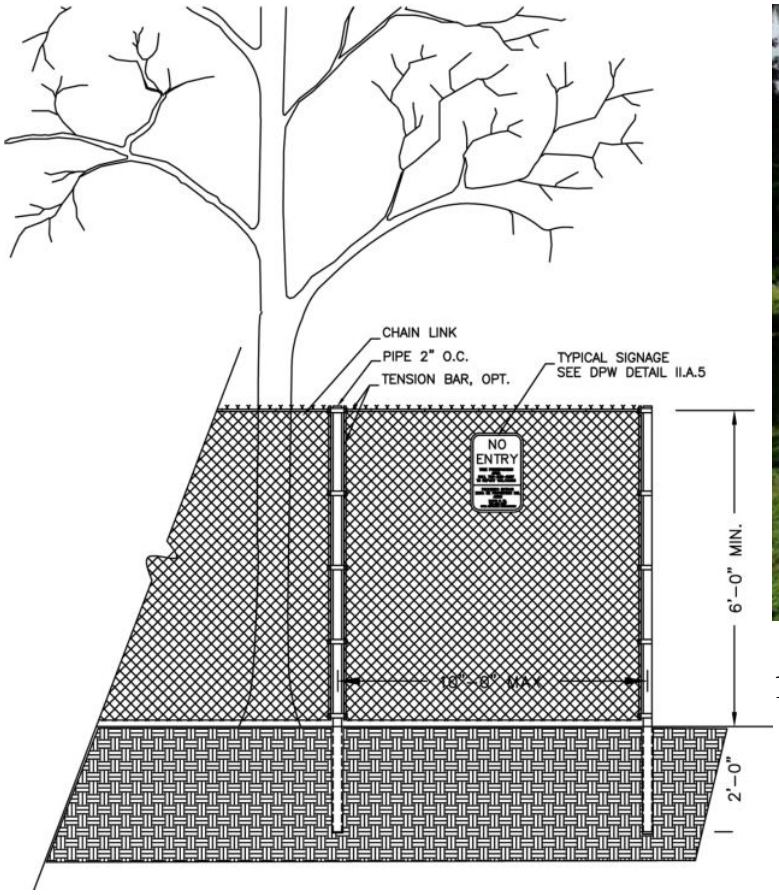
# + O	Name	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	Health	*construction tolerance*	CLOSEST ITEMS	TRUNK DISTANCE (FEET)	IMPACTS	CONSEQUENCES
385	Monterey pine	*28.0*	18-15-17-18	fair	*MODERATE*	drainline parking	3.8	destabilize tree, severe root damage	**MIGHT NOT SURVIVE**
386	valley oak	*12.0*	15-0-12-8	fair	*MODERATE*	drainline, parking	2.8	destabilize tree, severe root damage	**MIGHT NOT SURVIVE**
387	valley oak	*18.0*	15-4-18-18	good	*MODERATE*	drainline, parking	1.5	destabilize tree, severe root damage	**MIGHT NOT SURVIVE**
389	lemon	*25.0*	9-6-9-10	very poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
390	valley oak	*14.0*	14-15-9-15	fair	*MODERATE*	demolition	18	destabilize tree, severe root damage	**MIGHT NOT SURVIVE**
391	Ca black walnut	*11.0*	9-9-3-3	poor	*POOR*	parking	0	whole tree destroyed	**LOSS**
392	giant sequoia	*25.0*	6-10-10-10	fair	*MODERATE*	demolition, drainline	18	reduced health	**SURVIVE, SHORTER LIFE**
393	valley oak	*14.0*	0-15-15-18	fair	*MODERATE*	demolition, drainline	19	reduced health	**SURVIVE**
394	plum	*9.0*	8-0-10-4	poor	*GOOD*	drainline	2	whole tree destroyed	**LOSS**
395	valley oak	*16.0*	17-20-5-18	fair	*MODERATE*	grading	15	reduced health	**SURVIVE, SHORTER LIFE**

# + O	Name	*cumulative trunk diameter*	Dripline (N,S,E,W) feet	Health	*construction tolerance*	CLOSEST ITEMS	TRUNK DISTANCE (FEET)	IMPACTS	CONSEQUENCES
396	olive	*10.0*	9-8-8-2	good	*GOOD*	grading	16.7	reduced health	**SURVIVE**
397	valley oak	*14.0*	8-6-10-20	fair	*MODERATE*	grading	30	no visible impact	**SURVIVE**
398	olive	*7.0*	7-6-7-8	fair	*GOOD*	storm drain	0	whole tree destroyed	**LOSS**
399	olive	*12.0*	6-10-8-10	fair	*GOOD*	parking	0	whole tree destroyed	**LOSS**
400	almond	*26.0*	8-15-0-15	poor	*MODERATE*	parking	0	whole tree destroyed	**LOSS**

APPENDIX D - RECOMMENDATIONS

tag #+ O	Name	Trunk Diameter (inches)	Dripline (N,S,E,W) feet	Tree Protection Zone Radius (feet)	Air Spading +Root Pruning	Clearance Pruning
339	blue oak	36.8	30-40-35-35	25	YES	YES
345	blue oak	30.0	25-25-25-30	30	YES	YES
385	Monterey pine	28.0	18-15-17-18	20, *GROUP WITH #386 & 387*	YES	NO
386	valley oak	12.0	15-0-12-8	20, *GROUP WITH #385 & 387*	YES	YES
387	valley oak	18.0	15-4-18-18	20, *GROUP WITH #385 & 386*	YES	YES
390	valley oak	14.0	14-15-9-15	20	YES	NO
392	giant sequoia	25.0	6-10-10-10	20, *GROUP WITH #393*	YES	NO
393	valley oak	14.0	0-15-15-18	20, *GROUP WITH #392*	YES	NO
395	valley oak	16.0	17-20-5-18	20	YES	NO
396	olive	5, 4, 3	9-8-8-2	10	NO	YES
397	valley oak	14.0	8-6-10-20	20	NO	NO

APPENDIX E - PRESERVATION DETAILS



1. TREE PROTECTION ZONE (TPZ)

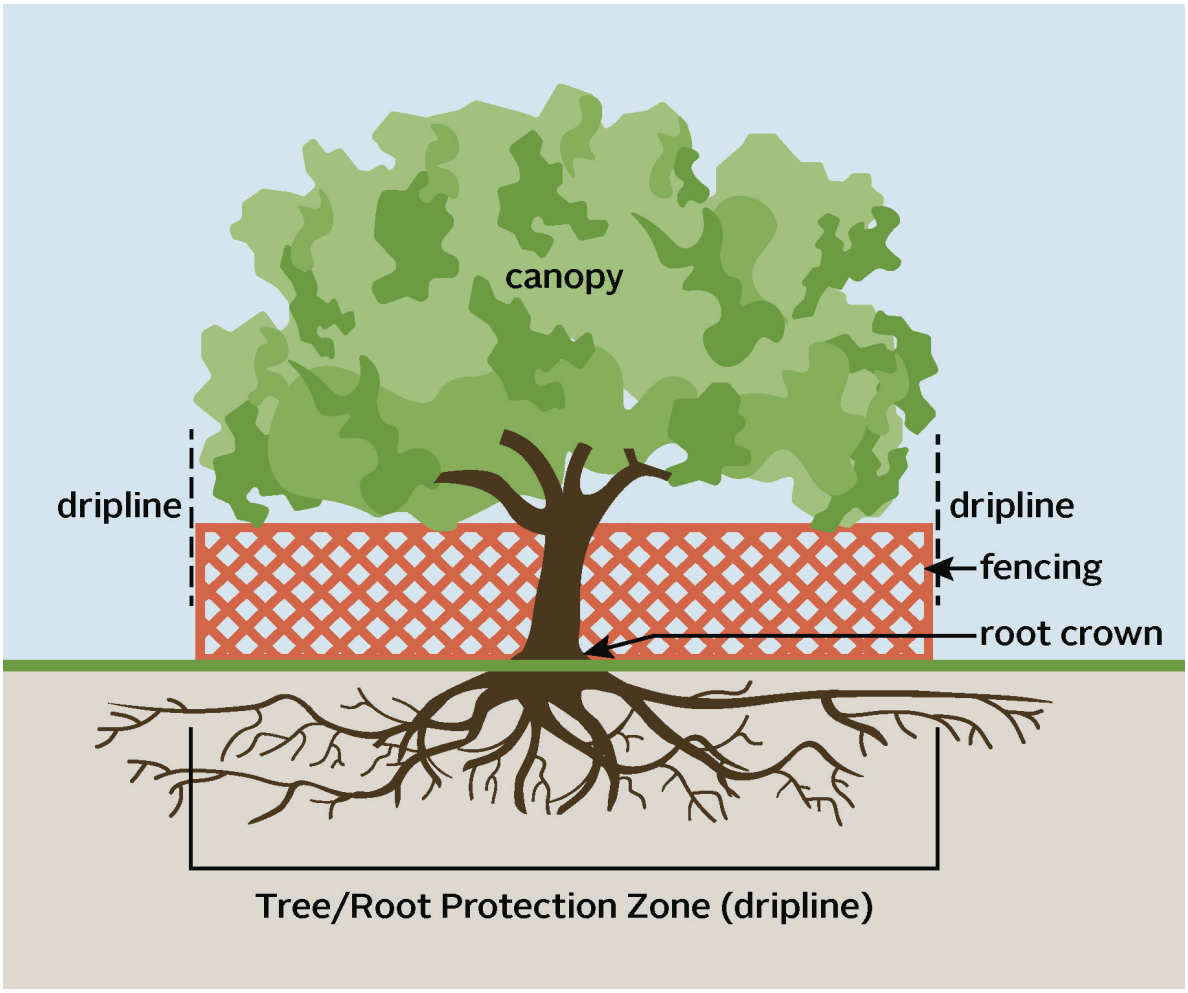
Permitted Within TPZ

- Mulching – should be used during construction to protect the soil from compaction, conserve soil moisture, and moderate soil temperature. Spread wood chips to a depth of 4 (four) inches, leaving the trunk clear of mulch.
- Irrigation, aeration, or other beneficial practices that have been specifically approved for use by the Project Consulting Arborist

Prohibited Within TPZ

- Storage of construction materials, debris, or excavated material.
- Parking vehicles or equipment.
- Foot traffic.
- Erection of sheds or structures.
- Drainage changes or impoundment of water.
- Cutting tree roots by utility trenching, foundation digging, placement of curbs, trenches and other miscellaneous excavation or other digging.
- Soil disturbance, soil compaction or grade change.
- Washout activities

2. FENCING DETAIL



SPECIFICATION

- Tree protection fence is recommended along the edge of all Tree Protection Zones
- Orange vinyl construction fencing, snow fencing or other similar fencing should be at least 4 feet high and supported at a maximum of 10 foot intervals by metal T-posts or approved methods sufficient enough to keep the fence upright and in place. T-posts shall be a minimum of 2 feet in the ground. Wooden stakes and rebar posts are not considered as an approved method sufficient enough to keep the fence upright and in place.
- Chain link fence shall be 6 feet tall with 2 inch mesh chain link fabric. 2 inch posts shall be tied with 6 gauge aluminum wire ties at 24 inch on center. Posts shall be a minimum of 2 feet in the ground and spaced at a maximum of 10 feet on center. Plastic zip-ties may not be used.

3. AIR SPADING & ROOT PRUNING

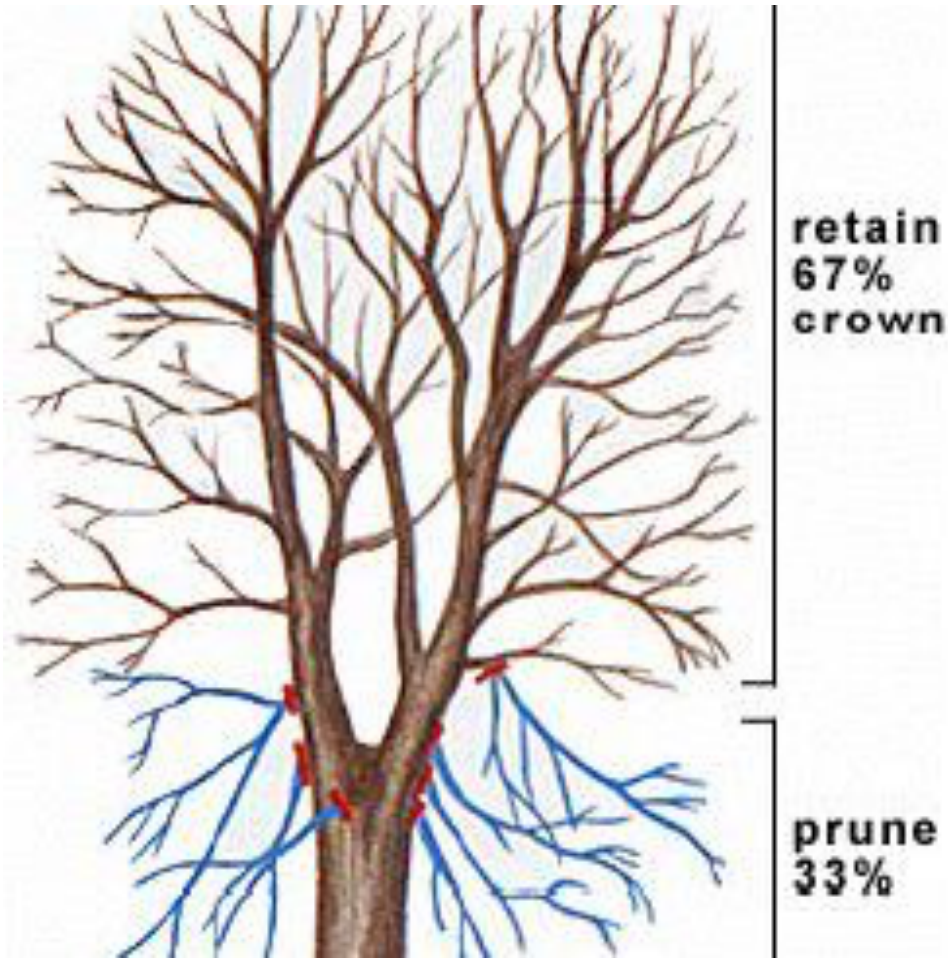
roots exposed by blowing away soil = air spading

ROOT EXPOSURE & PRUNING: Exposed & cut roots cleanly prior to work near tree to minimize damage to remaining roots and reduce the risk of causing disease, decay and instability.

SPECIFICATION

- Expose roots along outside edge of 5 foot fenceline setback with air spade or other tool that uses compressed air
- Sharply cut completely and cleanly through all roots
- Use reciprocating saw with sharp blades or circular saws of varying types and/or a rotary-type stump grinder
- Saw blades or grinder teeth should be sharpened prior to use, and sharpness maintained
- Unless immediately backfilled after pruning, as a temporary measure, place burlap material and/or spread mulch over exposed roots after cuts are made and before soil is replaced. Keep this material damp until backfilled to prevent the fine roots from drying and dying
- Since root pruning occurs along or behind the line of planned construction, it should be coordinated with the tree protection fencing

4. CROWN RAISING DETAIL



RAISE

"Pruning to provide vertical clearance." American National Standard ANSI A300 (Part 1)-2008.
Removal of the lower branches of a tree to provide clearance, fire safety or to increase aesthetic quality.

SPECIFICATIONS

- Clearance:
  - Three to six foot clearance from vegetated ground
  - Five to Six foot foot clearance from walls, gutters, roofs and lights
  - Fourteen foot clearance above all areas to be graded
- Size of cuts: small diameter cuts are preferred, in the range of one to three inches
- Type of cuts: thinning or proper reduction cuts only, unless approved ahead of time
- Balance: aesthetic and structural balance shall be maintained at all times

APPENDIX F - GLOSSARY

dripline - region underneath tree canopy

form - genetically determined appearance that includes spread, height & configuration

health - tree growth as expressed by foliage, twigs, branches & trunks including resistance to pests

root crown – region where trunk and root system meet, also called `buttress' or `butt'

rooting zone – area where roots are likely to survive, beginning at the trunk and extending up to three times the radius of a tree's dripline region

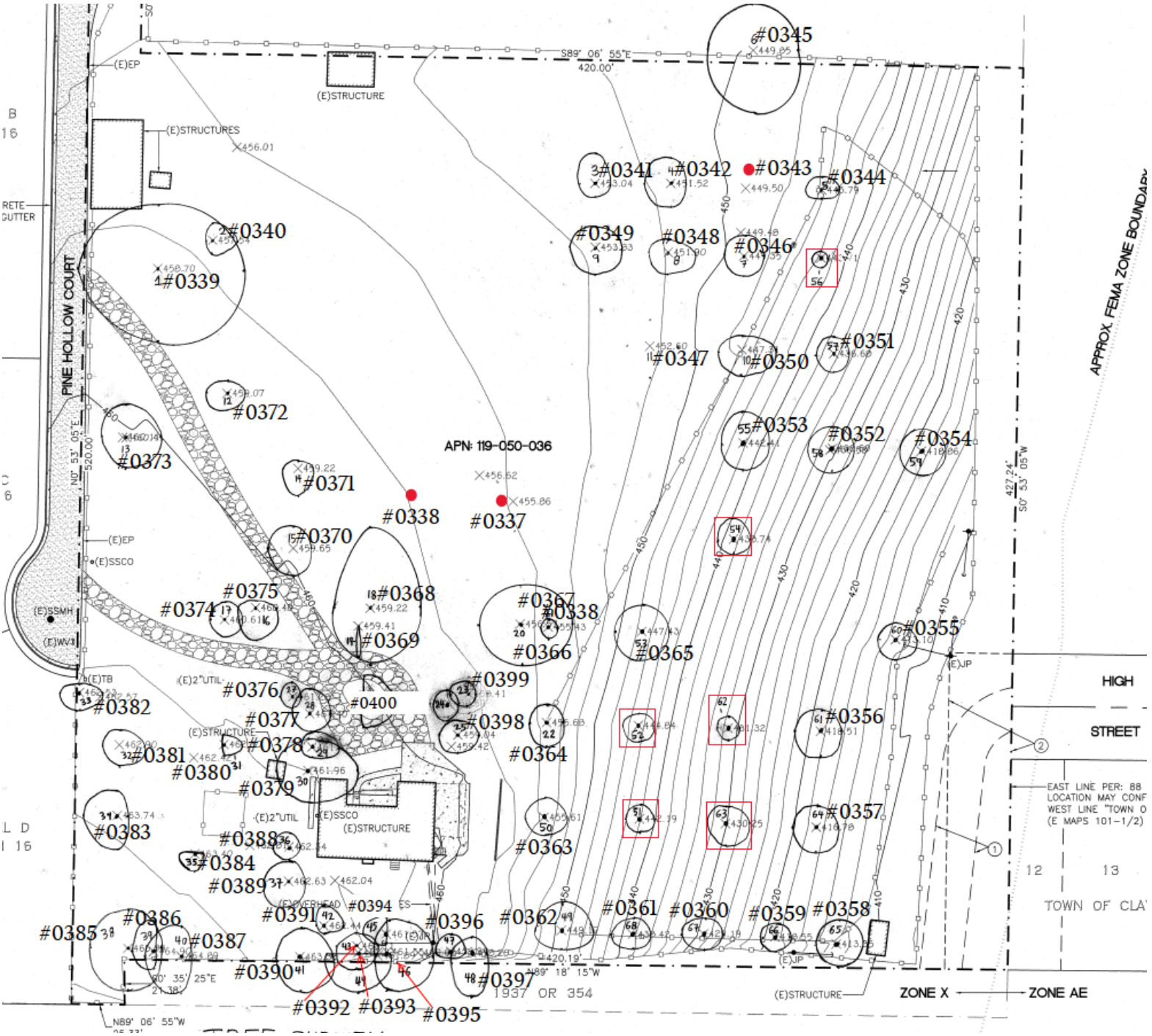
scaffold – large, structural branch

structure - physical and mechanical qualities of tree

trunk circumference – measurement of trunk, distance around

trunk diameter - trunk circumference divided by 3.14

APPENDIX G - TREE LOCATION MAP



APPENDIX H - CERTIFICATE OF PERFORMANCE

I, Michael Baefsky certify:

- That I have reviewed the The City of Clayton Municipal Code, Chapter 15.70 Tree Protection
- That I have evaluated the subject trees, and stated my findings accurately. The extent of the evaluation is stated in the attached report;
- That I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions, and conclusions stated herein are my own;
- That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted professional practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I certify that I am Registered Consulting Arborist #456, a member of the American Society of Consulting Arborists, and am Certified Arborist & Qualified Risk Assessor #WE0222A, Agricultural Pest Control Advisor #074617, Qualified Applicator #99864, Licensed Landscape Contractor (inactive) #931410, and have been involved in the practice of Arboriculture, Integrated Pest Management, Plant Health Care and Ecological Soils Management, and the study of soils and horticulture for over thirty years.

Michael Baefsky

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Attachment G

Initial Study/Mitigated Negative Declaration

Clayton Community Church
Planning Commission Meeting, April 27, 2021

Clayton Community Church Project
Initial Study/Mitigated Negative Declaration
ENV-03-16

CITY OF CLAYTON

Founded 1857 .. Incorporated 1964

City of Clayton
Community Development Department
6000 Heritage Trail
Clayton, California 94517
(925) 673-7340

April 2021

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INTRODUCTION

Clayton Community Church has proposed to construct a community church and associated parking lot on a 4.42-acre site, located at 1027 Pine Hollow Court in Clayton, California. The community church would be approximately 13,~~823~~998 square feet (sf) and the proposed parking lot would include ~~156~~160 parking spaces. The proposed project would require City approval of a Use Permit for the proposed church, a Site Plan Review Permit, and a Tree Removal Permit for the removal of 48 on-site trees.

This Initial Study/Mitigated Negative Declaration (IS/MND) identifies potentially significant environmental impacts for the following environmental areas:

- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Noise; and
- Tribal Cultural Resources.

Environmental analysis determined that measures were available to mitigate potential adverse impacts to insignificant levels. As a result, a Mitigated Negative Declaration has been prepared pursuant to Public Resources Code Section 21064.5, and Article 6 of the California Environmental Quality Act (CEQA) Guidelines.

Pursuant to the requirements of CEQA Guidelines Section 15071, this Mitigated Negative Declaration describes the proposed project; identifies, analyzes, and evaluates the potential significant environmental impacts, which may result from the proposed project; and identifies measures to mitigate adverse environmental impacts. With implementation of the included mitigation measures, the project would not have a significant impact on the environment.

PROJECT/APPLICANT INFORMATION

1.	Project Title:	Clayton Community Church Project
2.	Lead Agency Name and Address:	City of Clayton 6000 Heritage Trail Clayton, CA 94517
3.	Contact Person and Phone Number:	Matthew Feske Community Development Director City of Clayton (925) 673-7343
4.	Project Location:	1027 Pine Hollow Court Clayton, CA 94517
5.	Project Sponsor's Name and Address:	Clayton Community Church 6055 Main Street Clayton, CA 94517
6.	Existing General Plan Designation:	Rural Estate (RD)
7.	Existing Zoning Designation:	Single Family Residential (R-40-H)

8. Project Description Summary:

The Clayton Community Church Project (proposed project) would include the development of a new community church with an associated parking lot. The community church would ~~be a single story building,~~ comprise approximately 13,~~823~~998 sf, and primarily consist of a single-story elevation. The building would include a limited second story area containing approximately 2,674 square feet of space. The proposed parking lot would include ~~156~~ 160 parking spaces. Primary access to the site would be provided by one new driveway on Pine Hollow Court, along the western boundary of the site. The project site would involve the removal of 48 trees within the site. Two existing storage structures in the northwestern portion of the project site would be demolished, while the single-family residence located in the southwestern portion of the site would remain as part of the proposed project and would be used by the pastor.

The proposed project would be consistent with the existing General Plan land use designations and zoning for the project site, subject to approval of a Use Permit. The proposed project would also require City approval of a Site Plan Review Permit and a Tree Removal Permit.

9. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), the City of Clayton sent a project notification letter through certified mail to representatives of the local tribes. Formal requests for consultation have not been received to date.

The environmental factors checked below would be potentially affected by this project. The following Evaluation of Environmental Impacts identifies at least one impact that is "Less Than Significant with Mitigation Incorporated" for each of the checked environmental factors.

☐ **Aesthetics**	☐ **Agriculture and Forest Resources**	✖ **Air Quality**
✖ **Biological Resources**	✖ **Cultural Resources**	☐ **Energy**
✖ **Geology and Soils**	☐ **Greenhouse Gas Emissions**	✖ **Hazards and Hazardous Materials**
☐ **Hydrology and Water Quality**	☐ **Land Use and Planning**	☐ **Mineral Resources**
✖ **Noise**	☐ **Population and Housing**	☐ **Public Services**
☐ **Recreation**	☐ **Transportation**	✖ **Tribal Cultural Resources**
☐ **Utilities and Service Systems**	☐ **Wildfire**	☐ **Mandatory Findings of Significance**

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

X I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case since the Project proponent has made revisions in the Project and has agreed to the mitigation measures listed in "Section V. List of Mitigation Measures." I further find that the mitigation measures and the information in this study constitute a MITIGATED NEGATIVE DECLARATION in accordance with Section 15071 of the State CEQA Guidelines.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Holly Pearson
Contract Planner

BACKGROUND

This IS/MND identifies and analyzes the potential environmental impacts of the current proposal for the proposed project. The information and analysis presented in this document is organized in accordance with the order of the CEQA checklist in Appendix G of the CEQA Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that should be applied to the project are prescribed.

The impact discussions for each section of this IS/MND have been largely based on technical studies prepared for the proposed project, as well as information in the Clayton General Plan and the Clayton General Plan EIR.

PROJECT DESCRIPTION

A description of the project location and setting, the components of the project, and project entitlements is provided below.

Site Location and Setting
The project site consists of approximately 4.42 acres of land located at 1027 Pine Hollow Court in the City of Clayton, California (see Figure 1 and Figure 2). The site is identified by Assessor's Parcel Number (APN) 119-050-036. The project site is designated Rural Estate (RD) per the City of Clayton General Plan and zoned R-40-H.

The project site is primarily characterized as open land with ruderal vegetation and scattered trees, and has been subject to a recent grass fire within a portion of the project site. A total of 64 trees are located throughout the site, which include different types of oak, pine, sequoia, and other species. However, six of the trees are dead, leaving 59 live trees remaining on-site. The site includes an occupied single-family residence in the southwestern portion of the project site, as well as storage structures associated with the existing residence in the northwestern portion of the site. The storage structures consist of a barn-type building and a garden shed.

The western and central portions of the site are relatively flat, whereas the eastern portion of the site slopes down toward Mitchell Creek, beyond which is the Town Center area of the City. The slope drops approximately 50 feet to the eastern site boundary.

The project site is bordered by Mt. Diablo Elementary School to the north, Pine Hollow Court and single-family residential homes to the west, single-family residential homes to the south, and Mitchell Creek and Oak Street to the east. Commercial businesses and multi-family residences are located east of Oak Street, within the Clayton Town Center Specific Plan area. The current Clayton Community Church offices operate within the Town Center Specific Plan Area and are located approximately 0.11-mile northeast of the site. Prior to the COVID-19 pandemic, the church met at Diablo View Middle School on Clayton Road.

Figure 1
Regional Location Map

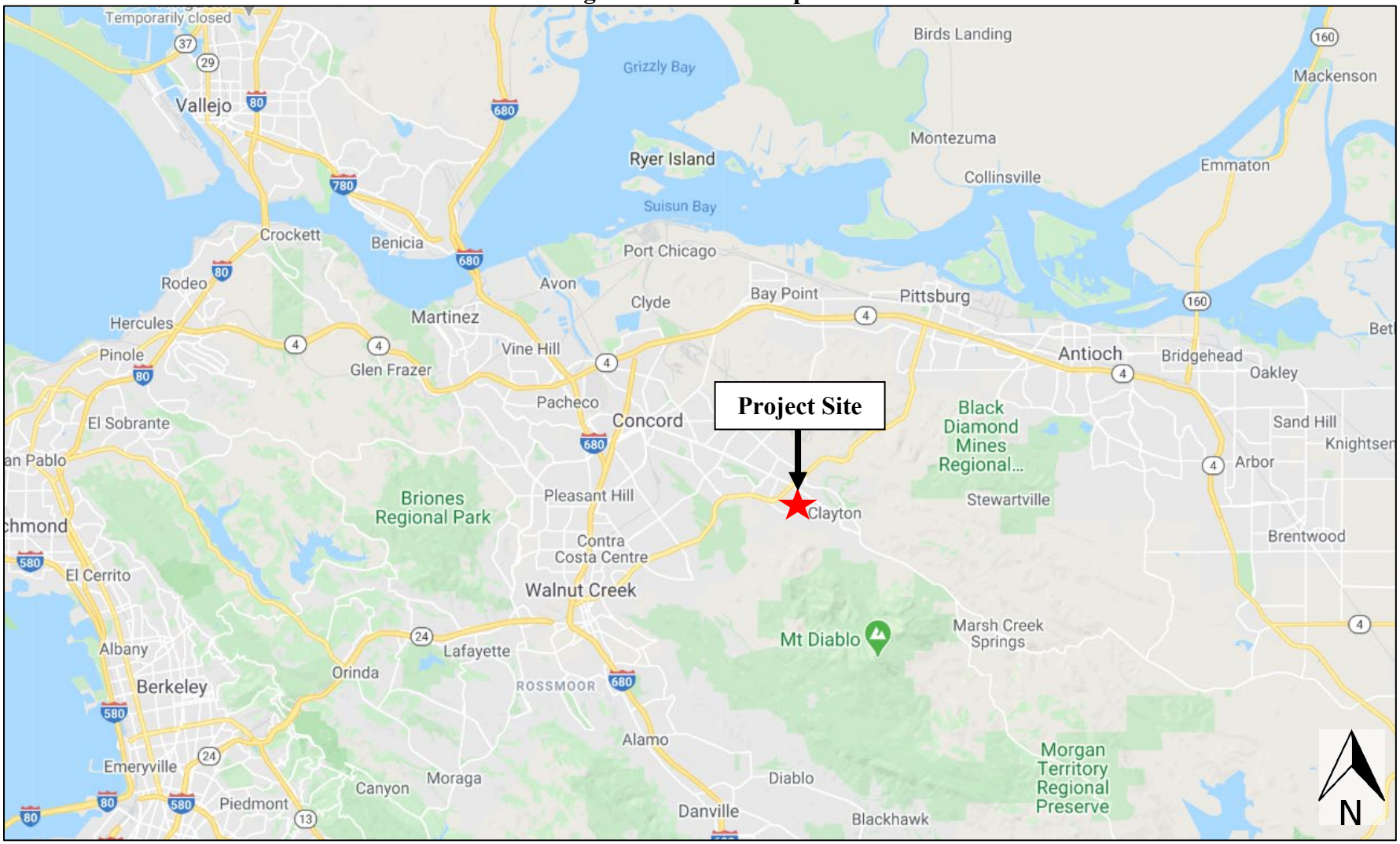
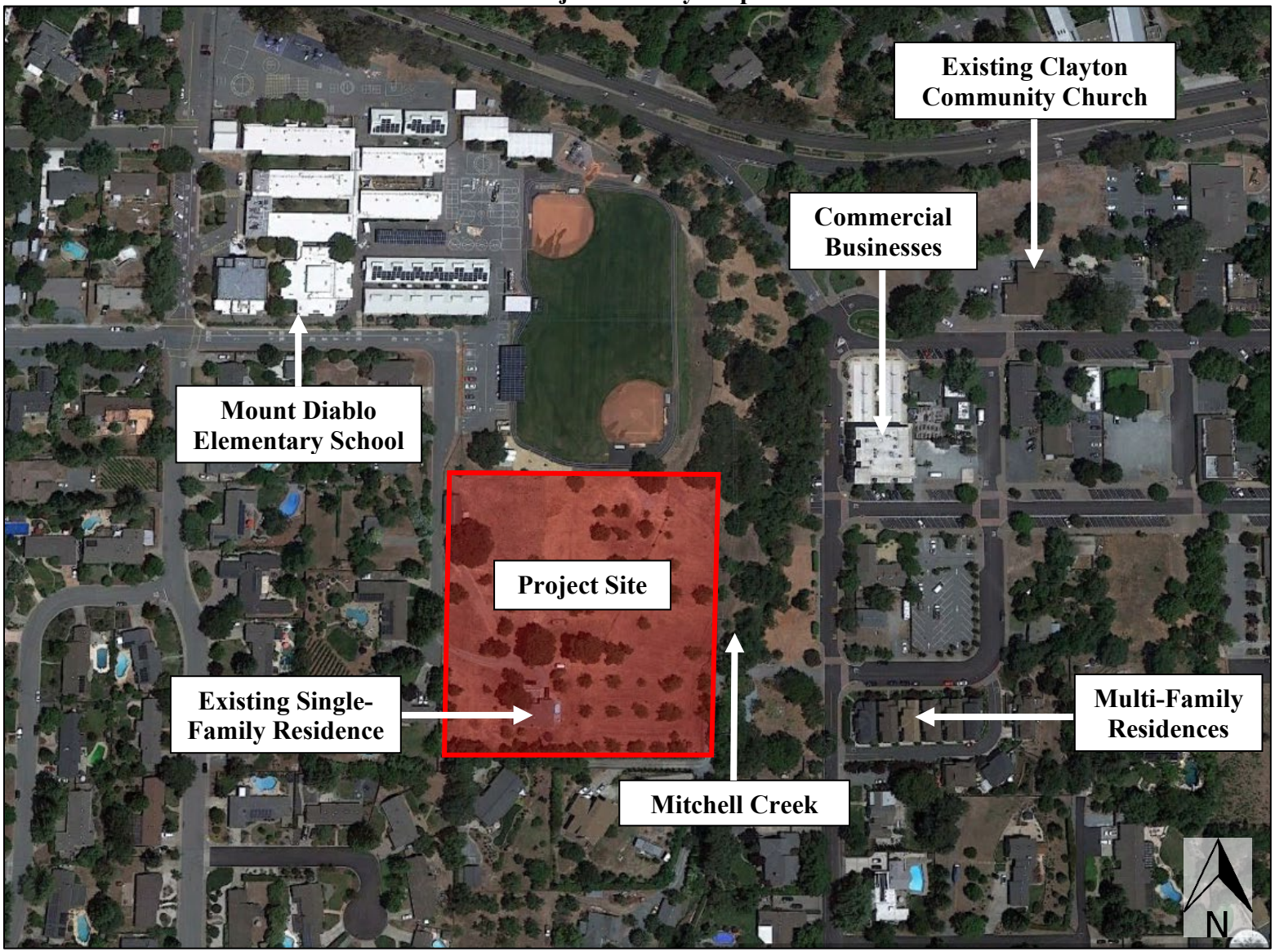


Figure 2
Project Vicinity Map



Project Components
The proposed project would require approval of a Use Permit, Site Plan Review Permit, and Tree Removal Permit. Each of the project approvals, as well as the proposed operational plan, is discussed in detail below.

Use Permit
Per Section 17.60.030 of the City's Municipal Code, construction and operation of churches are allowed under the R-40-H zone with the approval of a Use Permit. Therefore, the proposed project would require City approval of a Use Permit.

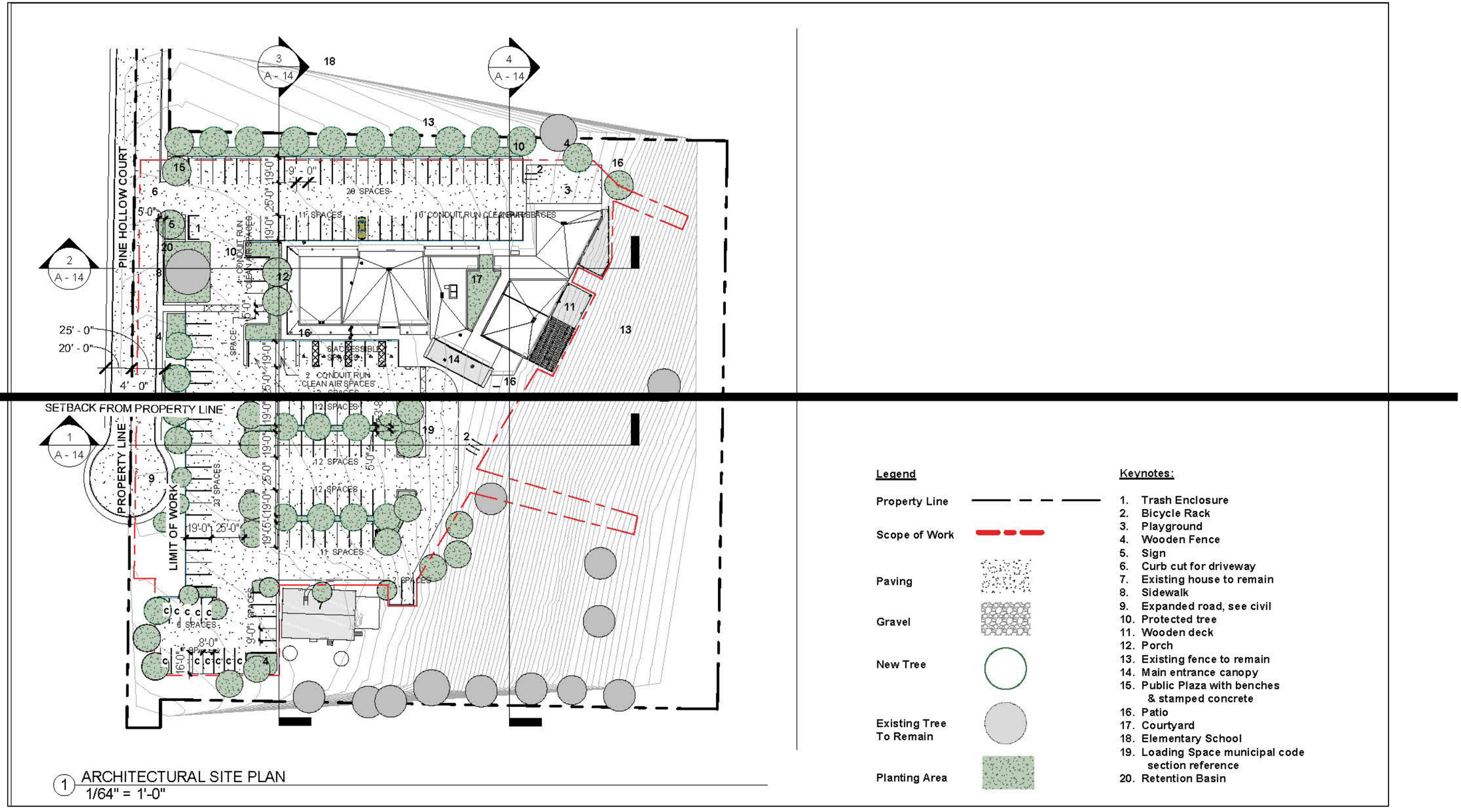
In order to approve a Use Permit, the City must be able to make general findings, identified in Section 17.60.060 of the Municipal Code, as follows:

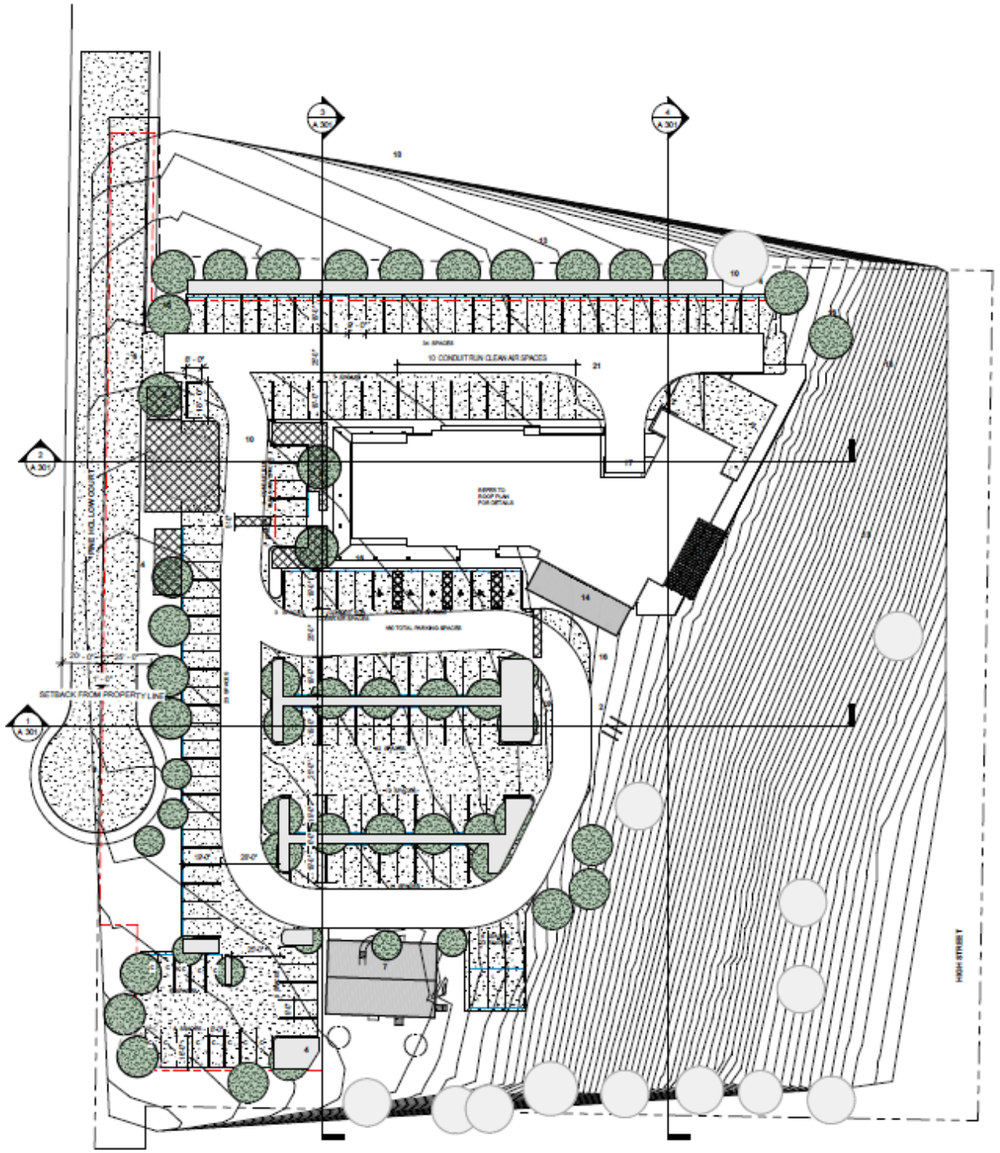
A. That the use shall be in conformity with the General Plan and any applicable specific plan.
B. That the use shall be in conformity with city-adopted standards.
C. That the use shall not negatively affect the general safety (e.g., seismic, landslide, flooding, fire, traffic) of the City or surrounding area.
D. That the use shall not have significant negative impacts on the health or general welfare of residents, businesses, property owners, or employees in the City.
E. That the permit will be in accord with the purpose of Use Permits, as stated in the City of Clayton Municipal Code.

This IS/MND will provide decision-makers with information and analysis related to the particular aspects of the findings that pertain to environmental issues.

Site Plan Review Permit
The proposed project would require approval of a Site Plan Review Permit for the proposed community church and parking area (see Figure 3). The Municipal Code (Section 17.46.040) identifies several standards of review for Site Plan Review permit applications, some of which are related to environmental concerns and will be addressed in this IS/MND, including preservation of general safety (e.g., seismic conditions, landslide, flooding, fire, and traffic). The community church would ~~be a single-story building~~ consist~~ing~~ of approximately 13,~~823~~998 sf, and primarily consist of a single-story elevation. The building would include a limited second story area containing approximately 2,674 square feet of space. Primary components ~~and~~ would include a sanctuary at the center of the ~~east portion of the~~ building, ~~ministry offices east of the sanctuary, and a prayer room, storage room, sound room, and restrooms to the west of the sanctuary~~ with a prayer room, storage and sound rooms, and Sunday School classrooms for toddlers to the west of the sanctuary (see Figure 4). The ~~western~~ eastern portion of the building would include bathrooms, classrooms, ~~and the south portion of the building would contain~~ the lobby, and warming kitchen. The smaller second-story of the building, which would be primarily located on the eastern side of the building, would contain ministry offices, a conference room, and Sunday School classrooms for junior- and high-school aged students (see Figure 5). The ~~single-story~~ building would have different height articulations (see ~~Figure 5~~ Figure 6 and ~~Figure 6~~ Figure 7). The maximum building height would be approximately ~~27~~29 feet, 8 inches, from average grade to top of highest parapet wall. Additionally, the community church would include three ground-level wooden decks, a courtyard, and a balcony on the eastern side of the building, as well as an outdoor playground northeast of the proposed building ~~(see Figure 7 and Figure 8)~~.

Figure 3
Site Plan





SHEET NOTES:

1. Net parcel size: 183,469
   Gross parcel size: 201,964
2. Floor Area Ration (FAR):
   13,998 SF / 201,964 SF = 0.069 = 6.9%
3. Allowable building area:
   35% of 183,469 = 64,214 sf
   Proposed Building Area: 13,998 sf
   Design Height 29'- 8"
   Number of Stories: 2
4. Bicycle parking spaces: 17
   Bicycle parking spaces provided: 18
   Clayton Municipal Code (17.37.040)
5. Parking Stalls Required: 157
   Parking Stalls Provided: 160
   Specifics:
   -6 Accessible Stalls
   1 Van Stall per CA Bldg Code, Part 2, Vo. 1 Table 11B-208.2
   -13 Compact Stalls
   Clayton Municipal Code 17.37.080
   -16 Marked with "Clear Air/EV/Vanpool >10 of the 16 to have conduit run for future EV
   -121 Car Stalls
   - 3 tandem parking spaces
   Total: 160 Stalls
6. Refer to Civil Drawings for biorentention, vegetation and optimization of site layout
7. Refer to Landscape Drawings for landscaping details.
8. Refer to Demo plan & Tree plan for tree information

KEYNOTES:

1. TRASH ENCLOSURE
2. BICYCLE RACK
3. PLAYGROUND
4. WOODEN FENCE
5. SIGN
6. CURB CUT FOR DRIVEWAY
7. EXISTING HOUSE TO REMAIN
8. SIDEWALK
9. EXPANDED ROAD, SEE CIVIL
10. PROTECTED TREE
11. WOODEN DECK
12. PORCH
13. EXISTING FENCE TO REMAIN
14. MAIN ENTRANCE CANOPY
15. PUBLIC PLAZA WITH BENCHES & STAMPED CONCRETE
16. PATIO
17. COURTYARD
18. ELEMENTARY SCHOOL
19. LOADING SPACE MUNICIPAL CODE SECTION REFERENCE
20. RETENTION BASIN
21. PROPOSED FIRE APPARATUS ROUTE

LEGEND

PROPERTY LINE

SCOPE OF WORK

PAVING

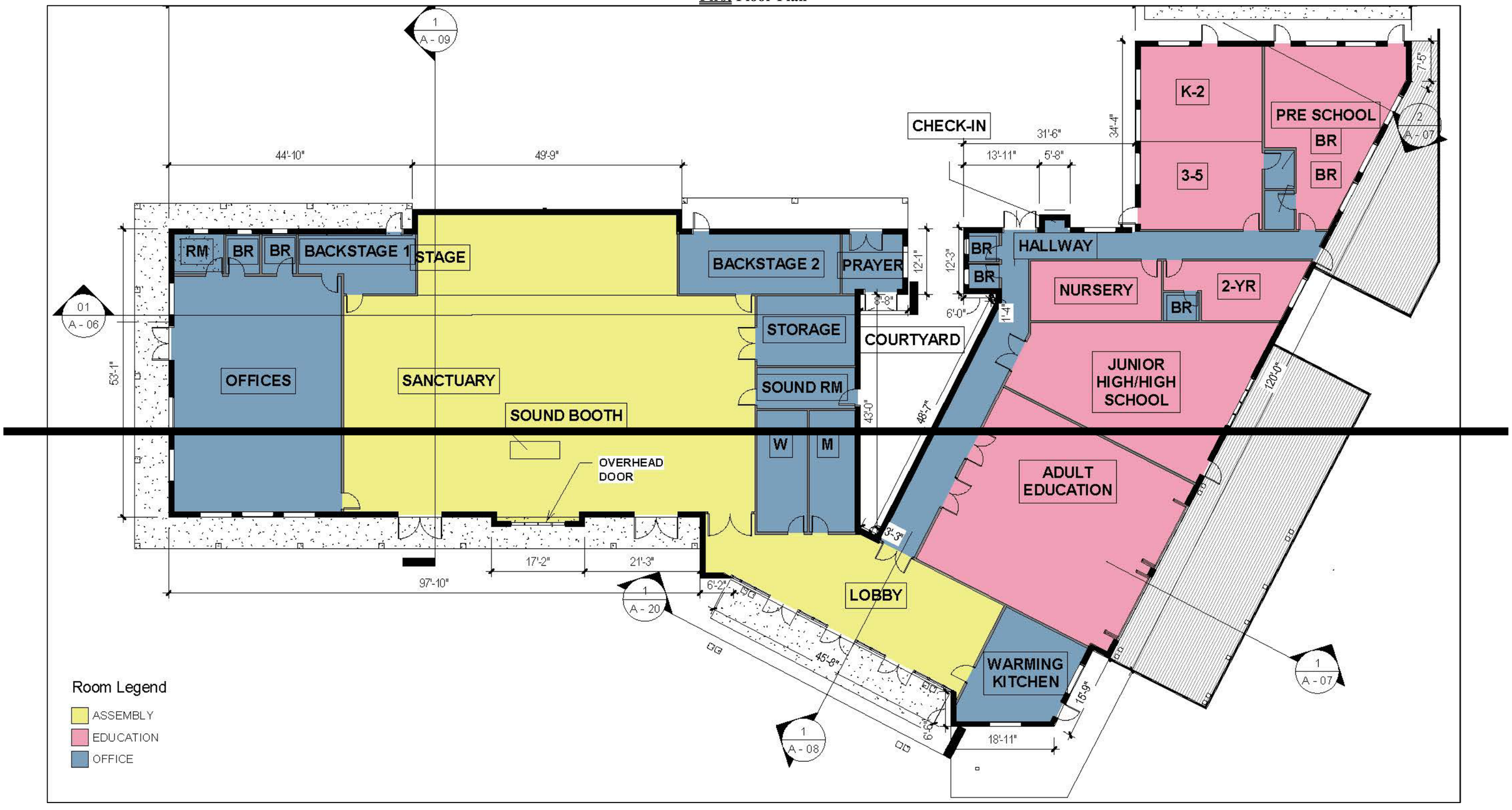
GRAVEL

NEW TREE

EXISTING TREE TO REMAIN

PLANTING AREA

Figure 4
<u>First</u> Floor Plan



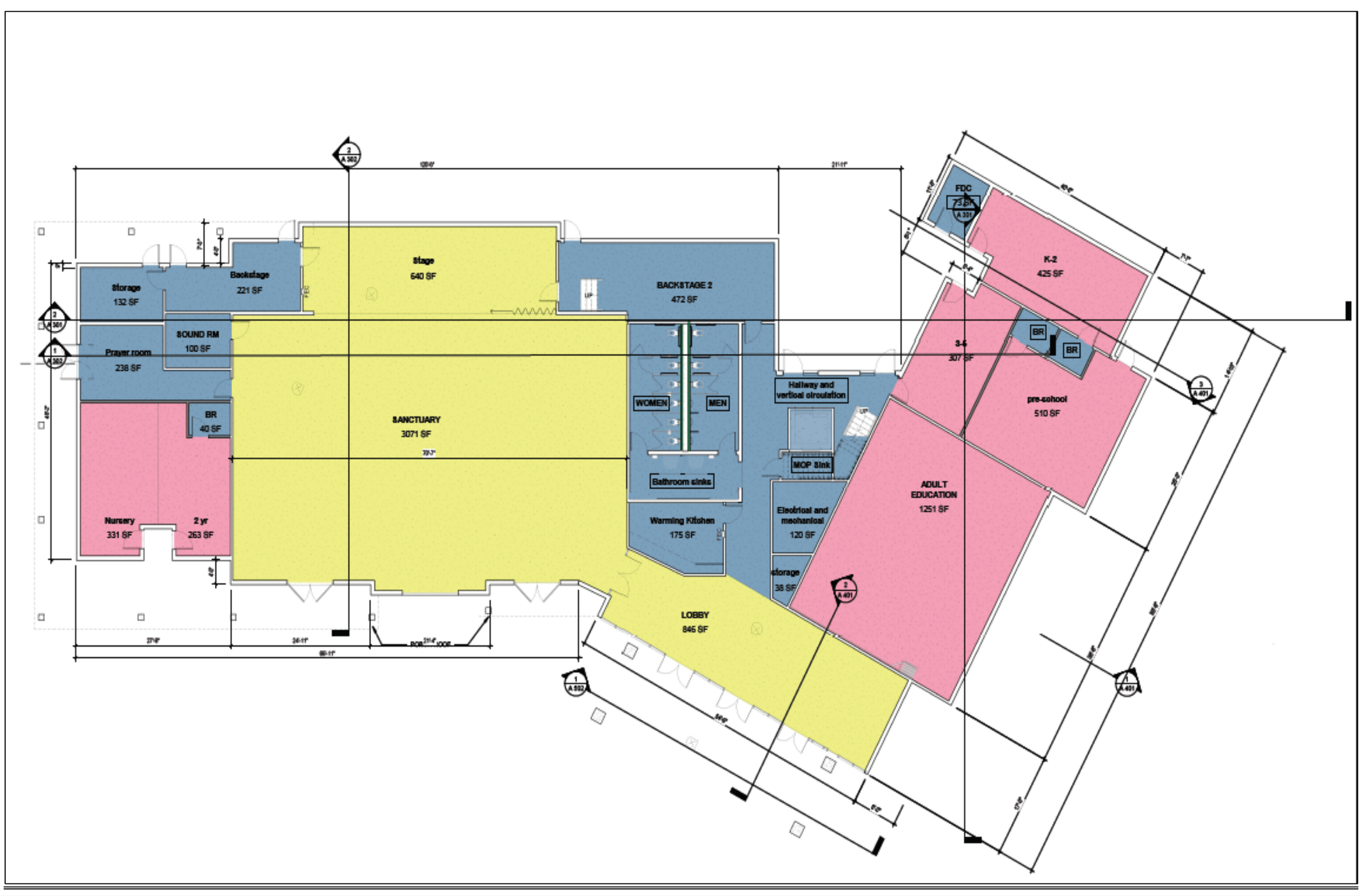

Storage
132 SF
Backstage
221 SF
Stage
640 SF
BACKSTAGE 2
472 SF
SOUND RM
100 SF
Prayer room
238 SF
BR
40 SF
SANCTUARY
3071 SF
WOMEN
MEN
Hallway and vertical circulation
MOP Sink
Bathroom sinks
Warming Kitchen
175 SF
Electrical and mechanical
120 SF
storage
38 SF
LOBBY
845 SF
Nursery
331 SF
2 yr
263 SF
FDC
73 SF
K-2
425 SF
3-5
307 SF
BR
BR
pre-school
510 SF
ADULT EDUCATION
1251 SF

Figure 5
Second Floor Plan

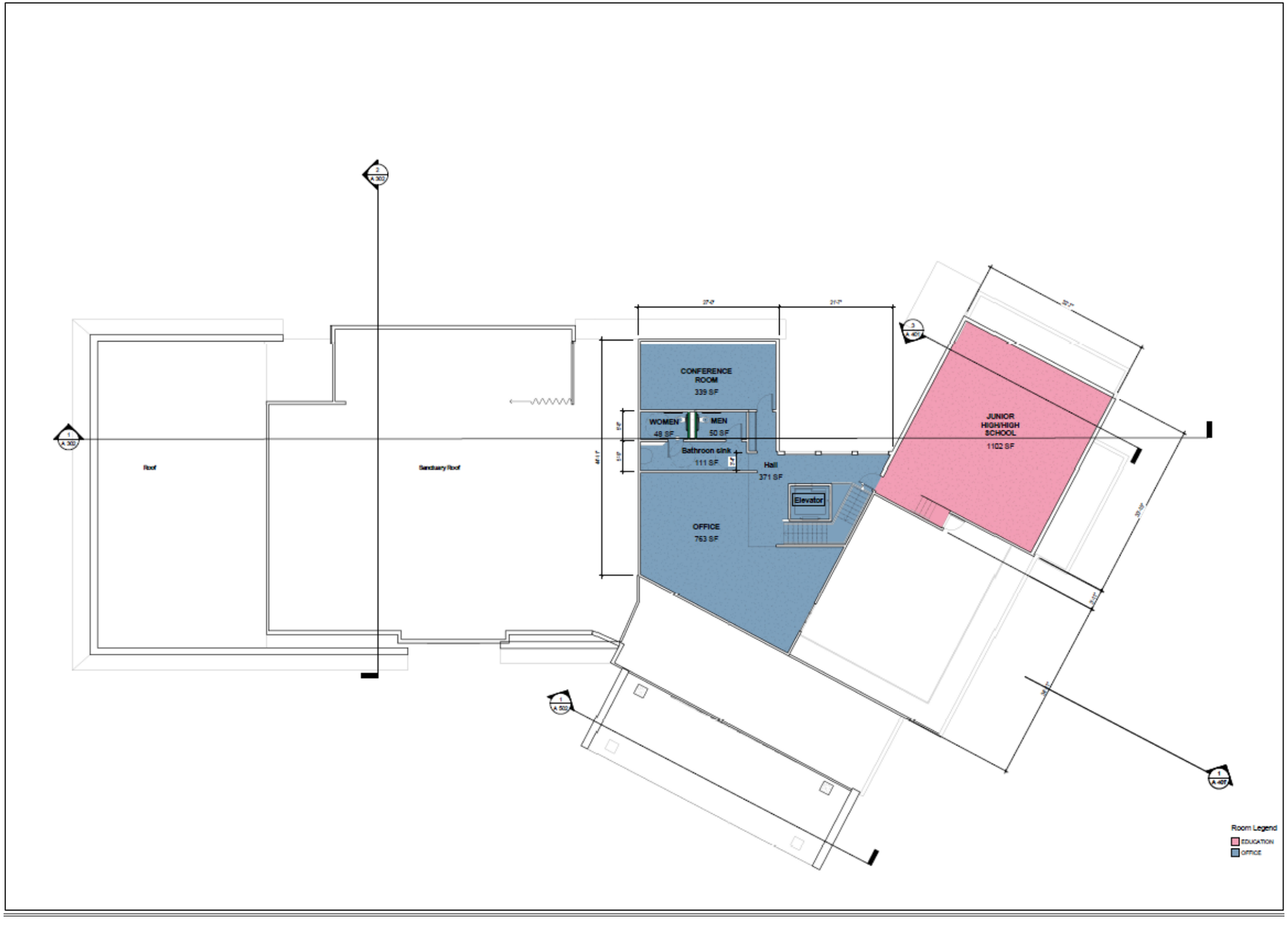
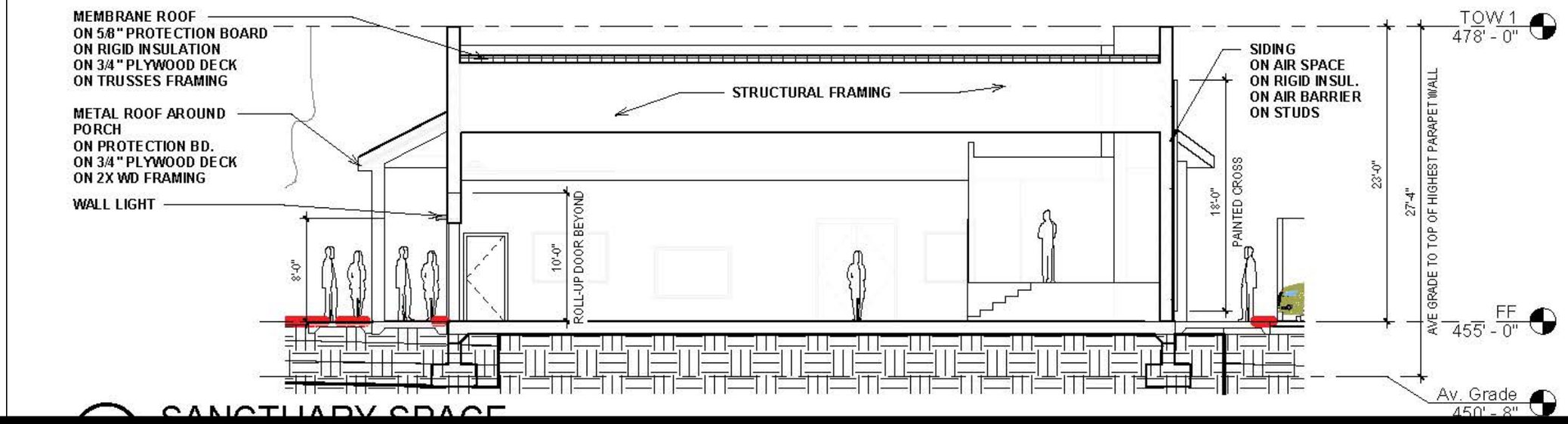
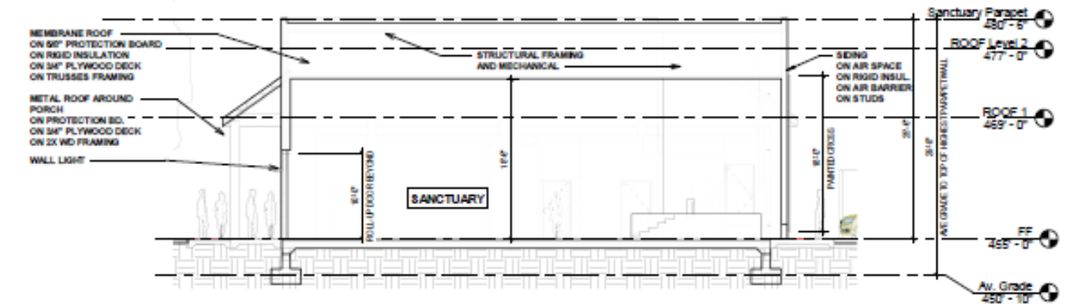
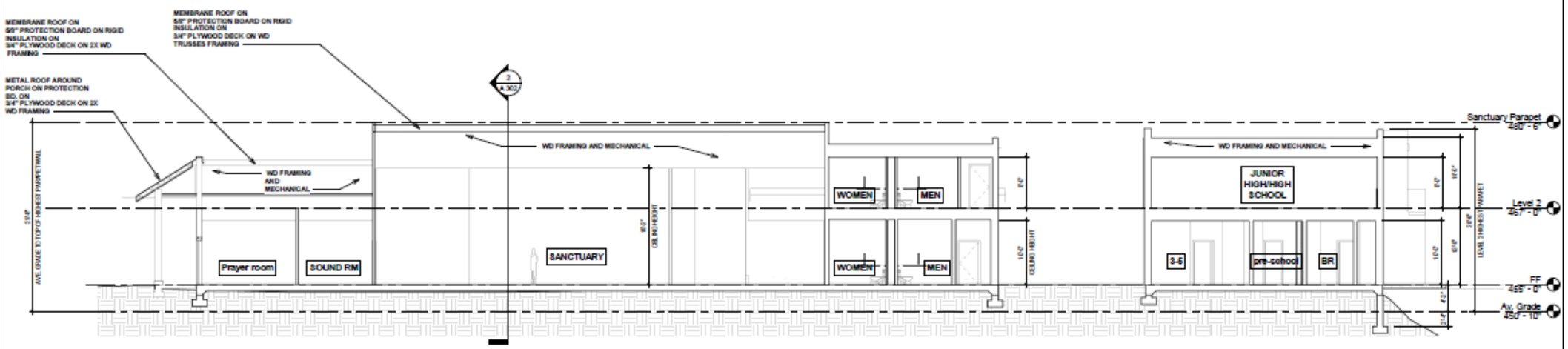


Figure ~~5~~6
~~Northern~~ West-East Building ~~Elevation~~ Sections





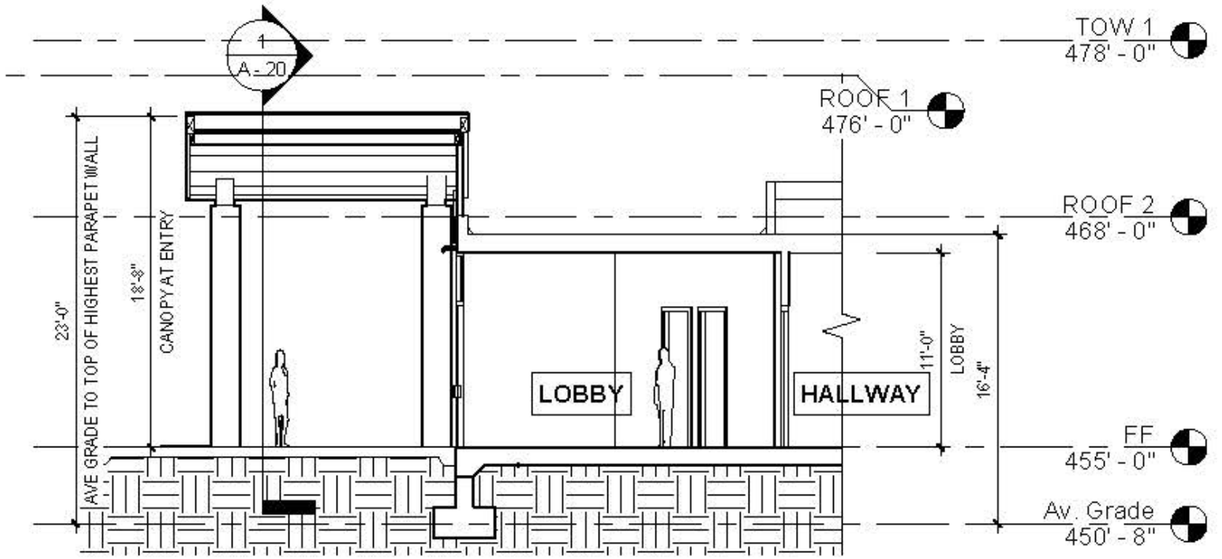
③ SANCTUARY SPACE SECTION
1/8" = 1'-0"



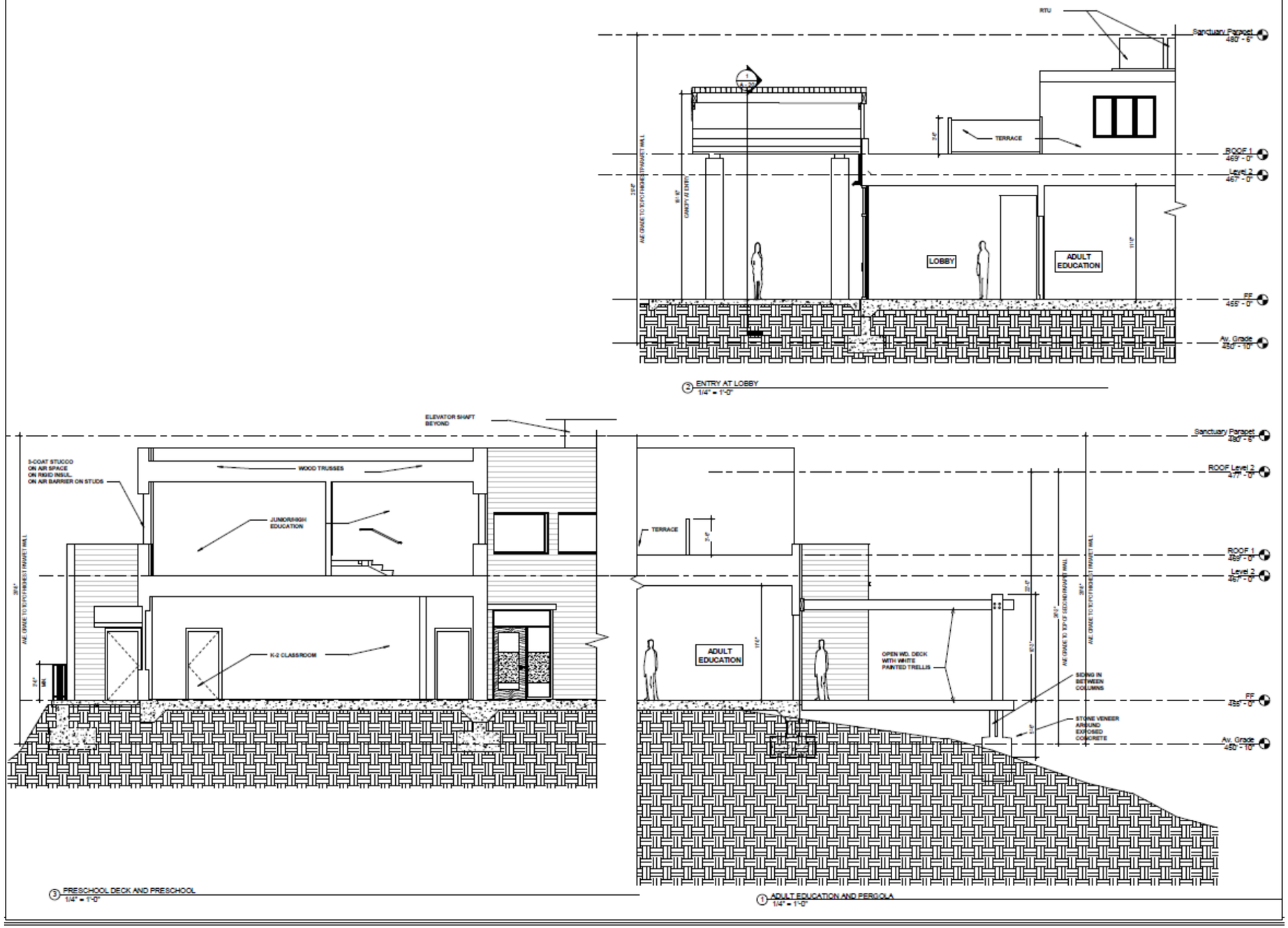
① WEST-EAST BUILDING SECTION
1/8" = 1'-0"

Figure 67
~~Southern Elevation~~ Wall Sections

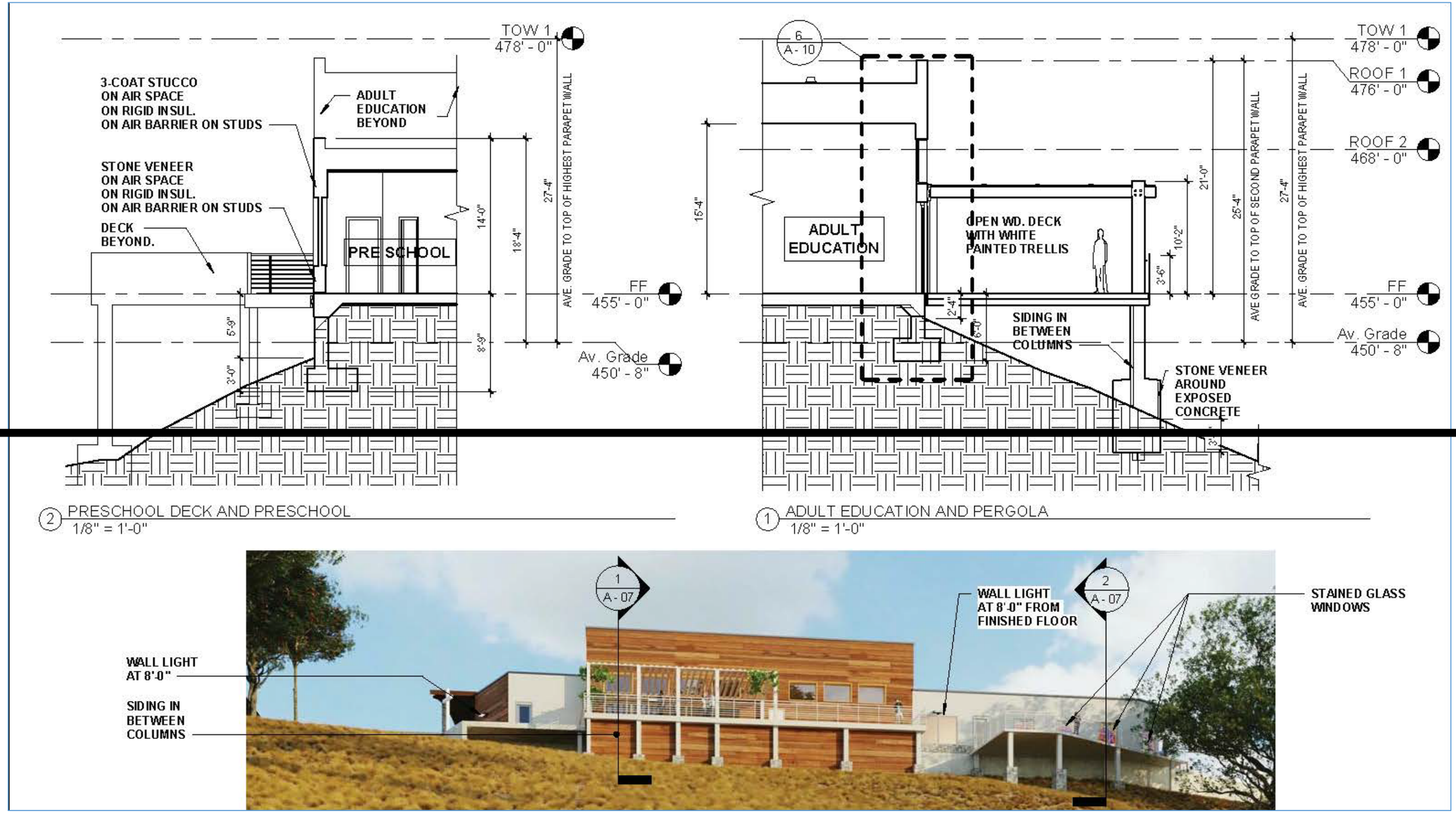
2 MATERIAL DETAIL
1/4" = 1'-0"



1 ENTRY AT LOBBY
1/8" = 1'-0"


RTU
Sanctuary Parapet
480' - 6"
TERRACE
ROOF 1
469' - 0"
Level 2
467' - 0"
LOBBY
ADULT EDUCATION
FF
455' - 0"
Av. Grade
452' - 10"
2 ENTRY AT LOBBY
1/4" = 1'-0"
ELEVATOR SHAFT BEYOND
5-COAT STUCCO ON AIR SPACE ON RIGID INSUL. ON AIR BARRIER ON STUDS
WOOD TRUSSES
JUNIOR/HIGH EDUCATION
K-2 CLASSROOM
TERRACE
ADULT EDUCATION
OPEN WD. DECK WITH WHITE PAINTED TRELLIS
SIDING IN BETWEEN COLUMNS
STONE VENEER AROUND EXPOSED CONCRETE
Sanctuary Parapet
480' - 6"
ROOF Level 2
477' - 0"
ROOF 1
469' - 0"
Level 2
467' - 0"
FF
455' - 0"
Av. Grade
452' - 10"
3 PRESCHOOL DECK AND PRESCHOOL
1/4" = 1'-0"
1 ADULT EDUCATION AND PERGOLA
1/4" = 1'-0"

~~Figure 8~~
~~Eastern Elevation~~



~~Figure 9~~
~~Western Elevation~~

The proposed parking lot would include ~~156~~ 160 parking spaces, consisting of six accessible spaces, 13 compact spaces, 10 spaces marked "clean air/vanpool/EV" with conduit run for future EV, three tandem parking spaces, and 127 standard spaces. A portion of the parking spaces would be located directly north of the proposed building, while the remaining parking spaces would be located to the west and south of the building. Furthermore, ~~17~~ 18 bicycle rack spaces would be provided near the playground area as well as to the east of the parking area. The parking spaces would be consistent with the parking ratios required by the City's Municipal Code. Vehicular access to the site would be provided by a new driveway from Pine Hollow Court, along the western boundary of the site.

The existing single-family residence located within the southwestern portion of the project site would remain and be used by the worship director, while the two storage structures would be demolished as part of the proposed project. Following construction of the proposed project, the existing community church offices within the Town Center would remain in use.

Proposed Operations

Table 1 below includes the weekly operational plan for the proposed project. As shown in Table 1, the day that would include the highest attendance on a weekly basis would be Sundays, with a total attendance of 433 people over the course of the day and a maximum anticipated attendance of 259 people during the first of two Sunday worship services (9:00 AM to 10:15 AM period). The church would also hold other events during the week, as shown in the table, including a staff meeting on Mondays, women's craft group and worship team meetings on Tuesdays, WOW (women's group), "Crosswalk", and youth group meetings on Wednesdays, and women's and men's bible study on Thursdays.

In addition, the community church would hold two monthly events. The monthly events would include a worship night from 7:00 PM to 9:00 PM on a Friday and a men's breakfast at 8:00 AM on a Saturday. The worship night would result in an estimated attendance of 50 people, while the men's breakfast event would result in an estimated attendance of 40 people.

In addition to the weekly and monthly events noted above, the church would hold two annual events. The first annual event would be Easter Sunday Services to be held at 9:00 AM and 10:45 AM. The total attendance for Easter Sunday Services would be approximately 600 people. The second annual event would be Christmas Eve Services to be held at 5:00 PM and 7:00 PM. The total attendance for Christmas Eve Services would be approximately 600 people. Parking management would occur during special events, when the church would have volunteers in the parking lot helping to direct traffic and greet people. In addition, the church has been in discussions with the adjacent elementary school and they have indicated that they are agreeable to allowing the church to use school parking for overflow parking purposes during special events at the church. The proposed special events would occur on days when school is not in session, so no conflicts would occur between school and church operations.

The church staff is estimated to consist of up to nine employees, with typical arrival and departure times of 9:00 AM and 5:00 PM.

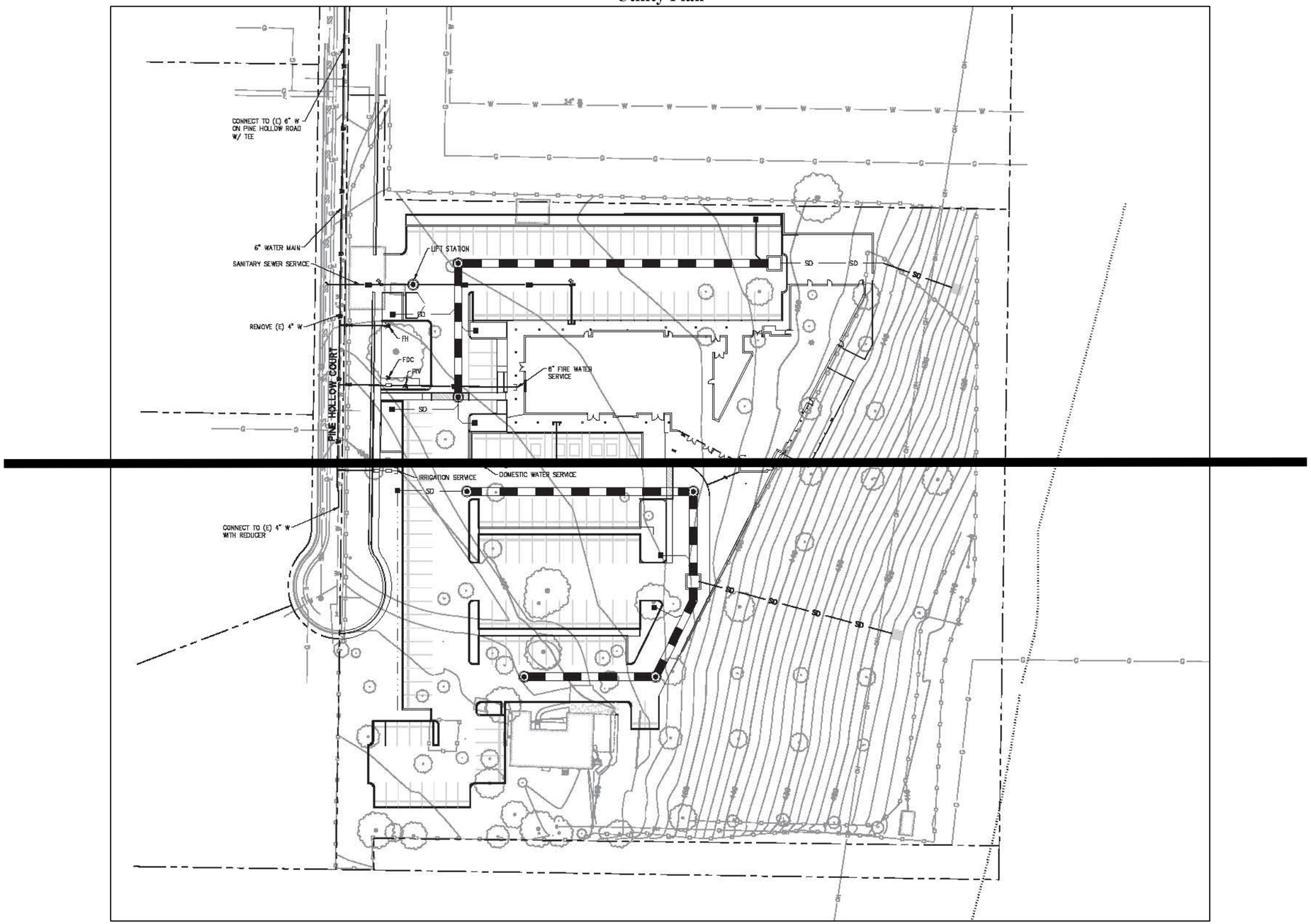
Table 1 Weekly Operational Plan		
Time	**Event**	**Attendance**
Sundays		
9:00 AM – 10:15 AM	Worship Service	217
9:00 AM – 10:15 AM	Nursery/Toddlers	12
9:00 AM – 10:15 AM	Elementary (K-5)	30
10:15 AM – 12:00 PM	Worship Service	100
10:15 AM – 12:00 PM	Nursery/Toddlers	12
10:15 AM – 12:00 PM	Elementary (K-5)	30
10:15 AM – 12:00 PM	Junior/Senior High School (6-12)	20
7:00 PM – 8:00 PM	AA Meeting	12
Mondays		
9:00 AM – 11:00 AM	Staff Meeting	10
Tuesdays		
9:00 AM – 11:00 AM	Women's Craft Group	10
7:00 PM – 9:00 PM	Worship Team	10
Wednesdays		
9:00 AM – 11:00 AM	WOW (Women's Group)	40
12:00 PM – 2:30 PM	"Crosswalk" (Grades 2-5)	40
7:00 PM – 8:30 PM	Youth Group	25
Thursdays		
7:00 PM – 8:30 PM	Women's Bible Study	15
7:00 PM – 8:30 PM	Men's Bible Study	40

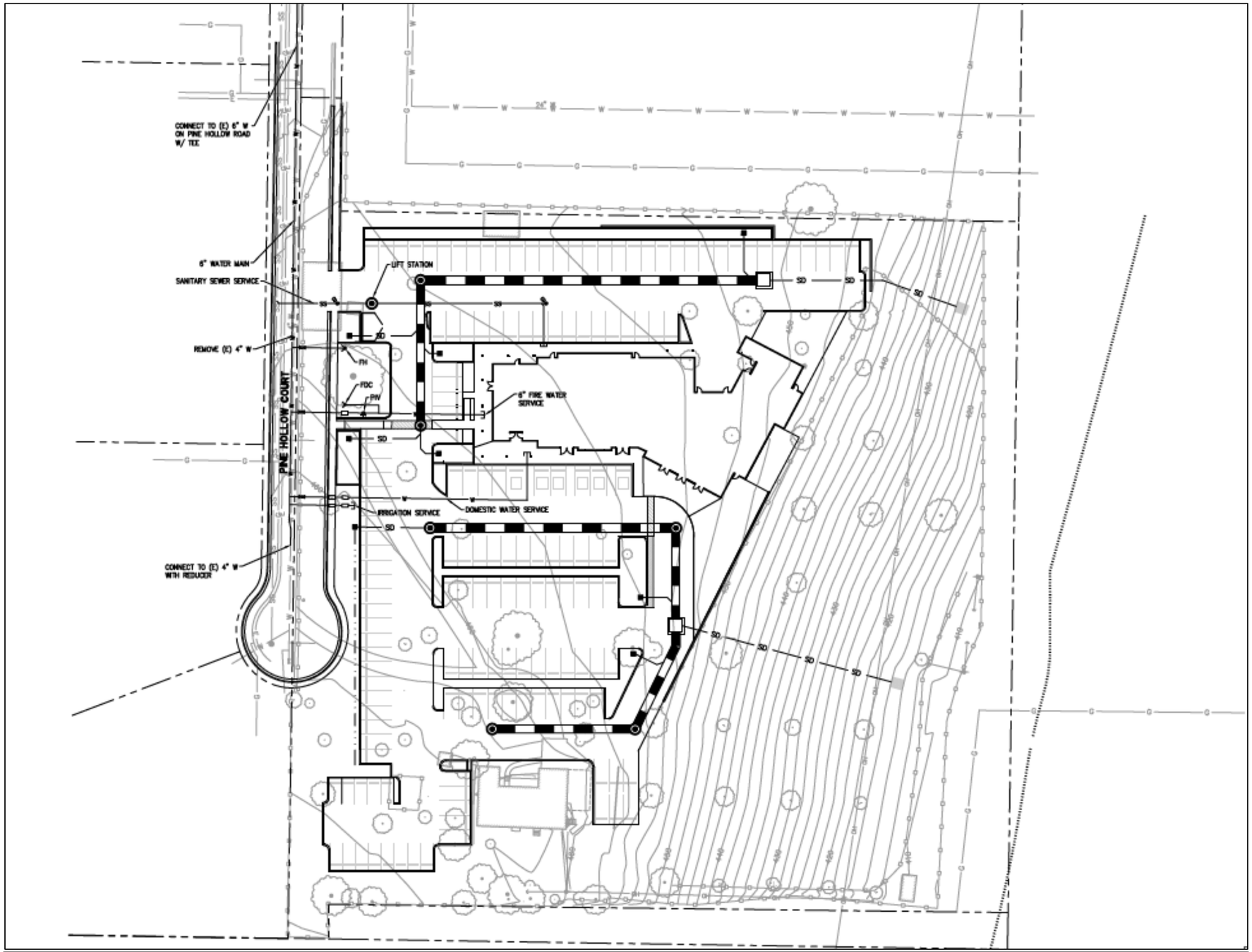
Utilities

Water and sewer service for the proposed development would be provided through connections to existing infrastructure located in the site vicinity. The proposed project would include a new potable water connection to an existing six-inch water main within Pine Hollow Court (see ~~Figure 9~~ Figure 8). A water line to be used for irrigation services would also connect to the existing water main within Pine Hollow Court. In addition to the aforementioned domestic and irrigation water lines, a new six-inch water line from the existing water main within Pine Hollow Court would connect to the building for fire emergency purposes. A new sanitary sewer line would be routed from the proposed building to a new lift station in the northwestern portion of the site. From the lift station, the sanitary sewer line would connect to existing sewer infrastructure within Pine Hollow Court.

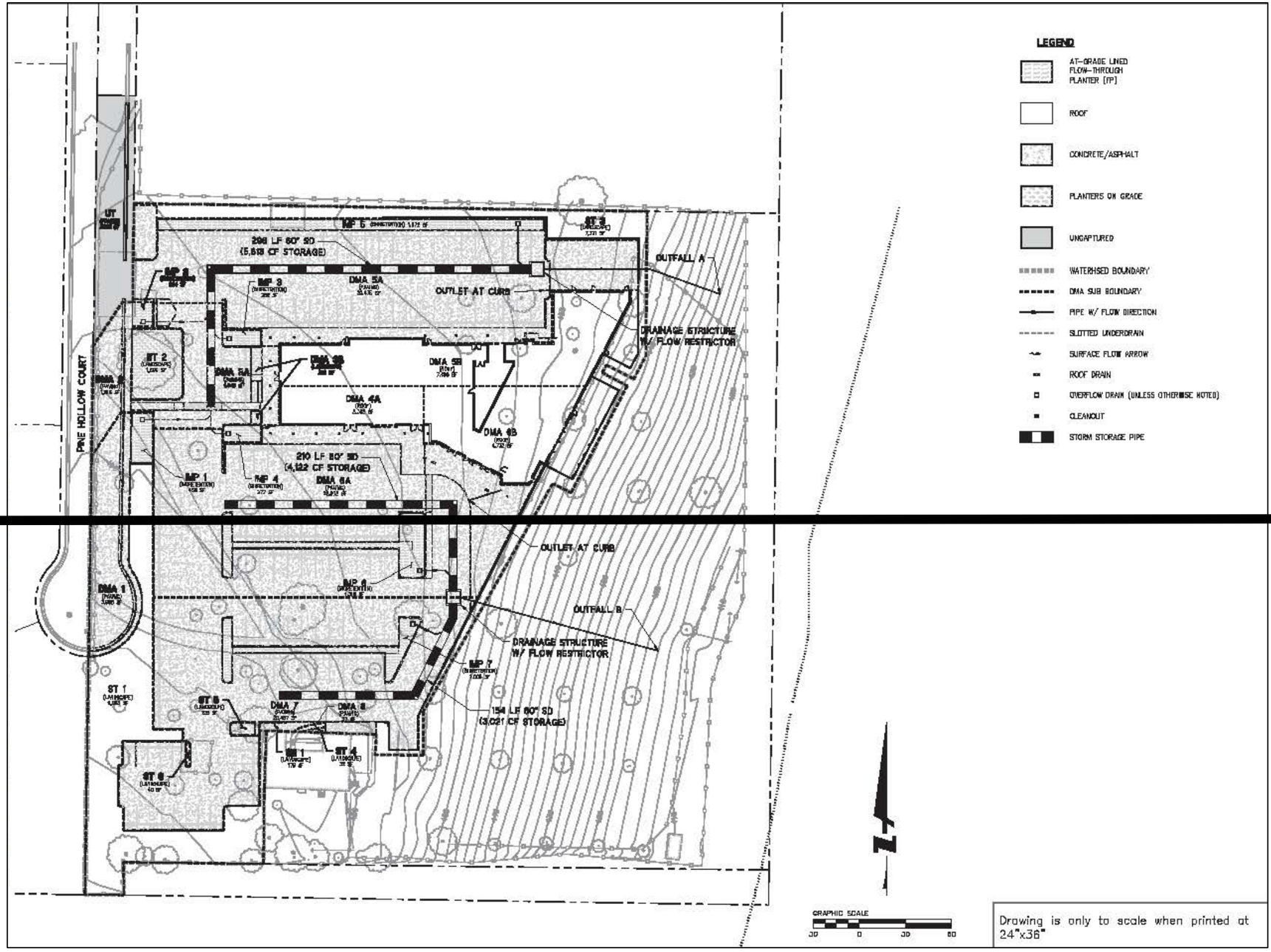
With respect to stormwater, the project site would include eight drainage management areas (DMAs), which would drain to seven different bio-retention areas within the site ~~(see Figure 10)~~. Stormwater from the DMAs within the northern portion of the site would be directed to one of the bio-retention areas for treatment on-site. The landscaped portions of the project site would be self-treating areas and, thus, would not connect to the bioretention basins. The bio-retention areas would provide for treatment by filtering stormwater through layers of vegetated soils and gravel. Treated stormwater would be captured by perforated underdrains and routed to three underground 60-inch drainage pipes within the proposed parking areas, which would provide for on-site detention. The underground drainage pipes would discharge, through flow restrictors, to new outfalls within the slope to the east of the proposed development area.

Figure 98
Utility Plan




CONNECT TO (E) 6" W ON PINE HOLLOW ROAD W/ TEE
6" WATER MAIN
SANITARY SEWER SERVICE
REMOVE (E) 4" W
PINE HOLLOW COURT
LIFT STATION
FH
FDC
PIV
6" FIRE WATER SERVICE
IRRIGATION SERVICE
DOMESTIC WATER SERVICE
CONNECT TO (E) 4" W WITH REDUCER
SD
SS
W

~~Figure 10~~
~~Stormwater Control Plan~~



The outfalls would include flared end sections and rock slope protection immediately above and below the outfalls to prevent erosion and provide for energy dissipation. Stormwater would flow overland to Mitchell Creek, which is consistent with the existing conditions. The flow restrictors would ensure that the rate and amount of runoff entering the creek would not exceed pre-development levels.

Landscaping and Fencing Improvements
The proposed project would incorporate landscaping features throughout the project site, including trees, shrubs, and groundcover along the western and northern site boundaries and within the southern portion of the parking lot. Trees to be planted within the site would include Muskogee crape myrtle, ~~California live oak, Chinese pistache, and blue oak,~~ valley oak, variegated box elder, western redbud, and raywood ash.

Fencing improvements would also be included as part of the proposed project. The proposed fencing improvements would include the construction of a five-foot, wooden fence along the southwestern boundary of the site and near the existing residence. A five-foot wooden fence with 3.5 inches of picket spacing would be constructed in the northeastern corner of the project site.

Furthermore, a retaining wall would be located within the northeastern corner of the site, near the proposed outdoor playground. A tieback wall would be incorporated into the east elevation building design, near the top of the existing slope. Generally, the walls would support the proposed church patio and playground and provide a transition from the developed area to the natural hillside.

Tree Removal Permit
Per the City's Tree Protection Ordinance (Chapter 15.70 of the Municipal Code), a Tree Removal Permit is required for the removal of any tree with a trunk diameter of six inches or greater. The Tree Protection Ordinance also calls for the protection of certain species of trees. The proposed project would include the removal of 48 trees, seven of which are in good or fair health and protected under the City's Ordinance; therefore, the proposed project would require approval of a Tree Removal Permit.

Discretionary Actions
As discussed in detail above, the proposed project would require the following approvals from the City of Clayton:

- Use Permit;
- Site Plan Review Permit; and
- Tree Removal Permit.

LIST OF MITIGATION MEASURES

Mitigation Measure 1. *Prior to the initiation of ground disturbance, the project applicant shall ensure that all heavy-duty off-road diesel-powered equipment to be used in the construction of the project (including owned, leased, and subcontractor equipment) shall be CARB Tier 4 Interim or cleaner.*

In addition, all off-road equipment working at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.

The aforementioned requirements shall be noted on improvement plans and submitted for review and approval by the Community Development Director for the City of Clayton.

Mitigation Measure 2 *Special-status plant surveys shall be conducted in accordance with CNPS and CDFW protocols throughout the project site within two years prior to the commencement of construction. The CNPS and CDFW protocols require that the surveys be conducted at the time of year that the target species are most identifiable; this often requires multiple survey visits to capture the identifiable period of all target species. If special-status plant species are not found, further mitigation would not be required. If special-status plants are found and will be impacted, mitigation for those impacts shall be determined in coordination with CDFW. If the plant found is a perennial, then mitigation could consist of digging up the plant and transplanting it to a suitable nearby avoided area prior to construction. If the plant found is an annual, then mitigation could consist of collecting seed-bearing soil and spreading it in a suitable nearby avoided area prior to construction.*

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If special-status plant species are not found, further mitigation is not required.

Mitigation Measure 3 *Within 14 days prior to construction activities, a qualified biologist shall conduct a take avoidance survey for active bumble bee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The biologist shall walk the entire area proposed for grading and inspect all rodent burrows for bumble bee activity. If any bumble bees are detected during the survey, the species shall be identified. Active colonies of crotch bumble bee or western bumble bee shall be avoided and work shall not occur within 50 feet of the colony. If the colony is in a location proposed for development, consultation for the CDFW shall be necessary and an Incidental Take Permit from the CDFW may be required prior to disturbance.*

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If crotch bumble bee or western bumble bee nests are not found, further mitigation is not required.

Mitigation Measure 4. *A targeted take avoidance burrowing owl nest survey shall be conducted within all accessible areas within 250 feet of the proposed construction area within 14 days prior to construction activities utilizing 60-foot transects, as outlined in the 2020 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation. If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within 250 feet of the nest burrow, the applicant shall consult with CDFW to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW.*

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If western burrowing owl nests are not found, further mitigation is not required.

Mitigation Measure 5(a). *A preconstruction nesting bird survey shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. If there is a break in construction activity of more than two weeks, subsequent surveys shall be conducted.*

If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. The no-disturbance buffers may be reduced if a smaller buffer is proposed by the project biologist, and approved by the City, after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (if there are visual or acoustic barriers between the proposed activity and the nest). A qualified biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site, or the nest can be left undisturbed until the end of the nesting season.

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If raptor or songbird nests or nests of birds protected by the MBTA are not found, further mitigation is not required.

Mitigation Measure 5(b). *Should construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest as a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared and submitted to the City, indicating that the nest (or nests) are no longer active and that new nests have not been identified.*

Mitigation Measure 6. *A qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features within the proposed development footprint. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If roosting bats are not found, further mitigation is not required.*

If potential roosting habitat is identified within the areas proposed for development, the biologist shall survey the potential roosting habitat. Ideally, this survey should be conducted during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys are recommended to be conducted using methods that are considered acceptable by the CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.

If roosting bats are identified within any of the trees or buildings planned for removal, or if presence is assumed, then the qualified bat biologist shall specify appropriate exclusion methods according to where the roosting bats are located and what season the exclusion must occur. These exclusion methods may include two-step tree removal or building exclusion as detailed below.

In general, the trees/buildings shall be removed outside of pup season only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Building exclusion methods may include such techniques as installation of passive one-way doors, or the installation of netting when the bats are not present to prevent their reoccupation. Once the bats have been excluded, tree removal may occur. Removal of trees/buildings where roosting habitat is not identified during the survey is recommended to be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.

Mitigation Measure 7. *The following tree protection measures shall be implemented pursuant to the recommendations listed in the Arborist Report, to the extent feasible:*

- *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the existing trees to be retained, as identified in the Arborist Report; and*
- *The project applicant shall include all recommendations provided in the Updated Arborist Report by Trees, Bugs, Dirt Landscape Consulting and Training within the Tree Protection Plan. The Tree Protection Plan shall meet the standards provided in Section 15.70.45 of the Municipal Code, and shall include, but not necessarily be limited to, the establishment of TPZs and protective fencing around trees to be preserved; temporary irrigation systems to be provided for each tree; the installation and maintenance of at least two inches of wood chip mulch within the protected soils within each TPZ; air spade trenching; root pruning and clearance pruning; and the prohibition of oil, gas, chemicals, vehicles,*

construction equipment, machinery, and other construction materials within the dripline of trees to be preserved.

Mitigation Measure 8. *A tree replacement plan for the removal of 58 inches of cumulative trunk diameter of protected tree species shall be prepared in accordance with Municipal Code Section 15.070.040 A1. or A.2., or, subject to determination by the Community Development Director or Planning Commission, the applicant must pay an in-lieu fee to the City for the purchase and installation of trees of equivalent value.*

Mitigation Measure 9. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, tribal cultural resources, or human remains, are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.*

Mitigation Measure 10. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.*

Mitigation Measure 11. *Prior to approval of the improvement plans for the project, all recommendations from the Geotechnical Investigation prepared by Cornerstone Earth Group (2019) and the Geotechnical Response to Comments prepared by Cornerstone Earth Group (2020) shall be incorporated into the improvement plans to the satisfaction of the City Engineer.*

In addition, the applicant shall retain a California Registered Geotechnical Engineer to review the geotechnical aspects of the project's structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing plans for construction. The geotechnical engineer shall perform field observations during earthwork and foundation construction to confirm project compliance with project plans, project specifications, and the recommendations provided in Cornerstone's Geotechnical Investigation and Geotechnical Peer Review Response Memo. The on-site geotechnical engineer shall have the authority to provide supplemental recommendations as necessary based on site conditions. Compliance with the recommendations of the Geotechnical Engineer shall be provided to the City Engineer.

Mitigation Measure 12. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with "filter fabric";*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

Mitigation Measure 13. *Prior to initiation of any ground disturbance activities, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from Contra Costa Health Services and properly abandon the on-site well to the satisfaction of the Contra Costa Health Services Department. Proof of abandonment shall be provided to the City of Clayton Community Development Department and City Engineer.*

Mitigation Measure 14. *Prior to issuance of a demolition permit for any on-site structures, the Developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the City of Clayton Community Development Director an asbestos and lead survey. If ACMs or lead-containing materials are not discovered during the survey, further mitigation related to ACMs or lead containing materials will not be required. If ACMs and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The applicant shall submit the work plan to the City for review and approval.*

Mitigation Measure 15. *To the maximum extent practical, the following measures should be incorporated into the project construction plans:*

- *Pursuant to Section 15.01.101 of the Clayton Municipal Code, all grading and excavation, construction, demolition, renovation, and other works of improvement shall occur only between the hours of 7:00 A.M. and 5:00 P.M., Monday through Friday.*
- *The project shall utilize temporary construction noise control measures, including the use of temporary noise barriers, or other appropriate measures as mitigation for noise generated during construction of projects.*
- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.*

- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.*
- *Project area and site access road speed limits shall be established and enforced during the construction period.*
- *Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.*

The requirements above shall be included, via notation, on the final grading plan submitted for review and approval by the Community Development Director prior to grading permit issuance.

Mitigation Measure 16. *Implement Mitigation Measure 9 and Mitigation Measure 10 within Section 5, Cultural Resources, of this IS/MND.*

EVALUATION OF ENVIRONMENTAL IMPACTS

1. AESTHETICS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect on a scenic vista?	□	□	X	□
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	□	□	□	X
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	□	□	X	□
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	□	□	X	□

a. Would the project have a substantial adverse effect on a scenic vista? ..... Less-Than-Significant Impact

Discussion (a.)

For purposes of this analysis, scenic vistas would be officially designated mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. The City of Clayton General Plan identifies the protection of scenic resources as a core concern for future development and planning. Impacts to the views of open spaces or vistas would diminish the rural character of the City, and should be avoided. However, the City's General Plan does not contain any policies that address scenic vistas, nor does the General Plan define or identify any specific scenic vistas. Thus, the proposed project would not have a substantial adverse effect on a scenic vista, and a ***less-than-significant*** impact would occur.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? ..... No Impact

Discussion (b.)

According to the California Scenic Highway Mapping System, two highways in Contra Costa County are officially-designated State Scenic Highway corridors:[1] Interstate 680 (I-680), from the Alameda County line to the junction with State Route (SR) 24; and SR 24

[1] California Department of Transportation. *Scenic Highways*. Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed October 2020.

from the east portal of the Caldecott tunnel to I-680 near Walnut Creek. Neither of the aforementioned corridors provide views of Clayton or the project site. Accordingly, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, or historic buildings within a State Scenic Highway. Thus, the project would result in ***no impact***.

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

Discussion (c.)

The project site is primarily characterized as open land with ruderal vegetation and scattered trees, and has been subject to a recent grass fire within a portion of the project site. A total of 64 trees are located throughout the site, four of which are dead. Shade trees are located to the front of the single-family residence, while fruit and nut trees are planted on the rear side of the residence. A perimeter row of primarily oak trees screens the southern property line behind the dwelling, and a few large oak trees are scattered around the property. The prevalent tree species is northern California walnut.

The site also includes an occupied single-family residence in the southwestern portion of the project site, as well as storage structures associated with the existing residence in the northwestern portion of the site. The storage structures consist of a barn-type building and a garden shed.

The implementation of the proposed project would include the demolition of the two storage structures, but not the single-family residence; removal of 48 existing trees; and grading of the project site. Therefore, implementation of the proposed project would change the existing visual setting from a rural ranch style lot to a more urban setting comprised of an approximately 13,~~823~~998 sf community church with ~~156~~ 160 associated parking spaces, and landscaping within the level portion of the site. The existing vegetated slopes along the eastern site boundary would remain undeveloped, though two new stormwater outfalls would be installed along the slope.

The subject question (1.c) of the CEQA Checklist distinguishes between non-urbanized and urbanized areas. The Clayton General Plan indicates that its "…planning area includes two fairly discrete use patterns: the urbanized area and a transitional area which includes the Marsh Creek Road Specific Plan area."[2] As the project site is not located within the Marsh Creek Road Specific Plan area, it follows that the site is located in the urbanized area of the planning area, according to the City's General Plan. Therefore, in accordance

[2] City of Clayton. *Clayton General Plan, Section I, Basis for Planning*. Adopted 2000, Amended July 19, 2016, pg. I-13.

with CEQA Checklist question 1.c., the relevant threshold is whether the project would conflict with applicable zoning and other regulations governing scenic quality, rather than whether the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.

With respect to zoning and other regulations, it is noted that the proposed church meets the requirements of the underlying zoning district which anticipates residential uses and other development with approval of a Conditional Use Permit (with the exception of standards for parking lot lighting, where the zoning code allows for variations in these standards at the discretion of the approving body). As discussed below for Question 'd', the increase in light and glare would be less-than-significant due to the proposed light design (e.g., fixtures will direct light downward).

Objective 2 of the General Plan Community Design Element is to "maintain landscape and natural vegetation found in Clayton as a means to provide greenery, open space, development buffer and rural atmosphere." The proposed project achieves this objective by leaving the slope adjacent to Mitchell Creek on the eastern side of the property undisturbed and retaining the natural vegetation and trees on this portion of the lot.

The proposed landscape design for the project is consistent with Policies 2c (Require creative landscaping for new developments) and 2d (Use vegetation as a screen to development) of the General Plan Community Design Element. The landscape plan features several different species of trees, shrubs, and ground cover, which would provide variety in terms of sizes, colors, and textures of foliage. The planting palette includes several species native to the area, such as Valley Oak, Western Redbud, California Rose and Yarrow. As noted, new trees are to be planted at close spacing along the street frontage of the property, as well as along the northern property line separating the proposed church from Mt. Diablo Elementary School to provide screening.

As mentioned previously, the proposed project would undergo Site Plan Review, which would ensure that the proposed project conforms with adopted architectural and/or design standards by the City, and whether the proposed project would reasonably maintain existing views and complement the existing adjacent structures in terms of materials, colors, size, and bulk.

The above discussion demonstrates that the proposed project would not conflict with applicable zoning and other regulations governing scenic quality, thus, resulting in a less-than-significant impact. Notwithstanding, in the interest of public disclosure, this IS/MND includes an informational discussion of the project's potential effects to existing views. The following discussion provides an analysis of the changes in visual character and quality, as viewed from public areas in the project vicinity, that would be expected to occur as a result of the proposed project.

Distinguishing between public and private views is important, because private views are views seen from privately-owned land and are typically associated with individual viewers, including views from private residences. Public views are experienced by the collective

public, and include views of significant landscape features and along scenic roads. According to CEQA (Pub. Resources Code, § 21000 et seq.) case law, only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Therefore, the focus in this section is on potential impacts to public views.

Public views in the project vicinity would consist primarily of views seen by motorists, bicyclists, and pedestrians traveling on local roadways surrounding the project site, including High Street to the south and Pine Hollow Court to the west. The proposed project would convert a portion of the undeveloped project site to a community church and parking lot, and, thus, would alter the existing visual character of the site. However, the project is consistent with the site's existing General Plan land use designation of RD, which allows for development of churches and places of worship, provided that such uses are consistent with the underlying zoning district. The project site is zoned R-40-H and the proposed project would be an allowed use upon approval of a Use Permit, and changes to the visual character and quality associated with buildout of the site have been generally anticipated by the City and analyzed in the General Plan EIR.

The proposed building area, not including the required amount of parking spaces, would be approximately 13,~~823~~998 sf. The remaining area would consist of parking, the pastor's residence, and new landscaping areas. A recent fire on the project site resulted in the loss of several trees, with a remainder total of 59 live on-site trees; the proposed project would retain 11 protected trees, while 48 trees would be removed due to poor tree health and incompatibility with new development. A total of 52 new trees to be planted within the site include Muskogee crape myrtle, ~~California live oak, Chinese pistache, and blue oak,~~ valley oak, varigated box elder, western redbud, and raywood ash. The landscaping trees would primarily be planted along the project site perimeters and parking areas. Various shrub species, including the creeping mahonia and red flowering currant, would also be planted alongside new landscaping trees within the parking area for shading and aesthetics purposes.

The ~~single-story~~ building would have different height articulations, most notable of which are the ~~three taller~~ second-story elements ~~ranging between 12 and 27 feet, that would help gather light and provide for vaulted ceilings. The~~, having a maximum building height ~~would be~~ of approximately ~~27~~29 feet, 8 inches, from average grade to top of highest parapet wall.

Photo simulations were prepared for the proposed project to aid in evaluating the potential visual impacts of the proposed project to the surrounding areas (see ~~Figure 11 through Figure 14~~ Figure 9 through Figure 12).

Figure ~~11~~9
Photo-simulation of Proposed Project Looking West from High Street

Figure ~~1~~10
Photo-simulation of Proposed Project Looking East from Pine Hollow Court

Figure ~~12~~11
Photo-simulation of Proposed Project Looking Northeast from Pine Hollow Court Cul-de-Sac


CLAYTON COMMUNITY CHURCH

Figure ~~13~~12
Photo-simulation of Proposed Project Looking Southeast from Pine Hollow Court


CLAYTON
COMMUNITY
CHURCH

The visual simulations include views of the project site upon development of the proposed project, including architectural design, parking areas, and fencing and landscaping features. Details regarding the visual simulation are provided below.

View Looking West from High Street

~~Figure 11~~ Figure 9 presents the potential future view of the project site looking west from High Street, upon development of the proposed project. The proposed project would change the existing visual character of the site from a primarily undeveloped field with scattered trees and ruderal vegetation to an approximate ~~25~~26-foot structure (from average grade to second parapet wall) with outdoor patios and associated landscaping. While the post-project western view from High Street would transition from an open setting to a more urban setting with a large church structure and landscaping, views of a majority of the project site are not available from this viewpoint. Rather, the western view from High Street primarily contains views of the scattered trees and ruderal vegetation along the eastern slope facing High Street. Although portions of this viewpoint would contain views of the eastern side of the proposed church structure with the outdoor patio, much of the vegetation along the eastern slope would not be disturbed by the proposed project. Therefore, the visual character of the area as seen looking west from High Street would not be substantially degraded with implementation of the proposed project.

View Looking East from Pine Hollow Court

~~Figure 12~~ Figure 10 presents the potential future view from looking east from Pine Hollow Court towards the western side of the proposed church building which contains ~~the ministry offices~~ the nursery and prayer room. The existing view is characterized by storage structures, wired fencing, and scattered trees and ruderal vegetation. Views of the hillsides to the east of the project site are also available from this vantage point. As shown in ~~Figure 12~~ the figure, the post-project view would consist of the western side of the proposed church building which contains the ~~ministry offices~~ nursery and prayer room and a portion of the proposed parking area. Views from this vantage point would also include landscaping trees and wood-panel fencing leading to a project entrance further north along Pine Hollow Court.

The proposed project would replace the existing storage structures and the wired fencing surrounding the project site with new sidewalks, fencing, and structures. Compliance with Section 17.44 of the Clayton Municipal Code would ensure that the proposed landscaping and structures undergo Site Plan Review. The Site Plan Review process would consider project conformity with General Plan standards, adopted architectural and/or design standards, and whether the proposed project would reasonably maintain existing views and complement the existing adjacent structures in terms of materials, colors, size, and bulk.

In addition, views of the hillsides beyond the project site to the east would still be afforded from this vantage point, though to a lesser degree. Therefore, while the eastern post-project view from Pine Hollow Court would transition from an open setting to a more urban setting, the existing on-site structures would be replaced by newer structures designed in relative harmony with surrounding uses, and scenic views of the eastern hillsides would be partially retained. Another important consideration is the fact that the public viewpoint is

from a cul-de-sac where few motorists, bicyclists, pedestrians travel. Thus, the alterations of this viewpoint would not affect a substantial number of the public. Although the visual character of the project site would be noticeably altered, the visual character of the area as seen looking east from Pine Hollow Court would not be substantially degraded with implementation of the proposed project.

View Looking Northeast from Pine Hollow Court Cul-de-Sac

~~Figure 13~~ Figure 11 presents the potential future view of the project site looking northeast from the Pine Hollow Court cul-de-sac toward the proposed parking area and church structure. The existing view is characterized by the main entrance and driveway to the existing single-family home. Existing views also include wire fencing, scattered trees, and ruderal vegetation, in addition to views of hillsides to the east. As shown in ~~Figure 13~~ the figure, the post-project view would consist of new sidewalks, wood-panel fencing, landscaping, a parking area, and the main church facility. The single-family home would be retained, although the existing driveway would be removed to develop a new driveway and parking area which would provide access to the church facility and single-family home.

Portions of the eastern hillsides ~~would still be~~ that are currently visible from the Pine Hollow Court cul-de-sac, would be largely obstructed with development of the proposed project. As mentioned previously, the proposed project would undergo Site Plan Review, which would ensure that the proposed project conforms with adopted architectural and/or design standards by the City, and whether the proposed project would reasonably maintain existing views and complement the existing adjacent structures in terms of materials, colors, size, and bulk. Another important consideration is the fact that the public viewpoint is from a cul-de-sac where few motorists, bicyclists, pedestrians travel. Thus, the alterations of this viewpoint would not affect a substantial number of the public. Therefore, although the visual character of the project site would be noticeably altered, the visual character of the area as seen looking northeast from the Pine Hollow Court cul-de-sac would not be substantially degraded with implementation of the proposed project.

View Looking Southeast from Pine Hollow Court

~~Figure 14~~ Figure 12 presents the potential future view of the project site looking southeast from Pine Hollow Court. The existing view is characterized by a storage shed, chain-link fencing, and scattered trees and ruderal vegetation. Views of the hillsides to the southeast of the project site are also available from this vantage point. As shown in ~~Figure 14~~ the figure, the existing chain-link fence and storage shed would be replaced by a new driveway entrance into the project site. Project views from this vantage point would primarily be characterized by the driveway and a portion of the proposed parking area, as well as landscaping trees and vegetation.

Views of the southeastern hillsides from this vantage point would be substantially blocked by landscaping features and the proposed church facility; however, the densely planted landscaping trees and shrubs would provide screening to block the majority of the proposed structures and the proposed parking area from this view. Even though the proposed project would increase the amount of built development on the project site, the increase would not necessarily be considered a substantial degradation of the existing character or quality of

the view; rather, new landscaping features would continue to provide natural features in harmony with the existing environment. Another important consideration is the fact that the public viewpoint is from a cul-de-sac where few motorists, bicyclists, pedestrians travel. Thus, the alterations of this viewpoint would not affect a substantial number of the public. Therefore, the visual character of the area as seen looking southeast from Pine Hollow Court would not be substantially degraded with implementation of the proposed project.

Conclusion

The relevant threshold for this discussion is whether the project would conflict with applicable zoning and other regulations governing scenic quality; the above analysis demonstrates that the conclusion would be ***less-than-significant***. This section also includes an informational analysis regarding the project's potential to change the visual character or quality of the site and its surroundings. As shown in the photo simulations, implementation of the proposed project would result in noticeable changes to the visual character of the area; however, modifications to the visual character or quality of the site and surrounding area as a result of the proposed project would not be considered a substantial *degradation*~~, which is the operative term for determining impact significance under CEQA~~. The proposed project would include landscaping and other design aspects consistent with the surrounding area and the City's policies and ordinances. Visual consistency of the project design would be ensured through the Site Plan Review approval process. ~~Therefore, the changes to the visual character or quality of the site and its surroundings would result in a ***less-than-significant*** impact.~~

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ..... Less-Than-Significant Impact

Discussion (d.)

With the exception of the single-family residence and associated outbuildings in the southern portion of the project site, the site is primarily undeveloped. As such, existing sources of light and glare on the site are limited. Development of the proposed church would introduce new sources of light and/or glare to the site where few currently exist. Potential sources of nighttime light would include, but not be limited to, exterior light fixtures on the proposed church building and light poles within the proposed parking lot. During the day, sources of glare could include light reflected off of the church building windows.

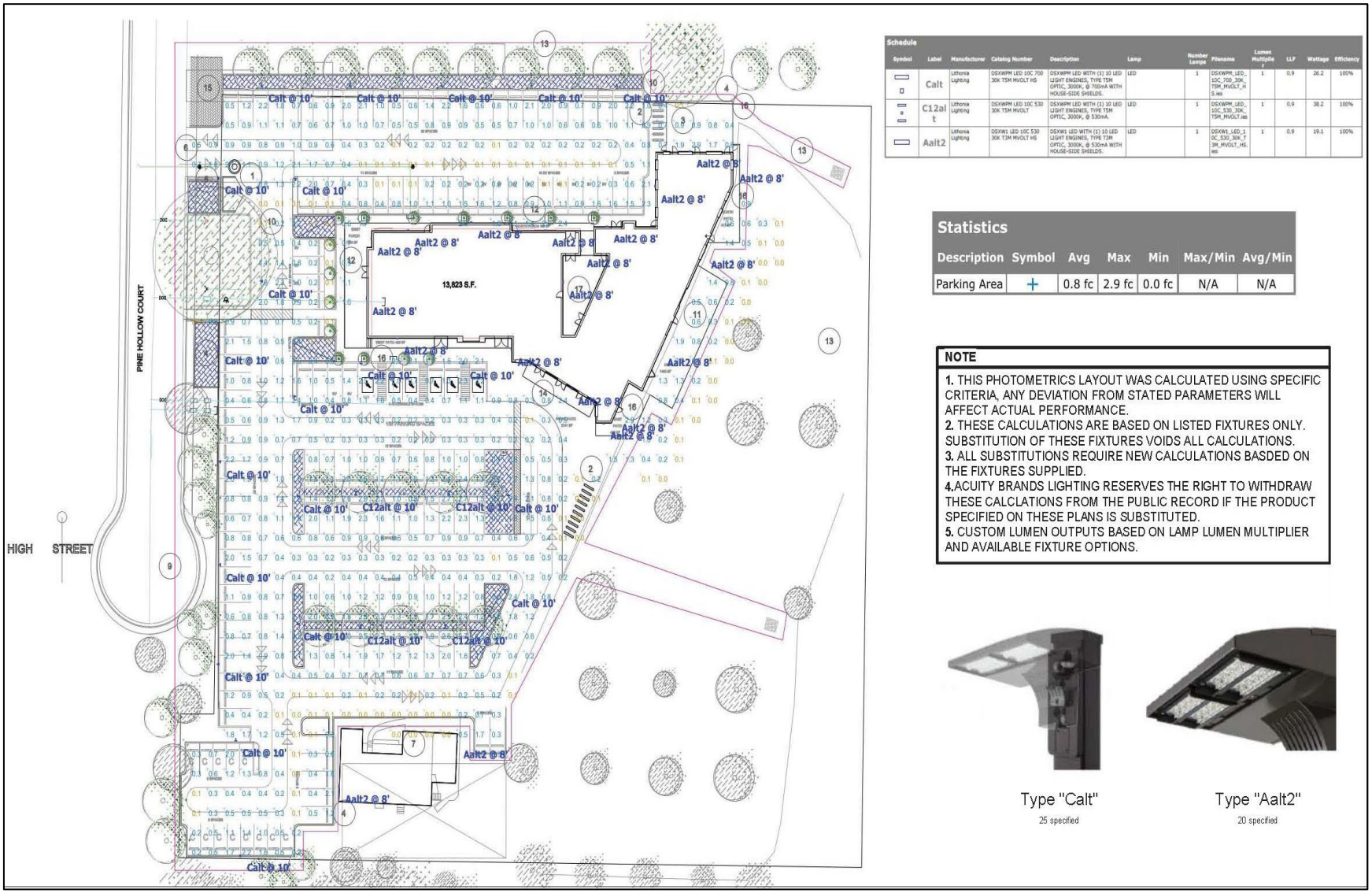
The project would be required to comply with Chapter 8.09 of the City's Municipal Code, which prohibits the installation or maintenance of outdoor light fixtures that would cause an undue annoyance to persons on neighboring parcels in residential zoning districts. Compliance with Section 8.09 of the City's Municipal Code would be ensured during the Site Plan Review process mentioned previously. As shown in the photometric plan, many points along the western property line have light intensities as low as 0.2-, 0.4-, and 0.5-foot-candles (fc), and outdoor lighting fixtures within the parking areas would have an

average light intensity of 0.8-fc, which would not be considered a substantial level of light or glare on sensitive receptors (see ~~Figure 15~~ Figure 13).

The nearest sensitive receptors to the project site would be the single-family residences located approximately 50 feet west of the project site, across Pine Hollow Court. The surrounding residences would be shielded from nighttime light generated by the proposed project by landscaping trees and shrubs within the project site, as well as existing landscaping along the frontages of the surrounding residences.

Because the proposed project would comply with local regulations governing outdoor lighting, the average light level generated by the proposed project would not be considered substantial, and existing and proposed landscaping elements would otherwise help shield new sources of light or glare, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and a ***less-than-significant*** impact would occur.

Figure ~~15~~13
Photometric Plan



2. AGRICULTURE RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	□	□	□	X
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	□	□	□	X
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	□	□	□	X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	X
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	□	□	□	X

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use? ..... No Impact

Discussion (a.)

According to the California Department of Conservation Farmland Mapping and Monitoring Program, the proposed project site is classified as Urban and Built-Up Land.[3] The site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and, thus, the project would not convert such lands to non-agricultural use. Thus, ***no impact*** would occur as a result of the proposed project.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? ..... No Impact

[3] California Department of Conservation. *California Important Farmland Finder. Available at:* https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed August 2020.

Discussion (b.)

The project site is currently zoned R-40-H. While the "H" allows the keeping of equestrian livestock, the City has a separate Agricultural (A) zoning district, the purpose of which is to allow all types of agriculture including general farming, horticulture, floriculture, non-retail nurseries and greenhouses, aviaries, apiaries, forestry, and similar agricultural uses. In addition, the site is not under a Williamson Act contract. As such, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Thus, a ***less-than-significant*** impact would occur as a result of the proposed project.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? ..... No Impact

d. Result in the loss of forest land or conversion of forest land to non-forest use? ..... No Impact

Discussion (c. and d.)

The project site is not considered forest land (as defined in Public Resources Code section 12220[g]) or timberland (as defined by Public Resources Code section 4526), and the site is not zoned Timberland Production (as defined by Government Code section 51104[g]). The site contains an existing single-family residence and is surrounded by existing development. Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? ..... No Impact

Discussion (e.)

With the exception of the single-family residence within the southwest portion of the site, the project site is primarily characterized as open land with ruderal vegetation and scattered trees, and has been subject to a recent grass fire within a portion of the project site. The project site is located near existing residential development and an elementary school. While an orchard was formerly located on-site, agricultural activities do not currently occur on the site, nor do such activities occur in any areas near the project site. Therefore, the proposed development would not involve other changes in the existing environment, due to their location or nature, that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use and, thus, ***no impact*** would occur.

3. AIR QUALITY.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	□	□	X	□
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	□	□	X	□
c.	Expose sensitive receptors to substantial pollutant concentrations?	□	X	□	□
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	□	□	X	□

a. Would the project conflict with or obstruct implementation of the applicable air quality plan? ..... Less-Than-Significant Impact

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

Discussion (a. and b.)

The City of Clayton is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education,

and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_X), as well as for PM_{10} and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr). The thresholds are listed in Table 2. Thus, by exceeding the BAAQMD's mass emission thresholds for emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 2
BAAQMD Thresholds of Significance

	Construction	Operational	
Pollutant	**Average Daily Emissions (lbs/day)**	**Average Daily Emissions (lbs/day)**	**Maximum Annual Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10
Source: BAAQMD, CEQA Guidelines, May 2017.			

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information is applied in the model. The proposed project's modeling assumed the following:

- Construction would begin in January of 2022;
- Construction would occur over approximately 1.5 years;
- A total of 4.42 acres of land would be disturbed during grading;
- Material import or export would not be required;
- Based on the Traffic Study prepared for the proposed project, the project trip generation rates were adjusted according to the following:
    - Weekdays: 5.24 daily trips per 1,000 square feet (ksf);
    - Saturdays: 0.97 daily trips per ksf;
    - Sundays: 23.59 daily trips per ksf;
- The project site is located within 0.3-mile of the nearest bus stop;
- The project would comply with the commercial recycling standards required under AB 341; and
- The project would comply with all applicable provisions of the 2019 California Building Standards Code (CBSC), the 2019 CALGreen Code, and the Model Water Efficiency Landscape Ordinance (MWELO).

The proposed project's estimated emissions associated with construction and operations and the project's contribution to cumulative air quality conditions are provided below. All CalEEMod results are included as Appendix A to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Table 3
Maximum Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	3.23	54	**NO**
NO_X	33.12	54	**NO**
PM_{10} (exhaust)	1.61	82	**NO**
PM_{10} (fugitive)	18.21	None	**N/A**
$PM_{2.5}$ (exhaust)	1.48	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	None	**N/A**

Source: CalEEMod, January 2021 (see Appendix A)

Although thresholds of significance for mass emissions of fugitive dust PM_{10} and $PM_{2.5}$ have not been identified by BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's implementation of the BAAQMD's Basic Construction Mitigation Measures would further minimize construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, project construction would not result in a significant air quality impact.

Operational Emissions

Emissions modeling for the proposed project was based on the weekly operation of the project, including the most intense Sunday activities, using ITE rates provided by TJKM. According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 4. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would be considered to result in a less-than-significant air quality impact during operations.

Table 4 Unmitigated Maximum Operational Emissions					
Pollutant	**Proposed Project Emissions**		**Threshold of Significance**		**Exceeds Threshold?**
	lbs/day	**tons/yr**	**lbs/day**	**tons/yr**	
ROG	0.51	0.10	54	10	**NO**
NO_X	0.55	0.13	54	10	**NO**
PM_{10} (exhaust)	0.01	0.00	82	15	**NO**
PM_{10} (fugitive)	0.37	0.09	None	None	**N/A**
$PM_{2.5}$ (exhaust)	0.01	0.00	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.10	0.02	None	None	**N/A**
Source: CalEEMod, January 2021 (see Appendix A)					

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 2 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 2, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, impacts would be considered ***less than significant***.

c. Would the project expose sensitive receptors to substantial pollutant concentrations? ..... Less-Than-Significant Impact with Mitigation Incorporated

Discussion (c.)

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest off-site existing sensitive receptors to the site would be the single-family and multi-family residences that are located to the west, south, and east of the site, the closest of which is located approximately 50 feet to the west of the project site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminants (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating less than 100 peak hour trips is not required to prepare a study of its traffic impacts on the CMP network as such projects

are expected to have minimal impacts on the CMP network.[4] As discussed in further detail in Section 17, Transportation, of this IS/MND, the proposed project would result in an estimated average of 105 new daily vehicle trips per day, with the vast majority of trips occurring on Sundays. Considering the project is anticipated to generate an average of 105 trips per day, the trips occurring during peak hours would be substantially fewer. As such, the project trip generation would be below the CCTA CMP threshold of 100 new peak hour trips and, thus, the project would be considered to be consistent with the CCTA CMP.

As discussed above, the project is not expected to generate a significant increase in peak hour trips. Based on an Engineering and Traffic Survey and Recommendation Summary conducted by Harris & Associates in 2020, the roadway segments of Main Street and Center Street between Oak Street and Marsh Creek Road, both located directly east of the project site, experience traffic counts of 1,877 and 2,626 average daily trips, respectively. In addition, the roadway segment of Mitchell Canyon Road between Clayton Road and Herriman Road is located west of the project site, and experiences an average of 2,432 daily trips.[5] The proposed church would contribute an average of 105 trips per day, which would constitute a nominal increase in local traffic levels, and would not increase traffic volumes at any nearby intersection to more than 44,000 vehicles per hour. As such, the proposed project would not increase traffic volumes at nearby intersections to more than the hourly traffic volumes set forth in the BAAQMD's localized CO screening criteria. Furthermore, intersections where vertical and/or horizontal mixing is limited are not located in the project vicinity.

Based on the above, per the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The nearest off-site sensitive receptors are the single-family residences located approximately 50 feet to the west of the project site, across Pine Hollow Court.

[4] Contra Costa Transportation Authority. *2019 Update of the Contra Costa Congestion Management Program* [page 72]. Adopted December 18, 2019.

[5] Harris & Associates, Inc. *2020 City of Clayton Engineering and Traffic Survey and Recommendation Summary*. September 3, 2020.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities could result in the generation of TACs, primarily DPM, from on-road haul trucks and off-road equipment exhaust emissions. Although DPM emissions from on-road haul trucks would be widely dispersed throughout the project area, as haul trucks move goods and material to and from the site, exhaust from off-road equipment would primarily occur within the project site. Consequently, the operation of off-road equipment within the project site during project construction could result in exposure of nearby residents to DPM.

BAAQMD has established thresholds for local community risk and hazard impacts that may be used when siting new sources of pollution. The BAAQMD's thresholds for analyzing health risks from new sources of emissions are presented below:

- Non-compliance with a qualified risk reduction plan;
- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 would be a cumulatively considerable contribution; or
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ would be a cumulatively considerable contribution.

As stated above, the foregoing thresholds are generally intended for use when analyzing the operation of new proposed sources of TACs. However, the proposed project would not involve the on-going operation of any permanent sources of TACs. Although the proposed project would not involve the siting or operation of any permanent sources of TACs, in the absence of specific thresholds for use when analyzing health risks from short-term emissions, the foregoing BAAQMD thresholds are applied to the project, for construction specifically.

To analyze potential health risks to nearby residents that could result from DPM emissions from off-road equipment at the project site, total DPM emissions from project construction were estimated. DPM is considered a subset of $PM_{2.5}$, thus, the CalEEMod estimated $PM_{2.5}$ emissions from exhaust during construction was conservatively assumed to represent all DPM emitted on-site. The CalEEMod estimated $PM_{2.5}$ exhaust emissions were then used to calculate the concentration of DPM at the maximally exposed sensitive receptor near the project site. DPM concentrations resulting from project implementation were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD) dispersion model. The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments.[6] The modeling was performed in

[6] Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

accordance with the USEPA's User's Guide for the AERMOD[7] and the 2015 OEHHA Guidance Manual.

Based on the foregoing methodology, and the methodology presented in response to questions 'a' and 'b' regarding the estimation of construction emissions, the cancer risk and non-cancer hazard indices were estimated and are presented in Table 5.

Table 5
Maximum Unmitigated Cancer Risk and Hazard Index Associated with Project Construction DPM

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index
Construction DPM Health Risks	20.96	0.00	0.02
Thresholds of Significance	10	1.0	1.0
Exceed Thresholds?	YES	NO	NO

Source: AERMOD and HARP 2 RAST, January 2021 (see Appendix A).

As shown in Table 5, construction of the proposed project would not result in acute or chronic hazards in excess of BAAQMD's standards. However, project construction would conservatively have the potential to result in cancer risks in excess of BAAQMD's 10 cases per million threshold. Thus, construction of the proposed project could result in exposure of nearby receptors to substantial pollutant concentrations.

Criteria Pollutants

The BAAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the NAAQS and CAAQS, and are designed to aid the district in achieving attainment of the NAAQS and CAAQS. [8] Although the BAAQMD's thresholds of significance are intended to aid achievement of the NAAQS and CAAQS for which the SFBAAB is in nonattainment, the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Nevertheless, a project's compliance with BAAQMD's thresholds of significance provides an indication that criteria pollutants released as a result of project implementation would not inhibit attainment of the health-based regional NAAQS and CAAQS. Because project-related emissions would not exceed the BAAQMD's thresholds, and, thus, would not inhibit attainment of regional NAAQS and CAAQS, the criteria pollutants emitted during project implementation would not be anticipated to result in measurable health impacts to sensitive receptors. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to excess concentrations of localized CO or criteria pollutants during construction or operation. However, construction of the project could result in exposure of nearby

[7] U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

[8] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

receptors to cancer risks in excess of the BAAQMD's standards. Consequently, the proposed project would result in a ***potentially significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

Mitigation Measure(s)

As shown in Table 6, implementation of the following mitigation measure would ensure that emissions from construction equipment do not result in increased health risks to nearby receptors in excess of BAAQMD's standards. Consequently, with implementation of the following mitigation measure, the proposed project would not have the potential to expose sensitive receptors to substantial pollutant concentrations and a *less-than-significant* impact would occur.

Table 6
Maximum Mitigated Cancer Risk and Hazard Index Associated with Project Construction DPM

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index
Construction DPM Health Risks	9.95	0.00	0.01
Thresholds of Significance	10	1.0	1.0
Exceed Thresholds?	NO	NO	NO

Source: AERMOD and HARP 2 RAST, January 2021 (see Appendix A).

Mitigation Measure 1. *Prior to the initiation of ground disturbance, the project applicant shall ensure that all heavy-duty off-road diesel-powered equipment to be used in the construction of the project (including owned, leased, and subcontractor equipment) shall be CARB Tier 4 Interim or cleaner.*

In addition, all off-road equipment working at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.

The aforementioned requirements shall be noted on improvement plans and submitted for review and approval by the Community Development Director for the City of Clayton.

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

Discussion (d.)

Emissions such as those leading to odors have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections "a" through "c" above. Therefore, the following discussion focuses on emissions of odors and dust.

Pursuant to the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[9] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on several variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantification of significant odor impacts is relatively difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would include the construction and operation of a sewer lift station, which would be located in the northwest portion of the project site. The proposed sewer lift station would have the potential to result in odors within the project area. The nearest sensitive receptors to the project site would be the single-family residences located approximately 50 feet west of the project site, across Pine Hollow Court.

The City of Concord Public Works Department performs preventative maintenance and makes routine repairs to the pump stations and sewer collection systems throughout the cities of Concord and Clayton. The City of Concord maintains a complaint hotline for the public to report any foul odor locations. If odors are reported, the staff investigates each report and takes the appropriate actions to eliminate the odor source. Methods used to deal with odors include carbon/permanganate air scrubber systems, pump station operation changes, and chemicals added to the force mains such as nitrate solutions, air injection, caustic soda or hydrogen peroxide. While not anticipated, if adverse odors were to occur in the project area associated with the proposed sewer lift station, the City of Concord Public Works Department would respond accordingly and install odor control facilities, if required. Furthermore, the prevailing wind direction in the City is Clayton is from the west.[10] As such, odors associated with the proposed sewer lift station would likely be blown in the westward direction, away from the nearest sensitive receptors.

Considering the above, the City of Concord Public Works Department has regulations in place to ensure that adverse odors do not affect nearby sensitive receptors. In addition, due to the prevailing wind direction in the area, nearby sensitive receptors would not be located downwind of the proposed sewer lift station. Consequently, operation of the proposed lift station would not result in the exposure of sensitive receptors to substantial odors. Apart

[9] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

[10] Weather Spark. *Average Weather in Clayton California, United States*. Available at: https://weatherspark.com/y/1067/Average-Weather-in-Clayton-California-United-States-Year-Round. Accessed January 14, 2021.

from the proposed sewer lift station, operations of the proposed project would involve activities typical to church facilities, and, consequently, would not be anticipated to result in the creation of substantial odors.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary and operation of construction equipment would be restricted to the hours of 7:00 AM to 5:00 PM, Monday through Friday, per Section 15.01.101 of the City's Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

As noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD's Basic Construction Mitigation Measures. The aforementioned measures would act to reduce construction-related dust by ensuring that haul trucks with loose material are covered, reducing vehicle dirt track-out, and limiting vehicle speeds within the project site, among other methods, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, the project site would not include any exposed topsoil. Thus, project operations would not include any substantial sources of dust.

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would result.

4. BIOLOGICAL RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	□	X	□	□
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	□	□	X	□
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	□	□	X	□
d.	Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	□	□	X	□
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	□	X	□	□
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	□	□	X	□

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

Discussion (a.)

This section is based upon a Biological Resources Assessment (BRA) prepared for the project site by Madrone Ecological Consulting[11] (see Appendix B).

The following discussion describes the sensitive biological resources that have the potential to be present within the project site based on the BRA. Sensitive biological resources include habitats and/or individual plant and animal species that have special recognition by federal, State, or local conservation agencies. For purposes of this analysis, special-status

[11] Madrone Ecological Consulting. *Biological Resources Assessment, Clayton Community Church.* December 1, 2020.

animal species are defined as animals protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively), or other regulations, and species that are considered rare by the scientific community. Special-status plant species are defined as plants that are protected under the CESA and FESA or listed as rare by California Department of Fish and Wildlife (CDFW) and the California Native Plant Society (CNPS). Special-status species include:

- Animals and plants listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 et seq.; 14 CCR §670.1et seq.) or the FESA (50 CFR 17.11);
- Animals and plants that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);
- Animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;
- Animals that are designated as "species of special concern" by CDFW (2016);
- Animal species that are designated as “fully protected” under California (Fish and Game Code 3511, 4700, 5050, and 5515);
- Bat Species that are designated on the Western Bat Working Group’s (WBWG) Regional Bat Species Priority Matrix as Medium or High Priority species; and
- Plants that are listed by CNPS Rare Plant Program as rank 1A – plants presumed extirpated in California and either rare or extinct elsewhere, 1B – plants rare, threatened or endangered in California or elsewhere, 2A – plants presumed extirpated in California but common elsewhere, 2B – plants rare, threatened or endangered in California by common elsewhere, 3 – plants about which more is needed and 4 – plants of limited distribution.

In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. The presence of species with legal protection under the Endangered Species Act often represents a major constraint to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species.

The project site is located within the boundaries of the *East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan* (ECCCHCP/NCCP), which is intended to provide an effective framework to protect natural resources in the County. However, the project site is designated as “urban” by the ECCCHCP/NCCP; therefore, the proposed project would be considered exempt from the provisions of the ECCCHCP/NCCP, pursuant to Section 16.55.030 of the Clayton Municipal Code. Mitigation measures identified in this IS/MND would be required to avoid possible inadvertent take of federally and state-designated special-status species which may occur on or near the project site.

Madrone Ecological conducted a field survey of the project area on June 30, 2020. During the field survey, the biologist walked the entire project site in meandering transects to evaluate biological resource conditions at the site. According to the field survey findings,

the western portion of the project site is a relatively flat terrace, which drops down a relatively steep hill through an abandoned walnut orchard to Mitchell Creek, just east of the project site. The majority of the project site is comprised of annual brome grassland, which is dominated by ripgut brome (*Bromus diandrus*) and wild oat (*Avena fatua*). A number of non-native forbs are also prevalent, including mustard (*Hirschfeldia incana*), Italian thistle (*Carduus pycnocephalus*), milk thistle (*Silybum marianum*), prickly wild lettuce (*Lactuca serriola*), filaree (*Erodium botrys*), rose clover (*Trifolium hirtum*), salsify (*Tragopogon porrifolius*), and bindweed (*Convolvulus arvensis*). The majority of the on-site trees are valley oaks and blue oaks. Several fruit trees exist around the on-site residence, as well as scattered black walnut trees which appear to be stump sprouts from the historic orchard, and a few very large Italian stone pines. During the course of the field survey, a grass fire broke out on the site, causing the biologist to leave the site due to safety concerns; however, because the burning grass was dormant for the season, conditions are assumed to have remained largely the same following the fire and the affected grasses are expected to return to similar conditions by the next spring. As further discussed in Question 'e' of this section, several trees were burned during the fire.

As part of the BRA, the California Natural Diversity Database (CNDDB), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) database, the CNPS Rare and Endangered Plant Inventory, the Western Bat Working Group (WBWG) Species Matrix, and the East Bay Chapter of the CNPS's *Database of Rare, Unusual, and Significant Plants of Alameda and Contra Costa Counties,* were used to determine what special-status species are known to have occurred within a five-mile radius of the project area.

Of the special-status species occurrences identified in the database searches, Madrone Ecological determined that five plant species and ten wildlife species have a low to moderate potential to occur within the project site based on habitat requirements. In addition, the BRA noted that birds protected under the MBTA could occur within existing trees in the project area. Such species are discussed in further detail below.

Special-Status Plants

The following discussions summarize the potential for the proposed project to result in adverse effects to special-status plants.

Bent-flowered fiddleneck (*Amsinckia lunaris*)
Bent-flowered fiddleneck is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This plant species is an herbaceous annual that occurs in chaparral, cismontane woodland, and valley and foothill grasslands. Bent-flowered fiddleneck blooms from March through June and is known to occur at elevations ranging from approximately 10 feet to 1,640 feet above mean sea level (MSL). Bent-flowered fiddleneck has not been documented within five miles of the project site; however, marginally suitable habitat for this species is present in the annual brome grasslands throughout the project site.

Mt. Diablo Fairy Lantern (*Calochortus pulchellus*)
Mt. Diablo fairy lantern is not federally or state listed, but it is classified as a CRPR List 1B.2 species. This species is a perennial bulb that occurs in chaparral,

cismontane, and riparian woodlands, and valley and foothill grasslands. Mt. Diablo fairy lantern blooms April through June and is known to occur from approximately 98 feet to 2,755 feet above MSL. Nineteen occurrences of Mt. Diablo fairy lantern have been documented within five miles of the project site in the CNDDB, the nearest of which is located approximately 1.5 miles south of the site in Mitchell Canyon. Marginally suitable habitat for this species is present in the annual brome grasslands throughout the project site.

Fragrant Fritallary (*Fritillaria liliacea*)
Fragrant fritillary is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is a perennial bulbiferous herb that is found in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland, often on serpentine soils. Fragrant fritillary blooms from February through April and is known to occur from 10 feet to 1,345 feet above MSL. Fragrant fritillary has not been documented in the CNDDB within five miles of the project site; however, there is one record of the species in CalFlora approximately five miles southwest of the project site. Marginally suitable habitat for this species is present in the annual brome grasslands throughout the project site.

Showy Golden Madia (*Madia radiata*)
Showy golden madia is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in cismontane woodland and valley and foothill grasslands. Showy golden madia blooms between March and May and is known to occur at elevations ranging from 82 feet to 3,986 feet above MSL. One CNDDB record of showy golden madia has been documented approximately 4.5 miles east of the project site, and several records in the same general location are documented in the California Consortium of Herbaria (CCH). However, all of these records are from the late 1800's and early to mid-1900's; the species has not been documented in the Bay Area since 1941. Marginally suitable habitat for this species is present in the annual brome grasslands throughout the project site.

Shining Navarretia (*Navarretia nigelliformis* ssp. *radians*)
Shining navarretia is not federally or state listed, but the species is classified as a CRPR List 1B.2 species. Shining navarretia is an annual herb primarily associated with forb-rich openings in cismontane woodland and valley and foothill grassland, often on clay soils. Shining navarretia occurs at elevations between approximately 210 feet and 3,280 feet, and typically blooms from April through July. The species has not been documented in the CNDDB within five miles of the project site; however, marginally suitable habitat for the species is present within the annual brome grasslands throughout the project site.

Special-Status Wildlife

The following discussions summarize the potential for the proposed project to result in adverse effects to special-status wildlife.

Crotch Bumble Bee (*Bombus crotchii*)
In California, the crotch bumble bee inhabits open grasslands and scrub habitats. This species was historically common in the Central Valley of California, but now appears to be absent from most of the region, including within the center of the species' historic range. There is one documented occurrence of crotch bumble bee within five miles of the project site, located approximately 2.5 miles north within the City of Antioch. The occurrence was documented in 1926 and the exact location is unknown. One CNDDB record of crotch bumble bee was documented approximately four miles southeast of the project site in 1951.

The annual grasslands within the project site appear to support minimal floristic diversity, and very few ground squirrel burrows are present to represent potential nesting and overwintering habitat. Given the isolation of the low-quality site from other, more suitable habitats, the site represents extremely marginal habitat for the species. Because crotch bumble bee is currently absent from most of the Central Valley of California, there is a very low potential for the species to be present within the project site.

Western Bumble Bee *(Bombus occidentalis)*
While the western bumble bee was historically known throughout the mountains and northern coast of California, it is now largely confined to high elevation sites and a small handful of records on the northern California coast. Meadows and grasslands with blended floral resources are appropriate habitats for the western bumble bee.

Four records of western bumble bee have been documented within five miles of the project site, the most recent of which is from 1974. The annual grasslands within the project site appear to support minimal floristic diversity, and very few ground squirrel burrows are present to represent potential nesting and overwintering habitat. Given the isolation of the low-quality site from other, more suitable habitats, the site represents extremely marginal habitat for the species. Because western bumble bee is currently absent from most of the Central Valley of California, there is a very low potential for the species to be present within the project site.

Western Burrowing Owl (*Athene cunicularia*)
The western burrowing owl is designated by CDFW as a Species of Special Concern. Burrowing owls are found in open arid and semiarid habitats with short or sparse vegetation, including grasslands, deserts, agricultural fields, ruderal areas and open, landscaped areas. The species is dependent on mammals such as the California ground squirrel that dig underground burrows, which the owls occupy. Some burrowing owls have adapted to urban landscapes, and in some instances, open lots, roadsides, and landscaped areas can provide suitable habitat. Breeding typically occurs from February 1 through August 31.

Three documented occurrences of burrowing owl are located within five miles of the project site. The small, isolated nature of the site, the density of the grassland, and the almost complete lack of ground squirrel burrows make the annual brome

grasslands within the project site extremely marginal habitat for western burrowing owl.

Swainson's Hawk (*Buteo swainsoni*)
Swainson's hawk is a raptor species that is not federally listed, but is listed as threatened by the CDFW. Breeding pairs typically nest in tall trees associated with riparian corridors and forage in grassland, irrigated pasture, and cropland with a high density of rodents. The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter.

One documented occurrence of Swainson's hawk nesting is located within five miles of the project site in the CNDDB from 1898. The eBird database contains a number of more recent records within five miles of the project site, but all of the records are foraging records. Due to the small, isolated nature of the site, and the trees scattered throughout the habitat, the annual brome grasslands within the project site represent extremely marginal foraging habitat for Swainson's hawk.

White-tailed kite *(Elanus leucurus*)
White-tailed kite is not federally or state-listed, but is a CDFW fully-protected species. This species is a yearlong resident in the Central Valley and is primarily found in or near foraging areas such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands. White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range.

White-tailed kite has not been documented within five miles of the project site in the CNDDB; however, foraging white-tailed kites have been documented numerous times in the eBird database. This species has not been documented in the vicinity of the project site. Due to the small, isolated nature of the site, the annual brome grasslands within the project site represent marginal foraging habitat for white-tailed kite.

Loggerhead shrike (*Lanius ludovicianus*)
The loggerhead shrike is not listed and protected pursuant to either the California or federal ESAs, but is considered a CDFW Species of Special Concern. Loggerhead shrikes nest in small trees and shrubs in woodland and savannah vegetation communities, and forage in open habitats throughout California. The nesting season ranges from March through June.

Loggerhead shrikes have not been documented within five miles of the project site in the CNDDB; however, the species has been documented several times in the eBird database. Due to the small, isolated nature of the site, the annual brome grasslands within the project site represent marginal foraging habitat for loggerhead shrike, and the trees and shrubs within the project site represent marginal nesting habitat.

Pallid Bat *(Antrozous pallidus)*
Pallid bat is not federally or state listed, but is considered a CDFW Species of Special Concern and is classified by the WBWG as a high-priority species. Pallid bat favors roosting sites in crevices of rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds. Although Pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals.

Two documented occurrences of pallid bat are located within five miles of the project site. Tree hollows and exfoliating bark on trees within the project site, as well as the barn located in the northwestern portion of the project site, provides suitable roosting habitat for pallid bat.

Townsend's Big-eared Bat (*Corynorhinus townsendii*)
Townsend's big-eared bat is not listed pursuant to either the federal or California ESAs; however, the species is considered a Species of Special Concern by the CDFW. The species has been reported from a wide variety of habitat types and elevations from sea level to 10,927 feet. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. The distribution of Townsend's big-eared bat is strongly associated with the availability of caves and cave-like roosting habitat, including abandoned mines, buildings, bridges, rock crevices, and hollow trees. Foraging habitat for this species generally consists of edge habitats along streams adjacent to and within a variety of wooded habitats. The species often travels long distances when foraging and large home ranges have been documented in California.

Two documented occurrences of Townsend's big-eared bat are located within five miles of the project site. However, both of the records are from the 1920s and 1930s. The barn located in the northwestern portion of the project site provides marginally suitable roosting habitat for Townsend's big-eared bat due to the frequency of human use.

Western Red Bat (*Lasiurus blossevillii*)
Western red bat is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a high-priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat, particularly willows, cottonwoods, and sycamores, used for foraging.

Western red bat has not been documented in the CNDBB within five miles of the project site. Trees throughout the project site represent suitable roosting habitat for western red bat. The open areas within the project site also provide suitable foraging habitat for the species.

Hoary Bat (*Lasiurus cinereus*)
The hoary bat is not federally or state listed, but the species is classified by the WBWG as a medium-priority species. Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches at the edge of a clearing. The species may also occasionally roost in caves, beneath a rock ledge, in a woodpecker hole, in a grey squirrel nest, under a wood plank, or clinging to the side of a building.

One occurrence of hoary bat has been documented within five miles of the project site in the 1950s. Trees throughout the project site represent suitable roosting habitat for hoary bat. The open areas within the project site provide suitable foraging habitat for the species.

Birds Protected by the MBTA

Per the BRA, the trees present on the proposed project site could serve as nesting locations for common and sensitive passerine and raptor species protected under the MBTA. Site construction activities, including tree removal during the active nesting season (February 1 to August 31) would have the potential to cause the failure or abandonment of active nests of migratory birds. Impacts to nesting birds, their eggs, and/or young caused by implementation of the project would be regarded as a potentially significant impact.

Conclusion

Based on the above, in the absence of appropriate mitigation, construction activities associated with the proposed project could result in adverse effects to special-status plant and wildlife species, as well as nesting raptors and songbirds and birds protected by the MBTA. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above potential impacts to a *less-than-significant* level.

Special-status Plant Species

Mitigation Measure 2. *Special-status plant surveys shall be conducted in accordance with CNPS and CDFW protocols throughout the project site within two years prior to the commencement of construction. The CNPS and CDFW protocols require that the surveys be conducted at the time of year that the target species are most identifiable; this often requires multiple survey visits to capture the identifiable period of all target species. If special-status plant species are not found, further mitigation would not be required. If special-status plants are found and will be impacted, mitigation for those impacts shall be determined in coordination with CDFW. If the plant found is a perennial, then mitigation could consist of digging up the plant and transplanting it to a suitable nearby avoided area prior to construction. If the plant found is an annual,*

then mitigation could consist of collecting seed-bearing soil and spreading it in a suitable nearby avoided area prior to construction.

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If special-status plant species are not found, further mitigation is not required.

Crotch and Western Bumble Bee

Mitigation Measure 3. *Within 14 days prior to construction activities, a qualified biologist shall conduct a take avoidance survey for active bumble bee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The biologist shall walk the entire area proposed for grading and inspect all rodent burrows for bumble bee activity. If any bumble bees are detected during the survey, the species shall be identified. Active colonies of crotch bumble bee or western bumble bee shall be avoided and work shall not occur within 50 feet of the colony. If the colony is in a location proposed for development, consultation for the CDFW shall be necessary and an Incidental Take Permit from the CDFW may be required prior to disturbance.*

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If crotch bumble bee or western bumble bee nests are not found, further mitigation is not required.

Western Burrowing Owl

Mitigation Measure 4. *A targeted take avoidance burrowing owl nest survey shall be conducted within all accessible areas within 250 feet of the proposed construction area within 14 days prior to construction activities utilizing 60-foot transects, as outlined in the 2020 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation. If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within 250 feet of the nest burrow, the applicant shall consult with CDFW to determine if the nest buffer can be reduced. During the non-breeding season (late September through the*

end of January), the applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW.

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If western burrowing owl nests are not found, further mitigation is not required.

Nesting Raptors, Songbirds, and Other Birds Protected by the MBTA

Mitigation Measure 5(a). *A preconstruction nesting bird survey shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. If there is a break in construction activity of more than two weeks, subsequent surveys shall be conducted.*

If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. The no-disturbance buffers may be reduced if a smaller buffer is proposed by the project biologist, and approved by the City, after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (if there are visual or acoustic barriers between the proposed activity and the nest). A qualified biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site, or the nest can be left undisturbed until the end of the nesting season.

A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If raptor or songbird nests or nests of birds protected by the MBTA are not found, further mitigation is not required.

Mitigation Measure 5(b). *Should construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest as a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The exclusionary buffer shall*

remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared and submitted to the City, indicating that the nest (or nests) are no longer active and that new nests have not been identified.

Roosting Bats

Mitigation Measure 6. *A qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features within the proposed development footprint. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. A report summarizing the survey shall be provided to the City of Clayton within 14 days of the completed survey. If roosting bats are not found, further mitigation is not required.*

If potential roosting habitat is identified within the areas proposed for development, the biologist shall survey the potential roosting habitat. Ideally, this survey should be conducted during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys are recommended to be conducted using methods that are considered acceptable by the CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.

If roosting bats are identified within any of the trees or buildings planned for removal, or if presence is assumed, then the qualified bat biologist shall specify appropriate exclusion methods according to where the roosting bats are located and what season the exclusion must occur. These exclusion methods may include two-step tree removal or building exclusion as detailed below.

In general, the trees/buildings shall be removed outside of pup season only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Building exclusion methods may include such techniques as installation of passive one-way doors, or the installation of

netting when the bats are not present to prevent their reoccupation. Once the bats have been excluded, tree removal may occur. Removal of trees/buildings where roosting habitat is not identified during the survey is recommended to be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.

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

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

Discussion (b. and c.)

Wetland, riparian, or other sensitive natural communities do not exist on the proposed project site. The site is located in a developed area with public uses and residential developments surrounding the site on all sides. Mitchell Creek, which runs adjacent to the eastern border of the project site, would not be disturbed by development of the proposed project. The nearest improvements taking place in proximity to Mitchell Creek would be the two proposed drain pipes and associated outfalls, which would be installed on the easterly slope facing Mitchell Creek. The outfalls would include flared end sections and rock slope protection immediately above and below the outfalls to prevent erosion and provide for energy dissipation. Stormwater would flow overland to Mitchell Creek, which is consistent with the existing conditions. Flow restrictors would ensure that the rate and amount of runoff entering the creek would not exceed pre-development levels. Therefore, treated stormwater generated by the proposed project would be able to sheet flow down the slope as stormwater currently does under existing conditions. Therefore, physical changes to the site would not involve filling, removal, degradation, or hydrological interruption of federally protected wetlands, riparian habitats, or sensitive communities.

Based on the above, the project would not have a substantial adverse effect on any riparian habitat, or other sensitive natural community or in federally protected wetlands on or near the project site. Consequently, a ***less-than-significant*** impact related to such natural resources would occur.

d. Would the project interfere substantially with the movement of any resident or migratory fish or wildlife species or with

established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? ..... Less-Than-Significant Impact

Discussion (d.)

The proposed project site is bordered by Pine Hollow Court to the west and is surrounded by existing development on all sides. Such features present a partial barrier to wildlife movement. The site does not contain any existing waterways that would provide habitat for native resident or migratory fish. Mitchell Creek, which runs along the eastern border of the project site, would not be disturbed by development of the proposed project, nor would the easterly slope of the project site be developed, such that wildlife could continue to move through the Mitchell Creek corridor area upon implementation of the proposed project. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and a ***less-than-significant*** impact would occur.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ..... Less-Than-Significant With Mitigation Incorporated

Discussion (e.)

The proposed project would be required to comply with all relevant policies and ordinances of the City of Clayton, including the Tree Protection Ordinance (Chapter 15.70 of the Municipal Code). The Tree Protection Ordinance calls for the protection of certain species of trees, and a Tree Removal Permit when removal of any tree with a trunk diameter of six inches or greater is proposed.

An updated Arborist Report was prepared by Tree, Bugs, Dirt Landscaping Consulting and Training after a recent grass fire damaged a total of 32 trees.[12]The Arborist Report evaluated a total of 59 live trees.[13] Of the 59 live trees, 56 are considered Protected Trees under the Tree Ordinance. The Updated Arborist Report recommends preserving 11 protected trees, and removing 48 trees due to their health, structure, form, condition, and species. Per the City's Tree Protection Ordinance, removal of healthy, protected trees would require replacement based on cumulative trunk diameter. Seven of the 48 trees are protected under the City's Ordinance and considered by the arborist to be in good or fair health. The cumulative trunk diameter of these trees is approximately 116 inches. Thus, a minimum of 58 inches (50%) of replacement trees would be required.

Recommendations for tree preservation provided by the arborist include, but are not limited to, the implementation of Tree Protection Zones (TPZs), fencing, temporary irrigation systems, and pruning. In addition, because the proposed project would result in impacts to Protected Trees, the applicant would be required to mitigate for the loss of Protected Trees

[12] Trees, Bugs, Dirt Landscape Consulting and Training. *Updated Arborist Report: Clayton Community Church, 1027 Pine Hollow Court, Clayton, CA.* December 15, 2020.

[13] There are also five dead trees on the project site.

by planting replacement trees and/or paying an in-lieu fee. In addition, to protect any trees that are located within 50 feet of construction from indirect impacts, the applicant would be required to prepare a Tree Protection Plan as outlined in the Tree Ordinance. Without implementation of the aforementioned protection measures, the proposed project could conflict with policies protecting biological resources, and could result in a ***potentially significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Mitigation Measure 7. *The following tree protection measures shall be implemented pursuant to the recommendations listed in the Arborist Report, to the extent feasible:*

- *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the existing trees to be retained, as identified in the Arborist Report;*
- *The project applicant shall include all recommendations provided in the Updated Arborist Report by Trees, Bugs, Dirt Landscape Consulting and Training within the Tree Protection Plan. The Tree Protection Plan shall meet the standards provided in Section 15.70.45 of the Municipal Code, and shall include, but not necessarily be limited to, the establishment of TPZs and protective fencing around trees to be preserved; temporary irrigation systems to be provided for each tree; the installation and maintenance of at least two inches of wood chip mulch within the protected soils within each TPZ; air spade trenching; root pruning and clearance pruning; and the prohibition of oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials within the dripline of trees to be preserved.*

Mitigation Measure 8. *A tree replacement plan for the removal of 58 inches of cumulative trunk diameter of protected tree species shall be prepared in accordance with Municipal Code Section 15.070.040 A1. or A.2., or, subject to determination by the Community Development Director or Planning Commission, the applicant must pay an in-lieu fee to the City for the purchase and installation of trees of equivalent value.*

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other

approved local, regional, or state habitat conservation plan? ..... Less-Than-Significant-Impact

Discussion (f.)

The ECCCHCP/NCCP was prepared in 2007 and the City of Clayton became a signatory in January 2008. The ECCCHCP/NCCP is intended to provide a coordinated, regional approach to special-status species conservation and development regulation. A total of 28 species are covered under the ECCCHCP/NCCP. The ECCCHCP/NCCP provides streamlined permits from the USFWS and CDFW for covered species for new urban development projects and a variety of public infrastructure projects. Development fees within the ECCCHCP/NCCP area are assessed based on fee zones and land cover types.

Although the City of Clayton is a participating agency and the project site is located within the ECCCHCP/NCCP boundaries, the proposed project is exempt because the project site is identified as an Urban land cover type in the ECCCHCP/NCCP. Because the project is exempt as a regulated development project under the ECCCHCP/NCCP, conformance with the adopted plan is not required, conflicts with the Plan are not anticipated, and fees would not be assessed. However, the project has been designed or conditioned through mitigation specified in this Initial Study to avoid possible inadvertent take of special-status species, which would be consistent with the general goals of the ECCCHCP/NCCP. Based on the above, a ***less-than-significant*** impact would occur.

5. CULTURAL RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	□	□	X	□
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	□	X	□	□
c.	Disturb any human remains, including those interred outside of dedicated cemeteries.	□	X	□	□

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?.....Less-Than-Significant Impact .....

Discussion (a.)

An Archaeology Survey Report was conducted for the project site by Alta Archaeological Consulting (Alta), which included a Cultural Resources Survey conducted on July 16, 2020 (see Appendix C).[14] As part of the Archaeology Survey Report, Alta requested a records search at the Northwest Information Center (NWIC). The NWIC search found that previous studies have not been conducted for the proposed project site, but seven cultural resource studies within 0.25-mile from the project site were conducted in the past. Four cultural resources were found during those studies; one of the cultural resources is considered to be of the historic era, while three of the cultural resources are considered to be of the prehistoric era.

The three historic and one mixed-component sites identified are located approximately 500-feet northeast of the project area above Mt. Diablo Creek. One of the sites, identified as P-07-000105, is a very large multi-component site consisting of a large habitation site and is composed of midden, burials, hearths, and a complex of artifacts that indicate habitation to approximately 2,800 B.P. The site is also considered significant due to its association with Joel Clayton and George Keller, who settled on the land circa 1910 and had the house and barn constructed on the land. However, due to the distance between the project site and the identified sites, substantial adverse impacts to the historic resources identified in the previous cultural studies are not anticipated.

The existing single-family home located on the project site was built circa 1950.[15] The existing on-site barn was built in the early 1920s. The barn was built by Will Frank (1884-1969), with the help of some of his eight brothers, on the Frank family farm of almost 20 acres at the time. The original barn on the property was built in the 1850's, and was in poor condition by 1920, when Will Frank needed a larger, better constructed barn.[16]

[14] Alta Archaeological Consulting. *Archaeological Survey Report: Clayton Community Church Project, Clayton, Contra Costa County, California*. December 12, 2020.

[15] Personal communication between Janet Easton and Nick Pappani, Vice President, Raney Planning and Management, Inc. December 17, 2020.

[16] Ibid.

The Frank family ranch is discussed on Page 26 of the Clayton Heritage Preservation 1994 Task Force Report. The City of Clayton relies on this report, prepared by the Heritage Preservation Task Force and accepted by the City Council, to determine whether structures are considered historically significant. The Task Force, which was comprised of Historical Society members and former representatives of Clayton City Council and Planning Commission, had a stated mission to "identify the remaining things of historical importance to Clayton, to prioritize them, and to develop plans to preserve those that can be preserved." As such, the Task Force Report generally supplements and, in some cases, provides more detailed guidance on historical resources than what the General Plan may provide alone.

The Task Force Report refers to a collection of historic houses on Pine Hollow Court, which does not include the 1950s-era residence on the subject site. The Task Force Report also refers to "structures" on Pine Hollow Court, but does not give any description of which structures are being referred to. The Report is broken into various sections, one of which is entitled, "Privately Owned Historic Buildings", where, according to the Table of Contents, "Will Frank Family Houses" is listed. This suggests the focus of the Task Force Report is on the homes associated with the Will Frank Family ranch, not the "structures" that are generally referenced on page 26 of the Report. This, coupled with the fact that the current barn is a replacement of the original 19th century barn on the Frank family property, supports the conclusion that the current barn is not considered historically significant.

Therefore, the project would have a ***less-than-significant*** impact with respect to causing a substantial adverse change in the significance of a historical resource.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? Less-Than-Significant With Mitigation Incorporated .....

c. Disturb any human remains, including those interred outside of formal cemeteries.. .... Less-Than-Significant With Mitigation Incorporated

Discussion (b., c.)

On July 16, 2020, Alta conducted a field survey of the entire project site. Ground surface visibility was varied, with some areas providing good visibility (around 80 percent) in areas that had been subject to a recent fire and vegetation clearing, while other areas less so, with visibility around 25 percent due to heavy grass cover. The project site was surveyed using intensive pedestrian survey coverage with transects no greater than 10-meter intervals. A total of eight shovel and boot scrapes were used to scrape the ground survey to expose mineral soils; the top five to 10 centimeters of project site soils were determined to be composed of some organics and highly compacted clayey loam. The downslope portion of the project site was not subject to survey because development is not proposed in the eastern slope area. Overall, the field survey did not detect archaeological resources, nor human remains.

It should also be noted that, in general, most Pleistocene-age landforms have little potential for harboring buried archaeological resources as they developed prior to human migration

into North America. However, Pleistocene surface buried below younger Holocene deposits do have a potential for containing archaeological deposits. The project site is located within pre-Pleistocene deposits and is underlain by alluvial terrace deposits and Perkins loam. As such, the project site would be considered to have a very low probability of containing buried archaeological deposits.

As part of the archaeological report, Alta contacted the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands file and to request a list of Native American contacts in the area. The response letter provided by the NAHC indicated that the search of the Sacred Lands file had a positive result. On July 2, 2020, Alta sent notification letters to the Chairpersons of each tribal group associated with the project site as provided by the NAHC. A response was received by the Wilton Rancheria and the Guidiville Rancheria indicating that the tribes did not have concerns regarding the proposed project. Two additional responses from Andrew Galvan of the Costanoan tribe and Corrina Gould of the Confederated Villages of Lisjan requested the information provided by the NAHC. The NAHC results were distributed to the tribes upon request; further communication from the Native American tribes has not been received to date.

The entire project area has undergone previous disturbance as a result of the grading for orchard farming that has occurred off and on for over a century on the parcel. Further, the upper terrace location, above Mitchell Creek, and the presence of CA-CCO-222 northeast at the confluence of Mitchell Creek and Mt. Diablo Creek, suggests that the focus of prehistoric settlement was at that location and not the project parcel.

Despite the negative findings for prehistoric archaeological resources, the proximity to Mitchell Creek and the presence of archaeological sites upstream and east of the project area, increases the probability of encountering additional evidence of prehistoric occupation along this riverine corridor. Therefore, the proposed project could have a ***potentially significant*** impact to archaeological resources.

Mitigation Measure(s)

The following mitigation measures would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 9. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, tribal cultural resources, or human remains, are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the*

discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.

Mitigation Measure 10. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.*

6. ENERGY

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	□	□	X	□
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	□	□	X	□

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? .....Less-Than-Significant

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? .....Less-Than-Significant

Discussion (a. and b.)

The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2019 CALGreen Code is a portion of the CBSC, otherwise known as the CALGreen Code (CCR Title 24, Part 11), which became effective on January 1, 2020. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration, repair, improvement, and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;

- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 sf to ensure that all are working at their maximum capacity according to their design efficiencies; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2016 Building Energy Efficiency Standards resulting in a 30 percent reduction in energy consumption from the 2016 standards for commercial structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. In addition, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. The In-Use Off-Road Diesel Vehicle Regulation would therefore help to improve fuel efficiency for equipment used in construction of the proposed project. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction.

The CARB prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),[17] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of church uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed project.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the CALGreen Code and the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, California has set energy-use reduction goals targeting zero-net-energy use in all new non-residential buildings by 2030. Compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy, including the provision of 10 electric vehicle (EV) charging spaces. In addition, as discussed in Section 17, Transportation, of this IS/MND, the project area is currently provided transit service by the Central Contra Costa Transit Authority. Pedestrians and bicyclists could access the

[17] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.

closest transit stops on Clayton Road through a continuous path of sidewalks and crosswalks from the project site. Transit would provide access to the proposed project from residential neighborhoods throughout the City of Clayton. Furthermore, as the proposed project is only intended to serve the Clayton community, vehicle miles traveled (VMT) would not be increased due to vehicle trips from larger areas. The inclusion of EV charging spaces and the site's access to public transit and proximity to surrounding residences would reduce (VMT) and, consequently, fuel consumption associated with the proposed project. Therefore, the proposed project would provide for increased electric vehicle use and pedestrian connectivity with the surrounding area, resulting in reduced vehicle use and reduced emissions generation.

Conclusion

Based on the context above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

7. GEOLOGY AND SOILS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	□	□	X	□
	ii. Strong seismic ground shaking?	□	□	X	□
	iii. Seismic-related ground failure, including liquefaction?	□	□	X	□
	iv. Landslides?	□	X	□	□
b.	Result in substantial soil erosion or the loss of topsoil?	□	X	□	□
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	□	X	□	□
d.	Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?	□	□	X	□
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	□	X
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		□	X	

a-i. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? ..... Less-Than-Significant Impact

a-ii. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?..... Less-Than-Significant Impact

a-iii. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction? ..... Less-Than-Significant Impact

Discussion (a-i., a-ii, aiii.)

A Geotechnical Investigation was prepared for the proposed project by Cornerstone Earth Group,[18] and a Peer Review of the Geotechnical Investigation was prepared by Geocon Consultants[19] (see Appendix D). According to the Geotechnical Investigation, the proposed project site is not located within an Alquist-Priolo Fault Zone; however, large earthquakes have historically occurred in the San Francisco Bay Area. The nearest active fault is the Greenville Fault, located 1.1 miles from the site. Other active faults in the region include the Concord-Green Valley, North Calaveras, Hayward, West Napa, and Rodgers Creek faults. Given that none of the faults cross the project site, the potential for ground rupture is low.

An earthquake of moderate to high magnitude generated within the project region could cause considerable ground shaking at the site. Nonetheless, all structures proposed for the project would be designed in accordance with the requirements of the adopted edition of the California Building Code (CBC) in place at the time of construction. Structures built according to the seismic design provisions of current building codes should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some nonstructural damage; and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Consequently, as the proposed project would comply with all applicable CBC recommendations, the project would not be anticipated to be substantially affected by ground shaking.

During strong seismic shaking, cyclically induced stresses can cause increased pore pressures within the soil matrix that can result in liquefaction triggering soil softening due to shear stress loss, potentially significant ground deformation due to settlement within sandy liquefiable layers as pore pressures dissipate, and/or flow failures in sloping ground or where open faces are present (i.e., lateral spreading). Limited field and laboratory data are available regarding ground deformation due to settlement; however, in clean sand layers, settlement on the order of two to three percent of the liquefied layer thickness can occur. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap.

Per the Geotechnical Investigation, the project site consists primarily of medium stiff to stiff cohesive soils underlain by bedrock. A localized layer of loose clayey sand was encountered in one soil boring; however, the layer appears to be localized and relatively shallow. In addition, the static design ground water level is anticipated to be greater than 30 feet below site grades. Based on the above, Cornerstone Earth Group concluded that the potential for liquefaction to occur at the project site would be low.

[18] Cornerstone Earth Group. *Geotechnical Investigation: Clayton Community Church, 1027 Pine Hollow Court, Clayton, California, Project Number 352-2-2.* March 9, 2017.

[19] Geocon Consultants, Inc. *Clayton Community Church, 1027 Pine Hollow Court, Clayton, California, Geotechnical Peer Review.* November 23, 2020.

Based on the above the proposed project would not expose people or structures to substantial adverse effects including the risk of loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map, strong seismic ground shaking, and seismically-induced liquefaction, resulting in a ***less-than-significant*** impact.

a-iv. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related landslides? ..... Less-Than-Significant Impact With Mitigation Incorporated

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

Discussion (a-iii. and c.)

A previous feasibility-level investigation performed by Cornerstone Earth Group, dated March 22, 2016, was focused on the eastern-facing slope. Six exploratory test pits within the eastern slope encountered approximately six- to 12-inch, thick layers of clayey topsoil mantling the slope that was soft to medium stiff and contained abundant organics. Below the surficial topsoil, a layer of stiff to very stiff sandy lean clay with varying percentages of gravel was observed to depths ranging from four to five feet. In test pits TP-1, 4, and 5, the stiff clay layer was underlain by weathered bedrock consisting of claystone with varying percentages of sand. The claystone was generally friable and intensely fractured. Bedrock was not encountered to the maximum depths explored in TP-2, 3, and 6. More recent explorations were undertaken on the relatively level, western half of the site, which is blanketed by four to six feet of soft to very stiff, moist to wet lean clay and sandy lean clay. The upper six- to 12-inches of the near-surface clays within the western portion of the project site contained significant organics. The upper clay was underlain by loose to medium dense clayey sand to the maximum depth explored at 10 feet. Perched ground water was observed flowing through sandy clay/clayey sand soil at a depth of about three feet below the surface in Boring EB-4.

Based on the above site observations and a review of historical aerial photographs, Cornerstone Earth Group determined that indications of landslides or slope movement on the eastern-facing slope do not exist. While similar sites in the area with natural or cut slopes steeper than 3:1 may be susceptible to shallow sloughing or minor debris flow movement within the upper clay soils mantling the hillside, the existing 3:1 slope within the eastern portion of the project site is considered to have a low to moderate chance of landslide.

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face, such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers

near the bottom of an exposed slope. The eastern property boundary is approximately 40 to 80 feet from a seasonal stream. Although the stream is likely underlain by Holocene-aged alluvial soils, the Geotechnical Investigation determined that the potential for liquefaction at the site appears to be low. Therefore, the potential for lateral spreading to impact the proposed project would be low.

Subsidence, or settlement, occurs when the earth's surface sinks due to settlement of soils during earthquake shaking, excessive groundwater extraction, and/or loose soil conditions. The static high ground water level is anticipated to be approximately 30 to 40 feet below current grades. During field explorations, the surficial clayey soils encountered within the proposed building area were wet to moist and soft to medium stiff. The surficial soils were determined to be moderately compressible and would not provide uniform support for the proposed structure, which could cause differential settlement for new foundations. To reduce the potential for differential settlement, the Geotechnical Investigation recommends that the shallow surficial soils be over-excavated and re-compacted prior to placing new fill in the building area.

The Geotechnical Peer Review performed by Geocon Consultants indicated that the potential for slope creep was not evaluated within the 2019 Cornerstone Group Geotechnical Investigation. Slope creep is a natural geologic process where relatively loose/soft weathered materials migrate downslope over time. Slope creep in clayey soils is often exacerbated by seasonal shrink and swell cycles that result in desiccation cracking in dry periods, followed by the ready infiltration of runoff and saturation of the slope face during winter rains. Upon re-evaluation of the updated building plans, Cornerstone Earth Group determined that the potential for gradual slope creep along the eastern edge of the project site would be moderate to high; therefore, shallow footings supporting the eastern building wall would need to bear on natural, undisturbed soil, be at least 24 inches wide, and extend at least 36 inches below the lowest adjacent grade.[20] The recommendations provided in Cornerstone Earth Group's Geotechnical Response to Review Comments would ensure that impacts related to soil creep would not be significant.

In light of the potential for soil creep, the Geotechnical Peer Review performed by Geocon Consultants also recommended that soil conditions associated with bedrock and moderately to highly plastic clays be reviewed relative to the anticipated deck and balcony foundations located on the eastern side of the proposed church. Upon review, Cornerstone Earth Group concluded that, due to the potential for long-term soil creep in that area, the shallow footing recommendations presented in the 2019 Geotechnical Report would not be suitable; rather, the proposed deck would need to be supported on drilled, cast-in-place friction piers which extend below the potential soil creep zone. Drilled pier recommendations for the deck are presented within Cornerstone Earth Group's response to Peer Review comments.

Without adherence to the recommendations provided in the Geotechnical Investigation and the Geotechnical Response to Review Comments performed by Cornerstone Earth Group, a ***potentially significant*** impact related to landslide, lateral spreading, subsidence, liquefaction or collapse could occur as a result of the proposed project.

[20] Cornerstone Earth Group. *Geotechnical Response to Review Comments. Clayton Community Church. 1027 Pine Hollow Court. Clayton, California.* December 14, 2020.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Mitigation Measure 11. *Prior to approval of the improvement plans for the project, all recommendations from the Geotechnical Investigation prepared by Cornerstone Earth Group (2019) and the Geotechnical Response to Comments prepared by Cornerstone Earth Group (2020) shall be incorporated into the improvement plans to the satisfaction of the City Engineer.*

In addition, the applicant shall retain a California Registered Geotechnical Engineer to review the geotechnical aspects of the project's structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing plans for construction. The geotechnical engineer shall perform field observations during earthwork and foundation construction to confirm project compliance with project plans, project specifications, and the recommendations provided in Cornerstone's Geotechnical Investigation and Geotechnical Peer Review Response Memo. The on-site geotechnical engineer shall have the authority to provide supplemental recommendations as necessary based on site conditions. Compliance with the recommendations of the Geotechnical Engineer shall be provided to the City Engineer.

b. Would the project result in substantial soil erosion or the loss of topsoil? .. Less-Than-Significant With Mitigation Incorporated

Discussion (b.)

Construction of the proposed project would involve grading of the development footprint to accommodate the proposed site improvements. Minimal ground disturbance would occur on the eastern slope due to installation of two storm drain pipes and associated outfalls. After grading, but prior to the overlaying of the ground surface with structures, topsoil of the disturbed portions of the site would be exposed, and the earth surfaces would be susceptible to erosion from wind and water. During the grading and excavation phases of construction, appropriate measures consistent with the Clayton Stormwater Management Ordinance and other applicable regulations (e.g., State Regional Water Quality Control Board National Pollutant Discharge Elimination System regulations) would be required to be implemented in order to control erosion on the site and minimize the impacts related to loss of topsoil. See Section 9, Hydrology and Water Quality, of this IS/MND for further discussion regarding the relationship of erosion to water quality. Because the proposed project could result in soil erosion or the loss of topsoil associated with grading and excavation of the project site during construction, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Mitigation Measure 12. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with "filter fabric";*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property? ..... Less-Than-Significant Impact

Discussion (d.)

Expansive soils are subject to shrinking and swelling as a result of seasonal fluctuations in soil moisture content, potentially resulting in heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Per the Geotechnical Report, the on-site soils were indicated to have low plasticity and expansion potential to wetting and drying cycles. Potential building damage due to volume changes associated with expansive soils may be reduced through proper foundation design. As noted above, under question 'aiv' and 'c', the project would be required to implement Mitigation Measure 11 which requires recommendations from the Geotechnical Report be incorporated into the project improvement plans. Implementation of Mitigation Measure 11 would ensure that the recommendations within the Geotechnical Report related to expansive soils are properly implemented during construction. Thus, the proposed project would not create substantial direct or indirect risks to life or property related to being located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), and a ***less-than-significant*** impact would occur.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ..... No Impact

Discussion (e.)

The proposed church structure would be connected to the City of Clayton's sewer system and would not require the installation or use of septic tanks. Therefore, the proposed project would have ***no impact*** regarding having soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? .... Less-Than-Significant Impact

Discussion (f.)

Unique geologic features within the City of Clayton are not noted within the City's General Plan. Consequently, implementation of the proposed project would not be anticipated to have the potential to result in direct or indirect destruction of unique geologic features. The City's General Plan does not indicate the presence of any paleontological resources within the City Planning Area.

The majority of the surrounding area is developed and paleontological resources are not known to have not been encountered in the vicinity. Although existing paleontological resources are not expected to occur on the site, the potential exists for previously unknown paleontological resources to exist within the project site. Therefore, Mitigation Measures 9 and 10 require the appropriate actions be taken should any cultural resources, human remains, or bone of unknown origin be found within the project site during construction activities. With the implementation of Mitigation Measures 9 and 10, the proposed project would not result in the direct or indirect destruction of a unique paleontological resource, and a ***less-than-significant*** impact would occur.

8. GREENHOUSE GAS EMISSIONS

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	X	□
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	X	□

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

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ..... Less-Than-Significant Impact

Discussion (a. and b.)

Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/yr per service population (population + employees). BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions

above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations.

The quantitative thresholds above were adopted by BAAQMD in order to demonstrate a project's compliance with statewide emissions reduction targets established by the state legislature in Assembly Bill 32. Since adoption of the BAAQMD's thresholds of significance, the state legislature has passed Senate Bill (SB) 32, which established further statewide emissions targets. BAAQMD has not yet adopted thresholds that may be used to determine a project's compliance with SB 32. In the absence of adopted GHG emissions thresholds to assess compliance with SB 32, the BAAQMD has directed jurisdictions to qualitatively assess a project's compliance with the recommended mitigation measures within the *California's 2017 Climate Change Scoping Plan* (2017 Scoping Plan) as an alternative means of assessing a project's potential impacts related to GHG emissions.[21]

The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in Section 3, Air Quality, of this IS/MND, and compared to the thresholds of significance noted above. The proposed project's required compliance with the 2019 California Building Energy Efficiency Standards Code was assumed in the modeling. In addition, the CO_2 intensity factor within the model was adjusted to reflect the PG&E's anticipated CO_2 emissions factor for the year 2024. All CalEEMod results are included in Appendix A to this IS/MND.

BAAQMD Thresholds

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, nor do they require quantification. Nonetheless, the proposed project's construction GHG emissions have been estimated. The CalEEMod emissions estimates prepared for the proposed project determined that unmitigated project construction would result in total emissions of 580.19 $MTCO_2e$ over the course of the construction period.

The estimated maximum annual GHG emissions related to operations of the proposed project are presented in Table 7 below. As shown in Table 7, the project's maximum annual unmitigated operational GHG emissions were estimated to be approximately 145.61 $MTCO_2e$/yr. Thus, implementation of the proposed project would result in operational emissions well below the BAAQMD's applicable 1,100 $MTCO_2e$/yr threshold of significance for GHG emissions. Even if the total construction emissions are added to the annual operations emissions for a conservative comparison, the sum would be 725.80 $MTCO_2e$, which remains below the BAAQMD threshold of significance.

[21] Flores, Areana. Environmental Planner, Planning and Climate Protection. Personal communication [phone] with Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning and Management, Inc. September 17, 2019.

Table 7 Operational GHG Emissions	
Source	**GHG Emissions ($MTCO_2e$/yr)**
Area	0.00
Energy	31.17
Mobile	92.70
Waste	20.80
Water	0.94
Total Annual Operational GHG Emissions	**145.61**
BAAQMD Threshold	**1,100 $MTCO_2e$/yr**
Exceeds Threshold?	**NO**
Source: CalEEMod, January 2021 (see Appendix A).	

Consistency with 2017 Scoping Plan

Appendix B to the CARB's 2017 Scoping Plan provides examples of potentially feasible mitigation measures that could be considered to assess a project's compliance with the State's 2030 GHG emissions reductions goals. Thus, general compliance with the Local Actions within the 2017 Scoping Plan could be considered to demonstrate the project's compliance with SB 32. The project's consistency with the applicable Local Actions within the 2017 Scoping Plan is assessed in Table 8 below.

Table 8 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	**Consistency Discussion**
Construction	
Enforce idling time restrictions for construction vehicles.	CARB's In-Use Off-Road Vehicle Regulations include restrictions that limit idling time to five minutes under most situations. Construction fleets and all equipment operated as part of on-site construction activities would be subject to CARB's idling restrictions. As such, the proposed project would be required to comply with this measure.
Require construction vehicles to operate with the highest tier engines commercially available.	The City does not require contractors to use construction equipment that complies with the highest tier engines commercially available, unless warranted by mitigation, which is not the case for this project, as construction emissions would fall below the BAAQMD's thresholds.
Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible.	The CALGreen Code requires the diversion of construction and demolition waste, and the proposed project would be required to comply with the requirements within the most up-to-date CALGreen Code. Thus, the project would be considered to comply with the suggested measure.
Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance.	The proposed project would include the removal of 48 trees. However, pursuant to Chapter 15.70.040, Tree Replacement Plan, of the City's Municipal Code, the Landscaping Plan for the project site includes the provision of new trees as a means of replacement, which would mitigate the loss of existing trees. As such, the project would comply with the suggested measure.

Table 8 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	**Consistency Discussion**
Utilize existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators.	The contractor would use existing grid electricity to the extent feasible. However, the possibility exists that temporary generators would be used for electricity in instances where grid electricity is not accessible. Overall, the project would be considered to generally comply with the suggested measure.
Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available.	The City does not require the use of alternatively fueled construction equipment, unless warranted by mitigation, which is not the case for this project. Furthermore, the commercial availability of renewable diesel in the project area is currently unknown.
Operations	
Comply with lead agency's standards for mitigating transportation impacts under SB 743.	As noted in Section 17, Transportation, of this IS/MND, because the proposed project would be considered a Small Project per the CCTA Guidelines, the project would result in a less-than-significant impact related to vehicle miles traveled (VMT). Thus, the project would be considered to comply with the suggested measure.
Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals.	The proposed project would include 10 EV charging spaces and, thus, the project would comply with this suggested measure.
Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan.	The proposed project would connect to existing pedestrian facilities and would extend the existing sidewalk on Pine Hollow Court to cover the entire project frontage. Pedestrian circulation on-site would primarily be through five-foot walkways surrounding the proposed buildings, pedestrian crossings on the main drive aisle connecting the project frontage to the building entrances, as well as pedestrian walkways along the drive aisle fronting the main entrance. Therefore, the project would comply with the suggested measure. Additional discussion of bicycle, pedestrian, and transit facilities is provided in Section 17, Transportation, of this IS/MND.
Require on-site renewable energy generation.	The 2019 CBSC requires that non-residential structures be constructed with solar-ready rooftops. As such, the proposed church would have a reserved solar-ready zone and the applicant may opt to include solar panels.
Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size development.	The proposed project would not include wood-burning fireplaces. Thus, the proposed project would comply with the suggested measure.
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.	The 2019 Building Energy Efficiency Standards contains requirements for the thermal emittance, three-year aged reflectance, and Solar Reflectance Index (SRI) of roofing materials used in new construction and re-roofing projects. Such standards, with which the

Table 8 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	**Consistency Discussion**
	project would be required to comply, would help to reduce heating and cooling costs associated with the proposed project. Therefore, the proposed project would generally comply with the suggested measure.
Require solar-ready roofs.	The 2019 CBSC requires that new non-residential structures be built with rooftop solar infrastructure for at least 15 percent of the roof area. Therefore, the proposed project would comply with this suggested measure.
Require organic collection in new developments.	Solid waste, recycling, and yard waste collection services are provided to the City of Clayton by Republic Services. Thus, the proposed project would have access to such organic collection services, and the project would generally comply with the suggested measure.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model Water Efficient Landscape Ordinance [MWELO], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	Landscaping within the project site would be required to comply with the CALGreen Code and all water efficiency measures therein, including the MWELO or any similar regulations adopted by the City of Clayton. Accordingly, the proposed project is anticipated to comply with this measure.
Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code.	The project applicant has not committed to achieving Zero Net Energy. Thus, compliance with the suggested measure is uncertain at this time. It should be noted that neither the CBSC nor the City of Clayton requires new commercial development to achieve Zero Net Energy at this time.
Expand urban forestry and green infrastructure in new land development.	The project would include landscaping throughout the site, and would include the planting and maintenance of green infrastructure, including several new trees, shrubs, and other plants. Therefore, the project would generally comply with the suggested measure.
Require each residential and commercial building equip buildings [sic] with energy efficient AC units and heating systems with programmable thermostats/timers.	The proposed project would be required to comply with all energy efficiency standards set forth in Title 20 and Title 24 of the California Code of Regulations. As such, the project would generally comply with the suggested measure.
Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3).	The proposed project would be required to comply with the non-residential water efficiency regulations within the CALGreen Code. Thus, the proposed project would comply with the suggested measure.
Require the use of energy-efficient lighting for all street, parking, and area lighting.	All proposed exterior lighting would be LED type, consistent with the 2019 Building Energy Efficiency Standards. Thus, the proposed project would comply with the suggested measure.
Require the development project to propose an off-site mitigation project which should generate carbon credits	The suggested mitigation measures included in the 2017 Scoping Plan are not considered to be requirements for local projects under CEQA, but instead represent

Table 8 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	**Consistency Discussion**
equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district. The project may alternatively purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district.	options for projects to demonstrate compliance with the 2017 Scoping Plan. The inclusion of GHG off-set mitigation projects or the purchase of carbon credits is typically dependent on a project's exceedance of the previously identified quantitative GHG thresholds. However, BAAQMD has not identified quantitative SB 32 thresholds that could be used to determine whether the project's anticipated emissions would be such that an off-site mitigation project or purchase of GHG reduction credits would be required in order to comply with SB 32. Considering that the project has been shown to be generally consistent with the foregoing measures, the City, in its discretion as lead agency, has chosen not to require the project to implement an off-site mitigation project or purchase GHG reduction credits.
Source: California Air Resources Board. AB 32 Scoping Plan [Appendix B]. Accessible at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed August 2020.	

As shown in the table above, the proposed project would generally comply with the suggested measures and, thus, the proposed project would be considered generally consistent with the 2017 Scoping Plan. Because the 2017 Scoping Plan is the CARB's strategy for meeting the State's 2030 emissions goals established by SB 32, the project would be considered to comply with the goals of SB 32.

Consistency with Plan Bay Area 2040

The San Francisco Bay Area's Plan Bay Area 2040 has been prepared jointly by the San Francisco Bay Area MTC and ABAG. Plan Bay Area 2040 is a regional plan intended to provide a strategy for the reduction of GHG emissions and air pollutants within the San Francisco Bay Area. The Plan Bay Area 2040 is a long-range plan that serves as a Regional Transportation Plan and Sustainable Communities Strategy (SCS). As an SCS, the Plan Bay Area 2040 is required to comply with regional targets for reducing GHG emissions through the integration of transportation and land use planning. ABAG has not provided a specified means of identifying an individual development project's compliance with the Plan Bay Area 2040. For the purposes of this analysis, the proposed project is compared to the overall goal of the Plan Bay Area 2040, which is to reduce regional GHG emissions through the reduction of transportation-related emissions.

By providing access to a church in a central location within Clayton and in close proximity to existing residences, the project would shorten the drive distances currently needed for local residents to have access to such facilities. The proposed project would connect to existing pedestrian facilities and would extend the existing sidewalk on Pine Hollow Court to cover the entire project frontage, thus improving pedestrian connections to the project site. The proposed project would also have adequate bicycle access to the project site from the surrounding area, and pedestrians and bicyclists could access the closest transit stops, located approximately 0.25-mile to the north on Clayton Road, through a continuous path

of sidewalks and crosswalks. The transit service within the immediate project vicinity, County Connection, provides two bus routes which travel between the Concord BART station and Downtown Clayton (Bus Routes 10 and 310). The transit service operates within capacity and additional trips generated by the proposed project could be accommodated by existing bus services. As such, implementation of the proposed project could be anticipated to reduce local VMT and thereby reduce mobile-sourced GHG emissions associated with the project.

Based on the above, the proposed project would not conflict with the Plan Bay Area 2040.

Conclusion

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

9. HAZARDS AND HAZARDOUS MATERIALS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	□	□	X	□
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	□	X		□
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	□	X	□
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	□	X
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	X
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	X	□
g.	Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	□	□	X	□

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

Discussion (a.)

The proposed project would develop the project site with a community church. The proposed church uses would not involve the routine transport, use, or disposal of hazardous materials. Operations would likely involve use of common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount utilized on the site, occasional use of such products would not represent a substantial risk to public health or the environment. Thus, during operations, the proposed project would not create any hazards to the public or the environment through routine transport, use, disposal, or reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a ***less-than-significant*** impact would occur.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?..... Less-Than-Significant Impact With Mitigation Incorporated

Discussion (b.)

The following discussion provides an analysis of potential hazards and hazardous materials associated with upset or accident conditions related to the proposed construction activities and existing on-site conditions.

Construction

Construction activities would involve the use of heavy equipment, which would contain fuels, oils, and hydraulic fluid. In addition, various other products such as concrete, paints, and adhesives would likely be used on-site. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the temporary handling, storage, and transportation of hazardous and toxic materials, as overseen by the California Environmental Protection Agency (EPA) and Department of Toxic Substances Control (DTSC). Should an accidental release of hazardous materials occur during construction, the City (or City crews) and/or contractor, is required to notify the Contra Costa Fire Protection District (CCCFPD), who would then monitor the conditions and recommend appropriate remediation measures.

Existing On-Site Hazardous Conditions

A Phase I Environmental Site Assessment (ESA) was prepared by Geocon Consultants, Inc. for the purpose of identifying potential recognized environmental conditions (RECs) associated with the project site (see Appendix E).[22] The Phase I ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental sites radius reports. According to the Phase I ESA, an orchard was cultivated at the site starting in at least 1939. While a portion of the orchard trees remain on-site, the site is no longer used for agricultural purposes. The Phase I ESA did not identify any evidence of stained soil or pavement, stressed vegetation, or evidence of hazardous substances or petroleum products. In addition, evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) was not observed at the site. The site is not located within the vicinity of any properties that would pose an environmental hazard to the project site. The project site is included on the HAZNET and HWTS databases for the generating, proper storing, and offsite disposal of 50 gallons of waste oil and 300 pounds of organic solids in 2013. Violations were not reported, and the listing does not present a current hazard at the site.

Potential hazards and hazardous materials identified on the project site as part of the Phase I ESA are described in the following sections.

[22] Geocon Consultants, Inc. *Phase I Environmental Site Assessment Report, Clayton Community Church, 1027 Pine Hollow Court, Clayton, California.* October 8, 2020.

Contaminated Soils

Because of previous orchard operations at the project site, the potential exists that residual pesticides or heavy metals associated with prior herbicide application could be present within the shallow on-site soils. Furthermore, early 20th century aerial photographs depict agricultural activities taking place within properties surrounding the project site up until 1979; nearby agricultural fields were not completely replaced by residential housing until at least 1993.

It is important to recognize that, in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378.) As a result, the existence of contaminated soil or groundwater within the vicinity of a proposed project, "without any accompanying disturbance or other physical change" to the contamination, is not considered "a significant impact requiring CEQA review and mitigation." (*Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 781 [holding development of a project on a site identified on the Cortese list and that included contaminated soil would only constitute a significant impact for the purposes of CEQA if the proposed project disturbed the contaminated soil].) For example, in *East Sacramento Partnerships for a Livable City v. City of Sacramento* (2016) 5 Cal.App.5th 281, the petitioner argued that the EIR failed to analyze health risks associated with "potential for off-site subsurface gas (methane) migration" from an adjacent former landfill site. (*Id*. at pp. 295-297.) Citing the *CBIA* decision, the Third District Court of Appeal rejected petitioner's argument because concerns that a project would be "an unhealthy place to live" exceeds CEQA's scope. (*Id*. at p. 296.) In reaching its holding, the court stated "nowhere in the [CEQA] statute is there any provision … plainly delegating power for the agency to determine whether a project must be screened on the basis of how the environment affects its residents or users." (*Ibid*., quoting *CBIA*, *supra*, 62 Cal.4th at p. 387.)

In light of the California Supreme Court's recent decision and related appellate decisions discussed above, the potential presence of residual pesticides or heavy metals would only be considered to result in a significant CEQA impact if the proposed project would exacerbate an existing condition. While soil sampling for residual pesticides has not been performed, the proposed project would not involve substantial excavation, with maximum depth being approximately seven feet for utilities, and all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day during construction, pursuant to BAAQMD rules, thus ensuring that fugitive dust does not become airborne. As a result, construction and operation of the proposed project would not exacerbate existing conditions beneath the project site with respect to mobilizing residual soil contaminants should they be present.

Water Well

A water well-house is located within the southeastern corner of the project site. It is unknown when the well was last used, although the property owner has stated that the well has not been used within the last seven years that Clayton Community Church has owned the property. Prior to development of the proposed project, the existing water well would need to be properly abandoned in accordance with regulatory permitting requirements if not planned for use during site grading operations and subsequent redevelopment. Improper abandonment of a water well could result in groundwater quality issues if surface water runoff, containing urban or other pollutants, enters the well. In addition, any undocumented subsurface structures encountered during site clearing/grading operations (i.e., USTs, septic systems, water wells, etc.) would similarly need to be properly removed or abandoned in place in accordance with applicable Contra Costa permit requirements.

Lead-Based Paint

Existing on-site structures include a single-family residence within the southern portion of the project site, a barn structure along the western project boundary, and an additional storage structure along the northern project boundary. The structures were built prior to 1970, and it is reasonable to assume that the structures were also painted prior to 1970. Therefore, the potential exists for asbestos-containing materials (ACM) and lead-based paint (LBP) to be present in building materials. Because the proposed project would include demolition of the two existing barn/storage structures, the potential exists for construction workers to be exposed to ACM and LBP.

Based on the above, the potential exists for the proposed project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. A ***potentially significant*** impact could occur.

Mitigation Measure(s)
The following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Mitigation Measure 13. *Prior to initiation of any ground disturbance activities, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from Contra Costa Health Services and properly abandon the on-site well to the satisfaction of the Contra Costa Health Services Department. Proof of abandonment shall be provided to the City of Clayton Community Development Department and City Engineer.*

Mitigation Measure 14. *Prior to issuance of a demolition permit for any on-site structures, the Developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the City of Clayton Community Development Director an asbestos and lead survey. If ACMs or lead-containing materials are not discovered during the survey,*

further mitigation related to ACMs or lead containing materials will not be required. If ACMs and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The applicant shall submit the work plan to the City for review and approval.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ..... Less-Than-Significant Impact

Discussion (c.)

The nearest school relative to the project site is Mt. Diablo Elementary School, which is located directly north of the site. As discussed under question 'a' above, construction of the proposed project could include the use of small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment); however, the project contractor would be required to comply with all State and local City ordinances regulating the use of such products. In addition, churches do not typically include the use of or emission of hazardous materials. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and a ***less-than-significant*** impact would occur.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ..... No Impact

Discussion (d.)

The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5,[23] and would not create a significant hazard to the public or the environment. Therefore, ***no impact*** would occur.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport

[23] California Department of Toxic Substances Control. *EnviroStor*. Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed January 2021.

or public use airport, would the project result in a safety hazard for people residing or working in the project area? ..... No Impact

Discussion (e.)

The nearest airport to the proposed project site is the Buchanan Field Airport, located approximately 7.10 miles to the west of the site. Therefore, the proposed project site is not located within an airport land use plan or within the vicinity of a public or private airport. As such, the project would not result in a safety hazard for people residing or working in the project area, and ***no impact*** would occur.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ..... Less-Than-Significant Impact

Discussion (f.)

The City of Clayton has an adopted Emergency Operations Plan, dated January 2012, which identifies the City's emergency planning, organizational, and response policies and procedures. The Emergency Operations Plan addresses how the City would respond to extraordinary events or disasters, including departmental Standard Operating Procedures. The primary exit routes out of the City to the north are Pine Hollow Road, Clayton Road, and Concord Boulevard. To the south, the primary exit route out of the City is Marsh Creek Road.

Although the proposed project would involve improvements to Pine Hollow Court, the improvements would not significantly impede vehicle traffic in the event of a major evacuation; rather, the widening of Pine Hollow Court to incorporate two traffic lanes would effectively improve emergency and evacuation access to and from the project site. Furthermore, during project construction, all equipment and materials would be staged on-site and would not substantially interfere with existing roadway operations. Therefore, the proposed project would result in a ***less-than-significant*** impact associated with impairing implementation of, or physically interfering with, an adopted emergency response plan or emergency evacuation plan.

g. Would the project expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires? ..... Less-Than-Significant Impact

Discussion (g.)

According to the Diablo Fire Safe Council, the City of Clayton is located within a wildland urban interface (WUI). The WUI is defined as an area in which wildlands and communities are sufficiently close to each other to present a credible risk of fire spreading from one to another.[24] Chapter 7A of the CBC includes specific requirements related to the design and construction of new buildings located within a WUI. For example, Chapter 7A specifies

[24] Diablo Fire Safe Council. *Clayton Morgan Territory Wildfire Action Plan: Public Review Draft*. January 25, 2016.

that a fire sprinkler system is required to be installed in order to protect against fire hazards in a WUI. In compliance with the CBC (specifically Section 903.2.1.3, Group A-3), the design of the church would include automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to California Fire Code (CFC) requirements. Such features would help to address fire situations within the site, which would reduce the demand for fire protection services from the project site. Fire services to the Clayton area are provided by the Contra Costa County Fire Protection District (CCCFPD), with the nearest station located approximately 0.4-mile east of the site. The proposed fire apparatus routes within the project site have been designed to accommodate full turning capacity for emergency vehicles accessing the northern and southern portions of the project site.

The proposed church is required to be designed in compliance with all applicable State and local standards and recommendations for new development, such as the CCCFPD's requirements for providing a water supply system for fire protection, and providing adequate emergency and fire access. In addition, the project would be required to provide "defensible space" around on-site structures consistent with CCCFPD guidelines. Adequate provision of defensible space is enforced by the CCCFPD Exterior Hazard Control Division. Therefore, the proposed project would not expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires, and ***less-than-significant*** impact would occur.

10. HYDROLOGY AND WATER QUALITY

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	□	□	X	□
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	□	□	X	□
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	□	□	□	□
	i. Result in substantial erosion or siltation on- or off-site;			X	
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
	iv. Impede or redirect flood flows?			X	
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	□	□	□	X
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	□	□	X	□

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?..... Less-Than-Significant Impact

Discussion (a. and ciii.)

Water quality and runoff issues associated with construction and operation of the proposed project are discussed in detail below.

Construction

During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The City's National Pollutant Discharge Elimination

System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. Because the proposed project would disturb more than one acre of land, the proposed project would be subject to the requirements of the State's General Construction Permit, which would minimize the potential for polluted runoff to leave the site during construction activities.

The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site and implemented during construction. The SWPPP would be kept on site during construction activity and made available upon request to a representative of the City of Clayton or the San Francisco Bay RWQCB. In addition, a Notice of Intent (NOI) would be filed with the RWQCB. In accordance with the Construction General Permit, the project site would also be inspected during construction before and after storm events and every 24 hours during extended storm events in order to identify maintenance requirements for the implemented BMPs and to determine the effectiveness of the implemented BMPs. As a "living document", the site-specific SWPPP that would be prepared for the proposed project would be modified, if necessary, as construction activities progress. A Qualified SWPPP Practitioner (QSP) would ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The QSP for the project would amend the SWPPP and revise project BMPs, as determined necessary through field inspections, to protect against substantial erosion or siltation on- or off-site.

Operation

The proposed church uses would not involve operations typically associated with the generation or discharge of polluted water. Thus, operations on the project site would not violate any water quality standards or waste discharge requirements, nor degrade water quality. However, the addition of the impervious surfaces on the site would result in the generation of urban runoff, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides.

All municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. The City of Clayton has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 sf or more of impervious area to contain and treat all stormwater runoff from the project site. Given that the proposed project would create more than 10,000 sf of impervious area, the proposed project would be subject to the requirements of the SWRCB and the Regional Water Quality Control Board (RWQCB), including the C.3 Standards, which are included in the City's NPDES General Permit. Compliance with such requirements would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the proposed project.

In compliance with the C.3 Guidebook, the project site would be divided into six drainage management areas (DMAs)~~ (see Figure 10)~~. DMAs 1 through 5 would drain to seven different bio-retention areas within the site, while DMA 6 would consist of self-treating landscape areas.

Stormwater from the DMAs within the northern portion of the site would be directed to one of the bio-retention areas for treatment on-site. The bio-retention areas would provide for treatment by filtering stormwater through layers of vegetated soils and gravel, which would provide for the removal of pollutants. Treated stormwater would be captured by perforated underdrains and routed to underground 60-inch drainage pipes within the proposed parking areas, which would provide for on-site detention. The underground drainage pipes would discharge treated stormwater, through flow restrictors, to new outfalls within the slope to the east of the proposed development area. Consistent with C.3 Standards, the proposed bio-retention areas would be sized to meet or exceed the minimum volume requirement necessary to adequately handle all runoff from the proposed impervious surfaces and landscaping. Thus, during operation, the proposed project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality.

Conclusion

Based on the above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, a ***less-than-significant*** impact would occur.

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

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

Discussion (b. and e.)

The Contra Costa Water District (CCWD) provides domestic water service to Clayton. The primary source of CCWD water is the Sacramento River Contra Costa Water District Canal – the CCWD does not rely extensively on groundwater supplies. The construction of the proposed church building and associated improvements would result in a net increase in impervious surfaces; however, the surface area would not be large enough to significantly affect groundwater recharge. Additionally, the bio-retention areas within the site would allow for stormwater to infiltrate into the surrounding soil, thereby allowing the continued contribution to groundwater recharge at the site.

Based on the above, the proposed project would not substantially deplete groundwater supplies or recharge at the site such that the project may impede sustainable groundwater management of the basin and would not conflict with an applicable groundwater management plan or water quality control plan. Thus, a ***less-than-significant*** impact would occur.

ci. Would the project substantially alter the existing drainage pattern of the site or area,

including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site? ..... Less-Than-Significant Impact

cii. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite? ..... Less-Than-Significant Impact

ciii. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?..... Less-Than-Significant Impact

Discussion (ci., cii., and ciii.)

As discussed above, runoff from impervious surfaces created by the proposed development would be collected and conveyed to a series of new on-site bio-retention basins. Each of the bio-retention basins would be designed and constructed according to criteria from the Contra Costa Clean Water Program Stormwater C.3 Guidebook. Treated stormwater leaving the bio-retention basins would flow to underground 60-inch drainage pipes within the proposed parking areas, which would provide for on-site detention. The underground drainage pipes would discharge treated stormwater, through flow restrictors, to two new outfalls within the slope to the east of the proposed development area. After exiting the outfalls, the treated runoff would flow downslope into Mitchell Creek, as site runoff currently does today. Consistent with the C.3 Standards, the flow restrictors would ensure that the rate and amount of runoff entering the creek would not exceed pre-development levels.

In order to ensure that the proposed project's stormwater treatment facilities remain adequate, long-term maintenance would be required. Routine maintenance of the facilities is necessary to ensure that infiltration of water is unobstructed, erosion is prevented, and soils are held together by biologically active plant roots. Proper operation and maintenance of the stormwater management facilities would be the sole responsibility of the property owner. In accordance with Clayton Municipal Code Section 13.12.050, implementation of an approved SWCP and submittal of an approved Stormwater Control Operation and Maintenance Plan by the applicant shall be a condition precedent to a final building

inspection or the issuance of a certificate of occupancy. All inspections and remedial actions would be logged in a Stormwater BMP Inspection and Maintenance Log.

Based on the above, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in erosion, siltation, or flooding on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Consequently, the proposed project would result in a ***less-than-significant*** impact.

civ. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would Impede or redirect flood flows? ..... Less-Than-Significant Impact

Discussion (civ.)

Based on the FEMA Flood Insurance Rate Map (FIRM), (Map Number ID: 06013C0304G), the proposed development area is within Zone X, which is described by FEMA as an area determined to be outside the 0.2 percent annual chance floodplain. In addition, dams or levees are not located upstream of the proposed project site; thus, flooding due to dam or levee failure would not occur. Because the proposed development area is not within a 100-year floodplain, 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 or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would impede or redirect flood flows. Therefore, impacts would be ***less-than-significant***.

d. Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? ..... No Impact

Discussion (d.)

A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. Furthermore, due to the distance from the project site to the nearest coastline the project site would not be subject to tsunami hazards. As discussed above, the project site is not located in a FEMA-designated flood hazard area.

Therefore, the proposed project would not risk release of pollutants due to project inundation by flooding, tsunami, or seiche, and ***no impact*** would occur.

11. LAND USE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?	□	□	□	X
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	X	□

a. Would the project physically divide an established community? ..... No Impact

Discussion (a.)

The site includes an occupied single-family residence in the southwestern portion of the project site. The project site is bordered by Mt. Diablo Elementary School to the north, Pine Hollow Court and single-family residential homes to the west, single-family residential homes to the south, and Mitchell Creek and Oak Street to the east. The existing single-family residence located within the southwestern portion of the project site would remain and be used by church staff. The proposed project would not involve any features that would divide an established community, such as construction of major highways or roadways, storm channels, bridges, or utility transmission lines. As such, the proposed project would not physically divide an established community, and ***no impact*** would occur.

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

Discussion (b.)

The proposed project would require approval of a Use Permit, Site Plan Review Permit, and Tree Removal Permit. The project site has been anticipated for development in the City's General Plan. In addition, the proposed project would not conflict with any City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, the proposed project would comply with the City of Clayton Noise Element, as demonstrated in Section 13 of the IS/MND. Additionally, as discussed in Section 4, Biological Resources, the proposed project would comply Chapter 15.70, Tree Protection, of the City's Municipal Code. As such, the project would not conflict with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, and a ***less-than-significant*** impact would occur.

12. MINERAL RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	□	□	□	X
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	□	□	□	X

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ..... No Impact

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ..... No Impact

Discussion (a. and b.)

According to the Contra Costa County General Plan, the nearest mineral resource or mineral resource recovery site within the City of Clayton is the Cemex Quarry, located approximately 0.65-mile southwest of the project site. Because the project site is not within the immediate vicinity of the Cemex Quarry or any of the other identified areas of important mineral deposits, the project would not interfere with existing access to such deposits. Therefore, the proposed project would have ***no impact*** to mineral resources.

13. NOISE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project result in:					
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	X		□
b.	Generation of excessive groundborne vibration or groundborne noise levels?	□	□	X	□
c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	X

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

Discussion (a.)

The following discussion is based on an Environmental Noise & Vibration Assessment (ENA) prepared for the proposed project by Bollard Acoustical Consultants, Inc. (BAC) (see Appendix F).[25]

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq). The Leq is the foundation of the day-night average noise descriptor, DNL (or Ldn), and shows very good correlation with community response to noise.

[25] Bollard Acoustical Consultants, Inc. *Environmental Noise & Vibration Assessment Clayton Community Church. City of Clayton, California BAC Job #2020-099.* January 28, 2021.

The DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Noise-Sensitive Land Uses in the Project Vicinity

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities.

The noise-sensitive land uses which would potentially be affected by the proposed project consist of residential uses. Specifically, single-family residential land uses are located to the south and west of the project site. Existing commercial and school uses are located to the east and north of the project site. However, commercial and school uses are typically considered to be noise-generating, rather than noise-sensitive.

Existing Ambient Noise Levels

The existing ambient noise environment within the project vicinity is defined primarily by noise from traffic on nearby surface streets and by activities at the elementary school to the north. To generally quantify the existing ambient noise environment at the project site, BAC conducted long-term (48-hour) ambient noise level measurements at three locations on July 15th and July 16th, 2020 (see ~~Figure 16~~ Figure 14). The results of the noise level measurement survey are summarized in Table 9. As shown in the table, the measured day-night average and average hourly noise levels were generally consistent at each measurement site throughout the monitoring period. In addition, the measured day-night average and average hourly noise levels were highest at Site 1, which was located on the north end of the project site.

Table 9
Summary of Long-Term Noise Survey Measurement Results

Site	Date	DNL[2]	Average Measured Hourly Noise Levels (dBA)[1]			
			Daytime (7 AM to 10 PM)		Nightime (10 PM to 7 AM)	
			L_{eq}	L_{max}	L_{eq}	L_{max}
Site 1: North end of project site	7/15/2020	51	50	65	41	54
	7/16/2020	55	53	65	47	60
Site 2: Northwest end of project site	7/15/2020	46	44	60	39	50
	7/16/2020	47	47	62	38	50
Site 3: Southwest end of project site	7/15/2020	45	44	59	37	47
	7/16/2020	46	46	63	36	49

Notes:
1 dBA: A-weighted decibels, a weighted scale for measuring loudness that corresponds to the hearing threshold of the human ear
2 Day Night Average dB Level

Source: Bollard Acoustical Consultants, Inc., 2020.

Figure ~~16~~14
Noise and Vibration Survey Locations

Noise Standards

For transportation noise sources (traffic, rail, aircraft) affecting new developments, the Noise Element of the City of Clayton General Plan establishes an exterior noise level standard of 60 decibels (dB) DNL, applied at outdoor activity areas. The intent of this standard is to provide an acceptable exterior noise environment for outdoor activities. Additionally, the City of Clayton utilizes an interior transportation noise level standard of 45 dB DNL or less for new development.

The Federal Interagency Commission on Noise (FICON) has developed a graduated scale for use in the assessment of project-related noise level increases. The criteria shown in Table 10 were developed by FICON as a means of developing thresholds for impact identification for project-related noise level increases. The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State of California. For example, the California Department of Transportation (Caltrans) requires a project-related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers project-related noise level increases between 5 to 10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for finding of significant noise impacts as low as 1.5 dB, provides a conservative approach to impact assessment for the proposed project.

Table 10
FICON Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level Without Project (DNL or CNEL)	Change in Ambient Noise Level Due to Project
< 60 dB	+5.0 dB or more
60 to 65 dB	+3.0 dB or more
> 65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Construction Noise Analysis

During project construction, heavy equipment would be used for grading excavation, paving, and building construction/structure rehabilitation, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. Noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. The nearest existing off-site noise-sensitive use has been identified as a residence located approximately 50 feet from where construction activities would occur on the project site.

Table 11
Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82

Concrete Vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic Tool	85
Pump	76
Rail Saw	90
Saw	76
Shovel	82
Source: Bollard Acoustical Consultants, Inc, 2020.	

Standard construction equipment, such as graders, backhoes, loaders, and trucks would be used for the proposed construction work. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 11 above. The noise values represent maximum noise generation, or full power operation of the equipment. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. Not all of the types of construction equipment included in Table 11 would be required for construction of the proposed project. Based on the estimated equipment noise levels, the worst-case on-site project construction equipment noise levels at the nearest off-site existing noise-sensitive land use located 50 feet from the project site is expected to range from approximately 76 dB to 85 dB. Thus, it is possible that a portion of the project construction equipment could result in substantial short-term increases over ambient maximum noise levels at the nearest existing off-site receptors.

Noise Impacts Associated with Project-Generated Increases in Off-Site Traffic[26]

Traffic data in the form of Sunday AM peak hour movements for Existing and Existing Plus Project conditions in the project area roadway network were obtained from the project transportation impact analysis completed by TJKM Traffic Consultants. Sunday daily traffic (ADT) volumes were conservatively estimated by applying a factor of 10 to Sunday AM peak hour conditions.

[26] Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required California Environmental Quality Act (CEQA) review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles,* (2011) 201 Cal.App.4th 455, 473 (*Ballona*).) The California Supreme Court recently held that "CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate… is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes"], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474.) Therefore, for the purposes of the CEQA analysis, the relevant inquiry is not whether the proposed project's future users will be exposed to preexisting environmental noise-related hazards, but instead whether project-generated noise will exacerbate the pre-existing conditions.

Existing versus Existing Plus Project traffic noise levels on the local roadway network are shown in Table 12. According to Table 12, the proposed project's contribution to traffic noise level increases would be predicted to exceed the FICON cumulative noise increase significance criteria along five roadway segments evaluated in the existing conditions analysis (segments 2, 4, 7, 8 and 15). Specifically, the traffic noise level increases at those segments are calculated to range from 6.2 to 14.0 dB DNL. Upon analysis of the project roadway network, residences were identified along all five of those roadway segments. Importantly, however, the traffic noise modelling estimates are for traffic noise only, and do not also account for ambient noise sources. Baseline ambient conditions are considerably higher than baseline traffic noise levels alone. When the project traffic noise generation is compared to measured ambient day-night average levels within the project area (calculated average of 47 dB DNL, site 2), no project-related traffic noise level increases are calculated to occur along the five identified roadway segments. Rather, project-generated traffic noise levels along the five roadway segments are calculated to be less than the measured ambient noise level of 47 dB DNL at site 2, which would be a more accurate representation of actual project-related noise level increases than the "traffic only" increases.

Table 12
Traffic Noise Modeling Results and Project-Related Traffic Noise Increases
Existing vs. Existing Plus Project Comprehensive Conditions

Segment	Intersection	Direction	Average Measured DNL at Project Area	Predicted Traffic Noise Level at 100 ft, DNL[2]			Substantial Increase Relative to FICON?
				E	E+P	Increase	
1	Pine Hollow Court/Pine Hollow Rd	North		--	--	--	--
2		South		31.9	45.9	14.0	YES
3		East	47	--	--	--	--
4		West		31.9	45.9	14.0	YES
5	Mt. Zion Dr/Pine Hollow Rd.	North		37.4	40.9	3.5	NO
6		South		38.8	38.0	0.0	NO
7		East	47	31.9	45.8	13.9	YES
8		West		39.5	46.0	6.5	YES
9	Mt. Zion Dr/Clayton Rd	North		--	--	--	--
10		South		36.2	40.4	4.2	NO
11		East	47	53.9	54.2	0.3	NO
12		West		53.9	54.0	0.1	NO
13	Mitchell Canyon Rd/Pine Hollow Rd	North		46.9	48.8	1.9	NO
14		South	47	46.1	46.3	0.2	NO
15		East		39.9	46.1	6.2	YES
16		West		46.5	46.7	0.2	NO
17	Mitchell Canyon Rd/Clayton Rd	North		39.7	40.5	0.8	NO
18		South	47	47.7	49.3	1.6	NO
19		East		57.9	58.0	0.1	NO
20		West		57.7	58.1	0.4	NO

[1] Average measured DNL at BAC measurement site adjacent to Pine Hollow Court (site 2).
[2] Blank cell = no traffic data was provided.

Source: FHWA-RD-77-108 with inputs from TJKM; Bollard Acoustical Consultants 2020.

Thus, project-related increases in traffic noise levels would not substantially exceed measured ambient noise conditions in the project area relative to the applicable FICON

criteria. Furthermore, it should be noted that the predicted Existing Plus Project traffic noise levels of approximately 46 dB DNL at a distance of 100 feet along the five roadway segments is well below the Clayton General Plan exterior noise level standard of 60 dB DNL applicable to traffic noise affecting noise-sensitive uses.

It should be noted that the utilization of measured day-night average noise levels at the project site (47 dB DNL, site 2) would be considered a conservative approach in the comparison of project-related increases in ambient noise levels relative to existing no-project conditions given the location of the measurement site (i.e., removed from busy roadways). It is expected that existing ambient conditions along roadway segments located farther from the project site would be higher than those measured within the project area, which would subsequently result in lower project-related traffic noise level increases.

Based on the analysis presented above, off-site traffic noise impacts related to increases in traffic resulting from implementation of the proposed project would not be considered significant.

Off-site Noise Impacts Associated with On-Site Operations

The primary noise sources associated with the proposed project have been identified as church-related on-site traffic circulation, parking lot activities (vehicles arriving and departing, doors opening and closing, etc.), and playground activities. An assessment of each project-related noise source at the nearest existing off-site residential use is discussed below.

In order to calculate project noise generation due to on-site traffic circulation, parking activities, and playground noise relative to the Clayton General Plan day-night average noise level criteria, the hours in which church services would be offered on a given Sunday must be known. According to the weekly operational plan indicated in the project description, the proposed project proposes events Monday through Thursday and Sundays beginning as early as 9:00 A.M. and ending as late as 9:00 P.M. However, the weekly operational plan indicates that the highest attendance for project events on any given day would occur on Sundays. Specifically, the proposed events on Sundays consist of worship services from 9:00 A.M. to 12:00 P.M. and AA meetings from 7:00 P.M. to 8:00 P.M. Day-night average noise level exposure associated with project on-site traffic circulation, parking activities, and playground activities were calculated based on proposed events on Sundays, or worst-case on-site traffic activity expected to occur within a day.

<u>On-Site Traffic Circulation Noise at Existing Off-Site Sensitive Uses</u>
According to the project traffic impact study, the worst-case project trip generation is expected to occur on Sundays. Specifically, the project is expected to generate 401 total Sunday trips, including 145 peak hour trips. Based on the trip information above, and assuming an on-site vehicle speed of less than 25 mph (through the parking areas), project worst-case on-site traffic circulation noise exposure at the nearest existing off-site residential uses was calculated. The results of those calculations are presented in Table 13.

As indicated in Table 13, noise levels generated by project on-site traffic circulation are predicted to satisfy the Clayton General Plan 60 dB DNL exterior noise level standard at the outdoor areas (yards) of the nearest existing off-site residential uses. The Table 13 data

also indicate that on-site traffic circulation noise levels at the building facades of the nearest existing off-site residences are predicted to range from 41 to 44 dB DNL. With windows in the open configuration, standard residential building construction is estimated to provide an exterior to interior noise level reduction of approximately 15 dB. The resulting project on-site traffic circulation noise levels of 26 to 29 dB DNL within the interior areas of the nearest existing off-site residences would satisfy the Clayton General Plan 45 dB DNL interior noise level standard. Finally, the predicted exterior day-night average noise levels shown in Table 13 are below measured ambient day-night average noise levels within the vicinity of the nearest existing residential uses to the south and west.

Table 13
Predicted Worst-Case On-Site Traffic Noise
at Nearest Existing Off-Site Sensitive Uses

	Distance from Nearest Drive Aisle (feet)		Predicted Exterior Noise Levels, DNL (dB)	
Nearest Sensitive Use	Yard	Building Facade	Yard	Building Facade
Residential-South	150	80	40	44
Residential-West	180	125	39	41

Source: Bollard Acoustical Consultants, 2020

Parking Lot Activity Noise at Existing Off-Site Sensitive Uses

As a means of determining potential noise exposure due to project parking lot activities, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. The results of those measurements revealed that individual parking lot movements generated mean noise levels of approximately 70 dB SEL at a reference distance of 50 feet. The maximum noise level associated with parking lot activity typically did not exceed 65 dB L_{max} at the same reference distance.

According to the original project site plan, the project proposes at total of 156 parking spaces. It was conservatively assumed for the purposes of this analysis that all of the 156 parking stalls could fill or empty during a given Sunday AM peak hour (worst-case). Using the methodology outlined in the Noise Report (see Appendix F), worst-case project parking activity noise exposure at the nearest off-site residential uses was calculated and the results of those calculations are presented in Table 14.

Table 14
Predicted Worst-Case Parking Activity Levels
at Nearest Existing Off-Site Sensitive Uses

	Distance from Parking Area (feet)		Predicted Exterior Noise Levels, DNL (dB)	
Nearest Sensitive Use	Yard	Building Facade	Yard	Building Facade
Residential-South	300	240	37	39
Residential-West	250	200	38	40

Source: Bollard Acoustical Consultants, 2020

The Table 14 data indicates that noise levels generated by worst-case project parking activities are predicted to satisfy the Clayton General Plan 60 dB DNL exterior noise level standard at the outdoor areas (yards) of the nearest existing off-site residential uses. In addition, project parking area noise levels at the building facades of the nearest existing off-site residences are predicted to range from 39 to 40 dB DNL. With windows in the open configuration, standard residential building construction is estimated to provide an exterior to interior noise level reduction of approximately 15 dB. The resulting worst-case parking area noise levels of 24 to 25 dB DNL within the interior areas of the nearest existing off-site residences would satisfy the Clayton General Plan 45 dB DNL interior noise level standard. Finally, the predicted exterior day-night average noise levels shown in Table 14 are below measured ambient day-night average noise levels within the vicinity of the nearest existing residential uses to the south and west. The addition of three more parking spaces in the updated site plan would not change these conclusions.

Playground Noise at Existing Off-Site Sensitive Uses

According to the project site plan, the project includes a playground near the northeast end of the project property. For the assessment of playground noise impacts, noise level data collected by BAC staff at various outdoor play areas in recent years was utilized. The primary noise source associated with play area use is shouting children. BAC file data indicate that average noise levels of similar sized outdoor play areas is approximately 55 dB Leq at a distance of 50 feet from the focal point of the play area during school recess. Based on the reference noise level presented above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), playground noise exposure at the nearest off-site residential uses was calculated and the results of those calculations are presented in Table 15.

Table 15
Predicted Worst-Case Playground Noise Levels
at Nearest Existing Off-Site Sensitive Uses

	Distance from Playground Area (feet)		Predicted Exterior Noise Levels, DNL (dB)	
Nearest Sensitive Use	Yard	Building Facade	Yard	Building Facade
Residential-South	500	440	31	32
Residential-West	420	400	33	33

Source: Bollard Acoustical Consultants, 2020

As indicated in Table 15, noise levels generated by project playground activities are predicted to satisfy the Clayton General Plan 60 dB DNL exterior noise level standard at the outdoor areas (yards) of the nearest existing off-site residential uses. The Table 15 data also indicate that playground noise levels at the building facades of the nearest existing off-site residences are predicted to range from 32 to 33 dB DNL. With windows in the open configuration, standard residential building construction is estimated to provide an exterior to interior noise level reduction of approximately 15 dB. The resulting playground noise levels of 17 to 18 dB DNL within the interior areas of the nearest existing off-site residences would satisfy the Clayton General Plan 45 dB DNL interior noise level standard. Finally, the predicted exterior day-night average noise levels shown in Table 15 are below measured ambient day-night average noise levels within the vicinity of the nearest existing residential uses to the south and west.

Other On-Site Operations Noise Sources at Existing Off-Site Sensitive Uses

It is possible that the proposed church could have amplified music (instruments or choir) or speech emanating from within the church building (sanctuary). In addition, the proposed church building would likely have mechanical equipment (HVAC) for the regulation of indoor environments.

Due to the variability of sound system configurations, it is difficult to quantify amplified music or speech that could occur from within the church building. However, Section 9.30.040(A)(1) of the Clayton Municipal Code prohibits noise from electronic devices and musical instruments from being plainly audible at a distance of 50 feet from any building or structure from which the noise is emanating from, or a distance of 50 feet from the device if outside. Based on the interior to exterior noise level reduction provided by standard building construction (approximately 25 dB with the windows in the closed position and 15 dB with windows in the open position), it is expected that noise associated with amplified music or speech emanating from within the church building sanctuary would not exceed the noise criteria identified in Section 9.30.040(A)(1).

The heating, ventilating, and air-conditioning (HVAC) requirements for the church building will likely be met using packaged roof-mounted equipment. It is the experience of BAC that such roof-top mounted equipment is typically screened from view at nearby ground locations by building parapets, which would provide a degree of noise level attenuation. Clayton Municipal Code Section 9.30.040(C) requires that noise levels associated with mechanical equipment (HVAC) not result in excessive noise at residential uses during the hours of 10:00 p.m. and 7:00 a.m. (nighttime hours). According to the weekly operational plan indicated in the project description, the project does not propose events during nighttime hours. Based on this information, it is reasonably assumed that HVAC equipment associated with the church building would not be in operation during nighttime hours. In addition, based on the large setbacks from the proposed church building to nearby existing residential uses, it is expected that noise associated with daytime operation of the church building HVAC equipment would easily satisfy the Clayton General Plan exterior and interior day-night average (DNL) noise level criteria at the nearest residential uses.

Cumulative (Combined) Noise Levels from On-Site Operations at Existing Off-Site Sensitive Uses

The calculated cumulative (combined) noise levels of project on-site operations at the nearest existing off-site sensitive uses to the south and west are presented in Table 16 and Table 17, respectively. Overall, cumulative on-site operations noise levels are predicted to satisfy the Clayton General Plan 60 dB DNL exterior noise level standard at the outdoor areas (yards) of the nearest existing off-site residential uses to the south and west of the project parcel. In addition, cumulative on-site operations noise levels at the building facades of the nearest existing off-site residences are predicted to range from 44 to 45 dB DNL. With windows in the open configuration, standard residential building construction is estimated to provide an exterior to interior noise level reduction of approximately 15 dB. The resulting cumulative on-site operations noise levels of 29 to 30 dB DNL within the interior areas of the nearest existing off-site residences would satisfy the Clayton General Plan 45 dB DNL interior noise level standard. Finally, the predicted cumulative exterior day-night average noise levels shown in Table 16 and Table 17 are below measured

ambient day-night average noise levels within the vicinity of the nearest existing residential uses to the south and west.

Table 16
Predicted Cumulative Project Noise Levels at
Nearest Existing Off-Site Sensitive Uses to the South

Location	Predicted Project Operations Exterior Noise Levels, DNL (dB)			
	On-site Traffic	Parking	Playground	Cumulative
Yard	40	37	31	42
Building Façade	44	39	32	45

Source: Bollard Acoustical Consultants, 2020

Table 17
Predicted Cumulative Project Noise Levels at
Nearest Existing Off-Site Sensitive Uses to the West

Location	Predicted Project Operations Exterior Noise Levels, DNL (dB)			
	On-site Traffic	Parking	Playground	Cumulative
Yard	39	38	33	42
Building Façade	41	40	33	44

Source: Bollard Acoustical Consultants, 2020

Conclusion

Based on the above, traffic generated by the proposed project would not substantially increase traffic noise levels on roadways in the surrounding vicinity, including Pine Hollow Court. In addition, when analyzed as both independent noise sources and cumulatively, noise generated from future on-site traffic circulation, parking areas, playground areas, and other on-site operations would not be considered to have a substantial impact on off-site sensitive receptors in the project vicinity. As such, the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

However, the proposed project could result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance during construction. Therefore, considering the potential for construction activities to result in temporary increases in noise levels in the project area, a ***potentially significant*** impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would ensure that the above potential impact is reduced to a *less-than-significant* level.

Mitigation Measure 15. *To the maximum extent practical, the following measures should be incorporated into the project construction plans:*

- *Pursuant to Section 15.01.101 of the Clayton Municipal Code, all grading and excavation, construction, demolition, renovation, and other*

works of improvement shall occur only between the hours of 7:00 A.M. and 5:00 P.M., Monday through Friday.

- *The project shall utilize temporary construction noise control measures, including the use of temporary noise barriers, or other appropriate measures as mitigation for noise generated during construction of projects.*
- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.*
- *Project area and site access road speed limits shall be established and enforced during the construction period.*
- *Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.*

The requirements above shall be included, via notation, on the final grading plan submitted for review and approval by the Community Development Director prior to grading permit issuance.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels? ..... Less-Than-Significant Impact

Discussion (b.)

Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 18, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to residential structures is 0.30 in/sec PPV, and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors, as detailed in 19.

During a site visit on July 15, 2020, vibration levels were below the threshold of perception at the project site. Nonetheless, to quantify existing vibration levels at the project site, BAC conducted short-term (10-minute) vibration measurements at the three locations identified on Figure 14. The results are summarized below in Table 20. The Table 20 data indicates that the measured average vibration levels during the monitoring period were less than 0.001 in/sec Peak Particle PPV.

Table 18
Guideline Vibration Damage Potential Threshold Criteria

	Maximum PPV (inches/second)	
Structure and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Extremely fragile, historic buildings, ruins, ancient monuments	0.12	0.08
Fragile Buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = Peak Particle Velocity

Source:Caltrans, Transportation and Construction Vibration Guidance Manual (2013).

Table 19 Guideline Vibration Annoyance Potential Criteria		
	Maximum PPV (inches/second)	
Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.40	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40
Source: Caltrans, Transportation and Construction Vibration Guidance Manual (2013).		

Table 20 Summary of Ambient Vibration Level Survey Results		
Site Description	Time	Average Measured Vibration Level, PPV (in./sec)
Site 1: North end of project site	11:37 AM	<0.001
Site 2: Northwest end of project site	11:18 AM	<0.001
Site 3: Southwest end of project property	11:54 AM	<0.001
Source: Bollard Acoustical Consultants, 2020.		

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with construction of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Because the proposed project would not cause continuous, long-term vibrations, the project would not be expected to result in extended annoyance to the nearby sensitive receptors.

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction. The nearest existing off-site sensitive uses are the residential structures to the west and southwest of the project site, located at least 50 feet from construction activities which would occur within the project parcel. Table 21 includes the range of vibration levels for equipment commonly used in general construction projects at a distance of 25 feet. The Table 21 data also include predicted equipment vibration levels at the nearest existing off-site residence to the project site located approximately 50 feet away.

As indicated in Table 21, vibration levels generated from on-site construction activities at the nearest existing residences are predicted to be well below the strictest Caltrans thresholds for damage to residential structures of 0.30 in/sec PPV. Further, the predicted vibration levels are also below the Caltrans thresholds for annoyance presented in 19. Therefore, on-site construction within the project parcel would not result in excessive groundborne vibration levels at nearby existing off-site residential uses.

Table 21 Vibration Levels for Various Construction Equipment		
Type of Equipment	**PPV at 25 feet (in/sec)**	**PPV at 50 feet (in/sec)**
Hoe Ram	0.089	0.032
Large Bulldozer	0.089	0.032
Caisson Drilling	0.089	0.032
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.011
Jackhammer	0.035	0.012
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018		

Conclusion

The nearest existing building is located approximately 50 feet west of the project site boundary, across Pine Hollow Court. At a distance of 50 feet, the PPV from even the most vibration-intensive equipment would be substantially diminished, and below the 0.2 PPV threshold for building damage. Furthermore, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Clayton Municipal Code Section 15.01.101, and would likely only occur over portions of the improvement area at a time. Therefore, persons are not predicted to be exposed to excessive vibration or groundborne noise levels associated with the proposed project, and a ***less-than-significant*** impact would occur.

c. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ..... No Impact

Discussion (c.)

The nearest airport to the proposed project site is the Buchanan Field Airport, located approximately 7.0 miles to the west of the site. Aircraft-related noise, if audible at the project site, would be extremely minimal. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with air traffic and ***no impact*** would occur.

14. POPULATION AND HOUSING.

ISSUES		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	□	□	X	□
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	□	□	□	X

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? ..... Less-Than-Significant Impact

Discussion (a.)

Prior to COVID-19, Clayton Community Church held regular services at Diablo View Middle School on Clayton Road. With development of the proposed church facilities at the project site, church services would shift to the new facilities. The proposed project would only employ nine people, many of whom would be relocated from their positions at the existing Town Center church office location. In addition, the proposed church would not induce substantial growth due to the operation of new church services, as existing church services at Diablo View Elementary School (pre-COVID-19) would cease upon development of the proposed project. Thus, while the project would include construction of a new church building, the project would not result in growth associated with proposing a new business. The project would not include construction of new homes. Therefore, the proposed project would not induce substantial unplanned population growth either directly or indirectly, and a ***less-than-significant*** impact would occur.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ..... No Impact

Discussion (b.)

The site includes an occupied single-family residence in the southwestern portion of the project site, as well as storage structures associated with the existing residence in the northwestern portion of the site. The proposed project would retain the existing single-family residence located within the southwestern portion of the project site. Thus, the proposed project would not displace substantial numbers of housing or people, necessitating the construction of replacement housing elsewhere, and ***no impact*** would occur.

15. PUBLIC SERVICES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a.	Fire protection?	□	□	X	□
b.	Police protection?	□	□	X	□
c.	Schools?	□	□	X	□
d.	Parks?	□	□	X	□
e.	Other public facilities?	□	□	X	□

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

b. Police protection? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The CCCFPD provides fire prevention, suppression, and emergency medical response for advanced and basic life support to nine cities, including Clayton, and much of the unincorporated territory in the central and western portions of Contra Costa County. The nearest fire station is located at 6500 Center Street, approximately 0.4-mile east of the project site. Police protection services would be provided for the project by Clayton Police Department. The Clayton Police Department is headquartered at Clayton City Hall, approximately 0.15-mile from the project site.

The threshold for the impact, as identified in Appendix G of the CEQA Guidelines, is related to whether the project would result in substantial adverse physical impacts associated with the provision of new or physically altered fire or police facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios or performance objectives. In the court case *City of Hayward v. Board of Trustees of the California State University,* the First District Court of Appeal affirmed that the focus of CEQA analysis should be limited to physical environmental impacts related to a project.[27] The court held that, "The need for additional fire protection services is not an *environmental* impact that CEQA requires a Project Proponent to mitigate."

[27] First District Court of Appeal. *City of Hayward v. Board of Trustees of the California State University*. (November 30 ,2015) 242 Cal.App.4th 833.

The proposed church would not result in new population growth and, thus, would not substantially increase demand for fire and police protection services such that construction of new facilities or expansion of any existing facilities would be required. Furthermore, pursuant to Chapter 3.18 of the City of Clayton Municipal Code, the proposed project would be subject to payment of the City's Fire Development Protection impact fee, which is used to fund new and expanded fire protection facilities.

Because the project would not necessitate new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire or police protection, a ***less-than-significant*** impact would result.

c. Schools?..... Less-Than-Significant Impact

d. Parks?..... Less-Than-Significant Impact

e. Other public facilities? ..... Less-Than-Significant Impact

Discussion (c.)
The City of Clayton is located within the Mt. Diablo Unified School District (MDUSD). Mt. Diablo Elementary and Diablo View Middle Schools serve the City of Clayton.

The proposed project would not result in population growth and would not include construction of housing. Thus, the project would not increase demands for schools, parks, or other public facilities. Furthermore, the proposed project would include new on-site playground facilities for churchgoers as a recreational amenity. Therefore, the project would not create a need for new or physically altered school facilities, park facilities, or other government facilities, and a ***less-than-significant*** impact would occur.

16. RECREATION.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	X	□
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	□	□	X	□

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

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The proposed project would not result in population growth and would not include construction of housing. Thus, the project would not increase demands for existing park facilities in the project region, such as Clayton Community Park and Mt. Diablo State Park. Furthermore, the project would include a new on-site playground as an amenity for the proposed church.

Based on the above, the proposed project would result in a ***less-than-significant*** impact related to increasing the use of existing parks or recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated, or requiring the construction or expansion of recreational facilities.

17. TRANSPORTATION.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	□	□	X	□
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	□	□	X	□
c.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	□	□	X	□
d.	Result in inadequate emergency access?	□	□	X	□
e.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	X	□

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

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?..... Less-Than-Significant Impact

Discussion (a. and b.)

The following discussion is based primarily on a Traffic Impact Study Analysis (TIA) prepared by TJKM Traffic Consultants (see Appendix G).[28]

Upon development of the proposed project, primary access to the project site would be provided by Pine Hollow Court, a short north-south local street fronting the project site. On-street parking along Pine Hollow Court is generally prohibited, and the roadway narrows to a single-lane approximately 150 feet south of the east-west street Pine Hollow Road. The intersection of Pine Hollow Road and Pine Hollow Court to the north of the project site is uncontrolled, with Pine Hollow Court acting as an extension of Pine Hollow Road. Other surrounding roadways in the immediate vicinity of the project site include Clayton Road, Mitchell Canyon Road, Mt. Zion Drive, and Tiffin Road; the surrounding roadways vary between local, two-lane collector, and four-lane divided arterial roads.

[28] TJKM Traffic Consultants. *Draft Traffic Impact Study Report, Clayton Community Church.* February 2021.

To determine project effects on existing roadway and intersection operations, the existing operations of five study intersections were evaluated in October 2020. The intersections were analyzed according to Level of Service (LOS), a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The operational LOS determinations are given letter designations from A through F, with A representing free-flow operating conditions and F representing severely congested flow with high delays. Typically, LOS C is considered an ideal condition, as it represents stable flow and efficient use of the transportation facility. Although intersection LOS can no longer be used for identifying significant transportation impacts under CEQA (see CEQA Guidelines Section 15064.3), as of July 1, 2020, LOS is still used to determine conformity with an adopted general plan or congestion management plan. Because the Circulation Element of Clayton's General Plan includes policies based on LOS, a discussion of the proposed project's potential impacts on LOS is included below.

The five study intersections analyzed during the AM peak hour for a typical Sunday, as part of the TIA, included the following intersections:

1. Pine Hollow Court and Pine Hollow Road;
2. Mt. Zion Drive/Tiffin Drive and Pine Hollow Road;
3. Mt. Zion Drive and Clayton Road;
4. Mitchell Canyon Road and Pine Hollow Road; and,
5. Mitchell Canyon Road and Clayton Road

The peak period observed on Sunday was between 8:30AM and 11:00AM, when church-related traffic is typically highest. Due to changes in traffic resulting from COVID-19, observed traffic volumes were increased by 20 percent to estimate non-pandemic conditions. TJKM determined that, under existing conditions, all of the study intersections operate at an acceptable LOS A or B during the Sunday peak hour.

TJKM developed project trip generation for the proposed project based on published trip generation rates from the Institute of Traffic Engineer's (ITE) *Trip Generation Handbook (10th Edition)*. The ITE handbook was used to estimate weekday AM, PM, and daily trip generation forecasts for the proposed project. As shown in Table 22, implementation of the proposed project would be expected to result in 101 daily vehicle trips on the average weekday and 87 daily vehicle trips on Saturdays. A total of 401 daily trips, including approximately 145 peak hour trips, would occur on Sundays. TJKM compared the ITE trip generation estimate to a separate trip generation estimate based specifically on the church's proposed operational plan. Compared to the proposed operations schedule, the ITE average rates produce a higher total number of trips for Sundays and a similar number of Sunday peak hour trips. Thus, the ITE trip generation estimate was used for this analysis.

Table 22
Project Trip Generation – ITE Trip Generation Handbook (10th Edition)

Land Use	Weekday Daily		Saturday Daily		Sunday Daily		Sunday Peak Hour				
	Rate	Trips	Rate	Trips	Rate	Trips	Rate	In: Out	In	Out	Total
Church	6.95	101	5.99	87	27.63	401	9.99	48:52	70	75	145
New Trips		**101**		**87**		**401**			**70**	**75**	**145**

Source: TJKM Traffic Consultants, 2020.

TJKM performed a project trip distribution and assignment to analyze the impact of estimated vehicle trips generated by the proposed project on existing roadways and intersections. Trip distribution is a process that determines in what proportion vehicles would be expected to travel between the project site and various destinations outside the project study area. Assignment determines the various routes that vehicles would take from the project site to each destination using the estimated trip distribution. For the purposes of trip distribution and assignment, new trips from Table 22 were used and distributed as follows:

1. 50 percent to/from Clayton Road to the west;
2. 35 percent to/from Clayton Road to the east;
3. Five percent to/from Mitchell Canyon Road to the north;
4. Five percent to/from Mitchell Canyon Road to the south; and
5. Five percent to/from Pine Hollow Drive to the west.

Table 23 presents the results of the existing roadway and intersection operations plus project conditions. Based on the project trip distribution and assignments, all of the study intersections would continue to operate at an acceptable LOS A or B during the Sunday peak hour with development of the proposed project.

Because the proposed project would be located next to Mt. Diablo Elementary School, TJKM also reviewed the daily bell schedule and drop-off/pickup times for the existing school to identify any overlapping peak times when traffic for both uses might interact. While the majority of school traffic occurs on weekdays before and after school, the majority of church-related traffic would occur on Sunday mornings, with a smaller amount of traffic on weekdays. As such, the interaction of weekday traffic from each use is of greatest concern.

Table 23
Intersection Level of Service Analysis – Existing Plus Project Conditions

Study Intersections	Control	Existing Conditions		Existing Plus Project Conditions		Change in Delay
		Delay[1]	LOS	Delay[1]	LOS	
Pine Hollow Court & Pine Hollow Road	Uncontrolled	0.0	A	0.0	A	0.0
Mt. Zion Drive/Tiffin Dr. & Pine Hollow Road	All-Way Stop	7.1	A	7.8	A	0.7
Mt. Zion Drive & Clayton Road	Two-Way Stop	9.9	A	10.2	B	0.3
Mitchell Canyon Road & Pine Hollow Road	All-Way Stop	8.0	A	8.9	A	0.9
Mitchell Canyon Road & Clayton Road	Signal	15.3	B	15.6	B	0.3

Note: [1] Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

Source: TJKM Traffic Consultants, 2020.

The Mt. Diablo Elementary School start time is 7:40 AM, with students permitted to arrive no earlier than 7:30 AM. The end time is 2:15 PM on Mondays, Tuesdays, Thursdays, and Fridays. Wednesdays feature a modified bell schedule, with early release at 12:25 PM for grades 1-5. TK and Kindergarten, which are divided into early and late sessions, would include late arrivals at 9:45 AM (9:30 AM on Wednesdays) and early pick-ups at 11:15 AM (12:30 PM on Wednesdays). Based on the bell schedule and posted no-parking hours for the Pine Hollow Road loading zone, it is expected that the majority of drop-off traffic would be confined to approximately 7:30 to 8:15 AM Monday through Friday, and the majority of pick-up traffic would be confined to approximately 2:15 to 3:00 PM most days and 12:05 PM to 12:50 PM on Wednesdays. Based on the ITE trip generation rate for Elementary School in the school PM peak hour, which is 0.34 trips per student, and an estimated enrollment of 800 students, the school is expected to generate approximately 272 total trips during the afternoon pick-up period. The school also occasionally hosts evening events.

The proposed project plans to host weekday morning activities starting at 9:00 AM on Mondays, Tuesdays, and Wednesdays. On Wednesdays, the proposed project would also provide an after-school program for grades 2-5 from 12:00 PM to 2:30 PM, coinciding with the 12:25 PM early release time for these grades at the school. Currently, the "Crosswalk" after school program on Wednesday is held at the church offices on Main Street. All other weekday activities at the church would begin in the evening at 7:00 PM.

Based on the existing school bell schedule and planned church operations schedule, it is expected that traffic overlap would generally be minimal. The primary exception would be Wednesdays during the school pick-up time, which coincides with parents dropping off students for the after-school program. It is expected that any Mt. Diablo Elementary School students attending the program would walk. The 40-student program could add approximately 27 vehicles, or 54 trips, to the Wednesday pick-up period if all students were driven and none came on foot from the school. If approximately half of students attending the Crosswalk program were driven from other schools, generating 27 vehicle trips, this would constitute an increase of 10 percent compared to the estimated baseline after school pick-up traffic.

Because the school has been closed due to COVID-19 conditions, TJKM was not able to observe traffic conditions during full school operations. It is likely, however, that congestion does exist near the school during before- and after-school periods. TJKM concluded that, because of limited overlap between school and church activities, degradation of school-time congestion would not occur on most weekdays. While the Crosswalk program-related increase in after-school traffic on Wednesdays would be noticeable, the added vehicles would use the through lanes on Pine Hollow Road and would not need to enter the school's back parking lot or loading zone on Pine Hollow Road, and the vehicles could avoid using Mt. Zion Drive entirely. As such, the added traffic is not expected to substantially exacerbate any existing operational problems during this period.

Based on the above, the proposed project is not anticipated to cause substantial delays on surrounding roadways and intersections beyond existing conditions. Therefore, the proposed project would not conflict with programs, plans, ordinances, or policies addressing roadway facilities, or an applicable congestion management program,

including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

The TIA also analyzed potential impacts to pedestrian, bicycle, and transit facilities in the project vicinity. The proposed project would connect to existing pedestrian facilities and would extend the existing sidewalk on Pine Hollow Court to cover the entire project frontage. Although existing pedestrian facilities near the proposed project include discontinuous sidewalks, the proposed project is not expected to create any disruptions or inconsistencies with existing pedestrian facilities or plans. Pedestrian circulation on-site would primarily be through five-foot walkways surrounding the proposed buildings, and pedestrian crossings on the main drive aisle connecting the project frontage to the building entrances, as well as pedestrian walkways along the drive aisle fronting the main entrance. The proposed project would also have adequate bicycle access to the project site from the surrounding area and is not expected to create any inconsistencies with bicycle facilities or plans. Lastly, pedestrians and bicyclists could access the closest transit stops on Clayton Road through a continuous path of sidewalks and crosswalks. The transit service within the immediate project vicinity, County Connection, provides two bus routes which travel between the Concord BART station and Downtown Clayton (Bus Routes 10 and 310). County Connection currently operates within capacity, and additional trips generated by the proposed project could be accommodated by existing bus services.

Based on the findings of the TIA, the proposed project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. Furthermore, the proposed project would not be expected to substantially impact existing pedestrian, bicyclist, or transit facilities; therefore, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Thus, a ***less-than-significant*** impact would occur.

c. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (c)?.....Less-than-Significant Impact

Discussion (c.)

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts.

According to Section 15064.3(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, LOS methodology does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving.

The proposed project would generate between 105 and 142 vehicle trips per day, depending on the trip generation methodology used. Using both sets of daily trips and an allowable VMT of 836[29], this allows average one-way trip lengths of 7.96 miles (836 VMT/105 vehicle trips) or 5.89 miles (836 VMT/142 vehicle trips). According to TJKM, one way-trip lengths of six miles or less would be a realistic assumption for the proposed project. The most distant Clayton addresses are approximately 3.5 miles from the project site, with most locations within approximately two to three miles of the church. The downtown Concord BART station is located approximately six miles from the project site, and all areas in Clayton and large portions of Concord and Walnut Creek lie within a six-mile driving radius. An even larger number of homes are located within the more realistic 7.96-mile range. Therefore, it is likely that staff and members of the proposed church would be located, on average, within six miles of the new church location. However, it should be noted that this methodology treats all trips and VMT as new, whereas many of the staff and church attendees would have attended Clayton Community Church at various locations within the community. Furthermore, operations of the existing community church (pre-COVID-19) would cease upon development of the proposed project, thus relocating services from the Diablo View Middle School area to a more central location within the City of Clayton. The replacement of vehicle trips, rather than the introduction of new vehicle trips, would effectively reduce the impact of VMT generated by the proposed project.

In June 2020, the Contra Costa County Board of Supervisors adopted Transportation Analysis Guidelines inclusive of technical guidance regarding assessment of VMT, thresholds of significance, and mitigation measures. The CCTA guidelines include a screening process, consistent with OPR's Technical Advisory on VMT, that describes five scenarios in which a project would be exempted from a VMT analysis requirement: 1) projects exempt from CEQA analysis; 2) small projects; 3) locally serving projects; 4) projects in transit priority areas; and 5) projects in low VMT areas. Based on the average number of daily trips generated by the proposed project and the expected trip lengths, TJKM determined that the proposed project's location and travel characteristics allow it to be classified as both a small project and a locally serving project under the proposed CCTA screening criteria, thus resulting in a less-than-significant VMT impact. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***less-than-significant*** impact would occur.

d. Would the project result in inadequate emergency access? ..... Less-Than-Significant Impact

e. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ..... Less-Than-Significant Impact

[29] According to "VMT Analysis Methodology for Land Use Projects in Contra Costa," by Fehr & Peers (July 2020), this threshold ties directly to the Office of Planning and Research (OPR) Technical Advisory which notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000-sf, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area (CEQA Guidelines §15301, subd. (e)(2).) Using statewide average data from the California Statewide Household Travel Survey (CHTS), the amount of daily VMT associated with 10,000-sf of non-residential space is 836 VMT.

Discussion (d. and e.)
Site access for vehicles and bicycles would be provided from Pine Hollow Court through one driveway along the western border of the project site. The two existing driveways would be eliminated. The proposed project would also include the widening of Pine Hollow Court to include two lanes and a new sidewalk which would be constructed along the project frontage. The new sidewalk would connect to a continuous pedestrian path which would extend from the project frontage to the building entrances.

The proposed 25-foot-wide drive aisles are two-way with right-angle parking available on one or both sides. ~~The small parking area on the southern end of the site near the existing single-family residence would include space for vehicles to turn around. The drive aisle north of the proposed building would also provide additional space for vehicles to turn around or maneuver in and out of parking spaces.~~ Trucks and emergency vehicles would be able to enter the site, access both buildings, and maneuver or turn around within both the northern and southern parking areas ~~south of the church building~~. ~~While fire trucks accessing the north side of the building would not be able to turn around in the northern portion of the site, the trucks would be able to back out of the site.~~ A hammerhead turnaround has been included within the on-site roadway to address feedback from the Fire District.

Based on the above, the proposed project would not substantially increase hazards due to design features or incompatible uses, and emergency access to the site would be adequate. Therefore, the project would result in a ***less-than-significant*** impact.

18. TRIBAL CULTURAL RESOUCES

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:					
a.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	□	X	□	□
b.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	□	X	□	□

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? ..... Less-Than-Significant Impact with Mitigation Incorporated

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? ..... Less-Than-Significant Impact with Mitigation Incorporated

Discussion (a. and b.)

Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. In compliance with Assembly Bill 52 (AB 52) consultation requirements, notification letters were distributed through email to those tribes identified by the NAHC. Prior to formal AB 52 consultation, the archaeological consultant for the project sent notification letters to tribes identified by the NAHC to solicit information/interest regarding the project site. A response was received by the Wilton Rancheria and the Guidiville Rancheria indicating that the tribes did not have concerns regarding the proposed project. The Guidiville Rancheria requested a copy of the

Archaeological Survey Report prepared for the proposed project. Two additional responses from Andrew Galvan of the Costanoan tribe and Corrina Gould of the Confederated Villages of Lisjan requested the information provided by the NAHC. The NAHC results were distributed to the tribes upon request; however, further communication from the Native American tribes which would indicate the potential presence of tribal cultural resources located at the project site has not been received to date. As discussed above, formal AB 52 consultation notification letters have also been sent out by the City of Clayton.

Alta Archaeological Consulting requested a Sacred Lands File search be performed by the NAHC for the immediate project area as part of the Archaeological Survey Report.[30] The Sacred Lands File search returned positive results for the presence of Native American cultural resources in the project area. Additionally, a California Historical Resources Information System (CHRIS) search performed by the NWIC found that four cultural resources exist within a 0.25-mile of the project site; one of the sites, identified as P-07-000105, is a very large multi-component site consisting of a large habitation site, and is composed of midden, burials, hearths, and a complex of artifacts that indicate habitation to approximately 2,800 B.P. Given the positive results of the NAHC Sacred Lands File search and the findings of the CHRIS search, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact to tribal cultural resources could occur.

Mitigation Measure(s)

The following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Mitigation Measure 16. *Implement Mitigation Measure 9 and Mitigation Measure 10, within Section 5, Cultural Resources, of this IS/MND.*

[30] Alta Archaeological Consulting. *Archaeological Survey Report: Clayton Community Church Project, Clayton, Contra Costa County, California*. December 12, 2020.

19. UTILITIES AND SERVICE SYSTEMS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	□	□	X	□
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	□	□	X	□
c.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	X	□
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	□	□	X	□
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	□	□	X	□

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

Discussion (a.)

Brief discussions of water, sewer service, electrical, natural gas, and telecommunications that would serve the proposed project are included below.

Water

The proposed project would include a new potable water connection to an existing six-inch water main within Pine Hollow Court (see Figure 9). A water line to be used for irrigation services would also connect to the existing water main within Pine Hollow Court. In addition to the aforementioned domestic and irrigation water lines, a new six-inch water line from the existing water main within Pine Hollow Court would connect to the building for fire emergency purposes. Potable water service for the project would be provided by the CCWD upon completion of financial arrangements and installation of all necessary water facilities, in accordance with current CCWD and CCCFPD standards. Thus, the proposed project would not require the construction of new off-site water conveyance facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Sewer

As part of the proposed project, a new sanitary sewer line would be routed from the proposed building to a new lift station in the northwestern portion of the site. From the lift station, the sanitary sewer line would connect to existing sewer infrastructure within Pine Hollow Court. Given that the proposed project is consistent with the site's current General Plan land use and zoning designations, the proposed project would not result in substantially increased wastewater generation relative to what has been anticipated by the City and accounted for in local planning efforts. As such, the existing sewer infrastructure in the project vicinity would be adequate to serve the proposed project, and construction of substantial new or expanded off-site sewer infrastructure would not be required.

Stormwater Systems

Issues related to stormwater infrastructure are discussed in Section 10, Hydrology and Water Quality, of this IS/MND. As noted therein, the proposed project would not connect to City stormwater drainage infrastructure. The project site would include eight DMA's which would drain to seven different bioretention areas within the site. The landscaped portions of the project site would be self-treating areas and, thus, would not connect to the bioretention basins. The bioretention areas would provide for treatment by filtering stormwater through layers of vegetated soils and gravel. Treated stormwater would be captured by perforated underdrains and routed to underground 60-inch drainage pipes within the proposed parking areas, which would provide for on-site detention. After on-site treatment and detention in accordance with C.3 Standards, all stormwater runoff generated from impervious surfaces on the project site would be routed to two outfalls along the east slope of the project site, where treated stormwater would sheet flow towards Mitchell Creek as it does today. The project would not increase the rate or amount of runoff leaving the site relative to existing conditions. Thus, the proposed project would not require the construction of new off-site stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Other Utilities

Electricity, natural gas, and telecommunications utilities would be provided by way of connections to existing infrastructure located within the immediate project vicinity. PG&E would provide electricity and natural gas services to the project site. The proposed project would not require major upgrades to, or extension of, existing infrastructure. Thus, impacts to electricity, natural gas, and telecommunications infrastructure would be less than significant.

Conclusion

Based on the above, the project would result in a ***less-than-significant*** impact related to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

b. Would the project have sufficient water supplies available to serve the project and

reasonably foreseeable future development during normal, dry, and multiple dry years?..... Less-Than-Significant Impact

Discussion (b.)

According to the CCWD's 2015 Urban Water Management Plan, the CCWD does not anticipate any supply deficits in normal years or single-dry years.[31] In future years, multiple dry-year conditions may result in supply shortfalls of up to approximately 30,000 acre-feet per year (af/yr), which equates to approximately 15 percent of the water demand. The CCWD's water supply reliability goal is to meet 100 percent of demand in normal years and a minimum of 85 percent of demand during a drought. Any potential supply shortfalls experienced during dry year conditions would be met through combination of a short-term conservation program or short-term water purchases. CCWD's currently available and planned supplies would be sufficient to meet the District's goal and estimated water demands during average, single-dry, and multiple-dry year conditions during the next 25 years. Given that the CCWD UWMP takes into account future buildout of the service area, and the proposed project is consistent with the site's General Plan land use designation, water use associated with development of the proposed project site would not substantially exceed the level that has been generally anticipated by the CCWD and the City. Furthermore, the project design would be required to adhere to CBSC requirements for water conservation, such as low-flow plumbing fixtures, as well as the City's water-conserving guidelines for landscaping, as set forth in Chapter 17.80 of the Municipal Code.

Based on the above, sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Thus, a ***less-than-significant*** impact would occur.

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

Discussion (c.)

The wastewater collection system within the City of Clayton is owned by Clayton and maintained by the City of Concord. Concord has a contract with Central Contra Costa Sanitary District (CCCSD) to treat wastewater. The CCCSD treatment plant currently treats an average of 45 million gallons per day (MGD). The CCCSD treatment plant's permitted physical capacity is 54 MGD. According to the Growth Management Element of the City of Clayton's General Plan, the plant's maximum capacity of 54 MGD is projected to accommodate buildout until the year 2040.[32, 33] Given that the proposed project is consistent with the site's current General Plan land use and zoning designations,

[31] Contra Costa Water District. *2015 Urban Water Management Plan for the Contra Costa Water District.* June 2016.

[32] City of Clayton. *City of Clayton General Plan Section XI: Growth Management Element* [page 16]. Available at: https://ci.clayton.ca.us/community-development/planning/long-range-planning/. Accessed June 2020.

[33] Email communication with Russell B. Leavitt. Engineering Assistant III. Central Contra Costa Sanitary District. May 04, 2016.

wastewater generation associated with buildout of the project site has been generally anticipated by the City and accounted for in the CCCSD's planning efforts.

Given the CCCSD treatment plant's current surplus capacity, and the fact that the project would result in a minimal increase in the demand for wastewater treatment capacity, adequate capacity exists to accommodate the slight increase in sewer demand that would be created by the proposed church. Therefore, the proposed project would not exceed treatment requirements of the RWQCB, and the CCCSD would be capable of serving the project's projected demand in addition to the CCCSD's existing commitments. Thus, a ***less-than-significant*** impact would occur.

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

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

Discussion (d. and e.)

Solid waste from the City of Clayton is disposed of at Keller Canyon County landfill. Keller Canyon Landfill covers 2,600 acres of land; 244 acres are permitted for disposal. The site currently handles 2,500 tons of waste per day, although the permit for the site allows up to 3,500 tons of waste per day to be managed at the facility. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Keller Canyon Landfill has a remaining capacity of 63,408,410 cubic yards out of a total permitted capacity of 75,018,280 or 85 percent remaining capacity.[34] As such, adequate capacity exists to accommodate the relatively modest amount of waste that would be generated by the proposed church.

It should be noted that the City is required by AB 939 to ensure that it achieves and maintains the diversion and recycling mandates of the State. Construction of the project would comply with the construction and demolition debris recycling requirements of Chapter 15.80 of the City's Municipal Code, which requires that a waste management plan be prepared for both demolition and new construction. The waste management plan must address all materials that would not be acceptable for disposal in the sanitary landfill. Therefore, as the project is required to comply with the City's Municipal Code, and sufficient capacity exists at the Keller Canyon Landfill, implementation of the proposed project would result in a ***less-than-significant*** impact related to solid waste services.

[34] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Keller Canyon Landfill (07-AA-0032)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228. Accessed October 2020.

20. WILDFIRE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	□	□	X	□
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	□	□	X	□
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	□	□	X	□
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	□	□	X	□

a. Substantially impair an adopted emergency response plan or emergency evacuation plan? ..... Less-Than-Significant Impact

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? ..... Less-Than-Significant Impact

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ..... Less-Than-Significant Impact

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? ..... Less-Than-Significant Impact

Discussion (a., b., c., and d.)

According to the CAL FIRE Fire and Resource Assessment Program, the project site is not located within or near a state responsibility area or lands classified as a Very High Fire Hazard Severity Zone (VHFHSZ).[35] The nearest VHFHSZ is approximately 0.25-mile south of the project site. However, according to the Diablo Fire Safe Council, the City of

[35] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

Clayton is located within a Wildfire Urban Interface (WUI). The WUI is defined as an area in which wildlands and communities are sufficiently close to each other to present a credible risk of fire spreading from one to another.[36]

Fire protection services for the Clayton area are provided by the CCCFPD, with the nearest station to the site located on Center Street, approximately 0.35-mile east of the project site. As such, the CCCFPD would be capable of quickly reaching the project site in the event of a wildfire. The potential for wildfire to reach the project site is relatively limited due to surrounding development to the north, east, south, and west, which would act as a fire break in the event of a wildfire.

The proposed church facilities would be designed in compliance with all applicable State and local standards and recommendations for new development, such as the CCCFPD's requirements for providing a water supply system for fire protection, and providing adequate emergency and fire access. The project would be required to provide "defensible space" around on-site structures consistent with CCCFPD guidelines. Adequate provision of defensible space is enforced by the CCCFPD Exterior Hazard Control Division. In addition, Chapter 7A of the CBC includes specific requirements related to the design and construction of new buildings located within a WUI. For example, Chapter 7A specifies that a fire sprinkler system is required to be installed in order to protect against fire hazards in a WUI. In compliance with the CBSC (specifically Section 903.2.1.3, Group A-3), the proposed church would include automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to CFC requirements. Such features would help to address fire situations within the site, which would reduce the demand for fire protection services from the project site. It is also noted that the proposed project does not include installation of any above-ground powerlines that could exacerbate wildfire risk if placed in close proximity to vegetation. In the event that emergency services would be required at the project site, the proposed internal road within the northern and southern portions of the parking lot would be sufficient to provide full access to the proposed structures by emergency vehicles.

Contra Costa County does not have an adopted Emergency Response Plan; rather, the County has an adopted Emergency Operations Plan (2015) and Local Hazard Mitigation Plan (2011) with an update in process. These plans are broad in their content and recommended actions, and there is nothing specific within the plans suggesting that the project could pose a substantial impairment. The draft final Local Hazard Mitigation Plan Update (Vol. 1 2018) confirms that the City of Clayton does not have any population or structures within a VHFHSZ.[37]

Based on the above, the proposed project would not be subject to substantial risks related to wildfires, and a ***less-than-significant*** impact would occur.

[36] Diablo Fire Safe Council. *Clayton Morgan Territory Wildfire Action Plan: Public Review Draft*. January 25, 2016.

[37] See https://www.contracosta.ca.gov/DocumentCenter/View/48893/Contra-Costa-County-Draft-Local-Hazard-Mitigation-Plan-Volume-1-January-31-2018?bidId=. Accessed February 3, 2021.

21. MANDATORY FINDINGS OF SIGNIFICANCE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	□	□	X	□
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	□	□	X	□
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	□	□	X	□

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ..... Less-Than-Significant Impact

Discussion (a.)

As discussed in Section 4, Biological Resources, of this IS/MND, while a limited potential exists for crotch and western bumble bee, nesting raptors and songbirds, birds protected by the MBTA, and roosting bats to occur on-site, implementation of Mitigation Measure 2 through Mitigation Measure 6 would ensure that any impacts related to special-status species would be reduced to a less-than-significant level.

The project site contains an existing single-family residence and a barn structure. The residence would be preserved on-site to be used by the church's pastor during project operations. While the barn structure would be demolished, the barn structure is not considered a historical or prehistorical structure. Therefore, implementation of the proposed project is not anticipated to have the potential to result in impacts related to historic or prehistoric resources. Nevertheless, Mitigation Measure 9 and Mitigation Measure 10 would ensure that in the event that prehistoric or historic resources are

discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

Considering the above, the proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? ..... Less-Than-Significant Impact

Discussion (b.)

The proposed project, in conjunction with other development within the City of Clayton, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

All cumulative impacts related to air quality, noise, and transportation are either less than significant after mitigation or less than significant and do not require mitigation. Given the scope of the project, any incremental effects would not be considerable relative to the effects of all past, current, and probable future projects. In addition, the proposed project is consistent with the zoning and land use designations provided for the site in the General Plan; therefore, the proposed project would not result in greater impacts beyond that which has been anticipated in the City's planning documents. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts, and the project's incremental contribution to cumulative impacts would be ***less than significant***.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ..... Less-Than-Significant Impact

Discussion (c.)

As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in Section 7, Geology and Soils, Section 9, Hazards and Hazardous Materials, and Section 13, Noise,

of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to hazardous materials and noise, after mitigation. Therefore, the proposed project would result in a ***less-than-significant*** impact.

VIII. STAFF AND SOURCES

Raney

Cindy Gnos, Senior Vice President
Nick Pappani, Vice President
Angela DaRosa, Assistant Division Manager/Air Quality Specialist
Jessica Chuidian-Ingersoll, Associate
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City of Clayton

Matthew Feske, Community Development Director
Holly Pearson, Consulting Planner
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Scott Alman, P.E., City Engineer

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Attachment H

Responses to Comments Received on Initial Study/Mitigated Negative Declaration

Clayton Community Church
Planning Commission Meeting, April 27, 2021

VII. COMMENTS AND RESPONSES

Introduction
The Initial Study/Mitigated Negative Declaration (IS/MND) (dated February 2021) was released for public review on February 12, 2021. The review period for the IS/MND closed on March 4, 2021.

This section contains all public comments received during the public review period. Following each public comment, responses have been provided by the City of Clayton. Under the California Environmental Quality Act (CEQA) and implementing Guidelines, the City of Clayton, as the "lead agency" is not required to respond to comments on a mitigated negative declaration. Nevertheless, in order to ensure that public questions and concerns regarding environmental issues are addressed, responses are provided to all comments on environmental issues.

Number	Commentator	Date
1	Rocco Aicale and Patricia Menasco	March 1, 2021
2	Kevin and Lisa Christiansen	March 2, 2021
3	Charmetta Mann	March 2, 2021
4	Michael and Tara Mann	March 2, 2021
5	Tom & Elisa Dudley	March 2, 2021
6	Joe Mingham	March 3, 2021
7	Andrew Hosler	March 4, 2021
8	Shirley Hansen	March 4, 2021
9	Kevin C. Allen	March 4, 2021
10	Brad Talmadge	March 4, 2021
11	Janet Easton	March 4, 2021
12	Chris & Katie Theodorakis	March 4, 2021
13	Diana Zimmer	March 4, 2021

The Responses to Comments below includes each comment letter received regarding the Clayton Community Church Project IS/MND, as well as responses to each comment. Each bracketed comment letter is followed by numbered responses to each bracketed comment. CEQA Guidelines Section 15073.5 states the following regarding recirculation requirements for negative declarations:

> *(a) A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given pursuant to Section 15072, but prior to its adoption. Notice of recirculation shall comply with Sections 15072 and 15073.*
>
> *(b) A "substantial revision" revision of the negative declaration shall mean:*
>
> *(1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or*

(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

(c) Recirculation is not required under the following circumstances:

(1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.

(2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.

(3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.

(3) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.

(d) If during the negative declaration process there is substantial evidence in light of the whole record, before the lead agency that the project, as revised, may have a significant effect on the environment which cannot be mitigated or avoided, the lead agency shall prepare a draft EIR for consultation and review pursuant to Sections 15086 and 15087, and advise reviewers in writing that a proposed negative declaration had previously been circulated for the project.

Based on the responses to comments presented below, and pursuant to CEQA Guidelines Section 15073.5, recirculation of the IS/MND is not warranted.

Date: March 1, 2021

To: Holly Pearson, AICP, Project Planner
Cc: Matthew Feske, Community Development Director

Project: Clayton Community Church
1027 Pine Hollow Court, Clayton

From: Rocco and Patricia Menasco/Aicale
1028 Pine Hollow Court, Clayton

Regarding: **Comments/Concerns/Requests of/for the environmental analysis of the Clayton Community Church project**

Dear Ms. Pearson,

We are located in the house directly across the street and towards the end of the Pine Hollow Court (west of the site). We purchased our home in the summer of 2012. (This was right before the Church purchased the house and parcels across the street. We purchased from the same Seller/Trust.) This was to be our forever retirement home..... our peaceful little slice of heaven. We were misled in so many ways by the Seller/Trust. And I (Patricia) cried the day I found out our new neighbors were not going to be what the parcels were zoned for..... R40H (residential new construction, on almost an acre with the possibility of horses).

1-1

We are so thankful for the last 8 ½ peaceful years but realize things will soon change. We have some comments, concerns and requests. We sincerely hope they will be taken into consideration by the Planning Commission before the project moves forward.
They are as follows:

- **LENGTH OF PROJECT -** We would like some assurance that the project will have a **scheduled start and completion date with a financial penalty if not completed on time**. We understand the Church has had its challenges finding the funds to even start this project. And It does not seem fair to the surrounding community to have the project go on and on. **Regardless of the "less than significant" statements throughout the report, it will have a significant negative affect on the surrounding neighbor's quality of life. Their physical, emotional and financial (property values) well-being will be negatively affected (especially during the construction phase of the project.) Can you imagine being awakened every morning at 7a.m. to the sounds of tractors, bulldozers, hammers, saws, drills, etc..... And having to listen to it all day with the windows closed to keep out the pollutents, M-F, five days a week for as much as a year and a half??? We request the following:**
  - We would like the project to be **completed in a 12 month or less time frame** with scheduled phases of the project published to the surrounding community. We can see no reason for the project dragging on for a year and a half as proposed.

1-2

- A sum of a $25,000 for the outdoor construction phase and $25,000 for the total project phase should be deposited in an escrow account prior to the start of construction as assurance the project phases are completed on schedule.

1-3

The funds will be placed in an escrow account prior to the start of construction. In the event of the project phases are not completed as scheduled, the release of the funds will only require a unilateral written request from the appropriate member of the Planning Commission. Said funds will be deposited in the City's general fund to be used for City improvements. However, should the project phases be completed as scheduled, the escrow account will be closed and the funds returned to the Church. Bilateral written consent will be required from the City and Church for the release of funds.

- **RODENT CONTROL AND BIOLOGICAL ASSESSMENT -** It is apparent, and noted in the report (p.54), the company who submitted the Biological Resource Assessment (Madrone Ecological Consulting) only completed part of their study due to their need to evacuate the premises during a grass fire on the property. However, they state ".....**the almost complete lack of ground squirrel burrows** make the annual brome grasslands within the Project Area extremely marginal habitat for this species (the Burrowing Owls, Crotch and Western Bumble Bees, etc.)." (see p.56 of the Report.) However, anyone who has visited the site will notice **the large village of ground squirrels and their burrows** at the west border of the property. The coyotes and hawks have found the village but not the consulting firm? **This makes us VERY suspect as to the Madrone's other findings stated in their report. Consequently, we request the study be re evaluated by another consulting firm.**

1-4

It is very important the squirrel population be eradicated prior to the commencement of construction. The squirrels will migrate to the surrounding properties once construction starts. They are very persistent and destructive animals. We have spent over $200,000 in landscaping since purchasing this property (the backyard was barren when we purchased it). Squirrels can do irreversible damage in a very short span of time. We presently have NO ground squirrel burrows on our property and wish it to remain that way.

1-5

Note: One of the most humane and effective ways of eradication is carbon monoxide gas. One of the companies who specializes in this type of service is Gingrich. They can be reached at (925) 676-6021. ***We would like written assurance once this request has been met.***

- **NOISE MITIGATION AND CONSTRUCTION PHASE -** All of the aspects of the project are considered "less than significant" in the Environmental Noise & Vibration Assessment EXCEPT ONE. And that is "Impact 7: Project Construction ..... for a residence located apprx. 50 feet away from where construction activities would occur on the project parcel. Noise Levels at that location are expected to be **potentially significant"** (see page 24 of the Environmental Noise and Vibration Report) **Note:** most all of the homes surrounding the project are close to 50 feet away from where the construction would occur. Thus, all the surrounding homes will experience disruption to their daily lives both physically and emotionally during the construction phase **with noise levels well above the accepted Clayton General Plan of 60dB DNL.** The potential noise levels for our home and those 50 feet away from the project will be **76 to 85dB's which is labeled as "potentially significant"..... This is 16 to 25 dB's above the accepted Clayton General Plan!!!!**

1-6

We find the noise mitigation elements for the construction phase marginable, at best, in their potential effectiveness. (They note in the report that one way to reduce noise is to stay inside with the windows closed.....This is not an acceptable mitigation suggestion to us!!)

1-6 cont'd

We request the following prior to the commencement of the Construction Phase:

- The noise levels stated on page 24 of the Noise Report further support our need for the **Construction escrow account** to be in place prior to the start of project to ensure the Construction phase is completed as scheduled.
- Suggested noise barriers installed. We would like to know more about these and if they would help.
- Construction **not to commence until 8:00 am** and end at 5:00pm Mon thru Fri
- We wish to emphasize the use of **Water trucks** twice a day so as to minimize the dust and pollutants.

Although it is not mentioned in the Noise portion of the report, the Church has conducted **outdoor movies** in the past. **We request they not be allowed to conduct movies or other outdoor activities at this site.**

- **TRAFFIC** – Of concern to us is "Will we and emergency vehicles have difficulty getting in and out of our property?"
  - Most of the studies were done at a time when there was little or no traffic (most studies were conducted on Sunday October 11, 2020 during the COVID pandemic.) So, there were a great many assumptions made in an effort to make the study appear valid.
  - **Additionally, we ask that the weekday studies be revisited and conducted during a regular (in classroom) school session.** The only way we can come or go from Pine Hollow Ct. during the children's drop off or pick-up times from school is if we drive in a one-way direction (often the wrong way) from the end of Pine Hollow Rd. to wherever the back up of parent's cars ends (usually somewhere between Tiffin Rd. and Mitchell Canyon Rd.). (See diagram in Traffic Impact Study Report Appendix C). The school has taken a two way/two lane street and tried to make 3 lanes. **It is dangerous and we have often questioned (and doubt) if a fire truck could get to Pine Hollow Court at that time of day.** Even though the Church has presently not scheduled events (except their Wednesday Crosswalk children's sessions) during those drop off/pick up times, more traffic will be trying to get through during and after the project is completed. Additionally, can we get a written assurance the Church will not schedule any future events during that time? **We request the Planning Commission to revisit this aspect of the study during a regular school session to ascertain 1) the safety and feasibility of adding any more traffic to an already questionable situation and 2) test to see if a Fire Truck could safely pass through that traffic, round the corner and get to establishments on Pine Hollow Court.** Until the Planning Commission addresses the above two points, we strongly disagree with the Report, (Transportation, item 17 d., p.127) - "Would the project result in inadequate emergency access?....Less-Than-Significant Impact" and no mitigation measures were stated.

1-7

1-8

- **PARKING - We question if there will be adequate parking.** It appears odd to tie the required parking to the square footage of the building rather than the size of the congregation.

1-8 Cont'd

In order for the Church to make the 156 parking spaces appear feasible, especially during peak times of attendance, some assumptions were made. They are:

- There are apprx 400 people in the congregation
- There are between 2 and 2.5 people in a family (thereby 2 to 2.5 people to a car).
- There will be more than one Sunday service thereby dividing the attendance and need for parking in half.
- The School will allow the Church to use their parking spaces.

Comments/Requests:

1-9

- **What is the present size of the congregation?** We only see it referenced as a little over 400 people. (See p.15, Table 4 of the Traffic Impact Study Report) (We were told 4 years ago there were apprx. 500 people in the congregation)

1-10

- **Will the School allow the Church to use their parking?** We were told 4 years ago the Church was talking with the School about this subject. The Report states on p.15 "...they (the School) have indicated that they are agreeable to allowing the church to use school parking for overflow parking purposes **during special events at the church**.....on days when school is not in session". Are regular Sunday services a special event?

1-11

- **It is our belief, overflow parking to the surrounding neighborhoods will occur if**: 1) there is only one Sunday service, 2) patrons disproportionately attend the two services offered, 3) the Church congregation grows, 4) peak Holiday services are attended by 600 or more people, 5) parking is not allowed in the School parking lots, or 6) whenever attendance of an event/service exceeds 312 people. {Overflow will occur if more than 312 (or 390 people depending on how many people are figured per car), including staff, need parking at any one time. Calculations : 156 parking spaces x 2 patrons per car = 312 people OR 156 parking spaces x 2.5 patrons per car = 390.}

1-12

- There is no mention of parking **not** being allowed on Pine Hollow Court. **We request the red curb on the West side of the street be continued all the way to the end. Thus, parking right in front of our houses would not be allowed. It would help preserve our privacy and provide access for the garbage, mail, and emergency service.**

1-13

- **PRIVACY –** Our house is the closest to the street/project of all the houses on the Court. We want to **thank you for removing the two existing driveways** so we aren't having headlights hitting us and cars driving by at all hours. However, we do request the following in order to preserve as much privacy as possible:
  - **The new fencing** to be installed on Pine Hollow Court **not be** a "wood screen" where headlights shine through but rather install a **solid wood** fence that is continuous from the southwest property line corner to the opening for the pedestrian entrance to the Church property. Note: The present plans for the West side of the property, call for a continuous fence with only one pedestrian entrance near the big oak tree. We hope this remains the plan.
  - The new fencing on Pine Hollow Court be a **height of 7 - 8 feet** (rather than 5 feet) so as to provide privacy. (We really don't want our Church neighbors looking into our front room. Nor do we wish to see the car lights from the parking lot.) The height of the fence shouldn't matter much to anyone but the two homes at the end of the cul-de-sac who are in agreement with the height of the fence. **And the Report is in agreement** (see p. 33), "Another important consideration is the fact that the public viewpoint is from a cul-de-sac

1-13 Cont'd

where few motorists, bicyclists, pedestrians travel. Thus, the alterations of this viewpoint would not affect a substantial number of the public."

1-14

- **Both tall vegetation and year around leafing trees** be installed on the Church's side of the Pine Hollow Ct. fence so as to absorb more noise. (Presently there are only plans for some type of trees).

1-15

- (See **Parking** above) **Continue the red curb on the west side of Pine Hollow Court to the end of the cul-de-sac so as to provide some privacy** for the residences and accessibility for mail, garbage and emergency vehicles.

1-16

- **WILDFIRES -** We were very surprised to see the Report state …." The proposed project would not be subject to substantial risks related to wildfires, and ***a less-than-significant*** impact would occur."p.136 This was stated even though 1.) Clayton is in a Wild Fire Urban interface (which means it is an area in which wildland and communities are sufficiently close to each other to present credible risk of fire spreading from one to another and 2.) **half of the property** is downsloping with high grass AND **caught fire and burned last summer**. It burned right up to the property lines on the south, north and east. One shed burned but they saved the existing home on the property. Luckily it was in the month of June during COVID when children were not in school and the firetrucks were able to get through to the property. **(Another reason for the Planning Commission to revisit the Traffic safety portion of this Study).**

  Here's where mitigation measures in the Report should have been stated but weren't. It should have been categorized as a "significant impact" with the mitigation measures being: "Weed abatement notices being sent and adhered to in late Spring " asking the high grass to be cut on the slope.

In conclusion, we are hoping someone "out there" will give serious consideration to our comments/concerns and requests. Due to the short time frame being given to read, analyze and respond to all the reports, we have not yet had a chance to seek legal counsel. But reserve the right to do so at some point in the future.

Ms.Pearson, we thank you for your time and passing on a copy of our comments/concerns/requests to the Planning Commission. Please feel free to email us should you have any additional questions. Rocco's email is raicale@comcast.net and Patricia's email is pmenasco@pacbell.net and. We look forward to the meeting on March 23rd (if we can figure out how to attach to the link which will be provided).

1-17

Sincerely,

OWNERS OF 1028 PINE HOLLOW COURT, CLAYTON

Rocco Aicale _____ Date _____

Patricia Menasco _____ Date _____

Page Five

Letter 1, Rocco Aicale and Patricia Menasco – March 1, 2021

Response to Comment 1-1

Thank you for your comments. The comments, which do not address the adequacy of the IS/MND, have been forwarded to the decision-makers for their consideration.

Response to Comment 1-2

The commenter expresses concerns regarding the project's effect on the surrounding neighbor's quality of life. While these concerns are important to the City of Clayton, they are not relevant to CEQA. In *Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560, the Appellate Court evaluated whether community character is a consideration in CEQA and whether changes to community character or social impacts constitute an environmental impact under CEQA. The Court determined CEQA does not require an analysis of subjective psychological feelings or social impacts. Rather, CEQA's overriding and primary goal is to protect the physical environment. CEQA defines a "significant effect on the environment" as "substantial, or potentially substantial, adverse changes in physical conditions ...." (PRC section 21100. subd. (d)). The comment will be forwarded to the decision-makers for consideration.

Similarly, the requested changes to project phasing and levying of financial penalties on the applicant if the anticipated construction schedule is not met have been forwarded to the decision-makers, as they are not required pursuant to CEQA to ensure that temporary construction noise and air quality emissions are less-than-significant. For example, as discussed in Section 13, Noise, of the IS/MND, Mitigation Measure 15 provides several measures aimed to reduce the impact of temporary noise increases in the project vicinity to a less-than-significant level, including limiting construction activities to occur only between the hours of 7:00 A.M. and 5:00 P.M., Monday through Friday, and to the maximum extent feasible, requiring the use of temporary noise barriers; equipping all construction equipment with combustion engines to be equipped with factory mufflers; and notifying nearby residences of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels. In addition, as discussed in Section 3, Air Quality, of the IS/MND, the proposed project's construction emissions would be below the Air District's applicable thresholds of significance for ROG, NO_X, PM_{10}, and $PM_{2.5.}$ All projects within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) are required to implement the BAAQMD's Basic Construction Mitigation Measures, which include, but are not limited to: the watering of all exposed surfaces two times per day to reduce fugitive dust levels; the covering of all haul trucks transporting soil, sand, or other loose material off-site; and the prioritization of paving all roadways, driveways, and sidewalks as soon as possible.

Based on the above, the IS/MND prepared for the proposed project determined that the estimated 1.5-year construction timeline would result in less-than-significant impacts regarding potential increases in ambient noise levels and potential air quality issues due to construction.

Response to Comment 1-3

Please see Response to Comment 1-2.

Response to Comment 1-4

As noted in Section 4, Biological Resources, of the IS/MND, during the course of the field survey conducted by Madrone Ecological Consulting, a grass fire broke out on the project site causing the biologist to evacuate the site due to safety concerns. Prior to the outbreak of the grass fire, the biologist began the pedestrian survey within the southwest portion of the project site and proceeded toward the southern end of the site until terminating the survey within the eastern portion due to the outbreak of the grass fire. Madrone Ecological Consulting was unable to access the western portion of the site during the field survey; therefore, as noted in the comment, the presence of ground squirrel burrows and colonies is entirely possible within this portion of the project site. If ground squirrel burrows do exist within this portion of the site, the burrows could represent habitat for burrow dwelling species, including western burrowing owl and crotch and western bumblebee. However, the small size of the project site and the site's isolation from other suitable habitat render the site marginally suitable habitat for such species. Nonetheless, out of an abundance of caution mitigation measures have been provided within the IS/MND addressing potential impacts to crotch and western bumblebee and western burrowing owl, should they be present on the project site. Implementation of Mitigation Measure 3 and Mitigation Measure 4 would ensure that preconstruction surveys would be conducted prior to ground-disturbing activities, and if detected, implementation of avoidance and minimization measures to ensure that adverse impacts to crotch and western bumblebee and western burrowing owl would not occur.

Response to Comment 1-5

Ground squirrels are not considered a special-status species requiring evaluation pursuant to CEQA. However, as part of project Conditions of Approval (COA), the project contractor shall be required to eliminate any ground squirrel colonies present on the site prior to ground-disturbing activities.

Response to Comment 1-6

Please see Response to Comment 1-2. The 60 dB DNL noise standard is not applicable to construction noise, but rather traffic noise, as evidenced by Objective 2 of the Clayton General Plan Noise Element.

As indicated in Table 13 of the Environmental Noise and Vibration Report (page 24), construction equipment reference noise levels are presented in terms of maximum noise levels (L_{max}), and not in terms of day-night average (DNL) noise levels. In other words, construction equipment having a reference noise level of 80 dB L_{max} at 50 feet is not the same as the equipment having a reference noise level of 80 dB DNL at 50 feet. As discussed in the Noise and Vibration Fundamentals section of the report (page 3), the DNL is based on the average noise level over a 24-hour day, with a +10 dB-decibel weighting applied to noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). The L_{max} is commonly used as a metric for

instantaneous or repetitive noise sources. In order to calculate the DNL for any given construction equipment, the amount of time in which the equipment is used within a 24-hour period would be required. Due to the variability of activities, scheduling, and occurrences of equipment types, calculating a DNL for construction-related equipment to a high degree of accuracy is difficult. Nonetheless, after the implementation of the construction noise control measures, which includes construction-noise related criteria required by the City of Clayton Municipal Code, L_{max} and DNL noise levels associated with project construction equipment at the nearest existing receptors will be reduced.

Response to Comment 1-7

The pandemic has closed many schools and business and that has changed traffic patterns and volumes. Capital improvement projects and development have not been shut down, wholly or partly to help keep the economy going. As such, the best solution for preparing Traffic Impact Analyses in these times is to research before and after data that is available and factor up background volumes appropriately. In the case of schools or particular businesses that would affect a particular roadway or roadway network, the best available information should be used to approximate the volumes, erring on the side of over-estimating. The traffic consultant used these best practices in preparing the Traffic Impact Analysis (TIA) for the Clayton Community Church.

The pick-up and drop-off traffic conditions around the school when there is in-class learning is well known to the City, the School, and the Church and was conveyed to the traffic consultant. Typically, developments in the vicinity of schools schedule their events to avoid the traffic congestion due to the hardship on those accessing the new development as well as the hardship on the parents. This is the intent of the Church. The afternoon Crosswalk program on Wednesday will have minimal impact on traffic. Although some parents with students attending other schools will be driving their students to the Church, the parents that were picking up their students at the Mt. Diablo Elementary School to drive them to the current Crosswalk program location on Main Street will no longer need to do so.

The Church is being conditioned to widen and provide frontage improvements along Pine Hollow Court. Although it is against State law to require a development to mitigate existing deficiencies, these improvements should improve access by emergencies vehicles to the homes on Pine Hollow Court. The commenter's request that written assurance be provided by the project operator to not hold major events during Mt. Diablo Elementary School pick-up/drop-off hours does not address the adequacy of the IS/MND, but has been forwarded to the decision-makers for their consideration.

It is also important to note that pursuant to the CEQA Guidelines Section 15064.3, vehicle miles traveled (VMT) is the primary metric used to identify transportation impacts under CEQA. VMT is a measure of the total amount of vehicle travel occurring on a given roadway system. Pursuant to Senate Bill 743 and 15064.3, as of July 1, 2020, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment" under CEQA, except for roadway capacity projects (15064.3(a)). Thus, the former obligation under CEQA to address level of service (LOS) in transportation analyses ceased to exist as of that date, except (at agencies' discretion) with

respect to transportation projects. Environmental documents for land use projects, such as the Clayton Community Church, are therefore not required to address LOS issues, and "automobile delay," as described in terms of LOS, "shall not be considered a significant impact on the environment."

Nevertheless, the City of Clayton did evaluate the proposed project's effects on LOS due to the General Plan's inclusion of adopted LOS policies.

Response to Comment 1-8

Congregations grow and shrink; this is the reason it is more responsible to determine the parking needs based on the maximum number of parishioners that could be in the church at a given time, plus the ancillary uses.

Cities have parking requirements for various land uses. For this development, the traffic consultant calculated the required parking spaces based on the size of the sanctuary, classrooms, and offices. When comparing the City of Clayton's zoning requirements regarding parking to the neighboring cities, it can be seen that they are in line with those of Concord, Walnut Creek, Pleasant Hill, and Pittsburg.

Response to Comment 1-9

The estimate for anticipated church attendance has been provided by the project applicant. As noted in the IS/MND Project Description, attendance would peak on Sundays, with a total attendance of 433 people over the course of the day and a maximum anticipated attendance of 259 people during the first of two Sunday worship services (9:00 AM to 10:15 AM period).

Response to Comment 1-10

Regular Sunday services are not considered a special event. As noted in the IS/MND (pg. 20), Mt. Diablo Elementary School has indicated that they are agreeable to allowing the church to use school parking for overflow parking purposes during special events at the church.

Response to Comment 1-11

To reiterate, cities have parking requirements for various land uses. For this development, the traffic consultant calculated the required parking spaces based on the size of the sanctuary, classrooms, and offices. When comparing the City of Clayton's zoning requirements regarding parking to the neighboring cities, it can be seen that they are in line with those of Concord, Walnut Creek, Pleasant Hill, and Pittsburg. Many churches are in areas with no available on-street overflow parking.

As noted in Response to Comment 1-9, the day that would include the highest attendance on a weekly basis would be Sundays, with a total attendance of 433 people over the course of the day and a maximum anticipated attendance of 259 people during the first of two Sunday worship services (9:00 AM to 10:15 AM period). Thus, by providing 160 parking spaces, ample parking would be provided within the project site to accommodate the maximum attendance on regular

Sunday peak times, as not all attendees are single occupant vehicles. As noted on page 14 of the project traffic study, TJKM made conservative estimates of automobile occupancy. Full Sunday church events assume 2.0 to 2.5 persons per vehicle, based on TJKM direct measurements in previous church studies. With a maximum on-site attendance during regular Sunday peak events of 259 people, the total number of parking spaces required would be 130 (conservatively assuming 2 persons per vehicle).

For the atypical, occasional special events, page 20 of the Final IS/MND notes that Mt. Diablo Elementary School has indicated that they are agreeable to allowing the church to use school parking for overflow parking purposes during special events at the church.

Response to Comment 1-12

As noted on Page 133 of the Final IS/MND, on-street parking along Pine Hollow Court is generally prohibited. Should the affected property owners all agree, red curb or no parking signs could be installed along the west side of Pine Hollow Court.

Response to Comment 1-13

The proposed fence height of five feet would be consistent with fence heights in the project vicinity. As shown in the photo-simulations included in Section 1, Aesthetics, of the IS/MND, the proposed fencing along the project frontage on Pine Hollow Court would provide sufficient screening to reduce the effects of headlights from parked cars located in the proposed parking lot. Although the proposed fencing would contain 3.5 inches of picket spacing, new vegetation along the project frontage would supplement the visual barrier provided by new fencing, including the planting of shrubs and vine cover along the fence perimeter. Furthermore, in compliance with Section 17.44 of the Clayton Municipal Code, the proposed landscaping and structures would undergo Site Plan Review. During Site Plan Review, the City would ultimately determine whether the proposed fence heights would complement the aesthetics of the surrounding neighborhood and provide proper screening to ensure the privacy of the surrounding residences.

Response to Comment 1-14

The applicant proposes to plant 52 new trees, as shown on the landscape plan, including along the western perimeter bordering Pine Hollow Court. However, the commenter requests planting of tall vegetation and year round leafing trees for noise attenuation purposes. Vegetation is not typically effective at attenuating sound unless it is of substantial width. Moreover, the noise analysis did not identify a need for sound attenuation along the project's western boundary.

Response to Comment 1-15

Please see Response to Comment 1-12.

Response to Comment 1-16

As noted in the comment, the City of Clayton is located within a Wildfire Urban Interface (WUI). The WUI is defined as an area in which wildlands and communities are sufficiently close to each other to present a credible risk of fire spreading from one to another. The IS/MND prepared for the proposed project determined that, with compliance with the applicable local and state regulations concerning fire protection, the proposed project would not be subject to substantial risks related to wildfires. For example, the proposed project would be required to provide "defensible space" around on-site structures consistent with Contra Costa County Fire Protection District (CCCFPD) guidelines. Defensible space is considered to provide the greatest level of protection against wildfire spread by reducing combustible fuels (i.e.: vegetation, debris) around buildings. Adequate provision of defensible space is enforced by the CCCFPD Exterior Hazard Control Division. In addition, Chapter 7A of the California Building Code (CBC) includes specific requirements related to the design and construction of new buildings located within a WUI, including the use of fire-resistant materials (i.e., fire-retardant-treated wood and fire-retardant-treated wood shingles and shakes) as part of building construction.

Development of the proposed project would remove approximately 4.42 acres of combustible grasses, which would substantially reduce the wildfire hazard risk associated with the currently undeveloped project site. Section 8.08.010 of the Clayton Municipal Code prohibits dead trees, dry dead shrubs, combustible refuse and waste, or any material growing upon the streets, sidewalks, or upon private property within the city, which by reason of their size, manner of growth, and location, obstruct a public right of way, endanger public health or safety, or constitute a fire hazard to any building, improvements, crops or other property, or when dry will, in reasonable probability, constitute such a fire hazard. Enforcement of the Clayton Municipal Code is the responsibility of the City's Code Enforcement division. Should the project operator fail to maintain the property in compliance with the City's Code, the Code Enforcement division has the authority to issue notices of abatement and impose fines, among other methods of enforcement.

Based on the above, compliance with the applicable local and state regulations concerning fire protection would ensure that the proposed project would not be subject to substantial risks related to wildfires.

Response to Comment 1-17

Thank you for your comments. They have been forwarded to the decision-makers.

Date: March 2nd, 2021

To: Holly Pearson, AICP, Project Planner

Cc: Matthew Feske, Community Development Director

Project: Clayton Community Church - 1027 Pine Hollow Court, Clayton

Re: Comments & Concerns of the environmental analysis of the Clayton Community Church project

Dear Ms. Pearson,

I am a Clayton resident who has serious concerns about the environmental impact of the forthcoming Clayton Community Church. Specifically related to the traffic and residential impact to the Pine Hollow/Mitchell Canyon neighborhood and Mt Diablo Elementary school.

2-1

The traffic impact study does not sufficiently account for the real traffic volumes that exist when Mt. Diablo Elementary school is in full session. The area already has serious traffic congestion. Any additional traffic would not be sustainable to the city in that neighborhood and school.

2-2

In addition to traffic, a development of this size brings safety concerns. The property has been grossly ignored by the organization and its congregation. A significant eye-sore with fence lines broken, in shambles, falling over. Overgrown fields left to extremes, where weed abatement notices have had to be repeatedly sent. Just recently a fire occurred on over half the property and down the hill towards our downtown area. Multiple fire engines and heavy equipment were required to extinguish, save the residents and downtown from a serious disaster.

If an organization of faith cannot have its congregation support and maintain its property over the last 9 years, what makes the city of Clayton and the planning commission believe that they can be any better with this project. They have had plenty of opportunity and time to show neighborly love, rather choosing nothing but the opposite regarding their responsibility to this property.

This development project does not belong shoved into this quiet residential neighborhood and next to a busy elementary school. Just as it did not belong crammed into the downtown planned site. The same sentiment rings true now as it did by those who opposed it then. The city council and planning commission needs to spare Clayton and the residential area affected by this poorly planned project.

2-3

Sincerely,

_____ _____

Name Date

_____ _____

Name Date

Letter 2, Kevin and Lisa Christiansen, Planning Consultation – March 2, 2021

Response to Comment 2-1

Please see Response to Comment 1-7.

Response to Comment 2-2

Please see Response to Comment 1-16 regarding project compliance with the Clayton Municipal Code regarding Nuisance.

Response to Comment 2-3

Thank you for your comments. They have been forwarded to the decision-makers.

Holly Pearson
AICP Project Planner
6000 Heritage Trail
Clayton, CA. 94517

I am a life-long resident at 1034 Pine Hollow Court (where we were once surrounded with nothing but orchards). There are TWO homes on this site, (adjacent to 1027 Pine Hollow Court)---which have been in our Frank family since the year 1874.

Over my past 80 years here, there has been many changes on this ancestral property, but none so EGREGIOUS as purposing putting a church smack in the middle of our little neighborhood.

3-1

Your "impact survey" done during this pandemic is LUDICROUS. In "normal times" Mt. Diablo Elementary School traffic problems here have grown worse over the years. Each weekday morning some 500 to 600 vehicles jam our little road between 7:15 a.m. to 8:30 a.m. Each afternoon, this chaos is repeated from 1:45 p.m. through 3 p.m.

The drivers of said vehicles attempt U-TURNS here. They knock down our mailboxes, destroy vegetation---some vehicles actually enter our property, drive around our circular driveway, using it as an escape route. Angry? ABSOLUTELY! This SAME scenario also applies to weekend sporting events in the school playground; a traffic nightmare.

Over I don't know how many years, we have been FORCED to arrange MEDICAL appointments and other necessary trips around the twice daily TRAFFIC JAMS, as we cannot, at our leisure, come and go from our own property in "normal" circumstances. PERIOD. Now you want to ADD to this chaos by allowing the "church" to access Pine Hollow Court, demolish

3-1 Cont'd

the HISTORIC 100-year-old barn my grandfather built? SHAMEFUL!

In 1950 my grandparents divided this property and deeded half to my uncle, George Frank, and half to my parents, Charles & Willmetta Frank Mann---who then deeded it to me. The deal with The City of Clayton in the 1970's was that when George Frank sold his property that the new owners, should the property be developed, MUST build their own road up the hill from Oak Street in downtown Clayton. The Franks paid the necessary permits, etc., solidifying no ADDITIONAL traffic on Pine Hollow Court.

3-2

A grass fire erupted here a few months ago by the careless use of some machinery by the "chiurch" people. Odd, to say the least, as they've let the 1027 property sink into a total disgrace; downed fences, sky high weeds. debris cover the open part of the land. That fire THREATENED all the residents of Pine Hollow Court. We were just lucky firetrucks were able to get in here at all.

3-3

It is totally UNACCEPTABLE that the City even considers ESCALATING this terrible situation! Our little neighborhood needs PEACE, not additional CHAOS on Pine Hollow Court.

3-4

Charmetta Mann
1034 Pine Hollow Court
Clayton, CA. 94517

Letter 3, Charmetta Mann – March 2, 2021

Response to Comment 3-1

Please see Response to Comment 1-7.

Regarding the commenter's concern about demolishing the on-site barn, this is addressed in Section 5.a of the IS/MND. As discussed on page 79:

> The Frank family ranch is discussed on Page 26 of the Clayton Heritage Preservation 1994 Task Force Report. The City of Clayton relies on this report, prepared by the Heritage Preservation Task Force and accepted by the City Council, to determine whether structures are considered historically significant. The Task Force, which was comprised of Historical Society members and former representatives of Clayton City Council and Planning Commission, had a stated mission to "identify the remaining things of historical importance to Clayton, to prioritize them, and to develop plans to preserve those that can be preserved." As such, the Task Force Report generally supplements and, in some cases, provides more detailed guidance on historical resources than what the General Plan may provide alone.
>
> The Task Force Report refers to a collection of historic houses on Pine Hollow Court, which does not include the 1950s-era residence on the subject site. The Task Force Report also refers to "structures" on Pine Hollow Court, but does not give any description of which structures are being referred to. The Report is broken into various sections, one of which is entitled, "Privately Owned Historic Buildings", where, according to the Table of Contents, "Will Frank Family Houses" is listed. This suggests the focus of the Task Force Report is on the homes associated with the Will Frank Family ranch, not the "structures" that are generally referenced on page 26 of the Report. This, coupled with the fact that the current barn is a replacement of the original 19th century barn on the Frank family property, supports the conclusion that the current barn is not considered historically significant.

Nevertheless, in recognition of the value of the former ranch to the commenter's family, the applicant plans to install a plaque on the project site, highlighting the history of the property.

Response to Comment 3-2

The comment is informational and does not address the adequacy of the IS/MND, but has been forwarded to the decision makers for their discretion.

Response to Comment 3-3

Please see Response to Comment 1-16.

Response to Comment 3-4

Thank you for your comments. They have been forwarded to the decision-makers.

March 2nd, 2021

Holly Pearson
AICP, Project Planner
6000 Heritage Trail
Clayton, CA 94517

CC: Matthew Feske – Community Development Director

Ms. Pearson,

I am writing you to submit comments and concerns regarding the consideration of the Mitigated Negative Declaration and the Clayton Community Church (CCC) project. My family has been located at the end of this very quiet street on Pine Hollow Court for 22 years. Our property is directly adjacent to the planned project and we share several hundred feet of property along our front and backyard fence line.

The street was 100% residential when we purchased our home and never have expected anything different, other than possibly more residential (new construction). However, once the purchase of the land by the CCC, the dynamics of my neighborhood have forever changed. Reviewing these plans, it is very hard to imagine how as the reports repeatedly state that it will be a "less than significant" impact on our home, our neighbors, our property values, and our day-to-day lives.

4-1

We have been given vocalized intentions and "plans" many times over the years from the CCC Organization. While these current plans are certainly more fleshed out, they appear to be more of the same – half-baked, not fully developed, and with little to no regard to the surrounding neighborhood. The only thing that has given my family solace is knowing the financial impact to undertake a project of this magnitude and understanding the challenges the CCC has had with funding.

With all of that said, I realize that the intent to adopt the Mitigated Negative Declaration is just the first step in a lengthy process for this project and does not signify approval or disapproval. But I beg the planning commission to give serious consideration to the following comments/concerns and requests:

Project Term

As mentioned above, since the CCC took ownership of the property, we have been informed repeatedly that there are severe financial challenges to overcome to undertake a project of this magnitude. We would like some assurance that the project if approved can be completed on time and can be completed fully. The report states that it will have a "less than significant" impact to the quality of our lives, yet the Environmental Noise & Vibration report contradicts this squarely stating that residents 50 ft away would experience dB levels of significant impact. Imagine having to endure construction noise beginning at 7 am to 5 pm five days a week for 18 months.

4-2

4-3 I also would like to point out that this affects more than just residential neighbors, but also hundreds of students and teachers who will be impacted by this ongoing construction and noise. Many teachers at the school keep their doors and window open for airflow, which clearly cannot happen during this time. Something that will be even more important as students return from this pandemic.

Traffic

4-4 The Traffic study is one of the most concerning details to us as we reviewed these plans. Most of the studies were conducted on Sunday, October 11, 2020. Not only was this date during the COVID pandemic, but this is also during a time when the neighboring Elementary School is not in session and none of the associated existing traffic volumes present. With only a 20% increase being applied, there are too many assumptions being made and are grossly underestimating the traffic impact.

Any resident in the surrounding Pine Hollow/Mitchell Canyon neighborhood and any family who has raised a child in Clayton that has attended Mt. Diablo Elementary can attest to the serious traffic congestion that occurs daily. It is a problem that our city officials are acutely aware of and adding any additional traffic to this area is highly irresponsible.

4-5 The study is heavily predicated on the CCC only impacting the area on Sundays for services, however, their development plans show nearly half of the building is to be utilized for Adult Education, Jr. High/High School, Elementary, Kindergarten, Pre-school and such. Do these services not bring additional traffic? Including additional times of the day and night? I would also point out that every faith organization has services beyond Sundays. Will there be no plans for weddings, funerals, social events, or even the growth of the congregation with additional services?

The Pine Hollow/Mitchell Canyon neighborhood is already very busy with school Monday through Friday and sporting events on Saturdays. Even if it were to only be an impact on Sundays, it is the one day this area receives a reprieve only to be taken away by this development.

Parking

4-6 Is there really sufficient parking? Once again, the Traffic study makes many assumptions, one heavily based on Mt. Diablo Elementary School to provide all of its parking spots for additional use. This agreement is not finalized and cannot be included until that occurs.

4-7 While it also appears that the parking "math" has been made to appear sufficient for the current congregation size, consideration needs to be made for the long-term future which this study does not account for. What happens when the congregation grows? The immediate answer ties into the above concerns - more services, more impact. The current plans only seem to address the CCC's current needs.

4-8 We feel our residence specifically is heavily impacted by the parking. Not only is our view out the front of our house which currently is a beautiful view of the Black Diamond/Irish Canyon hills that will be gone

4-8 Cont'd

and replaced with a sea of unsightly parking spaces. We also share an entire backyard fence line with the property that has plans of packing spaces lining the entire way.

I do not want to experience vehicle noises, radios, headlights, etc. in the privacy of my backyard. In addition to the vehicle issues, there will also be parking lot lighting to contend with. Our home will be severely impacted by the current plans not only in the front but also in the back. The current plans provide no relief and I fear significantly impact my property value going forward.

Privacy

4-9

In addition to the parking privacy concerns, the proposed new fencing to be installed along Pine Hollow Court is not sufficient for similar reasons. It is detailed as a "Horizontal Wood Screen" at only 5 ft. high. This will also allow headlights to shine through to our home and does not sufficiently protect or provide enough privacy for us from the congregation members coming and going. This affects our home and the home next to us directly at the end of the cul-de-sac. The report is in agreement and states on page 33 that – "*Another important consideration is the fact that the public viewpoint is from the cul-de-sac*". The entire development is pointed directly at us.

Safety

4-10

Residing at what is the dead-end of a cul-de-sac, one of our concerns we do not see addressed in the studies and plans is the reassurance that widening the road is sufficient for emergency services? Is there also sufficient infrastructure and utilities at this location to support plans in this manner? Water, Power, etc.

With a significant increase in population on this street, risk of an emergency increases. Even as the property stands today, we have experienced wildfires on the downslope hill multiple times over the years. With one occurring just recently in which at least four fire engines and a bulldozer were required to extinguish. Not only was there damage to the property with a structure and fencing, but there was a real fear from our family and even the residents who currently live on the property with young children on safely vacating our homes and whether those services could act accordingly. This should be addressed with a new traffic study.

Biological Assessment

4-11

There is a glaring error in this assessment in regard to the site and the inhabitance of ground squirrels. The report states that there is almost a complete lack of ground squirrel burrows. Anyone who has visited the site or walked the path alongside the sloping hillside towards downtown Clayton will attest to the overabundance of ground squirrel burrows. Their presence is so large, Mt. Diablo Elementary spent several years fund-raising and just recently completed a complete renovation to their schoolyard and sports field due to the damage they caused.

4-11 Cont'd

The consulting firm – Madrone Ecological Consulting states in their assessment that it was only partially completed due to needing to evacuate the premises during the above-mentioned grass fire.

Development of this land which will consist mostly of paved surfaces will drive these rodents into neighboring properties, including the school. If the population does not affect species of special environmental concern, then eradication must occur.

Before the use permit be granted, we request the initial following concerns be mitigated –

4-12

- ***Firm project terms - we would like to see the project completed in less than 12 months, with a significant financial penalty imposed if not completed on time.***

4-13

- ***Alteration of the construction operation schedule to not begin until 8 am and end at 5 pm weekdays.***

4-14

- ***A requirement of temporary noise and debris barriers be installed along the entire property lines that are adjacent to the school, residential, and Pine Hollow Court during the construction phases.***

4-15

- ***Reevaluation of the Traffic Study during a time when regular school is in session and the attendance of students is greater than 75% (beyond COVID Pandemic). Are the plans sufficient for emergency services? We strongly disagree with the validity of the current study.***

4-16

- ***Elimination of all ~17 parking spots that extend beyond the front of the existing residential home on the property towards our backyard. If the spots will not be eliminated, then a further setback is requested to match the remaining parking "line". With an additional permanent solid structure stone wall barrier, be built to eliminate noise and light with significant additional natural barriers of 24" box tall trees than outlined in the plans.***

4-17

- ***The new fencing along Pine Hollow Court needs to be a height of preferably 8 ft to provide the necessary privacy from pedestrians, lighting, noise, and additional 24" box tall valley oak or similar planted along the entire fence line.***

4-18

- ***Reassessment of the Biological Resources study completed in full and preferably by another consulting firm.***

In conclusion, I again ask the planning commission to give serious consideration to our comments/concerns. I do not have the confidence in the plans put forth and the CCC organization to address our privacy needs, protect our property values and mitigate our concerns directly without your assistance.

Sincerely,

4-19

Michael L. Mann
hey.michael.mann@gmail.com

Tara M. Mann
taramann@htubayarea.com

Owners of 1016 Pine Hollow Court, Clayton CA 94517. Tel: 925-595-4236

Letter 4, Michael and Tara Mann – March 2, 2021

Response to Comment 4-1

The comment is an introductory statement and does not specially address the adequacy of the IS/MND. The comment has been forwarded to the decision-makers for their consideration.

Response to Comment 4-2

Contrary to the comment, the IS/MND does not state that the project "...will have a less than significant impact to the quality of our lives", for the reason that quality of life is a social concern not within the purview of CEQA (see CEQA Guidelines Section 15131). This is not to suggest that the commenter's concern about quality of life is without merit, but it is not CEQA-related concern. The commenter has been forwarded to the decision-makers for their consideration.

Regarding construction noise, please see Response to Comment 1-2.

Response to Comment 4-3

As discussed in Section 13, Noise, of the IS/MND, implementation of Mitigation Measure 15 would be sufficient to reduce temporary increases in ambient noise levels due to construction to less-than-significant levels at the nearest sensitive receptor approximately 50 feet from the project site. The nearest classroom structure associated with Mt. Diablo Elementary School is located approximately 250 feet from the northernmost boundary of the project site; therefore, implementation of Mitigation Measure 15 would be sufficient to ensure that construction-related ambient noise increases generated by the proposed project would have a less-than-significant impact on Mt. Diablo Elementary School.

Response to Comment 4-4

Please see Response to Comment 1-7.

Response to Comment 4-5

Please see Responses to Comments 1-8 and 1-9.

Response to Comment 4-6

Congregations grow and shrink; this is the reason it is more responsible to determine the parking needs based on the maximum number of parishioners that could be in the church at a given time plus the ancillary uses.

Cities have parking requirements for various land uses. For this development, the traffic consultant calculated the required parking spaces based on the size of the sanctuary, classrooms, and offices. When comparing the City of Clayton's zoning requirements regarding parking to

the neighboring cities, it can be seen that they are in line with those of Concord, Walnut Creek, Pleasant Hill, and Pittsburg.

Although the Church is providing the number of parking spaces required by City Code, the project proponent is making voluntary efforts to pursue a parking agreement with the School District. In the event that the proponent is successful in obtaining that agreement, the shared parking facilities would minimize the potential for spillover parking onto the streets in the surrounding residential neighborhood in the rare occasion that either facility has an event that exceeds the availability of their on-site parking. This will be a benefit to the neighborhood when the school has events that exceeds their parking capacity. The agreement may also include language allowing the Church parking lot to be used during regular pick-up/drop-off times, easing the existing impact on the surrounding neighborhood.

Response to Comment 4-7

Please see Response to Comment 4-6.

Response to Comment 4-8

The IS/MND notes that the Aesthetics section of the CEQA Checklist distinguishes between non-urbanized and urbanized areas. The Clayton General Plan indicates that the site is located in the urbanized area of the General Plan planning area. Therefore, in accordance with CEQA Checklist question 1.c., the relevant threshold is whether the project would conflict with applicable zoning and other regulations governing scenic quality, rather than whether the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings. The analysis in the IS/MND demonstrates that the proposed project would not conflict with applicable zoning and other regulations governing scenic quality, thus, resulting in a less-than-significant impact.

Notwithstanding, in the interest of public disclosure, the IS/MND includes an informational discussion of the project's potential effects to existing views. Before proceeding to do so, however, the IS/MND notes that distinguishing between public and private views is important, because private views are views seen from privately-owned land and are typically associated with individual viewers, including views from private residences. Public views are experienced by the collective public, and include views of significant landscape features and along scenic roads. According to CEQA (Pub. Resources Code, § 21000 et seq.) case law, only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Therefore, the focus of the IS/MND is on public views.

Nevertheless, the commenter's concerns regarding their private views have been forwarded to the decision-makers for their consideration.

As noted on Pages 46 and 47 of the Final IS/MD, many points along the western property line have light intensities as low as 0.2-, 0.4-, and 0.5-foot-candles (fc), and outdoor lighting fixtures within the parking areas would have an average light intensity of 0.8-fc, which would not be considered a substantial level of light or glare on sensitive receptors. In addition, the surrounding residences would be shielded from nighttime light generated by the proposed project by landscaping trees and shrubs within the project site, as well as existing landscaping along the frontages of the surrounding residences. The proposed project would be required to comply with Chapter 8.09 of the City's Municipal Code, which prohibits the installation or maintenance of outdoor light fixtures that would cause an undue annoyance to persons on neighboring parcels in residential zoning districts. Based on the above, the IS/MND determined that the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and a less-than-significant impact would occur.

Regarding vehicle noise, the noise analysis found that it would not exceed the applicable thresholds of significance (see IS/MND pages 119, 120). This does not mean that vehicle noise would be inaudible, but rather, that the incremental increase in vehicle noise attributable to the proposed project would not exceed applicable thresholds, which is the appropriate method of analysis pursuant to CEQA.

Response to Comment 4-9

Please see Response to Comment 1-13.

Response to Comment 4-10

Please see Response to Comment 1-16 in regard to fire protection measures that will be implemented by the proposed project to ensure that the proposed project would not be at substantial risk to wildfires. In regard to emergency access, the current Site Plan (March 2021) design reflects input from the Fire District regarding emergency vehicle access and turnaround requirements. In addition, the Church is being conditioned to widen and provide frontage improvements along Pine Hollow Court. Although it is against State law to require a development to mitigate existing deficiencies, these improvements should improve access by emergencies vehicles to the homes on Pine Hollow Court.

Response to Comment 4-11

Please see Response to Comment 1-5.

Response to Comment 4-12

Please see Response to Comment 1-2. The commenter's concerns have been forwarded to the decision-makers for their consideration.

Response to Comment 4-13

The comment does not address the adequacy of the IS/MND. Per Mitigation Measure 15 from Section 13, Noise, of the IS/MND, construction of the proposed project would be limited to 7:00 AM and 5:00 PM Monday through Friday, in accordance with the Clayton Municipal Code. The commenter's request to instead permit construction activities between the hours of 8:00 AM and 5:00 PM Monday through Friday has been forwarded to the decision-makers for their consideration.

Response to Comment 4-14

To the maximum extent feasible, the proposed project would be required to install temporary noise barriers in accordance with Mitigation Measure 15 as discussed in Section 13, Noise, of the IS/MND. In compliance with BAAQMD's Basic Construction Mitigation Measures, all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day and all haul trucks transporting soil, sand, or other loose material off-site shall be covered so as to prevent the spread of fugitive dust and debris from circulating in the air and/or spilling onto the surrounding roadways.

Response to Comment 4-15

Please see Response to Comment 1-7.

Response to Comment 4-16

Lighting plans and the Environmental Noise Analysis (ENA) prepared for the project indicate that impacts from additional lighting and project-generated operational noise would be less than significant, considering the project's design. The commenter's requested project modifications have been forwarded to the decision-makers for their consideration.

Response to Comment 4-17

Please see Responses to Comments 1-13 and 1-14. As shown in the Planting Plan, several 24-inch box trees are proposed to be planted throughout the project site, including along the project's Pine Hollow Court frontage.

Response to Comment 4-18

The commenter provides no evidence as to why the project's biological resources assessment needs to be redone in full. Madrone Ecological Consulting is a respected professional biological consulting firm, with a staff of biologists having training and expertise in special-status plant and animal identification.

Response to Comment 4-19

Thank you for your comments. They have been forwarded to the decision-makers.

March 2, 2021

Ms. Holly Pearson
AICP Project Planner
City of Clayton
6000 Heritage Trail
Clayton, CA 94517

Re: Clayton Community Church Proposal
1027 Pine Hollow Ct.

Dear Ms. Pearson,

Please reconsider the proposed building and traffic access by Clayton Community Church (CCC) to 1027 Pine Hollow Court via Pine Hollow Court. Our neighborhood was not built for these conditions. Please do not accept the notion - "As long as this does not happen in my neighborhood, then it is okay, right?"

SUMMARY:

5-1 Residential streets in Clayton should not be subjected to the proposal by CCC and the increase in traffic volume and noise. This especially goes for Pine Hollow Court and the surrounding streets. This small segment of Clayton, and its small country lane type setting, cannot support the increased traffic flow due to the one way in/out conditions. These traffic requirements for CCC are better suited for a major thoroughfare such as Clayton Road. The lot at 1027 Pine Hollow Court should remain a single-family lot, with no more that two residences per lot such as the surrounding homes: it should not be commercialized. Any further development beyond this is unwanted, unwelcomed, and truly not a blessing to this neighborhood. The proposed change will lead to the destruction of Pine Hollow Court as the traffic increase will leave the local homeowner's hostage to their homes and with limited ability to leave their driveway. Furthermore, modifications to Pine Hollow Court will leave currently sheltered homes to become more exposed. It will provide an expanded area for late night visitors to congregate and hide causing more trash, noise, and safety issues such as what occurs at Mount Diablo Elementary School. These visitors will not be coming to praise the Lord!

5-2

5-3 Building a church in downtown Clayton was not a fit, however, we believe having the CCC office there has been beneficial to the community. With that said, the placing of a gathering spot in the middle of Pine Hollow Court is a poor decision.

AREA TRAFFIC:

5-4 Mitchell Canyon Road and Pine Hollow Road have become a shortcut from Clayton Road to Ygnacio Valley Road. With that comes speeds far exceeding the posted speed limits, and the running of red lights and stops signs. These speeds and failure to stop then carry over to the end of Pine Hollow and Mt. Zion. There is no reason to believe that placing the proposed number of cars on our tiny streets will be any different, especially with a nearly blind turn where Pine Hollow meets the court.

QUESTIONS:

5-5
- Why is this project allowed to move forward if access to this property cannot be provided from downtown? The financial cost to CCC should not be allowed as a reason to direct this amount of traffic through our neighborhood. This should be a deal-breaker!

5-6
- How does this amount of traffic and amplified voice/music not increase noise levels?
- If sound from downtown events can already be heard, how is a large facility with added traffic a relatively quiet proposition?

5-7
- How does increased traffic 7-days a week not become a safety issue to pedestrians and bicyclists, and not increase exhaust fumes in the area?

5-8
- What happens with the potential for extra traffic and parking on Easter and Christmas?

5-9
- Will the proposed location be used as added parking for downtown events?
- Will there be any shared use of the church parking lot by Mount Diablo Elementary?

5-10
- What happens if CCC cannot afford this property or closes? Is the neighborhood stuck with a building that is not aesthetically in line with the surrounding area, or will a new use be allowed that may bring larger volumes of traffic and noise into this area?

5-11
- What happens when other CCC events, such as weddings, memorial services, or performances take place that are not regular church services, or if events are held outside?

5-12
- Will CCC be allowed to rent out the facility to other groups?

5-13
- How is it acceptable to not expect more headlights in our windows, more cars turning around in the court and potentially more cars pulling into our yards?

5-14
- What's next, traffic calming measures (speed bumps) to slow traffic down and once again penalizing the neighborhood?
- How will the local streets be maintained with the added volume of traffic?
- Will the City of Clayton and CCC be compensating the local homeowners for the reduction in potential buyers and competitive home prices?

5-15
Thank you for considering our concerns on the proposed project by CCC and the impact on this neighborhood and forcing the surrounding Pine Hollow Court families to live with this change.

Sincerely,

Tom & Elisa Dudley
1036 Pine Hollow Court

Letter 5, Tom and Elisa Dudley – March 2, 2021

Response to Comment 5-1

The project is consistent with the site's existing General Plan land use designation of Rural Estate (RD), which allows for development of churches and places of worship provided that such uses are consistent with the underlying zoning district. The project site is zoned Single Family Residential (R-40-H) and the proposed project would be an allowed use upon approval of a Use Permit. In accordance with the best practices described in Response to Comment 1-7, TJKM determined that project-generated traffic would not exacerbate any existing operational problems along roadways in the project vicinity, including during the Sunday PM peak hour, which is anticipated to be the time in which the proposed project's typical operations generate the highest traffic volumes. Although the only driveway into and out of the church property is at the far northerly end of the parcel, the project is required to widen Pine Hollow Court to match the cross section further to the north and construct the frontage improvement. This is typical of all new development.

As noted on pages 119 and 120 of the Final IS/MND, project-related increases in traffic noise levels would not substantially exceed measured ambient noise conditions in the project area relative to the applicable Federal Interagency Commission on Noise (FICON) criteria. As noted on page 119, baseline ambient conditions are considerably higher than baseline traffic noise levels alone. When the project traffic noise generation is compared to measured ambient day-night average levels within the project area (calculated average of 47 dB DNL, site 2), no project-related traffic noise level increases are calculated to occur along the five studied roadway segments. Therefore, off-site traffic noise impacts related to increases in project-generated traffic were found to be less than significant.

Response to Comment 5-2

The commenter's concerns regarding the alleged increase in unwanted loitering at night that would ensue from widening of Pine Hollow Court have been forwarded to the decision-makers. These concerns enter into speculation, which is discouraged pursuant to CEQA Guidelines Section 15145.

Response to Comment 5-3

The comment does not address the adequacy of the IS/MND, and has been forwarded to the decision-makers for their consideration.

Response to Comment 5-4

The commenter's concerns have been forwarded to the decision-makers for their consideration. Without substantiation, the claims of illicit speeding cannot be further addressed, nor is illicit speeding a topic typically analyzed under CEQA, as it is a matter of law enforcement.

Response to Comment 5-5

Based on the project trip distribution and assignments, all of the study intersections would continue to operate at an acceptable Level of Service (LOS), even during the Sunday peak hour, with development of the proposed project. Therefore, construction of an additional roadway would not be warranted, nor is it included in the General Plan Circulation Element. Furthermore, there are additional environmental constraints associated with constructing a connection to High Street, such as hillside grading, potential impacts to Mitchell Creek.

Response to Comment 5-6

As discussed on page 123 of the Final IS/MND, Section 9.30.040(A)(1) of the Clayton Municipal Code prohibits noise from electronic devices and musical instruments from being plainly audible at a distance of 50 feet from any building or structure from which the noise is emanating from, or a distance of 50 feet from the device if outside. Based on the interior to exterior noise level reduction provided by standard building construction (approximately 25 dB with the windows in the closed position and 15 dB with windows in the open position), it is expected that noise associated with amplified music or speech emanating from within the church building sanctuary would not exceed the noise criteria identified in Section 9.30.040(A)(1). Furthermore, when analyzed as both independent noise sources and cumulatively, Bollard Acoustical Consultants concluded that noise generated from future on-site traffic circulation, parking areas, playground areas, and other on-site operations would not have a substantial impact on off-site sensitive receptors in the project vicinity. As such, the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Response to Comment 5-7

The City of Clayton is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NOX), as well as for PM_{10} (exhaust) and $PM_{2.5}$ (exhaust), expressed in pounds per day (lbs/day) and tons per year (tons/yr). By exceeding the BAAQMD's mass emission thresholds for emissions of ROG, NOX, PM_{10}, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts. As shown in Table 4, Unmitigated Maximum Operational Emissions, of the IS/MND, the proposed project's operational emissions would be below the applicable thresholds of significance for PM_{10} and $PM_{2.5}$. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

With regard to traffic safety, it is important to remember that the church would generate low traffic volumes on the surrounding road network during the majority of the week. Average peak operations would occur on Sundays.

Response to Comment 5-8

Please see Response to Comment 4-6.

Response to Comment 5-9

Please see Response to Comment 4-6. Parking for downtown events would only be allowed at the project site with the consent of the property owner.

Response to Comment 5-10

The financial resources and wherewithal of the Church is beyond the scope of CEQA. This comment has been forwarded to the decision-makers for their consideration.

Response to Comment 5-11

Project conditions of approval could be imposed on the project by the Planning Commission to limit or regulate outside events including weddings and memorial services; other events such as carnivals or fairs would only be allowed through a Temporary Use Permit (TUP). Because TUPs are discretionary permits, the types of temporary uses that may be allowed through such a discretionary process, are not required to be evaluated in the IS/MND. According to Section 17.70.030 of the Clayton Municipal Code, in order to assure that the general health, safety and welfare of the community will be preserved with temporary uses, conditions relating to each individual event may be imposed upon the applicant, including but not limited to:

- Bonding for police and maintenance services;
- Temporary parking and signing controls;
- Temporary fencing or barricades as necessary;
- Noise, dust and odor control;
- Limits on hours and days of operation; and
- Others as needed.

And while TUPs are typically subject to approval by the City Manager, upon recommendation by the Chief of Police or Community Development Director, if a TUP application is submitted for an event that, in the judgment of the Director, does not comply with the purpose of Code Section 17.70, the Director may refer the matter to the Planning Commission.

Response to Comment 5-12

The comment does not address the adequacy of the IS/MND but has been forwarded to the decision-makers for their consideration. No uses will be allowed on-site that would violate the conditions of the Use Permit.

Response to Comment 5-13

Please see Response to Comment 1-13 regarding headlights. Given the location of the project access driveway (north end of Pine Hollow Court), there should be no reason for a noticeable increase in cars turning around at the end of the Court.

Response to Comment 5-14

Pine Hollow Court is approximately 500 feet long. Speed bumps are generally spaced 500 feet apart in that the distance to increase speeds that might require a speed bump is 500 feet. There is no expectation that Church related traffic, especially with the only driveway on the far north end of the parcel, could lead to the need for a speed bump. There will be no change in the way the local street will be maintained.

Response to Comment 5-15

Home prices is an economic consideration outside of the purview of CEQA, according to CEQA Guidelines Section 15131. According to 15131(a), "Economic or social effects of a project shall not be treated as significant effects on the environment." Nevertheless, this comment has been forwarded to the decision-makers for their consideration.

I am a Clayton resident who moved here originally in 1975 and I have serious concerns about the environmental impact of the forthcoming Clayton Community Church. Specifically related to the traffic and residential impact to the Pine Hollow/Mitchell Canyon neighborhood and Mt Diablo Elementary school. The traffic
6-1 impact study does not sufficiently account for the real traffic volumes that exist when Mt. Diablo
Elementary school is in full session. The area already has serious traffic congestion. Any additional traffic would not be sustainable to the city in that neighborhood and school.

In addition to traffic, a development of this size brings safety concerns. The property has been grossly ignored by the organization and its congregation. It is a significant eye-sore with fence lines broken, in shambles, and falling over. Overgrown fields left to extremes, where weed abatement notices have had to be repeatedly sent. Just
6-2 recently a fire occurred on over half the property and down the hill towards our downtown area. Multiple fire engines and heavy equipment were required to extinguish the fire and save the residents and downtown from a serious disaster. If an organization of faith cannot have its congregation support and maintain its property over the last 9 years,
what makes the City of Clayton and the planning commission believe that they can be any better with this project. They have had plenty of opportunity and time to show neighborly love, rather choosing nothing but the opposite regarding their responsibility to this property.

This development project does not belong shoved into this quiet residential neighborhood and next to a busy elementary school. Just as it did not belong crammed into the downtown planned site. The same sentiment rings true now as it did by those who opposed it then. The city council and planning commission needs to
6-3 spare Clayton and the residential area affected by this poorly planned project.

Sincerely,

Joe Mingham March 3. 2021

Letter 6, Joe Mingham – March 3, 2021

Response to Comment 6-1

Please see Response to Comment 1-7.

Response to Comment 6-2

Please see Response to Comment 1-16.

Response to Comment 6-3

Thank you for your comments. They have been forwarded to the decision-makers.

Letter 7

-----Original Message-----
From: Andrew Hosler <cyclinghos@gmail.com>
Sent: Thursday, March 04, 2021 11:04 AM
To: Pearson, Holly <https://urldefense.proofpoint.com/v2/url?u=http-3A__Holly.Pearson-40mbakerintl.com&d=DwIGaQ&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=_NinuXms0Ubv0QxOUqQsMuGVEYKblvASEJyuUGAB0Ao&m=GX27rsDw2HWge9ubJy8KSLZVdwY8Kp0-zmNzLDS_zmA&s=9hJpUSxS63PCHNvVJENPfqjuQRSv3ugNqPXejmIgXb4&e=>
Cc: mfeske@ci.clayton.ca.us
Subject: EXTERNAL: Proposed development: Clayton community church

Good morning
My name is Andrew Hosler and I am a Clayton resident living on tiffin Drive near Mt Diablo elementary school. I am very concerned about the Church development plans for the plot behind the school yard. This would be the largest development in our community in years with a significant traffic impact to what are narrow residential streets for ingress and egress. Churches are community hubs and are location of almost constant gatherings and activities. I can't even imagine the traffic and community safety issues raised by adding that many trips in and out on that route. From what I see this project is being forced on this property and on our neighborhood without adequate community impact evaluation. I do not support the proposed project due to its land locked location and limited site access.

7-1

Come stand on the corner of tiffin drive and Pine hollow during school drop off and pick up hours. See the amount of cars already on the street when kids sports are using the fields all weekends and in the evenings. We don't have room for the added volume of traffic and your kidding yourself if you think we do. Don't be fooled by reduced pandemic traffic volumes. It's so bad at times that a police office or traffic director is necessary. What if you lived there? What if your family needed to cross those streets?

I urge you to reconsider this plan for development. It's not the right site and it needs adequate access to the property that does not flow through already severely traffic impacted neighborhoods.

Sincerely
Andrew Hosler
9252509748

Letter 7, Andrew Hosler – March 4, 2021

Response to Comment 7-1

As can be seen in Table 1 of the IS/MND, the Church will not have constant gatherings and activities.

With respect to school traffic, the pick-up and drop-off traffic conditions around the school when there is in-class learning is well known to the City, the School, and the Church and was conveyed to the traffic consultant. Typically, developments in the vicinity of schools schedule their events to avoid the traffic congestion due to the hardship on those accessing the new development, as well as the hardship on the parents. This is the intent of the Church. The afternoon Crosswalk program on Wednesday will have minimal impact on traffic. Although some parents with students attending other schools will be driving their students to the Church, the parents that were picking up their students at the Mt. Diablo Elementary School to drive them to the current Crosswalk program location on Main Street will no longer need to do so.

Traditionally, places of worship are allowed "as of right" under municipal zoning codes in residential districts. There are many churches with access by way of residential streets. The project is required to widen Pine Hollow Court to match the cross-section further to the north and construct the frontage improvement. This is typical of all new development. All other streets in the area have widths typical of a residential street.

Thank you for your comments. They have been forwarded to the decision-makers.

Letter 8

From: Shirley Hansen <shirleymhansen@yahoo.com>

Sent: Thursday, March 04, 2021 12:29 PM

To: Pearson, Holly <Holly.Pearson@mbakerintl.com>

Subject: EXTERNAL: Clayton Community Church Development

Hello,

Regarding the planned Clayton Community Church on Pine Hollow Ct, we want to let you know we are against the project.

8-1 We live on Tiffin Drive, one house away from Pine Hollow Court, and we already experience overcrowded streets on a daily basis during the school year. The extra traffic that would result from the 22,000 square foot facility would be disastrous to this small residential area. Please do not allow this development to go any further. It is the wrong area. There is a lot of open space further away from downtown Clayton or in Concord.

Shirley Hansen
1041 Tiffin Drive, Clayton

Letter 8, Shirley Hansen – March 4, 2021

Response to Comment 8-1

Please see Response to Comment 1-7. While traffic would increase as a result of the proposed project, the CEQA analysis must evaluate potential impacts based on applicable thresholds of significance. According to the project Traffic Study, the project's additional traffic would not exceed the applicable thresholds of significance, and thus, significant traffic impacts were not identified in the CEQA analysis.

Thank you for your comments. They have been forwarded to the decision-makers.

Letter 9

From: Kevin Allen <proforma@kcallen.com>
Sent: Thursday, March 04, 2021 12:49 PM
To: Pearson, Holly <Holly.Pearson@mbakerintl.com>; mfeske@ci.clayton.ca.us
Subject: EXTERNAL: Clayton Community Church Proposal 1027 Pine Hollow Ct

9-1

This proposed location for this wonderful church is completely wrong and I'm baffled this is even up for consideration.

The intrusion for all of the families in the immediate area is significant particularly on Pine Hollow Court. Those fine families will suffer emotional hardships due to huge increase in traffic and the associated noise. They will also suffer financial loss as this will negatively impact their home values.

The family I know well who lives on the Court, has lived there for 22 years and your drawings show them being surrounded by parking lots! They are being "suffocated". Certainly, they don't deserve this and I can assure you they would never have purchased their home if they knew this could happen.

Would you?

I'm baffled by the reality that the powers-to-be don't see how wrong this is. Common courtesy, "doing the right thing" are just a few things that come to mind. When it's all said and done, this is the most important thing we leave behind. Treating each other with the upmost respect and, simply, doing the right thing in life.

I ask you all to sit back, put yourself in the shoes of others and realize what this means to the impacted parties.

I'm all for CCC having a great location they consider home. This location is not that home.

Proforma Print & Data Solutions

Kevin C. Allen Owner

Cell 925.683.6303

proforma@kcallen.com • www.proforma.com/kcallen

P.S. - EFFECTIVE MAY 8, 2020 OUR OLD OFFICE NUMBER OF 925.673.1788 WILL BE DISCONTINUED - CELL PHONE ABOVE IS PRIMARY

Letter 9, Kevin Allen – March 4, 2021

Response to Comment 9-1

Home prices is an economic consideration outside of the purview of CEQA, according to CEQA Guidelines Section 15131. According to 15131(a), "Economic or social effects of a project shall not be treated as significant effects on the environment." Nevertheless, this comment has been forwarded to the decision-makers for their consideration.

Regarding vehicle noise, the noise analysis found that the project's incremental increase in traffic noise would not exceed the applicable thresholds of significance (see IS/MND pages 119, 120). This does not mean that vehicle noise would be inaudible, but rather, that the incremental increase in vehicle noise attributable to the proposed project would not exceed applicable thresholds, which is the appropriate method of analysis pursuant to CEQA.

Regarding traffic, please see Response to Comment 1-7. The Traffic Study determined that during the peak hour of traffic impact from the Church (when the early Sunday service is letting out and the late service is about to begin), the level of service (LOS) with the existing traffic controls in place would be LOS A or, in the case of Mitchell Canyon Road and Clayton Road, LOS B. These operational levels are considered acceptable by the Clayton General Plan.

Letter 10

From: Talmadge, Brad <Brad.Talmadge@cnb.com>
Sent: Thursday, March 04, 2021 3:33 PM
To: Pearson, Holly <Holly.Pearson@mbakerintl.com>; mfeske@ci.clayton.ca.us
Subject: EXTERNAL: From Brad Talmadge

Hello,

I have a few concerns on this project being proposed.

1. I am concerned that the city will put in a stop light at the 4 way enter section of Pine Hollow and Tiffin Dr. This would take away from the feel of the entry into our neighborhood. There is already too many signs from the school that where added over the years for the drop off and pick up.
2. I am also very concerned with weekend parking going up Tiffin Dr. during church service that will be held 3 times a day on the weekends. Plus the nightly weekday and classes parking that will be held at the church during the week. The other part to this is when the church lets out there will be considerable amount of traffic leaving the church going down Pine Hollow and out Tiffin Dr. If Pine Hollow is backed up. This is always an issues when school is in session parent use our street as a race track to go around so I don't see why the church congregation won't do the same.

10-1

Brad Talmadge
Branch Manager III
NMLS# 420439
6160 Stoneridge Mall Rd. Suite 100
Pleasanton, CA 94588
Tel: (925) 398-0336 | Cell: (925) 759-8971
Brad.Talmadge@cnb.com
Fax: (925) 398-0333

Letter 10, Brad Talmadge – March 4, 2021

Response to Comment 10-1

During the peak hour of traffic impact from the Church (when the early Sunday service is letting out and the late service is about to begin), the LOS with the existing traffic controls in place would be LOS A or, in the case of Mitchell Canyon Road and Clayton Road, LOS B. Traffic volumes are far from meeting traffic signal warrants, the requirements generally used for the installation of a traffic signal.

Regarding parking, please see Response to Comment 4-6.

March 4, 2021

From: Janet Easton
1034 Pine Hollow Ct.
Clayton, 94517

To: Holly Pearson
AICP Project Planner
6000 Heritage Trail
Clayton, 94517

11-1 The purpose of this letter is to inform you and officials of the City of Clayton my extreme displeasure regarding your conclusion that the ingress/egress of the Clayton Community Church would have no negative effects on the residents of Pine Hollow Road or Pine Hollow Court.

The residents of Pine Hollow Ct. were given a very short time frame to properly investigate what are clearly negative effects and to respond accordingly. What you outlined in your letter to the residents is quite contrary to Shawn Robinson's "plans" he discussed in meetings with Pine Hollow Ct. residents in 2013.

Sincerely, Easton

Letter 11, Janet Easton – March 4, 2021

Response to Comment 11-1

According to State CEQA Guidelines § 15073, agencies and the public are allowed a minimum of 20 days to review and comment on a proposed IS/MND. The Clayton Community Church IS/MND was posted for public review between February 12, 2021 and March 4, 2021, which is consistent with the public review timeframe mandated by CEQA. The commenter's additional concerns regarding traffic have been forwarded to the decision-makers for their consideration.

Letter 12

Date: March 4th, 2021

To: Holly Pearson, AICP, Project Planner

Cc: Matthew Feske, Community Development Director

Project: Clayton Community Church - 1027 Pine Hollow Court, Clayton

Re: Comments & Concerns of the environmental analysis of the Clayton Community Church project

Dear Ms. Pearson,

I am a Clayton resident who has serious concerns about the environmental impact of the forthcoming Clayton Community Church. Specifically related to the traffic and residential impact to the Pine Hollow/Mitchell Canyon neighborhood and Mt Diablo Elementary school.

The traffic impact study does not sufficiently account for the real traffic volumes that exist when Mt. Diablo Elementary school is in full session. The area already has serious traffic congestion. Any additional traffic would not be sustainable to the city in that neighborhood and school.

In addition to traffic, a development of this size brings safety concerns. The property has been grossly ignored by the organization and its congregation. A significant eye-sore with fence lines broken, in shambles, falling over. Overgrown fields left to extremes, where weed abatement notices have had to be repeatedly sent. Just recently a fire occurred on over half the property and down the hill towards our downtown area. Multiple fire engines and heavy equipment were required to extinguish, save the residents and downtown from a serious disaster.

12-1

If an organization of faith cannot have its congregation support and maintain its property over the last 9 years, what makes the city of Clayton and the planning commission believe that they can be any better with this project. They have had plenty of opportunity and time to show neighborly love, rather choosing nothing but the opposite regarding their responsibility to this property.

This development project does not belong shoved into this quiet residential neighborhood and next to a busy elementary school. Just as it did not belong crammed into the downtown planned site. The same sentiment rings true now as it did by those who opposed it then. The city council and planning commission needs to spare Clayton and the residential area affected by this poorly planned project.

Sincerely,

Chris Theodorakis _____ March 4, 2021

Name Date

Katie Theodorakis _____ March 4, 2021

Name Date

Letter 12, Chris and Katie Theodorakis – March 4, 2021

Response to Comment 12-1

Regarding traffic concerns, please see Response to Comment 1-7. Regarding maintenance of the property, please see Response to Comment 1-16.

Thank you for your comments. They have been forwarded to the decision-makers.

Dear Holly Pearson,

I am writing you today as a 20-year teacher of Mt Diablo Elementary School, as well as a Clayton resident of 14 years. Over the past few years, I have been aware of the Clayton Community Church and its desire to build a permanent church within the city of Clayton. I have been informed and communicated my views and concerns over the year. I remember many years ago when the downtown developer erected story poles in the downtown lot to demonstrate the scope and size of the building so community members could see how it would take over the downtown.

I am writing you today to share my concerns about the drawings of the church as it relates to the use on Pine Hollow Court. It was always communicated that all traffic for the church events happening 7 days per week would enter and exit the facility from downtown Clayton. It was reported that a road would be built

13-1

up the back hill. I would like to know why there is an entrance on Pine Hollow Court. Is that just a fire exit? Will it only be opened in case of emergency? I have heard that the plans include widening the road. Will vehicles be allowed to park all the way along with Pine Hollow Court and any time of the day or night now? It is unacceptable in my view to inconvenience the homeowners on the court with constant traffic on their court. Will the city of Clayton restrict any parking on the court as they did on Regency Drive when people parked near homes, (while on a public street), to hike the trails of Mt Diablo?

I am additionally concerned that the church has plans to open a school and offer various programs for the students at Mt Diablo Elementary School. Will that include students using Pine Hollow Court to enter and exit the facility. Has the church approached the MDUSD to discuss their plans to solicit Mt Diablo families as an income source to fund the church? Does the church plan on having an entrance on Pine Hollow Court for families to enter and exit this part of the facility?

13-2

It is important that the planning commission and the church go above and beyond in working with the residents who live in this very small court. I hope the city will honor these residents and restrict parking and excessive traffic for the entire week.

13-3

Thank you

Diana Zimmer

Letter 13, Diana Zimmer – March 4, 2021

Response to Comment 13-1

As indicated on project plans, the entrance to the project site would be through the Pine Hollow Court driveway. In accordance with the best practices described in Response to Comment 1-7, TJKM determined that the proposed project is not anticipated to cause substantial delays on surrounding roadways and intersections beyond existing conditions. Based on the project trip distribution and assignments, all of the study intersections would continue to operate at an acceptable LOS, even during the Sunday peak hour, with development of the proposed project. Therefore, construction of an additional access roadway would not be warranted, nor is it included in the General Plan Circulation Element. Furthermore, there are additional environmental constraints associated with constructing a connection to High Street, such as hillside grading, potential impacts to Mitchell Creek.

As noted on Page 133 of the Final IS/MND, on-street parking along Pine Hollow Court is generally prohibited. Should the affected property owners all agree, red curb or no parking signs could be installed along the west side of Pine Hollow Court.

Response to Comment 13-2

No regularly operating school would be included as part of the project. As presented in Table 1, Weekly Operational Plan, on Page 21 of the Final IS/MND, the proposed project would offer Sunday School services for toddlers, elementary-aged students, and junior- and high-school aged students. In addition, in line with the Mt. Diablo Elementary School early release schedule, an after-school program for 2nd grade through 5th grade students would be offered on Wednesdays at the proposed church. As noted in Response to Comment 1-7, the Wednesday after-school program is not anticipated to cause substantial congestion along roadways in the project vicinity, including Pine Hollow Court and Mt. Zion Drive.

Response to Comment 13-3

Thank you for your comments. They have been forwarded to the decision-makers.

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Attachment I

Public Comments Received in Response to Notice of Planning Commission Hearing on Proposed Project

Clayton Community Church
Planning Commission Meeting, April 27, 2021

From: Neil Egbert
To: Pearson, Holly
Subject: EXTERNAL: Clayton Community Church
Date: Saturday, April 17, 2021 4:33:10 PM

Hello,

I am writing regarding my opposition to the proposed church on Pine Hollow Ct.

I own the residence at 5869 Pine Hollow Rd. My wife and I purchased this home to be able to raise our two young children in. The area is a lovely residential neighborhood where my kids can easily walk to school and play outside.

The only downside to this neighborhood is traffic. When school is in session the traffic is backed up and busy. Fortunately on weekends the area is calm and quiet and I can easily watch my children play outside and relax.

Building a very large church in a residential neighborhood will completely change the area for the worse. The traffic will be bad 7 days a week, my children won't be able to play outside as safely, and the quiet small town feel will change to the sound of cars.

This is not the neighborhood for a church or any other large facility, community center etc.

I have no issues with the church and hope they find a fitting permanent home but this location is not ideal and does not fit.

Regard

Neil Egbert
5869 Pine Hollow Rd, Clayton, CA 94517